# STUDY MATERIAL

# EXECUTIVE PROGRAMME

# CORPORATE AND MANAGEMENT ACCOUNTING

## MODULE 2
## PAPER 5

THE INSTITUTE OF
Company Secretaries of India
भारतीय कम्पनी सचिव संस्थान
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# EXECUTIVE PROGRAMME
# CORPORATE AND MANAGEMENT ACCOUNTING

In In today's business world accounting is considered as 'the universal language of all business', because it is the medium for reporting financial information about a business entity to users, such as shareholders, banks and managers. A proper accounting system is essential to any business, whether big or small, in order to manage its daily functions and run it successfully. The main obligation of any business is to maximize profits, minimize losses and at the same time maintain its position as a responsible entity within the society.

So, in the current business world, everybody should have the knowledge of accounting discipline irrespective of the job one is doing. Due to the rapid advancement in business activities due to industrialization and globalization, the need for people having knowledge of accounts have increased manifold. It is impossible to survive in today's advanced business environment without adequate knowledge of basic accountancy.

Especially all business students should have some background in accounting to understand, interpret and present the results of business. Keeping this objective in alignment, this study material is prepared to augment the basic as well as advanced understanding of students in the related aspects of Corporate and Management Accounting.

The Study Material which is divided in two parts covers in the details the concepts of Corporate Accounting in Part – I and discusses Management Accounting and Valuation in detail under Part-II.

Besides, as per the Company Secretaries Regulations, 1982, students are expected to be conversant with the amendments to the law made up to six months preceding the date of examination.

The legislative changes made upto July 30, 2021 have been incorporated in the study material. However, it may so happen that some developments might have taken place during the printing of the study material and its supply to the students. The students are therefore advised to refer e-bulletin and other publications for updation of the study material.

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Should there be any discrepancies, errors or omissions noted in the study material, the Institute shall be obliged, if the same is brought to its notice for issue of corrigendum in the e-Bulletin 'Student Company Secretary'.

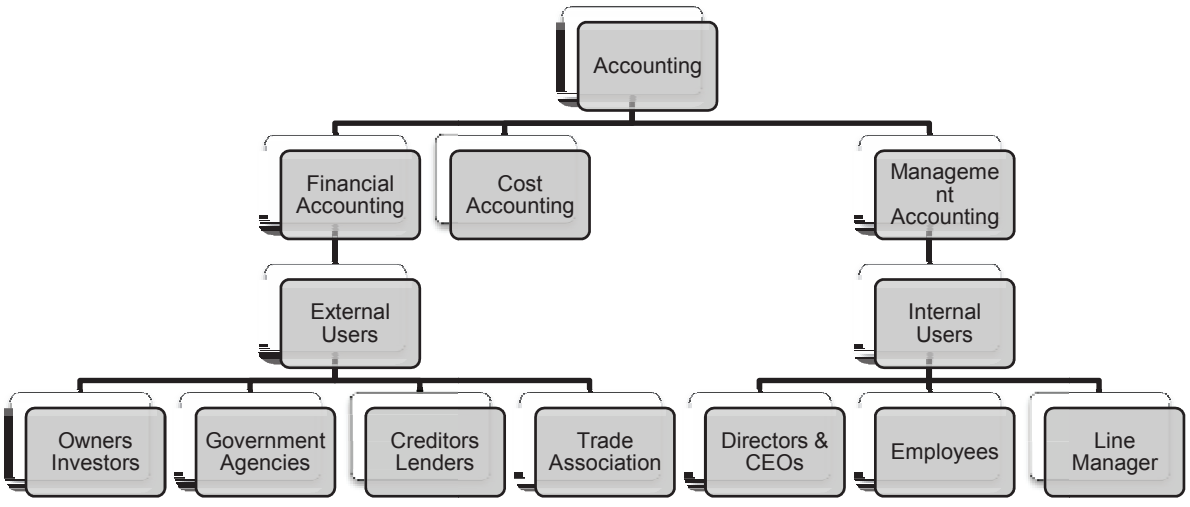
The Institute has decided that the examination for this paper under new syllabus from December 2019 session onwards to be held in Optical Mark Recognition (OMR) format.

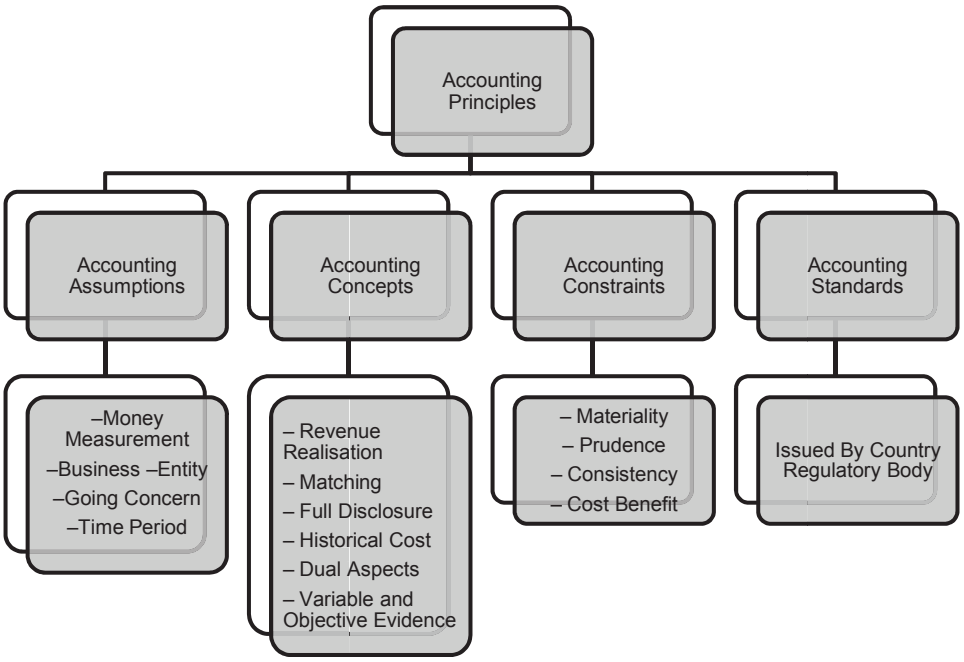
# EXECUTIVE PROGRAMME
# CORPORATE AND MANAGEMENT ACCOUNTING

Accounting helps organization in taking management decisions, formation of planning and control system. It also helps expert advice in financial reporting with formulation and implementation of organizational strategies.

A proper accounting system is essential to any business, whether big or small, in order to manage its daily functions and run it successfully. The main obligation of any business is to maximize profits, minimize losses and at the same time maintain its position as a responsible entity within the society.

So, in the current business world, everybody should have the knowledge of accounting discipline irrespective of the job one is doing. Due to the rapid advancement in business activities due to industrialization and globalization, the need for people having knowledge of accounting, especially, Corporate and Management Accounting have increased manifold in light of the rise in the magnitude of financial transactions and its complexities. Moreover, the business scene is now getting dominated by more of corporate sector than sole proprietorship form of business exposed to stringent regulatory framewok, which in turn, calls for more scientific approach towards the critical financial facets of the business. It is impossible to survive in today's advanced business environment without adequate knowledge of basic accountancy.

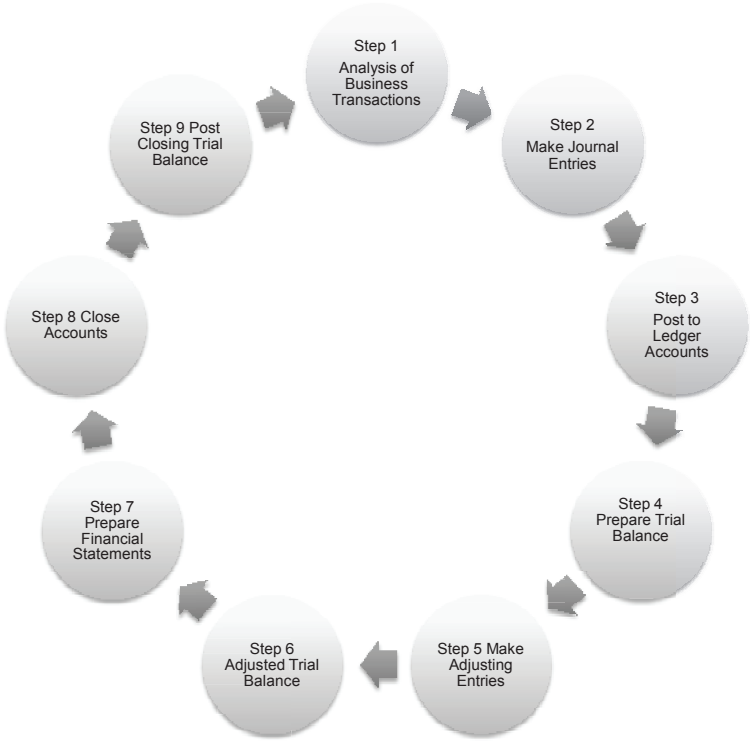





The financial statements are the end products of accounting process. They are prepared following the consistent accounting concepts, principles, procedures and also the legal environment in which the business organizations operate. These statements are the outcome of the summarizing process of accounting and therefore, are the sources of information on the basis of which conclusions are drawn about the profitability, and the financial position of a company. Hence, they need to be arranged in a proper form with suitable contents so that the shareholders and other users of financial statements can easily understand and use them in their economic decisions in a meaningful way.

The objective of this subject is to make the students understand the statutory provisions regarding preparation of final accounts of companies. After going through this lesson, one should be able to – Familiarize and understand with the requirements of preparation of statement of Profit and Loss and Balance Sheet and how to form a true and fair view of the financial statements.

Accounting as they are the components of Financial Accounting




Cash flow statement is additional information to the user of financial statement. This statement exhibits cash inflows and outflows and cash equivalents. It assesses the ability of the enterprise to generate cash and utilize cash. Cash Flow Statement is one of the tools for assessing the liquidity and solvency of the enterprise.

Accounting Standards (AS) are written policy documents by expert accounting body or by government or other regulatory body covering the aspects of recognition, measurement, presentation and disclosure of accounting transactions in the financial statements. The ostensible purpose of the standard-setting bodies is to promote the dissemination of timely and useful financial information to investors and certain other parties having an interest in the company's economic performance. Accounting standards reduce the accounting alternatives in the presentation of financial statements within the bounds of rationality, thereby ensuing comparability of financial statements of different enterprises.

Cost is a measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services. Cost in simple words means the total of all expenses. Cost is also defined as the amount of expenditure (actual or notional) incurred on or attributable to a given thing or to ascertain the cost of a given thing. Cost is a generic term and it is always advisable to qualify the word cost to show exactly what it means, e.g., prime cost and factory cost. Cost is also different from value as cost is measured in terms of money, whereas value in terms of usefulness or utility of an article. Marginal costing is a principle whereby variable costs are charged to cost units and the fixed costs attributable to the relevant period is written off in full against the contribution for that period. Marginal costing is the ascertainment of marginal cost and the effect on profit of changes in volume or type of output by differentiating between fixed costs and variable cost.

Management accounting is an applied discipline used in various industries. The specific functions and principles they applied vary based on the industry. Management accounting principles in banking are specialized yet do have some common fundamental concepts which are used whether the industry is manufacturing-based or service-oriented. For example, transfer pricing is a concept used in manufacturing, but is also applied in banking. It is a fundamental principle used in assigning value and revenue attribution to various business units.

Company secretaries, due to their excellence and depth of knowledge in various corporate and related laws, as well as in finance and management disciplines and due to their professional training, are entrusted with several

key functions in the corporate sector. The role of a Company Secretary in different management hierarchy varies from the positions held in the organization and the functions looked after by him/her. Company Secretary's functions encompass a wide spectrum of duties and responsibilities, which, if laid down, would be a never ending list. However, for the sake of brevity, some of the important tasks, generally entrusted to a Company Secretary and satisfactorily discharged by him/her in the Corporate world, are enumerated below.

Company Secretaries also play an important role in the process of conforming to the different statutory/ regulatory requirements as prescribed by different authorities. Company Secretaries generally take part in the formulation of various corporate policies for approval by the Board of Directors. Threadbare discussions are held by the Corporate Management Team including the Company Secretary, before any policy is firmed up.

# EXECUTIVE PROGRAMME
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# (Max Marks 100)

## Syllabus

**Objective:**

Part I : To provide knowledge and understanding of the concepts, principles and practices in Corporate Accounting and Indian and International Accounting Standards.

Part II: To acquire knowledge and understanding of the concepts, techniques and practices of management accounting and to develop skills for decision-making and to acquire knowledge of the concepts, principles and methods of valuation.

**PART I**

**CORPORATE ACCOUNTING (60 MARKS)**

**Detailed Contents**

1. Introduction to Financial Accounting.
2. **Introduction to Corporate Accounting :** Records of accounts to be maintained by a company.
3. Accounting for Share Capital : Issue of Shares; Forfeiture and Reissue of Shares, Accounting Treatment of Premium, Buy-back of Shares; Redemption and Conversion; Capital Redemption Reserve, Bonus Shares; Rights Issue, ESOPs, ESPS, Sweat Equity Shares; and Underwriting; Book Building.
4. Accounting for Debentures : Accounting Treatment, Debenture Redemption Reserve, Redemption of Debentures and Conversion of Debentures into Shares. Deferred Tax.
5. Related Aspects of Company Accounts : Accounting for ESOP, Buy-back, Equity Shares with differential rights, Underwriting and Debentures.
6. Financial Statements Interpretation: Preparation and Presentation of Financial Statements; Quarterly, Halfyearly and Annual Financial Statement pursuant to Listing Regulations;Depreciation provisions and Reserves; Determination of Managerial Remuneration, Corporate Social Responsibility spend, various disclosures under the Companies Act, 2013, LODR & applicable accounting standards; Related party and segment reporting, Audit Queries; How to Read and interpret Financial Statements.
7. Consolidation of Accounts as per Companies Act, 2013 : Holding Company, Subsidiary Companies, Associate Companies and Joint Venture; Accounting Treatment and disclosures.
8. Corporate Financial Reporting : Requirements of Corporate Reporting; Recent trends in Financial Reporting.
9. Cash Flow Statements : Preparation and their analysis.
10. Accounting Standards (AS) : Applicability, Interpretation, Scope and Compliance; International Financial Reporting Standards ; Overview of AS, AS vs. Ind AS vs. IFRS.
11. National and International Accounting Authorities.

12. Adoption, Convergence and Interpretation of International Financial Reporting Standards (IFRS) and Accounting Standards in India.

**Case Studies & Practical Aspects.**

## PART II
## MANAGEMENT ACCOUNTING AND VALUATION (40 MARKS)

13. An Overview of Cost: Importance and relevance of Cost Accounting Material Cost, Labour Cost, Direct Expenses and Overheads, Cost Sheet.
14. Cost Accounting Records & Cost Audit under Companies Act, 2013.
15. Budget, Budgeting and Budgetary Control: Preparation of various types of Budgets; Budgetary Control System; Zero Based Budgeting; Performance Budgeting.
16. Ratio Analysis: Financial Analysis through Ratios.
17. Management Reporting (Management Information Systems).
18. Decision Making Tools: Marginal Costing; Transfer Pricing.
19. Valuation Principles & Framework: Conceptual Framework of Valuation, Valuation rules; Valuation of securities or financial assets; Approaches of Valuation - Assets Approach, Income Approach; Market Approach; Registered Valuer; IND AS Valuation.
20. Valuation of Shares, Business and Intangible Assets: Regulatory Valuations; Companies Act; Insolvency and Bankruptcy Code; Income Tax Act; SEBI law; FEMA and RBI guidelines.
21. Accounting for Share-Based Payments (Ind AS 102).
22. Methods of Valuation: Net Assets Valuation: Relative Valuation (Comparable Companies/Transactions); Discounted Cash Flow Valuation; Other Methods.

**Case Studies & Practical Aspects.**

# LESSON WISE SUMMARY
# CORPORATE & MANAGEMENT ACCOUNTING

## 1. Introduction to Financial Accounting

Accounting is a very old concept – as old as money. A description of proper keeping of accounts is also found in 'Arthashastra" written by Kautilya. However, it has developed with the passage of time to meet the requirements and challenges of ever – growing society. The modern-day accounting concept based on double entry system was originated by Luco Pacioli in Italy. Though the act of accounting is very old, in recent times it has acquired special significance because of rapidly growing economy, cut-throat competition, expanding markets and increasing production and changes in technology.

In this lesson, we will throw light on the basic concepts of accounting, types of accounts, accounting principles, conventions, concepts & accounting standards, meaning of double entry system and the rules of debit & credit on which the entire concept of accounting is based.

Accounting process involves identification and analysis of financial transactions. These transactions are recorded, classified and summarised in a systematic manner to give useful information. Thus, accounting process starts with the recording of business transactions in monetary terms, in the primary books of accounts. For recording business transactions, it is necessary that these transactions are evidenced by proper source documents like cash memoes, purchase bills, sales bills, counterfoils of cheques issued, salary slips etc. From these source documents, transactions are recorded in the books of accounts which are the first and major step in accounting. It is the basis of accounting as entire future process would depend upon this recording of transactions. In this lesson, we will know about recording transactions in primary books like Journal and other subsidiary books, posting in ledger and then preparation of trial balance.

## 2. Introduction to Corporate Accounting

There is no legal obligation for sole proprietorship and partnership firm to prepare final accounts, but companies have statutory obligations to keep proper books of account and to prepare its final accounts every year in the manner as prescribed in the Companies Act. Chapter IX, Sections 128 to 138 of the Companies Act, 2013 deals with the legal provisions relating to the Accounts of Companies. Final accounts of a company consist of balance sheet as at the end of the accounting period and profit and loss account for that period. Section 129 of the Companies Act, 2013 prescribes the form and contents of balance sheet and profit and loss account of a company. Balance sheet of a company shall be prepared according to Schedule III of the Companies Act, 2013. The Schedule III sets out the minimum requirements for disclosure on the face of the Balance Sheet, and the Statement of Profit and Loss (hereinafter referred to as "Financial Statements") and Notes. Statement of Profit & Loss of a company shall be prepared according to Part II of Schedule III of the Companies Act, 2013. Section 129(1) of the Companies Act 2013, states that the financial statements shall give a true and fair view of the state of affairs of the company or companies, comply with the accounting standards notified under section 133 and shall be in the form provided for different class or classes of companies in Schedule III.

## 3. Accounting for Share Capital

The most striking feature of a company is its ownership structure. The capital in a company is divided into small shares of fixed value. The shares of a company may be equity shares or preference shares. The objective of this lesson is to make students aware about accounting of different aspects of share capital. After studying this lesson one should be able to:

- Understand the share capital structure in the balance sheet of a company.
- Discuss the methods and accounting procedure of issue of shares.
- Specify the accounting treatment when shares are issued at par, premium and at discount.
- Explain the meaning and accounting treatment of forfeiture of shares and reissue thereof.
- Understand the accounting procedure of buy-back of shares.

- Enumerate the steps for redemption of preference shares.
- Appreciate the purpose of issuing Right shares & Bonus shares.
- Understand the accounting treatment for ESOPs, ESPS, Sweat Equity Shares.
- Understand the meaning of underwriting.
- Familiarize with various types of underwriting.
- Distinguish between marked application and unmarked applications.
- Determine the liability of underwriters.

## 4. Accounting for Debentures

Equity sources of financing are however not always sufficient to meet the ever growing needs of the corporate expansion and growth. Hence, corporates turn to debt financing through financial institutions, commercial banks or by issuing debt instruments either through the route of private placement or by offering the same for public subscription. Owing tax shield provided by debt instruments, the debt financing not only helps in reducing the cost of capital but also helps in designing appropriate capital structure of the company. This lesson deals with the accounting treatment of different aspects of debenture and bond especially with issue, redemption including conversion of debenture.

## 5. Related Aspects of Company Accounts

The objective of this lesson is to make students aware about accounting of different aspects of share capital and deals with the accounting treatment of different aspects of debenture and bond especially with issue, redemption including conversion of debenture. Understand the share capital structure in the balance sheet of a company. Discuss the methods and accounting procedure of issue of shares. Understand the accounting procedure of buy-back of shares. Understand the accounting treatment for ESOPs and ESPS. Understand the meaning of underwriting Familiarize with various types of underwriting. Distinguish between marked application and unmarked applications. Determine the liability of underwriters. State the meaning of debenture and bonds; Describe the methods for the issue of debenture for cash and for consideration other than cash; Explain the issue of debenture as a collateral security; Explain the sources and record transaction relating to redemption of debenture; Discuss the methods of redemption of debenture; Record the Sinking Fund Investment transactions; Deal with cum-interest and ex-interest, open market operations.

## 6. Financial Statements Interpretation

Financial statements are compilation of financial data, collected and classified in a systematic manner according to the accounting principles, to assess the financial position of an enterprise as regards to its profitability, operational efficiency, long and short – term solvency and growth potential.

Financial statements are basic and formal means through which management of an enterprise make public communication of financial information along with select quantitative details. They are structured financial representation of the financial position, performance and cash flows of an enterprise. Many users rely on the general purpose financial statements as the major source of financial information and therefore, financial statements should be prepared and presented in accordance with their requirement. That does not undermine the dependence of the general users on the information contents of the financial statements.

## 7. Consolidation of Accounts as per Companies Act, 2013

A holding company is one which acquires all or a majority of the equity shares of any other company called subsidiary company in order to have control over the subsidiary company. In order to understand the financial position of holding company, consolidations of accounts become very vital. After studying this lesson you will be able to:

- Understand the concept of holding company and subsidiary company.
- Familiarize the legal requirements for preparation of final accounts of holding company.
- Prepare consolidated balance sheet and statement of profit and loss.

- Make appropriate accounting adjustments required for the preparation of consolidated balance sheet.
- Understand the concept of minority interest in consolidation of accounts.
- Appreciate the treatment of pre-acquisition profits and losses of the subsidiary company. Make adjustment regarding profit and loss on revaluation of assets of subsidiary company.
- Understand the calculation of goodwill or cost of control.
- Make adjustment for inter-company unrealized profits and inter-company transactions.
- Understand the treatment of bonus issue on consolidation of accounts.
- Make adjustment on dividend received from subsidiary company.

## 8. Corporate Financial Reporting

Accounting is a process to identify measure and communicate economic information to form informed judgments and decisions by the user of the information. Its function is to provide quantitative information, primarily financial in nature, about economic entities, that is intended to be useful in making economic decisions and related choice among alternative course of actions. Financial reporting may be defined as communication of published financial statement and related information from a business enterprise to all its users. It contains both qualitative and quantitative information.

The Financial Report made to the management is generally known as Internal Reporting, while financial reporting made to the shareholder investors/management is known as external reporting. The internal reporting is a part of management information system and uses MIS reporting for the purpose of analysis as an aid in decision making process.

The management of a corporate is ultimately responsible for the generation of accounting information. The accountability of a company has two distinct aspects – legal and social. Under legal requirements a company has to supply certain information to the various users through annual reports and under the social obligation, a company has to provide additional information to various user groups

## 9. Cash Flow Statements

Cash flow statement is additional information to user of financial statement. This statement exhibits the flow of incoming and outgoing cash and cash equivalent. It assesses the ability of the enterprise to generate cash and utilize cash. Cash Flow Statement is one of the tools for assessing the liquidity and solvency of the enterprise.

Cash Flow Statement is considered to be a summarized statement showing sources of Cash Inflows and application of cash outflows of an enterprise during a particular period of time. It is prepared on the basis of the published data as disclosed by the Financial Statement of two different financial periods. It is an essential tool for managerial decision-making. Cash Flow reports the management Net Cash Flow (i.e. cash inflow less cash outflow or vice versa) from each activity of the enterprise as well as of the overall business of the enterprise. The management of the enterprise gets a picture of movement of cash resources from the Cash Flow Statement and can assess the stronger and weaker area of movement of cash for different activities of the business for drawing up the future planning.

## 10. Accounting Standards (AS)

Accounting Standards (AS) are written policy documents by expert accounting body or by government or other regulatory body covering the aspects of recognition, measurement, presentation and disclosure of accounting transactions in the financial statements. The ostensible purpose of the standard setting bodies is to promote the dissemination of timely and useful financial information to investors and certain other parties having an interest in the company's economic performance. Accounting standards reduce the accounting alternatives in the presentation of financial statements within the bounds of rationality, thereby ensuing comparability of financial statements of different enterprises.

## 11. National and International Accounting Authorities

Under this unit we will study various national and international accounting authorities. Under national accounting authorities will study The Institute of Company secretaries of India (ICSI), The Institute of Chartered

Accountants of India (ICAI), The Institute of Cost Accountants of India. Under International Accounting authorities we will study: IFRS Foundation/ International Accounting Standards Board (IASB) , The International Public Sector Accounting Standards Board (IPSASB), Financial Reporting Council (FRC) (UK), European Financial Reporting Advisory Group (EFRAG), Financial Accounting Standards Board (FASB), American Institute of Certified Public Accountants (AICPA), Australian Accounting Standards Board (AASB), The Chartered Accountants Australia and New Zealand, Financial Reporting & Assurance Standards Canada, Canadian Institute of Chartered Accountants (CICA), Accounting Standards Board of Japan (ASBJ), External Reporting Board (XRB), New Zealand, New Zealand Institute of Chartered Accountants.

## 12. Adoption, Convergence and Interpretation of International Financial Reporting Standards (IFRS) and Accounting Standards in India

According to International Accounting Standard Board (IASB) conceptual framework, the objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors is making decisions about providing resources to the entity. Consequently, the two important characteristics of financial information that emanates from the above objective relates to relevance and reliability. According to IASB Framework for the Preparation and Presentation of Financial Statement, information is deemed to be relevant when it influences the economic decisions of users by helping them evaluate past, present or future events or confirming or correcting, their past evaluations.

Similarly to be reliable, information must represent faithfull the transactions and other events it either purports to represent or could reasonably be expected to represent.

## 13. An Overview of Cost

Cost is a measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services. Cost in simple, words, means the total of all expenses. Cost is also defined as the amount of expenditure (actual or notional) incurred on or attributable to a given thing or to ascertain the cost of a given thing. Thus it is that which is given or in sacrificed to obtain something. The cost of an article consists of actual outgoings or ascertained charges incurred in its production and sale. Cost is a generic term and it is always advisable to qualify the word cost to show exactly what it meant, e.g., prime cost, factory cost, etc. Cost is also different from value as cost is measured in terms of money whereas value in terms of usefulness or utility of an article.

## 14. Cost Accounting Records & Cost Audit under Companies Act, 2013

Cost Audit involves an examination of cost books, cost accounts, cost statements and subsidiary and prime documents with a view to satisfying the auditor that these represent true and fair view of the cost of production.

This includes the examination of the appropriateness of Cost Accounting system.

Cost Audit is an innovation introduced for the first time in the world and India with a view to regulate industries on healthy and sound lines. It is for cost-effective products and services to customers, proper revenue to government's treasury and proper returns to other stakeholders of the enterprise. India is the first country in the world introducing the legal provisions for compulsory maintenance of cost records, so that industries become cost conscious and industrial efficiency is increased for the benefit of the society as a whole. It fully conforms to the requirements of planning for 'sustainable development'. If an enterprise is to work effectively all its assets and liabilities must be used in the most rational manner. This means that the productive areas within the control of the enterprise, its buildings, equipment, machineries etc. must be used to the maximum and this in turn presupposes the economical expenditure of circulating assets or working capital. Efficient use of productive resources for the maximum benefit to the society is an immutable law of economic development and cost accounting system, and its audit is the most significant means of ensuring the same.

## 15. Budget, Budgeting and Budgetary Control

The literary meaning of the word Budget is a statement of income and expenditure of a certain period. In principle, the meaning is same in the context of business also. An individual will have his own budget, a family,

a local authority, state and country etc. All will have their respective budgets. So also the business concern must have its budget so as to attain their objectives. CIMA defines a budget as, "A budget is a financial and/or quantitative statement, prepared prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective."

Also provide types of budgets, meaning of budgetary control, concepts covered under the chapter and finally what students are going to learn.

## 16. Ratio Analysis

Ratio analysis is the process of determining and interpreting numerical relationships based on financial statements. A ratio is a statistical yard stick that provides a measure of the relationship between variables or figures. This relationship can be expressed as percent (cost of goods sold as a percent of sales) or as a quotient (current assets as a certain number of times the current liabilities). As ratios are simple to calculate and easy to understand there is a tendency to employ them profusely. While such statistical calculations stimulate thinking and develop understanding there is a danger of accumulation of a mass of data that obscures rather than clarifies relationships. The financial analyst has to steer a careful course. His experience and objectives of analysis help him in determining which of the ratios are more meaningful in a given situation.

## 17. Management Reporting (Management Information Systems)

A management information system (MIS) produces information that supports the management functions of an organisation and facilitates the decision-making process. The MIS is thus an organised approach of collecting, processing, storing and disseminating data to carry out management functions. To transform data into information, processing is needed and it must be done while considering the context of a decision. Good information must have the characteristics of relevance, timeliness, accuracy, cost-effectiveness, reliability, usability, and exhaustiveness. The MIS can play a critical role in the implementation of a programme in terms of monitoring periodic progress. A well designed MIS facilitates the flow of information among various levels and enables setting up of a feedback mechanism for planning and management of a programme, project or a policy. The MIS must be simple and easy to comprehend by different stakeholders of the programme at national, sub-national and community levels, and it should provide reliable information. The information should be specific, accurate and verifiable; it should facilitate timely management decision in terms of frequency and flow of information (i.e. a two-way feedback system in a decentralised framework). The information generated by the system should be easy to access, process and use; thereby enabling a wider dissemination. Also, it should be amenable to computer software.

## 18. Decision Making Tools

The term 'marginal cost' is defined as the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit. It is a variable cost of one unit of a product or a service i.e., a cost which would be avoided if that unit was not produced or provided. Marginal costing is "the ascertainment of marginal costs and of the effect on profit of changes in volume or type of output by differentiating between fixed costs and variable costs." Several other terms in use like direct costing, contributory costing, variable costing, comparative costing, differential costing and incremental costing are used more or less synonymously with marginal costing.

A 'Transfer Price' is that notional value at which goods and services are transferred between divisions in a decentralized organisation. Transfer prices are normally set for intermediate products, which are goods, and services that are supplied by the selling division to the buying division. In large organisations, each division is treated as a 'profit center' as a part and parcel of decentralization. Their profitability is measured by fixation of 'transfer price' for inter divisional transfers.

## 19. Valuation Principles & Framework

Valuation is a very interesting topic. Valuation becomes very important in choosing investments for a portfolio, in deciding on the appropriate price to pay or receive in a takeover and in making investment, financing and dividend choices when running a business. The premise of valuation is that we can make reasonable estimates of value for most assets, and that the same fundamental principles determine the values of all types of assets,

real as well as financial. Some assets are easier to value than others, the details of valuation vary from asset to asset, and the uncertainty associated with value estimates is different for different assets, but the core principles remain the same. The objective of this lesson is to get students aware about different aspects related to valuation of shares, goodwill, trademarks and other intangibles.

After the end of this lesson, you will able to:

- Understand the different methods of valuation of shares.
- Familiarize with the concept of fair value of shares.
- Understand the procedure of valuation of preference shares.
- Understand the meaning of intangible assets.
- Evaluate the identifiability of intangible assets.
- Explain the recognition of intangible assets.
- Appreciate the acquisition of intangible assets by way of government grants.
- Understand the treatment of internally generated goodwill.
- Conceptualize the recognition of an expense on intangible assets.
- Explain the amortization of intangible assets
- Explain the retirement and disposals of intangible assets

## 20. Valuation of Shares, Business and Intangible Assets:

A share is the smallest unit of ownership of a company. It happens to be one of the sources by which a company raises funds from the market. The value of a share does not remain static over its life-time. Rather it changes over the period due to various circumstances. Thus, knowing the value of share at a particular point of time is of great importance.

Goodwill is an intangible fixed asset of an organisation which has to be reflected in its books of accounts on certain circumstances. For this purpose, a money value is required to be attached to this intangible asset. The process of estimating the value of goodwill using certain accepted methodologies is referred to as valuation of goodwill.

## 21. Accounting for Share based payments (Ind AS 102)

A share-based payment is a transaction in which the entity receives goods or services either as consideration for its equity instruments or by incurring liabilities for amounts based on the price of the entity's shares or other equity instruments of the entity.

Employee share-based payments are incentive payments to employees in form of shares. The expression employee share-based payments also include cash incentives to employees, the size of which is linked with value of shares. The payment in form of shares generally involve grant of options to employees to subscribe shares of employer's enterprise at a concessional price, called the exercise price. The employees gain the excess of market price of share at the time of exercise over the specified exercise price. In case of employee share-based payments in form of cash incentive, the excess of market price on specified future date and a stated price is paid in cash. In either case, the value of incentive depends on increase in share value, which is the generally accepted indicator financial success of a business. By linking incentives with value of shares, the employee share-based payment plans effectively integrate personal goals of employees with that of the enterprise

## 22. Methods of Valuation

When valuing a company as a going concern there are three main valuation methods used by industry practitioners: (1) DCF Analysis, (2) comparable company analysis, and (3) precedent transactions. These are the most common methods of valuation used in investment banking, Equity Research , Private Equity, Corporate Development, Merger & Acquisitions , Leveraged Buyouts and most areas of finance.

Comparable company analysis (also called "trading multiples" or "peer group analysis" or "equity comps" or "public market multiples") is a relative valuation method in which you compare the current value of a business to other similar businesses by looking at trading multiples like P/E, EV/EBITDA or other ratios. Multiples of EBITDA are the most common valuation method.

Precedent transactions analysis is another form of relative valuation where you compare the company in question to other businesses that have recently been sold or acquired in the same industry. These transaction values include the take-over premium included in the price for which they were acquired.

These values represent the en bloc value of a business. They are useful for M&A transactions, but can easily become stale-dated and no longer reflective of the current market as time passes. They are less commonly used than Comps or market trading multiples.

Discounted Cash Flow (DCF) analysis is an intrinsic value approach where an analyst forecasts the business' unlevered cash-flow into the future and discount it back to today at the firm's Weighted Average Cost of Capital (WACC).

A DCF analysis is performed by building a finance model in Excel and requires an extensive amount of detail and analysis. It is the most detailed of the three approaches, requires the most assumptions and often produces the highest value. However, the effort required for preparing a DCF model will also often result in the most accurate valuation. A DCF model allows the analyst to forecast value based on different scenarios, and even perform a sensitivity analysis.

For larger businesses, the DCF value is commonly a sum-of-the-parts analysis, where different business units are modeled individually and added together.

# LIST OF RECOMMENDED BOOKS

**PAPER 5: CORPORATE AND MANAGEMENT ACCOUNTING**

| S. No. | Title of the Book | Author/(s) | Volume/ Edition | Publisher |
|---|---|---|---|---|
| 1. | Financial Accounting – A Management Perspective | R. Narayanaswamy | 4th 2017 | PHI Learning Private Limited |
| 2. | Financial Accounting for Management | Ambrish Gupta | 5e 2016 | Pearson |
| 3. | Advanced Accounts | M.C. Shukla, T.S. Grewal & S.C. Gupta | 19/e 2017 | S. Chand & Company Ltd |
| 4. | Company Accounts | Dr. S N Maheshwari & Dr. Suneet K Maheshwari | 5/e 2017 | S. Chand & Company Ltd |
| 5. | Advanced Accountancy Corporate Accounting Vol-II | S.P. Jain & K. L. Narang | 21st 2017 | Kalyani Publishers |
| 6. | Advanced Accountancy | S. N. Maheshwari & S. K. Maheshwari | | Vikas Publishing House (Pvt.) Ltd |
| 7. | Fundamentals of Corporate Accounting | J. R. Monga | 2 Vol 2018 | Mayoor Paperbacks |
| 8. | Corporate Accounting | Goel, Maheshwari Gupta | | International Publishers |
| 9. | Cost & Management Accounting | Ravi M. Kishore | 6th | Taxmann |
| 10. | Advanced Management Accounting | Rajesh Makkar | 2 Vol | |
| 11. | Students' Guide to Accounting Standards | D S Rawat | 32nd | Taxmann |

(Note: Students are advised to refer to the latest edition of the publication.)

# ARRANGEMENT OF STUDY LESSONS

## Module-2 Paper-5
## CORPORATE AND MANAGEMENT ACCOUNTING

**PART I : CORPORATE ACCOUNTING**


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| 1. | Introduction to Financial Accounting |
| 2. | Introduction to Corporate Accounting |
| 3. | Accounting for Share Capital |
| 4. | Accounting for Debentures |
| 5. | Related Aspects of Company Accounts |
| 6. | Financial Statements Interpretation |
| 7. | Consolidation of Accounts as per Companies Act, 2013 |
| 8. | Corporate Financial Reporting |
| 9. | Cash Flow Statements |
| 10. | Accounting Standards (AS) |
| 11. | National And International Accounting Authorities |
| 12. | Adoption, Convergence and Interpretation of International Financial Reporting Standards (IFRS) and Accounting Standards In India. |


**PART II : MANAGEMENT ACCOUNTING AND VALUATION**


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| 13. | An Overview of Cost |
| 14. | Cost Accounting Records & Cost Audit Under Companies Act, 2013 |
| 15. | Budget, Budgeting and Budgetary Control |
| 16. | Ratio Analysis |
| 17. | Management Reporting (Management Information Systems) |
| 18. | Decision-Making Tools |
| 19. | Valuation Principles & Framework |
| 20. | Valuation of Shares, Business And Intangible Assets |
| 21. | Accounting for Share-Based Payments (Ind AS 102) |
| 22. | Methods of Valuation |
| | Test Paper |

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# Lesson 1

# Introduction to Financial Accounting

***Key Concepts One Should Know***

- Accounting
- Book-Keeping
- Basic Accounting terms
- Double Entry System
- Accounting Equation
- Journal
- Subsidiary Books
- Ledger Accounts
- Trial Balance

## *Learning Objectives*

**To understand**

- Basic concepts of accounting
- Types of accounts,
- Accounting principles, conventions, concepts and standards
- Meaning of double entry system
- The rules of debit and credit on which the entire concept of accounting is based
- Books of prime entry and Subsidiary books
- Features, purpose and preparation of Trial Balance

## *Lesson Outline*

- Introduction
- Single Entry System
- Double Entry System
- The Concepts of 'Account', 'Debit' and 'Credit'.
- Kinds of Accounts
- The Accounting Process
- Accounting Equation
- Books of Prime Entry
- Subsidiary Books
- Ledger Accounts
- Trial Balance
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

Business is an economic activity undertaken with the motive of earning profits and maximization of the wealth for owners. No business can run in isolation. Largely, the business activity is carried out by people coming together with a purpose to serve a common cause. This term is often referred to as an organization, which could be in different forms such as sole proprietorship, partnership, corporate body, etc. The rules of any business are based on general principles of trade, social values, and statutory framework encompassing national or international boundaries. While these variables could be different for different businesses, different countries etc., the basic purpose is to add value to a product or service to satisfy customer's demand.

The business activities require resources (which are limited and have multiple uses) primarily in terms of material, labour, machineries, factories and other services. The success of a business depends on how efficiently and effectively these resources are managed. Therefore, there is a need to ensure that the businessman tracks the use of these resources. The resources are not free, and thus one must be careful to keep an eye on the cost of acquiring them as well. As the basic purpose of business is to make profit, one must keep an ongoing track of the activities undertaken in the course of business. Two basic questions would have to be answered:

(a) What is the result of any business operations? This will be answered by finding out whether it has made profit or loss?

(b) What is the position of the resources acquired and used for business purposes? How are these resources financed? Where do the funds come from?

The answers to these questions are to be found continuously, and the best way to find them is to record all the business activities. Recording of business activities has to be done in a scientific manner so that they reveal the correct outcome. The science of book-keeping and accounting provides an effective solution. It is a branch of social sciences. This study material aims at giving a platform to the students to understand basic principles and concepts, which can be applied to accurately measure the performance of a business. After studying the various chapters included herein, the student should be able to apply the principles, rules, conventions and practices to different business situations like, trading, manufacturing or services.

### Definition of Accounting

The definition given by the American Institute of Certified Public Accountants ('AICPA') clearly brings out the meaning of accounting. According to AICPA, accounting is "the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character and interpreting the results thereof".

The definition brings out the following as attributes of accounting:

(i) **Accounting is an art.** Accounting is classified as an art, as it helps us in attaining our aim of ascertaining the financial results, that is, operating profit and financial position through analysis and interpretation of financial data which requires special knowledge, experience and judgment.

(ii) **It involves recording, classifying and summarizing.** Recording means systematically writing down the transactions and events in account books soon after their occurrence. Classifying is the process of grouping transactions or entries of the same type at one place. This is done by opening accounts in a book called ledger. Summarizing involves the preparation of reports and statements from the classified data (ledger), understandable and useful to management and other interested parties. This involves preparation of final accounts namely profit and loss account and balance sheet.

(iii) **It records transactions in terms of money.** All transactions are recorded in terms of common measure, i.e., money which increases the understanding of the state of affairs of the business.

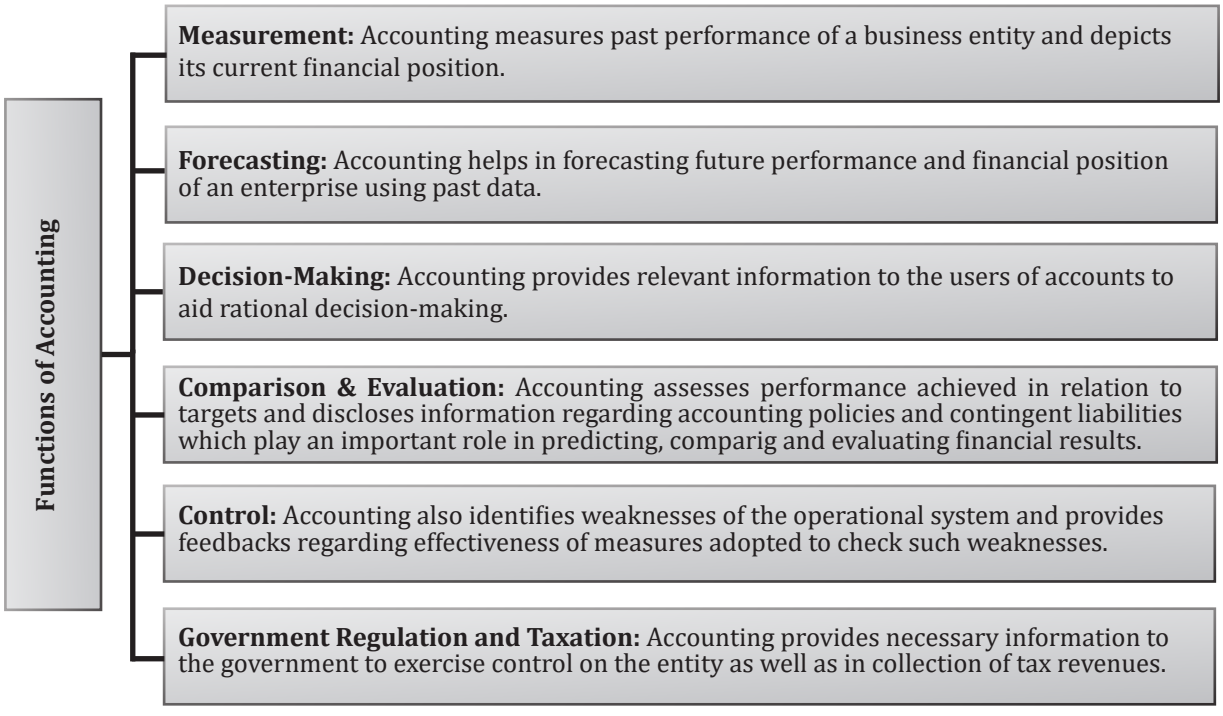
(iv) **It records only those transactions and events which are of financial character.** If an event has no financial character then it will not be capable of being measured in terms of money; it will not be, therefore, recorded.

(v) **It is the art of interpreting the results of operations** to determine the financial position of the enterprise, the progress it has made and how well it is getting along.

## OBJECTIVES OF ACCOUNTING

| | |
|---|---|
| **Providing Information to the Users for Rational Decision making** | The primary objective of accounting is to provide useful information for decision-making to stakeholders such as owners, management, creditors and investors. Various outcomes of business activities such as costs, prices, sales volume, value under ownership and return on investment are measured in the accounting process. All these accounting measurements are used by stakeholders (owners, investors, creditors/bankers, etc.) in course of a business operation. Hence, accounting is identified as the language of a business. |
| **Systematic Recording of Transactions** | To ensure reliabity and precision for the accounting measurements, it is necessary to keep a systematic record of all financial transactions of a business enterprise which is ensured by book-keeping. These financial records are classified, summarized and reposted in the form of accounting measurements to the users of accounting information i.e., stakeholders. |
| **Ascertainment of Results of Above Transactions** | Profit/Loss is a core accounting measurement done and measured by preparing a Profit and Loss Account for a particular period. Various other accounting measurements, such as different types of revenue expenses and revenue incomes are considered for preparing thes profit and loos account. Difference between these revenue incomes and revenue expenses is known as the result of business trasactions identified as profit/loss. As this measure is used very frequently by stockholders for rational decision making, it has become the objective of accounting. For example, Income Tax Act requires that every business should have an accounting system that can measure taxable income of the business and also explain nature and source of every item reported in Income Tax Return. |
| **Ascertain the Financial Position of Business** | Financial position is another core accounting measurement. Financial position is identified by preparing a statement of ownership meaning Assets, and owing meaning Liabilities of the business as on a certain date. This statement is popularly known as Balance Sheet. Various other accounting measurements, such as different types of assets, and different types of liabilities as existed at a particular date, they are considered for preparing the balance sheet. This statement may be used by various stakeholders for financing and investment decisions. |
| **To Know the Solvency Positon** | Balance Sheet, and Profit and Loss Account prepared as above give useful information to stockholders regarding concerns, potential to meet their obligations in the short as well as in the long run. |

## Functions of Accounting




## Book-Keeping

As defined by Carter, "Book-Keeping is a science as well as art of correctly recording in books of accounts all those business transactions that result in transfer of money or money's worth".

Book-keeping is an activity concerned with recording and classifying financial data related to business operations in order of occurrence.

Book-keeping is a mechanical task which involves:

- Collection of basic financial information
- Identification of events and transactions with financial character, i.e., economic transactions
- Measurement of economic transactions in terms of money
- Recording of financial effects of economic transactions in order of its occurrence
- Classifying effects of economic transactions
- Preparing organized statement known as Trial Balance

**Distinction between Book-Keeping and Accounting**

| Book-Keeping | Accounting |
|---|---|
| 1. Output of book-keeping is an input for accounting. | 1. Output of accounting permits informed judgments and decisions by the user of accounting information. |
| 2. Purpose of book-keeping is to keep systematic record of transactions and events of financial character in order of occurrence. | 2. Purpose of accounting is to find results of operating activity of a business and to report its financial strength. |
| 3. Book-keeping is the foundation of accounting. | 3. Accounting is considered as a language of business. |

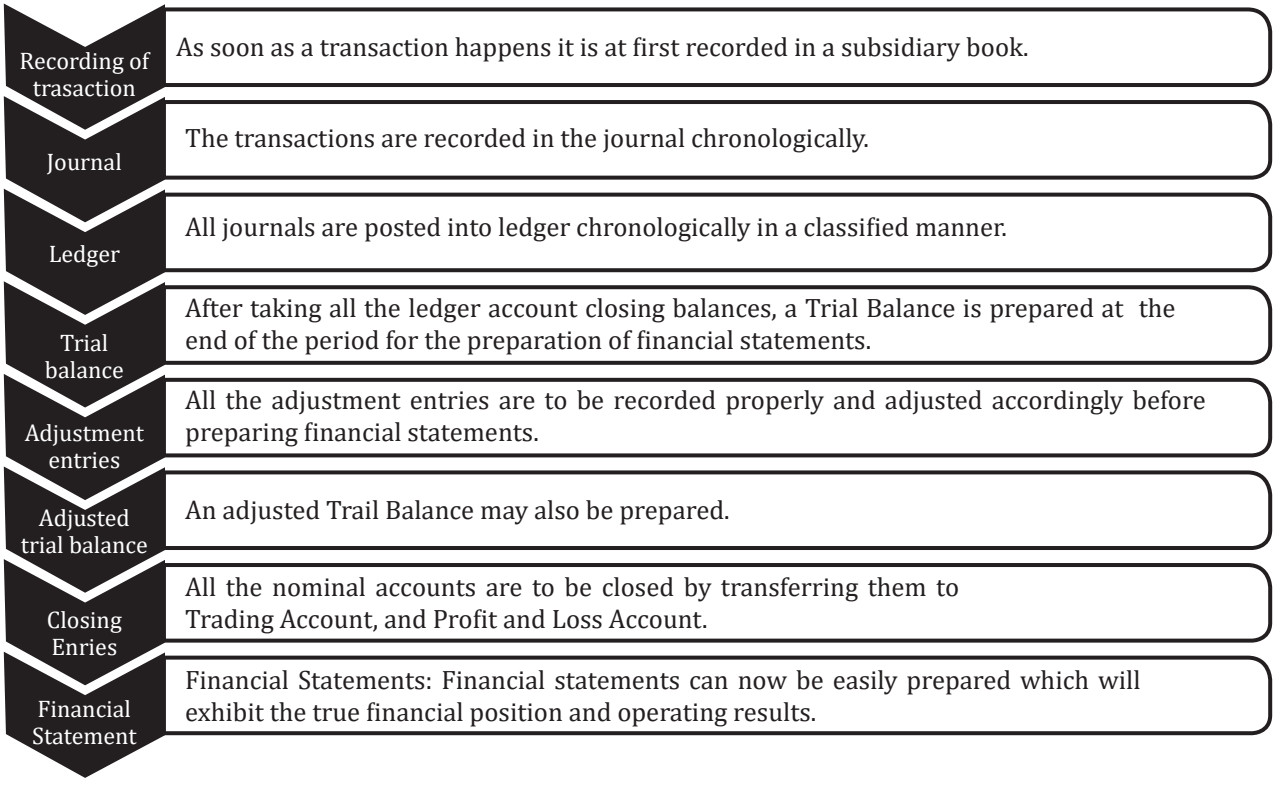
| | |
|---|---|
| 4. Book-keeping is carried out by the junior staff. | 4. Accounting is done by the senior staff who have skills of analysis and interpretation. |
| 5. Objective of book-keeping is to summarize the cumulative effect of all economic transactions of business for a given period by maintaining permanent record of each business transaction with its evidence and financial effects on accounting variable. | 5. Object of accounting is not only book-keeping but also analyzing and interpreting reported financial information for informed decisions. |

## Accounting Cycle

When complete sequence of accounting procedure is done, which happens frequently, and repeatedly in the same directions during an accounting period, it is called an Accounting Cycle.

## Steps/Phases of Accounting Cycle

The steps or phases of accounting cycle can be developed as under:




## Basic Accounting Terms

In order to understand the subject matter clearly, one must grasp the following common expressions used in business accounting. The aim here is to enable the student to understand these often used concepts before we embark on accounting procedures and rules. You may note that these terms can be applied to any business activity with the same connotation.

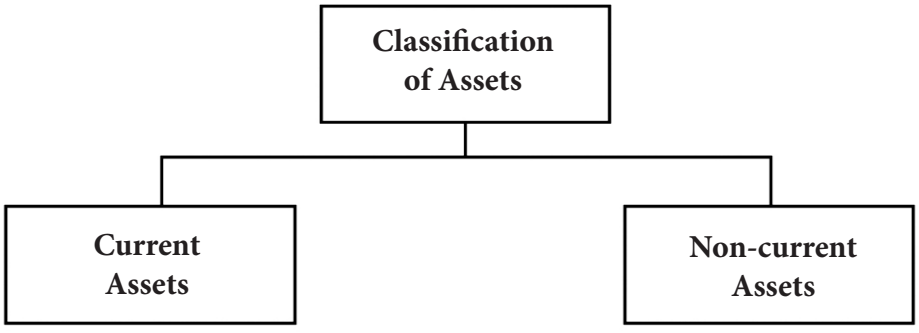
- **Transaction:** It means an event or a business activity which involves exchange of money or money's worth between parties. The event can be measured in terms of money and changes the financial position of a person, e.g., purchase of goods would involve receiving material and making payment or creating an obligation to pay to the supplier at a future date. Transaction could be a cash transaction or credit transaction. When the parties settle the transaction immediately by making payment in cash or by cheque, it is called a cash

transaction. In credit transactions, the payment is settled at a future date as per agreement between the parties.

- **Goods/Services:** These are tangible article or commodities in which a business deals. These articles or commodities are either bought and sold or produced and sold. At times, what may be classified as goods to one business firm may not be goods to the other firm, e.g., for a machine manufacturing company, the machines are goods as they are frequently made and sold. But for the buying firm, it is not goods as the intention is to use it as a long-term resource and not sell it. The services intangible in nature are rendered with or without the object of earning profits.
- **Profit:** The excess of revenue income over expenses is called profit. It could be calculated for each Transaction or for the business as a whole.
- **Loss:** The excess of expense over income is called loss. It could be calculated for each transaction or for business as a whole.
- **Asset:** Asset is a resource owned by a business with the purpose of using it for generating future profits.

Assets can be tangible and intangible. Tangible Assets are the capital assets which have some physical existence. These can, therefore, be seen, touched and felt, e.g., plant and machinery, furniture and fittings, land and buildings, books, computers and vehicles. The capital assets which have no physical existence and whose value is limited by the rights and anticipated benefits that possession confers upon the owner are known as intangible assets. These cannot be seen or felt although these help to generate revenue in future, e.g., goodwill, patents, trade-marks, copyrights, brand equity, designs and intellectual property, etc.

Assets can also be classified as Current Assets and Non-Current Assets.




**Current Assets –** An asset can be classified as Current if it satisfies any of the following:

(a) It is expected to be realized in, or is intended for sale or consumption in the company's normal Operating cycle;

(b) It is held primarily for the purpose of being traded;

(c) It is due to be realized within 12 months after the Reporting Date; or

(d) It is Cash or Cash Equivalent unless it is restricted from being exchanged or used to settle a liability for at least 12 months after the Reporting Date.

**Non-Current Assets –** All other assets are classified as Non-Current Assets, e.g., Machinery held for Long-term, etc.

**Liability:** It is an obligation of financial nature to be settled at a future date. It represents amount of money that the business owes to the other parties. For instance, when goods are bought on credit, the firm will create an obligation to pay to the supplier the price of goods on an agreed future date, or when a loan is taken from bank, an obligation to pay the interest and principal amount is created.

Depending upon the period of holding, these obligations could be further classified into long term or Non-current liabilities, and short term or current liabilities.

**Current Liabilities –** A liability is classified as current when it satisfies any of the following:

(a) It is expected to be settled in the company's normal Operating Cycle;

(b) It is held primarily for the purpose of being traded;

(c) It is due to be settled within 12 months after the Reporting Date; or

(d) The company does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting date (Terms of a Liability that, at the option of the counterparty, result in their settlement by the issue of Equity Instruments which do not affect its classification).

**Non-Current Liabilities** – All other liabilities shall be classified as Non-Current Liabilities. For example loan taken for 5 years, Debentures issued etc.

- **Internal Liability:** These represent proprietor's equity, i.e., all those amount which are entitled to the Proprietor, like Capital, Reserves and Undistributed Profits.
- **Contingent Liability:** It represents a potential obligation that could be created depending on the outcome of an event. For example, if a supplier of a business files a legal suit, it will not be treated as a liability because no obligation is created immediately. If the verdict of the case is given in favour of the supplier then only the obligation is created. Till that time it is treated as a contingent liability. Please note that contingent liability is not recorded in books of account, but disclosed through a note in the financial statements.
- **Capital:** Capital is the amount invested in a business by its owners. It may be in the form of cash, goods, or any other asset which the proprietor or partners of business invest in the business activities. From business point of view, capital of owners is a liability which is to be settled only in the event of closure or transfer of the business. Hence, it is not classified as a normal liability. For corporate bodies, capital is normally represented as share capital.
- **Drawings:** It represents the amount of cash, goods or any other assets which the owner withdraws from business for his or her personal use, e.g., when in the life insurance premium of the proprietor or a partner of the business is paid from the business cash, it is called drawings.

  Drawings will result in a reduction in the owners' capital. The concept of drawing is not applicable to the corporate bodies like limited companies.
- **Net worth:** It represents the excess of total assets over total liabilities of a business. Technically, this amount is made available to be distributed to the owners in the event of closure of the business after payment of all liabilities. That is why it is also termed as Owner's Equity. A profit making business will result in the increase in the owner's equity, whereas losses will reduce it.
- **Non-Current Investments:** Non-Current Investments are investments which are held beyond the current period for sale or disposal, like a Fixed Deposit for 5 years.
- **Current Investments:** Current investments are investments that are by their nature readily realizable and are intended to be held for not more than one year from the date on which such investment is made 11-months Commercial Paper is an example of it.
- **Debtor:** The sum total or aggregate of the amounts which the customer owes to the business for the purchase of goods on credit or services rendered or in respect of other contractual obligations, is known as Sundry Debtors or Trade Debtors, or Trade Payable, or Book-Debts or Debtors. In other words, Debtors are those persons from whom a business has to recover money on account of goods sold or a service rendered on credit.

These debtors may again be classified as under:

(a) **Good Debts:** The debts which are sure to be realized are called good debts.

(b) **Doubtful Debts:** The debts which may or may not be realized are called doubtful debts.

(c) **Bad Debts:** The debts which cannot be realized at all are called bad debts.

It must be remembered that while ascertaining the debtors balance at the end of the period certain Adjustments may have to be made, like Bad Debts, Discount Allowed and Returns Inwards.

- **Fictitious Assets:** Fictitious assets are not assets at all since they are not represented by any tangible possession. They appear on the asset side simply because of a debit balance in a particular account not yet written off, e.g., provision for discount to creditors, discount on issue of shares, etc.
- **Wasting Assets:** Such assets as mines, quarries, etc., that become exhausted or reduce in value by their workings are called wasting assets.
- **Creditor:** A creditor is a person to whom the business owes money or money's worth. For example, money payable to the supplier of goods or provider of service. Creditors are generally classified as Current Liabilities.
- **Capital Expenditure:** This represents expenditure incurred for the purpose of acquiring a fixed asset which is intended to be used over long term for earning profits there from, e.g., amount paid to buy a computer for office use is a capital expenditure. At times expenditure may be incurred for enhancing the production capacity of the machine. This will also be a capital expenditure. Capital expenditure forms a part of the Balance Sheet.
- **Revenue Expenditure:** This represents expenditure incurred to earn revenue of the current period. The benefits of revenue expenses get exhausted in the year of the incurrence. For example repairs, insurance, salary and wages to employees, travel, etc. The revenue expenditure results in the reduction in profit or surplus. It becomes part of the Income statement.
- **Balance Sheet:** It is the statement of the financial position of the business entity on a particular date. It lists all assets, liabilities and capital. It is important to note that this statement exhibits the state of affairs of the business as on a particular date only. It describes what the business owns and what it owes to outsiders (this denotes liabilities), and to the owners (this denotes capital). It is prepared after incorporating the resulting Profit/Loss or Income Statement.
- **Profit and Loss Account or Income Statement:** This account shows the revenue earned by the business and the expenses incurred by it to earn that revenue. This is prepared usually for a particular accounting period, which could be a month, quarter, half a year or a year. The net result of the Profit and Loss Account shows profit earned or loss suffered by the business entity.
- **Trade Discount:** It is the discount usually allowed by the wholesaler to the retailer computed on the list price or invoice price. For example, the list price of a TV set could be Rs. 15,000. The wholesaler may allow 20% discount thereof to the retailer. This means the retailer will get it for Rs.12,000 and is expected to sell it finally to a customer at the list price. Thus, the trade discount enables the retailer to make profit by selling at the list price. Trade discount is not recorded in the books of accounts. The transactions are recorded at net values only. In the above example, the transaction will be recorded at Rs. 12,000 only.
- **Cash Discount:** It is allowed to encourage prompt payment by the debtor. It has to be recorded in the books of accounts. It is calculated after deducting the trade discount, like if list price is Rs. 15,000 on which a trade discount of 20% and cash discount of 2% apply, the first trade discount of Rs.3,000 (20% of Rs. 15,000) will be deducted and the cash discount of 2% will be calculated on Rs.12,000 (Rs.15,000 – Rs.3,000). Hence, the cash discount will be Rs.240 (2% of Rs. 12,000) and net payment will be Rs. 11,760 (Rs. 12,000 - Rs. 240)

## SINGLE ENTRY SYSTEM

Single Entry System is an incomplete 'double entry system'. In case of double entry system of book-keeping both the aspects of every transaction are recorded. In this system, the first entry is made to the debit of an account, and the second entry to the credit of second account. However, in case of single entry system, the business houses for their convenience and more practical approach ignore the strict rules of double entry system. The users of this system maintain only the essential records. In other words, it is a system which may not keep some books of subsidiary records, and some ledger accounts too which otherwise are kept in case of double entry system.

According to a Dictionary of Accountancy by Kohler, "A system of book-keeping in which as a rule only records of cash and of personal accounts are maintained, it is always incomplete double entry varying with the circumstances." Thus, under the so-called single entry system both the aspects of business transactions and events are not recorded. Therefore, this may be defined, "as any system which is not exactly the Double Entry System". Under the single entry system usually a cash book and personal accounts are maintained.

## DOUBLE ENTRY SYSTEM

### Genesis

It was in 1494 that Luca Pacioli, the Italian mathematician, first published his comprehensive treatise on the principles of Double Entry System. The use of principles of double entry system made it possible to record not only cash but also all sorts of mercantile transactions. It had created a profound impact on auditing too, because it enhanced the duties of an auditor to a considerable extent.

### Features of Double Entry System

(a) Every transaction has two-fold aspects, i.e., one party giving the benefit and the other receiving the benefit.

(b) Every transaction is divided into two aspects, debit and credit. One account is to be debited and the other account is to be credited.

(c) Every debit must have its corresponding and equal credit.

### Advantages of Double Entry System

(a) Since personal and impersonal accounts are maintained under the double entry system, both the effects of the transactions are recorded.

(b) It ensures arithmetical accuracy of the books of accounts, for every debit, there is a corresponding and equal credit. This is ascertained by preparing a trial balance periodically, or at the end of the financial year.

(c) It prevents and minimizes frauds. Moreover frauds can be detected early.

(d) Errors can be checked and rectified easily.

(e) The balances of receivables and payables are determined easily, since the personal accounts are maintained.

(f) The businessman can compare the financial position of the current year with that of the past years.

(g) The businessman can justify the standing of his business in comparison with the previous year purchase, sales, and stocks, incomes and expenses with that of the current year figures.

(h) Helps in decision-making.

(i) The net operating results can be calculated by preparing the Trading and Profit and Loss A/c for the year ended and the financial position can be ascertained by the preparation of the Balance Sheet.

(j) It becomes easy for the Government to calculate the tax.

(k) It helps the Government to decide sickness of business units and extend help accordingly.

(l) The other stakeholders, like suppliers and banks take a proper decision regarding grant of credit or loans.

### Limitations of Double Entry System

(a) The system does not disclose all the errors committed in the books accounts.

(b) The Trial Balance prepared under this system does not disclose certain types of errors.

(c) It is costly as it involves maintenance of numbers of books of accounts.

## THE CONCEPTS OF 'ACCOUNT', 'DEBIT' AND 'CREDIT'

### The Concept of Account

(a) An account is defined as a summarized record of transactions related to a person or a thing, e.g., when the business deals with customers and suppliers, the customer and supplier will each be a separate account.

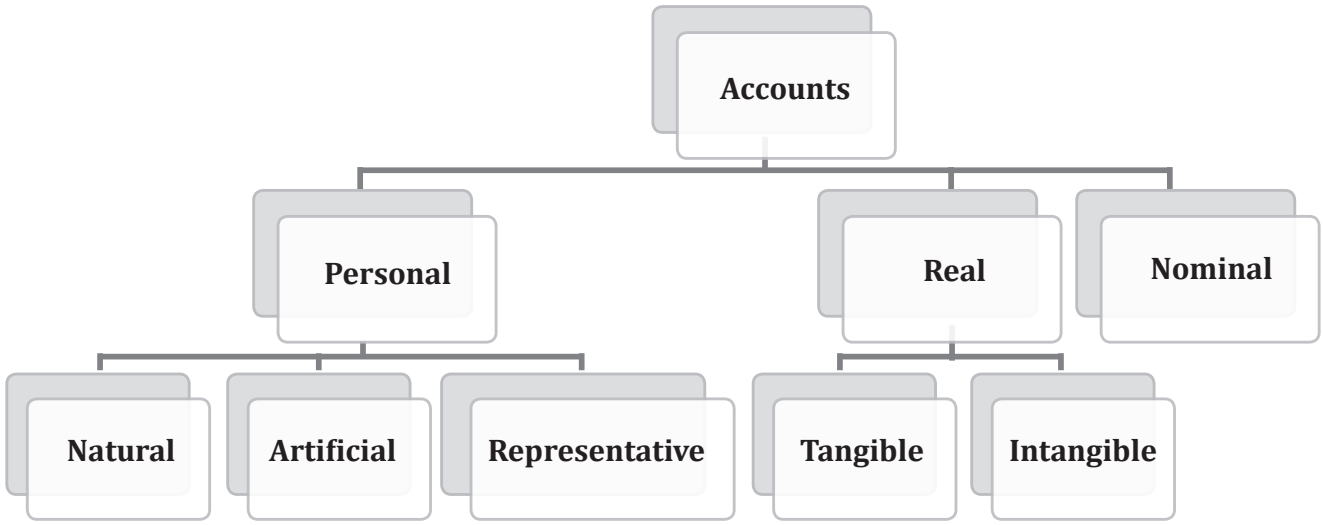
(b) The account is also related to things – both tangible and intangible, like, land, building, equipment, brand value and trademarks are some of the things. When a business transaction happens, one has to identify the account that will be affected by it and then apply the rules to decide its accounting treatment.

(c) Typically, an account is expressed as a statement in the form of English letter 'T'. It has two sides. The left hand side is called as the Debit side, and the right hand side is called as the Credit side. The debit is denoted as 'Dr' and the credit as 'Cr'. The convention is to write the Dr. and Cr. labels on both sides as shown below.

**Cash Account**

| Debit side (Dr.) | | Credit side (Cr.) |
|---|---|---|

### Types of Accounts




Let us see what each type of account signifies:

1. **Personal Account:** As the name suggests these are accounts related to persons.

   (a) These persons could be natural persons, like Suresh's A/c, Anil's A/c and Rani's A/c.

   (b) The persons could also be artificial persons like companies, bodies corporate or association of persons or partnerships. Accordingly, we could have Videocon Industries A/c, Infosys Technologies A/c, Charitable Trust A/c, Ali and Sons Trading A/c and ABC Bank A/c.

   (c) There could be representative personal accounts as well. Although the individual identity of persons related to these is known, the convention is to reflect them as collective accounts, e.g., when salary is payable to employees, we know how much is payable to each of them, but collectively the account is called as Salary Payable A/c. Similar examples are rent payable, insurance prepaid, commission pre-received, etc. The students should be careful to have clarity on this type and the chances of error are more here.

2. **Real Accounts:** These are accounts related to assets or properties or possessions.

   Depending on their physical existence or otherwise, they are further classified as follows:

   (a) *Tangible Real Account* – Assets that have physical existence and can be seen and touched, under this as Machinery A/c, Stock A/c, Cash A/c, Vehicle A/c, and the like.

   (b) *Intangible Real Account* – These represent possession of properties that have no physical existence but can be measured in terms of money and have value attached to them like Goodwill A/c, Trade Mark A/c, Patents & Copy Rights A/c and Intellectual Property Rights A/c.3. Nominal Account: These accounts are related to expenses or losses and incomes or gains e.g. Salary and Wages A/c, Rent and Rates A/c, Travelling Expenses A/c, Commission received A/c and Loss by fire A/c.

## THE ACCOUNTING PROCESS

The two approaches for deciding whether an account is debited or credited are:

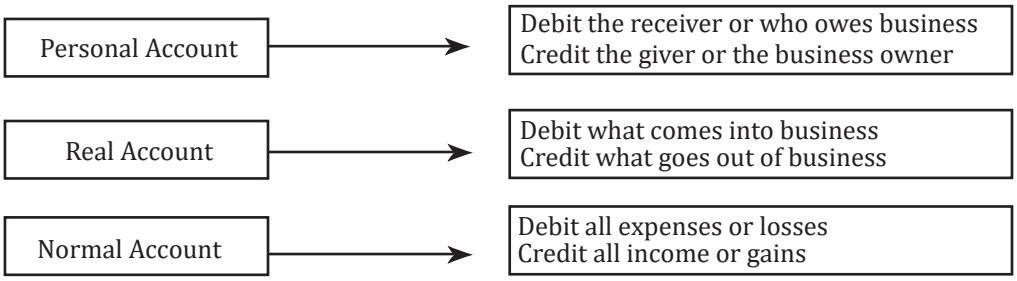
(A) British Approach or Traditional Approach

(B) American Approach or Accounting equation Approach

**(A) British Approach or Traditional Approach:**

When one identifies the account that is getting affected by a transaction and type of that account, the next step is to apply the rules to decide whether the accounting treatment is to be debited or credited from that account. The Golden Rules will guide us whether the account is to be debited or credited.

These rules are shown below :




**(B) American Approach or Accounting equation Approach:**

Under this approach transactions are recorded based on the accounting equation, i.e.,

**Assets = Liabilities + Owner's equity**

**or A = L + P**

**or P = A – L**

**Where A = Assets, L = Liabilities, P = Capital or L = A - P**

The accounting equation is a statement of equality between the debits and the credits. The rules of debit and credit depend on the nature of an account. For the purpose of the accounting equation approach, all the accounts are classified into the following five types: assets, capital, liabilities, revenues/incomes, or expenses/losses.

(a) Transactions relating to owner, e.g., capital – these are personal accounts.

(b) Transactions relating to other liabilities, e.g., suppliers of goods – these are mostly personal accounts.

(c) Transactions relating to assets, e.g., land, building, cash, bank, stock-in-trade, bills receivable – these are basically real accounts.

(d) Transactions relating to expenses, e.g., rent, salary, commission, wages, cartage – these are nominal accounts.

(e) Transactions relating to revenues, e.g., interest received, dividend received, sale of goods – these are nominal accounts

According to this approach, if there is an increase or decrease in a set of accounts, there will be equal decrease or increase in another set of accounts. Accordingly the rules of debit and credit transactions are divided into the following five categories:

1. *Assets Accounts:* debit entry represents an increase in assets and a credit entry represents a decrease in assets.
2. *Capital Account:* credit entry represents an increase in capital and a debit entry represents a decrease in capital.
3. *Liabilities Accounts:* credit entry represents an increase in liabilities and a debit entry represents a decrease in liabilities.
4. *Revenues or Incomes Accounts:* credit entry represents an increase in incomes and gains, and debit entry represents a decrease in incomes and gains.
5. *Expenses or Losses Accounts:* debit entry represents an increase in expenses and losses, and credit entry represents a decrease in expenses and losses.

These five rules help learning about accounting entries and also are comparable with traditional (British) accounting rules.

## BOOKS OF PRIME ENTRY

A journal is often referred to the Book of Prime Entry or Book of Original Entry. In this book transactions are recorded in their chronological order. The process of recording transaction in a journal is called 'Journalization'. The entry made in this book is called 'journal entry'.

### Functions of Journal

**(a) Analytical Function:** Each transaction is analyzed into the debit aspect as well as the credit aspect.

This helps to find out how each transaction will financially affect the business.

**(b) Recording Function:** Accountancy is a business language which helps to record the transactions based on the principles. Each such recording entry is supported by a narration, which explains, the transaction in simple language. Narration means to narrate – i.e., to explain. It starts with the word – Being.

**(c) Historical Function:** It contains a chronological record of the transactions for future references.

### Advantages of Journal

The following are the advantages of a journal:

(a) **Chronological Record:** It records transactions as and when it happens. So it is possible to get detailed day-to-day information.

(b) **Minimizing the possibility of errors:** The nature of transaction and its effect on the financial position of the business is determined by recording and analyzing into both debit and credit aspects.

(c) **Narration:** It means explanation of the recorded transactions.

(d) **Helps to finalize the accounts:** Journal is the basis of ledger posting and the ultimate Trial Balance.

The Trial Balance helps to prepare the final accounts.

The specimen of a journal book is shown below:

| Date | Particulars | Voucher number | Ledger folio | Debit amount (Rs.) | Credit amount (Rs.) |
|---|---|---|---|---|---|
| dd-mm-yy | Name of A/c from which to be debited Name of A/c to be credited (narration describing the transaction) | ---------- | Reference of page number of the A/c in ledger | ---------- | ---------- |

## Explanation of Journal

(a) **Date Column:** This column contains the date of the transaction.

(b) **Particulars:** This column contains which account is to be debited and which account is to be credited. It is also supported by an explanation called narration.

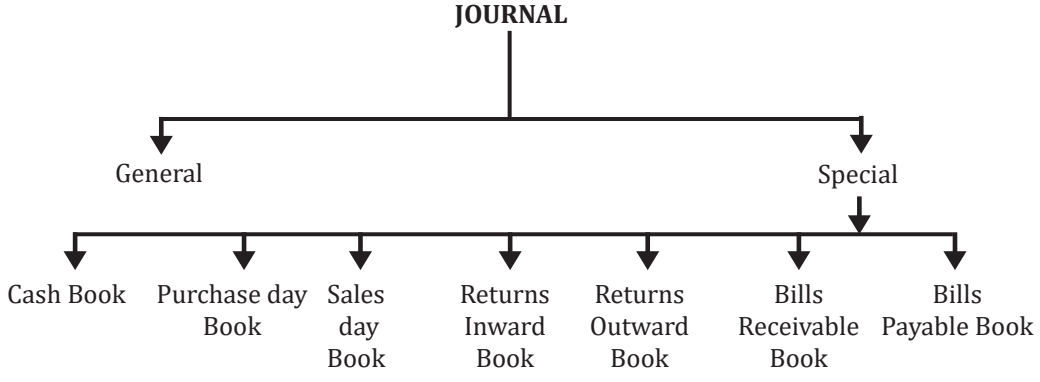
(c) **Voucher Number:** This column contains the number written on the voucher of the respective transaction.

(d) **Ledger Folio (L.F.):** This column contains the folio (i.e., page no.) of the ledger, where the transaction is posted.

(e) **Dr. Amount and Cr. Amount:** This column shows the financial value of each transaction. The amount is recorded in both the columns, since for every debit there is a corresponding and equal credit. All the columns are filled in at the time of entering the transaction, except for the column of ledger folio. This is filled at the time of posting of the transaction to ledger.

## Sub-division of Journals

Journal is divided into two types -(i) General Journal and (ii) Special Journal.




### (i) General Journal

(a) This is a book of chronological record of transactions.

(a) This book records those transactions which occur so infrequently that they do not warrant the setting up of special journals.

Examples of such entries: (i) opening entries (ii) closing entries (iii) rectification of errors.

The form of this general journal, is as under:

**JOURNAL**

| Date | Particulars | L.F. | Dr. Amount | Cr. Amount |
|---|---|---|---|---|
| | | | | |

**L.F. : Ledger Folio**

**Dr : Debit**

**Cr : Credit**

Recording of transactions in this book is called journalizing and the record of transactions is known as journal entry.

**(ii) Special Journal**

It is sub-divided into Cash Book, Purchase Day Book, Sales Day Book, Returns Inward Book, Returns Outward Book, Bills Receivable Book and Bills Payable Book. These books are called subsidiary books.

## Importance of Sub-division of Journal

When the number of transactions is large, it is practically not possible to record all the transactions through one journal because of the following limitations of journal:

(a) The system of recording all transactions in a journal requires (a) writing down the name of the account involved as many times as the transaction occurs; and (b) an individual posting of each account debited and credited and hence, involves the repetitive journalizing and posting labour.

(b) Such a system cannot provide the information on a prompt basis.

(c) Such a system does not facilitate the installation of an internal check system because the journal can be handled by only one person.

(d) The journal becomes huge and voluminous.

To overcome the shortcomings of the use of the journal only as a book of original entry, it is sub-divided into special journal.

The journal is sub-divided in such a way that a separate book is used for each category of transactions which are repetitive in nature and are sufficiently large in number.

## Compound Journal

If for a single transaction, only one account is debited and one account is credited, it is known as simple journal. If the transaction requires more than one account to be debited or more than one account to be credited, it is known as Compound Journal.

## SUBSIDIARY BOOKS

Subsidiary Books refer to books meant for specific transactions of similar nature. These books are also known as special journals or day books. To overcome shortcoming of the use of the journal only as a book of original entry, the journal is sub-divided into specific journals or subsidiary books.

The sub-division of journal is done as follows:

| Transaction | Subsidiary Book |
|---|---|
| All cash and bank transactions | Cash Book has columns for cash, bank and cash discount |
| All credit purchase of goods – only those goods that are purchased for resale are covered here | Purchase Day Book or Purchase Register |
| All credit sale of goods | Sales Day Book or Sales Register |
| All purchase returns – i.e., return of goods back to suppliers due to defects | Purchase Return Book or Return Outward Book |

| | |
|---|---|
| All sales returns – i.e., return of goods back from Customers | Sales Return Book or Return Inward Book |
| All bill receivables – these are bills accepted by Customers to be honored at an agreed date | Bills Receivable Book |
| All bills payable - these are bills accepted by the business to be honored by paying to suppliers at an agreed date | Bills Payable Book |
| For all other transactions not covered in any of the above categories – i.e., purchase or sale of assets, expense accruals, rectification entries, adjusting entries, opening entries and closing entries | Journal Proper |

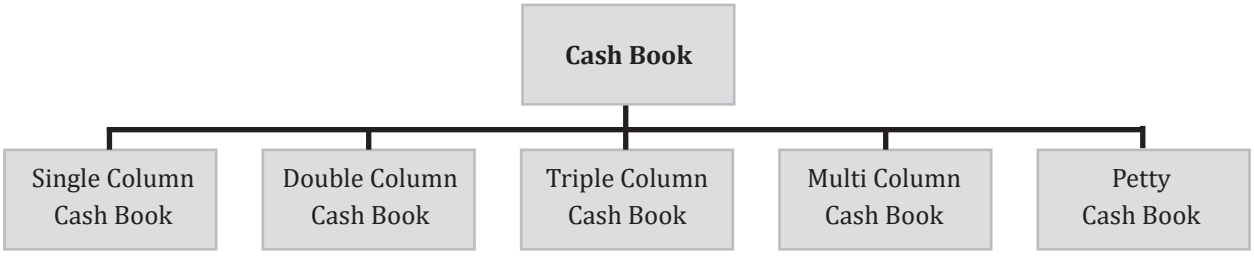
## Recording of Cash and Bank Transactions

### Cash Book

A Cash Book is a special journal which is used for recording all cash receipts and cash payments. Cash Book is a book of original entry since transactions are recorded for the first time from the source documents. The Cash Book is larger in the sense that it is designed in the form of a Cash Account and records cash receipts on the debit side and cash payments on the credit side. Thus, the Cash Book is both a journal and a ledger.

## Types of Cash Book

There are different types of Cash Book as follows :




(a) **Single Column Cash Book-** Single Column Cash book has one amount column on each side. All cash receipts are recorded on the debit side and all cash payments on the payment side; this book is nothing but a Cash Account and there is no need to open separate cash account in the ledger.

(b) **Double Column Cash Book-** The Double Column Cash Book has two amounts columns on each side as under:

(a) Cash and discount columns
(b) Cash and bank columns
(c) Bank and discount columns

(c) **Triple Column Cash Book-** Triple Column Cash Book has three amount columns, one for cash, one for bank and one for discount on each side. All cash receipts, deposits into book and discounts allowed are recorded on the debit side and all cash payments, withdrawals from bank and discounts received are recorded on the credit side. In fact, a triple-column cash book serves the purpose of both Cash Account and Bank Account. Thus, there is no need to create these two accounts in the ledger.

(d) **The multi-column cash book** has multiple columns on both the sides of the cash book.

(e) **The petty cash book.**

***Dr.*** **Specimen of Single Column Cash Book** ***Cr.***

| Receipts | | | | Payments | | | |
|---|---|---|---|---|---|---|---|
| *Date* | *Particulars* | *L.F.* | *Cash* | *Date* | *Particulars* | *L.F.* | *Cash* |

***Dr.*** **Specimen of Double Column Cash Book** ***Cr.***

| Receipts | | | | | Payments | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Date* | *Particulars* | *L.F.* | *Cash* | *Disc. Allowed* | *Date* | *Particulars* | *L.F.* | *Cash* | *Disc. Received* |
| | | | | | | | | | |

***Dr.*** **Specimen of Triple Column Cash Book** ***Cr.***

| Receipts | | | | | | Payments | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Date* | *Particulars* | *L.F.* | *Cash* | *Bank* | *Discount Allowed* | *Date* | *Particulars* | *L.F.* | *Bank* | *Discount Received* |
| | | | | | | | | | | |

**Is the Cash Book a Journal or a Ledger?**

(a) Cash Book is a book of original entry since transactions are recorded for the first time from the source documents.

(b) It is a ledger in the sense that it is designed in the form of a Cash Account and records cash receipts on the debit side and cash payments on the credit side.

Thus, the cash book is both a journal and a ledger.

**(i) Contra Transactions**

Transactions which discount or receive discounts in cash after the settlement of the dues are known as Contra Transactions.

**(ii) Cheque Transactions**

When a cheque is received and no any other information at a later date about the same is given, it will be assumed that the said cheque has already been deposited into the bank on the same day when it was received. Then the entry should be as under:

Bank A/c Dr.

To Debtor's/Party's A/c

But if it is found that the said cheque has been deposited into the bank at a later date, the entry will be:

(i) When the cheque is received

Cash A/c Dr.

To Debtor's/Party's A/c

(ii) When the same was deposited into bank at a later date

Bank A/c Dr.

To Cash A/c

(iii) When the said cheque is dishonoured by the bank

Debtor's/Party's A/c Dr.

To Bank A/c

## Purchase Day Book

The purchase day book records the transactions related to credit purchase of goods only. It follows that any cash purchase or purchase of things other than goods is not recorded in the purchase day book. Periodically, the totals of purchase day book are posted to purchase account in the ledger. A specimen of purchase day book is given below:

**In the Books of ..... Purchase Day Book**

| Date | Name of the Suppliers and details of Goods purchased | Invoice reference | L. F. | Amount (Rs.) | Remarks |
|---|---|---|---|---|---|

The format for Purchase Return Book is exactly the same; hence separate illustration is not given.

## Sales Day Book

The sales day book records transactions of credit sale of goods to customers. Sale of other things, even on credit, will not be entered in the sales day book, but is entered in Journal Proper. If goods are sold for cash, it is entered in the cash book. Total of sales day book is periodically posted to the sales account in the ledger. A specimen of a sales day book is given below.

**In the books of .....Sales Day Book**

| Date | Particulars | Invoice reference | L. F. | Amount (Rs.) | Remarks |
|---|---|---|---|---|---|

The format of sales return book is exactly the same; hence a separate illustration is not given.

## OTHER SUBSIDIARY BOOKS – RETURNS INWARD, RETURN OUTWARD, BILLS RECEIVABLE, BILLS PAYABLE

i) **Return Inward Book**- The transactions relating to goods which are returned by the customers for various reasons, such those which are as not according to sample, or not up to the mark are contained in this book. It is also known as Sales Return Book.

Generally, when a customer returns goods to suppliers he issues a Debit Note for the value of the goods returned by him. Similarly, the supplier who receives those goods issues a Credit Note.

**Returns Inward Day Book**

| Date | Particulars | Outward Invoice | L. F. | Details | Totals | Remarks |
|---|---|---|---|---|---|---|

ii) **Return Outward Book-** This book contains transactions relating to goods that are returned by us to our creditors, e.g., goods broken in transit, or not matching with the sample, etc.

It is also known as Purchase Return Book.

**Return Outward Day Book**

| Date | Particulars | Debit Note | L. F. | Details | Totals | Remarks |
|---|---|---|---|---|---|---|

iii) **Bills Receivable Book-** It is a book where all bills received are recorded and therefrom posted directly to the credit of the respective customer's account. The total amounts of the bills so received during the period (either at the end of the week or month) is to be posted in one sum to the debit of Bills Receivable A/c.

**Bills Receivable Day Book**

| No. of Bills | Date of Receipt of Bill | From whom | Name of the Receiver | Name of Drawer | Name of Acceptor | Date of Bill | Due Date | L.F. | Amount of Bill | How disposed off |
|---|---|---|---|---|---|---|---|---|---|---|

iv) **Bills Payable Book-** Here all the particulars relating to bills accepted are recorded and therefrom posted directly to the debit of the respective creditor's account. The total amounts of the bills so accepted during the period (either at the end of the week or month) is posted in one sum to the credit of Bills Payable Account.

**Bills Payable Day Book**

| No. of Bills | Date of Acceptance | To whom given | Name of Drawer | Name of Payee | Name of Payable | Date of Bill | Term | Due Date | L.F. | Amount of Bill How disposed off |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |

## Journal Proper

Credit transactions that cannot be entered in any other subsidiary book are entered in journal proper.

It will cover purchase or sale of assets, expense accruals, rectification entries, adjusting entries, opening entries and closing entries. The format of journal proper is exactly the same as the Journal.

## LEDGER ACCOUNTS

The book which contains accounts is known as the ledger. Since finding information pertaining to the financial position of a business emerges only from the accounts, the ledger is also called the Principal Book. As a result, all the necessary information relating to any account is available from the ledger. This is the most important book of the business and hence is rightly called the "King of All Books". Also Known as Book of Final Entry.

The specimen of a typical ledger account is given below:

***Dr.*** **Ledger-Account** ***Cr.***

| Date | Particulars | J. F. | Amount (Rs.) | Date | Particulars | J. F. | Amount (Rs.) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## LEDGER POSTING

As and when the transaction takes place, it is recorded in the journal in the form of journal entry. This entry is posted again in the respective ledger accounts under double entry principle from the journal. This is called ledger posting.

The rules for writing up accounts of various types are as follows:

**Assets:** Increases on the left hand side or the debit side and decreases on the credit side or the right hand side.

**Liabilities:** Increases on the credit side and decreases on the debit side.

**Capitals:** The same as liabilities.

**Expenses:** Increases on the debit side and decreases on the credit side. Incomes or gain: Increases on the credit side and decreases on the debit side.

**To summarize:**

| Dr. | Assets | Cr. | Dr. | Expenses or Loses | Cr. |
|---|---|---|---|---|---|
| Increase | \| | Decrease | Increase | \| | Decrease |
| Dr. | Liabilities & Capital | Cr. | Dr. | Income or Gains | Cr. |
| Decrease | \| | Increase | Decrease | \| | Increase |
| | | | | | |

The students should clearly understand the nature of debit and credit.

A debit denotes:

(i) the case of a person who has received some benefit against which he has already rendered some service or will render a service in future. When a person becomes liable to do something in favour of the firm, the fact is recorded by debiting from that person's account : (relating to Personal Account);

(ii) in the case of goods or properties, where the value and stock of such goods or properties has increased, (relating to Real Accounts);

(iii) in the case of other accounts where losses or expenses that the firm has incurred, (relating to Nominal Account);

A credit denotes:

(i) in case of a person, where some benefit has been received from him, entitling him to claim from the firm a return benefit in the form of cash or goods or service then a person becomes entitled to money or money's worth for any reason. The fact is recorded by crediting him (relating to Personal Account);

(ii) in the case of goods or properties, where the stock and value of such goods or properties has decreased, (relating to Real Accounts);

(iii) in the case of other accounts like interest or dividend or commission received, or discount received, that the firm has made a gain, (relating to Nominal Account).

## Posting to Ledger Accounts from Subsidiary Books

In the above section, we have explained how posting is done to ledger accounts directly on the basis of journal entries.

In practice, however, we know that use of subsidiary books is in vogue. Let us see how the posting to ledger accounts is done based on these records.

For each of the subsidiary books, there is a ledger account, e.g., for purchase book, there is Purchase Account, for sales book there is Sales A/c, for cash book there is Cash A/c as well as Bank A/c and so on.

## Typical Ledger Account Balances

We have seen how to balance various ledger accounts, some accounts show debit balance, while the others show credit balance. Is there any relationship between the type of account (whether it is the account of asset, liability, capital, owner's equity, income or gain, expenses or losses) and the kind of balance (debit or credit).

The answer is generally 'Yes'. You may test to find the following are typical relationships.

| **Type of Account** | **Type of balance** |
|---|---|
| All asset accounts | Debit balance |
| All liability accounts | Credit balance |
| Capital & Owner's equity account | Credit balance |
| Expenses or loss accounts | Debit balance |
| Income or gain accounts | Credit balance |

Let us test these possibilities for confirmation. How does one go about testing this?

Consider 'Cash A/c'.

Whenever business receives cash we debit it, and whenever it pays we credit it. Is it possible to see a situation where credits to cash are more than debits? In other words could we have negative cash in hand? No. Cash account will therefore always show a debit balance. So is true for all real asset accounts.

After solving problems, if the contrary is observed, there is every chance that an error has been made while passing the accounting entries.

## Closing Balance and Opening Balance

The debit or credit balance of an account that we get at the end of the accounting period is known as closing balance of that account.

The "balance of the nominal accounts" is closed by transferring to trading account, and the profit and loss account which shows the net operating results – net profit or net loss.

The "balance of the personal accounts and real accounts" representing assets, liabilities, owner's equity are reflected in the Balance Sheet, which shows the financial position of a business on a particular date. These balances are transported as opening balance in the succeeding accounting period.

**Some terms used:**

Casting — totaling

Balancing — to find the difference between debit side total and credit side total of an account.

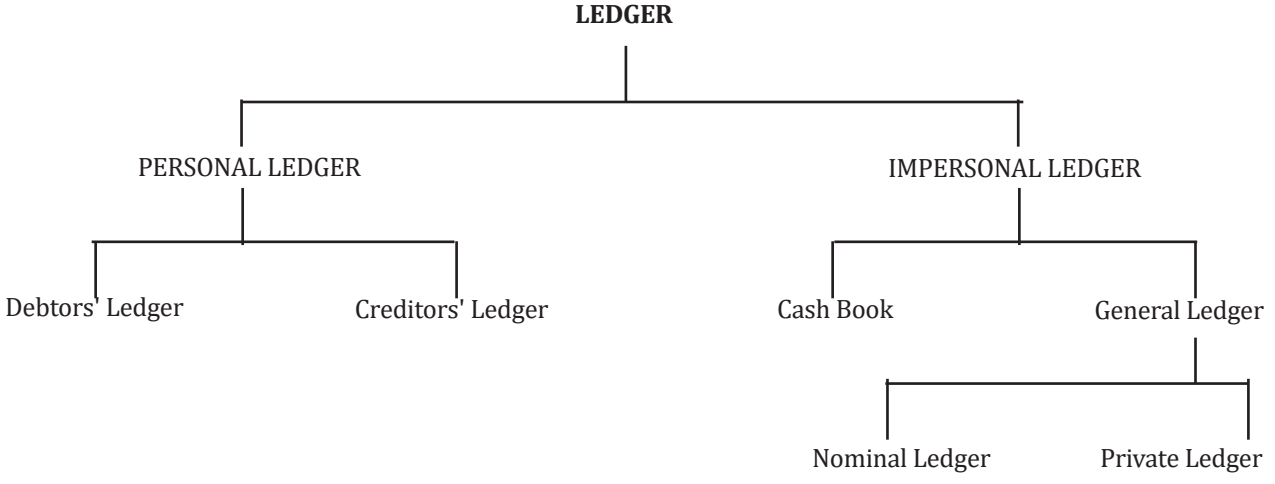
| | |
|---|---|
| C/d -Carried down | B/d -Brought down |
| C/o - Carried over | B/o - Brought over |
| C/f - Carried forward | B/f - Brought forward |

## Sub-divisions of Ledger

Practically, the Ledger may be divided into two groups -

Personal Ledger and (b) Impersonal Ledger.

They are again sub-divided as :




**Personal Ledger:** The ledger where the details of all transactions about persons who are related to the accounting unit are recorded is called Personal Ledger.

**Impersonal Ledger:** The ledger where details of all transactions about assets, income & expenses, etc., are recorded is called Impersonal Ledger.

Again, Personal Ledger may be divided into two groups: viz. (a) Debtors' Ledger, and (b) Creditors' Ledger.

i) **Debtors' Ledger:** The ledger where the details of transactions about the persons to whom goods are sold, cash is received, etc., are recorded is called Debtors' Ledger.

ii) **Creditors' Ledger:** The ledger where the details of transactions about the persons from whom goods are purchased on credit, cash paid to them, etc., are recorded, is called Creditors' Ledger.

Impersonal Ledger may, again be divided into two group, viz., (a) Cash Book; and (b) General Ledger.

i) **Cash Book:** The book wherein all cash & bank transactions are recorded is called Cash Book.

ii) **General Ledger:** The ledger where all transactions relating to real accounts, nominal accounts, details of Debtors' Ledger and Creditors' Ledger are recorded is called General Ledger.

General Ledger may again be divided into two groups, viz., Nominal Ledger & Private Ledger.

i) **Nominal Ledger:** The ledger where all transactions relating to income and expenses are recorded is called Nominal Ledger.

ii) **Private Ledger:** The Ledger where all transactions relating to assets and liabilities are recorded is called Private Ledger.

### Advantages of sub-division of Ledger

The advantages of sub-division of ledger are:

i) **Easy to divide work :** As a result of sub-division, records can be maintained efficiently by the concerned employees.

ii) **Easy to handle:** As a result of sub-division, the size and volume of ledger is reduced.

iii) **Easy to collect information:** From the different classes of ledger any particular type of transaction can easily be found out.

iv) **Minimization of mistakes:** As a result of sub-division chances of mistakes are minimized.

v) **Easy to compute:** As a result of sub-division, the accounting work may be computed quickly which is very helpful to the management.

vi) **Fixation of responsibility:** Due to sub-division, allotment of different types of work to different employees is done for which concerned employee will be responsible.

## TRIAL BALANCE

Trial Balance may be defined as a statement or a list of all ledger account balances taken from various ledger books on a particular date to check the arithmetical accuracy. According to the Dictionary for Accountants by Eric. L. Kohler, Trial Balance is defined as "a list or abstract of the balances or of total debits and total credits of the accounts in a ledger, the purpose being to determine the equality of posted debits and credits and to establish a basic summary for financial statements". According to Rolland, "The final list of balances, totaled and combined, is called Trial Balance".

As this is merely a listing of balances, it will always be on a particular date. Further, it must be understood that Trial Balance does not form part of Books of Account, but it is a report prepared by extracting balances of accounts maintained in the books of accounts.

When this list with tallied debit and credit balances is drawn up, the arithmetical accuracy of basic entries, ledger posting and balancing is ensured. However, it does not guarantee that the entries are correct in all respect. This will be explained later in this chapter.

Although it is supposed to be prepared at the end of accounting period, computerized accounting packages are capable of providing instant Trial Balance reports even on a daily basis, as the transactions are recorded almost online.

It can be seen that the respective total of debit and credit balances is exactly matching. This is the result of double entry book-keeping wherein every debit has equal corresponding credit.

### Features of a Trial Balance

(i) It is a list of debit and credit balances which are extracted from various ledger accounts.

(ii) It is a statement of debit and credit balances.

(iii) The purpose is to establish arithmetical accuracy of the transactions recorded in the Books of Accounts.

(iv) It does not prove arithmetical accuracy which can be determined by audit.

(v) It is not an account. It is only a statement of account.

(vi) It is not a part of the final statements.

(vii) It is usually prepared at the end of the accounting year but it can also be prepared anytime as and when required like weekly, monthly, quarterly or half-yearly.

(viii) It is a link between the Books of Accounts, Profit and Loss Account and Balance sheet.

## Preparation of Trial Balance

(i) It may be prepared on a loose sheet of paper.

(ii) The ledger accounts are balanced at first. They will have either "debit-balance" or "credit balance" or "nil-balance".

(iii) The accounts containing debit-balance are written on the debit column, and those with credit-balance are written on the credit column.

The sum total of both the balances must be equal for "Every debit has its corresponding and equal credit".

## Purpose of a Trial Balance

It serves the following purposes:

(i) To check the arithmetical accuracy of the recorded transactions.

(ii) To ascertain the balance of any ledger account.

(iii) To serve as an evidence of the fact that the double entry has been completed in respect of every transaction.

(iv) To facilitate the preparation of final accounts promptly.

### Is Trial Balance Indispensable?

It is a mere statement prepared by the accountants for their convenience, and if it agrees, it is assumed that at least arithmetical accuracy has been done, although there may be a lots of errors.

Trial Balance is not a process of accounting, but its preparation helps us to finalize the accounts. Since it is prepared on a particular date, as at ..... / as on ..... is stated.

## Forms of a Trial Balance

A trial balance may be prepared in two forms, they are –

(i) Journal Form

(ii) Ledger Form

The trial balance must tally irrespective of the form of a trial balance.

(a) **Journal Form:** This form of a trial balance will have a format of Journal Folio. It will have columns for serial number, name of the account, ledger folio, debit amount and credit amount in the journal form.

Specimen of journal form of trial balance:

**Trial Balance as on ……**

| Sl. No. | Name of the Account | L.F. | Debit Balance (Rs.) | Credit Balance |
|---|---|---|---|---|
| | | | | |

(b) **Ledger Form:** This form of a trial balance has two sides, i.e., debit side and credit side. In fact, the ledger form of a trial balance is prepared in the form of an account. Each side of the trial balance will have particulars like name of the account column, folio column and amount column.

Specimen of ledger form of trial balance

***Dr.*** **Trial Balance as on ……** ***Cr.***

| Date | Name of the Account | L.F. | Amount (Rs.) | Date | Name of the Account | L.F. | Amount (Rs.) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

## Method of Preparation

(a) Total Method or Gross Trial Balance.

(b) Balance Method or Net Trial Balance.

(c) Compound Method.

These are explained as hereunder:

**(a) Total Method or Gross Trial Balance :** Under this method, two sides of the accounts are totalled. The total of the debit side is called the "debit total", and the total of the credit side is called the "credit total". Debit totals are entered on the debit side of the trial balance while the credit total is entered on the credit side of the trial balance.

If a particular account has total in one side, it will be entered either in the debit column or the credit column as the case may be.

**Advantages:**

(a) It facilitates arithmetical accuracy of the accounts.

(b) Extraction of ledger balances is not required at the time of preparation of trial balance.

**Disadvantages:** Preparation of final accounts is not possible.

**(b) Balance Method or Net Trial Balance:** Under this method, all the ledger accounts are balanced. The balances may be either "debit-balance" or "credit balance".

**Advantages:**

(a) It helps in the easy preparation of final accounts.

(b) It saves time and labour in preparing a trial balance.

**Disadvantages:** Errors may remain undisclosed irrespective of the agreement of trial balance.

**(c) Compound Method:** Under this method, totals of both the sides of the accounts are written in separate columns. Along with this, the balances are also written in the separate columns. Debit balances are written in the debit column and credit balances are written in the credit column of the trial balance.

**Advantages:** It offers the advantage of both the methods.

**Disadvantages:** It is a lengthy process and more time is consumed in the preparation of a trial balance.

**Summary of Rules**

Debit Balance — All Assets, Drawings, Debtors, Expenses and Losses.

Credit Balance — All Liabilities, Capital, Creditors, Gains and Incomes.

## Trial Balance – Utility and Interpretation

The utility of trial balance could be found in the following:

(a) It forms the basis for the preparation of financial statements, i.e., Profit and Loss Account and Balance Sheet.

(b) A tallied trial balance ensures the arithmetical accuracy of the entries made. If the trial balance does not tally, the errors can be found out, rectified and then financial statements can be prepared.

(c) It acts as a quick reference. One can easily find out the balance in any ledger account without actually referring to the ledger.

(d) If the listing of ledger accounts is systematically done in the trial balance, one can do a quick time analysis. Hence, listing is usually done in the sequence of Asset accounts, Liability accounts, Capital accounts, Owner's equity accounts, Income or gain accounts and Expenses or Losses accounts in that order.

One can draw some quick inferences from trial balance by interpreting it. If one plots monthly trial balances side by side, one can analyze the movement of balances in various accounts, e.g., one can see how expenses are increasing or decreasing or showing a trend of movements. By comparing the owner's equity balances as on two dates, one can interpret the business result, e.g., if the equity has gone up, one can interpret that business has earned net profit and vice versa.

### LESSON ROUND-UP

- Accounting information should be relevant, reliable, comparable, understandable, timely, neutral, verifiable and complete.
- Accounting can be based on cash or accrual system. In cash system, accounting entries are passed only when cash is received or paid, while in accrual system transactions are recorded on the basis of amounts having become due for payment or receipt.
- Book-keeping is different from accounting. Book-keeping is concerned with the permanent recording or maintaining of all transactions in a systematic manner to show their financial effects on the business.

  Accounting is concerned with the summarizing of the recorded transactions.
- Accounting principles are guidelines to establish standards for sound accounting practices and procedures in reporting the financial status of a business. These principles can be accounting concepts and accounting conventions.
- Accounting concepts are defined as basic assumptions on the basis of which financial statements of a business entity are prepared. While 'convention' denotes custom or tradition or practice based on general agreement between the accounting bodies which guide the accountant while preparing the financial statements.
- Some of the important accounting concepts are: business entity concept, money measurement concept, cost concept, going concern concept, dual aspect concept, realization concept, accrual concept, accounting period concept and revenue match concept.
- Accounting conventions are consistency, disclosure, conservatism and materiality.
- Two classes of accounts are personal accounts and impersonal accounts. Impersonal accounts can be further classified into real and nominal accounts.
- Accounting Equation represents that sum of resources (assets) is equal to the obligations (capital and liabilities) of the business.
- Accounting cycle includes identifying, recording, classifying and summarizing of the transactions.
- Every transaction is recorded in the journal before being posted into the ledger. It is the book of account in which transactions are recorded in a chronological order.

- Recording in the journal is done following the rules of debit and credit.
- Posting is the process of recording transactions in the ledger based on the entries in the journal.
- The main function of a ledger is to classify or sort out all the items appearing in the journal or other subsidiary books under their appropriate accounts so that at the end of the accounting period summary of each account is easily available.
- Balancing of ledger accounts involves equalization of both sides of the account by putting the difference on the side where the amount is short.
- Various subsidiary books are: purchases book; sales book; purchases returns book; sales returns book; bills receivable book; bills payable book and cash book.
- General journal or journal proper is maintained for recording those transactions for which there are no other appointed subsidiary book.
- Trial balance is prepared after posting and balancing the entries in ledger to verify the arithmetical accuracy of entries made in the ledger.

## GLOSSARY

**Accounting**

Accounting is "the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character and interpreting the results thereof.

**Book-Keeping**

Book-Keeping is a science as well as art of correctly recording in books of accounts all those business transactions that result in transfer of money or money's worth.

**Journal**

A journal is often referred to the Book of Prime Entry or Book of Original Entry. In this book transactions are recorded in their chronological order.

**Subsidiary Books**

Subsidiary Books refer to books meant for specific transactions of similar nature. These books are also known as special journals or day books.

**Ledger**

The book which contains accounts is known as the ledger.

**Trial Balance**

Trial Balance is a statement or a list of all ledger account balances taken from various ledger books on a particular date to check the arithmetical accuracy.

## TEST YOURSELF

1. Define accounting and state its characteristics.
2. Discuss the system of accounting.
3. What are the functions of accounting?
4. Distinguish between book-keeping and accounting.
5. Explain important accounting conventions.
7. Explain the basic rules of debit and credit in accounting.
8. Define the term 'account' and name the types of accounts? Also explain with examples.
9. What do you mean by contra-entries in a columnar cash book?
10. What is meant by columnar cash book?
11. Point out the accounts which will be debited and credited for each one of the following transactions:
    - Cash received from X and discount allowed to him.
    - Cash paid to Y and discount received from him.
    - Credit Sales to Z.
    - Cash Sales to A.
    - Purchases from B on credit.
    - Salary paid to clerk by means of cheque.
    - Payment of cash to landlord for rent.
    - Depreciation on furniture.
    - Interest due but not yet paid.
    - Interest provided on capital.
12. Give Accounting Equation for the following transactions of Jitesh:
    - Started business with cash Rs. 36,000
    - Paid rent in advance Rs. 800– Purchased goods for cash Rs.10,000 and on credit Rs. 4,000
    - Sold goods for cash Rs. 8,000
    - Rent paid Rs. 2000 and rent outstanding Rs. 400
    - Bought cycle for personal use Rs. 16,000
    - Purchased equipments for cash Rs. 10,000
    - Paid to creditors Rs. 1,200
    - Some business expenses paid Rs. 1,800
    - Depreciation on equipment Rs. 2,000.

# Lesson 2

# Introduction to Corporate Accounting

### *Key Concepts One Should Know*

- Financial Statement
- XBRL
- Balance Sheet
- Profit and Loss Account
- Share capital
- Reserves and Surplus

## *Learning Objectives*

**To understand the:**

- Statutory provisions regarding preparation of final accounts of companies
- Requirements for preparation of statement of Profit and Loss, and Balance Sheet
- General instructions for the preparation of Balance Sheet and Profit and Loss account
- How a true and fair view of financial statements can be achieved

## *Regulatory Framework*

- Section 128 of Companies Act, 2013
- Section 129 of Companies Act, 2013
- Schedule III of Companies Act, 2013

## *Lesson Outline*

- Introduction
- Preparation and Presentation of Financial Statements
- Schedule III of the Companies Act, 2013
- General Instructions for the preparation of Balance Sheet and Profit and Loss Account
- Presentation of Balance Sheet
- Part-I – Form of Balance Sheet
- Disclosure Requirement: Schedules Forming Part of Financial Statements / Annual Report
- Part II-Form of Statement of Profit & Loss
- General Instructions For Preparation of Statement of Profit & Loss
- True & Fair View of Financial Statements
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

There is no legal obligation for sole proprietorship and a partnership firm to prepare final accounts, but otherwise companies have statutory obligations to keep proper books of account and to prepare its final accounts every year in the manner as prescribed in the Companies Act. Chapter IX, Sections 128 to 138 of the Companies Act, 2013 deals with the legal provisions relating to the Accounts of Companies. These sections including Schedule II and III were brought into force from 1st April, 2014. The relevant rules pertaining to these provisions have also been notified. All these relevant provisions/schedules and rules will be applicable for the financial years commencing on or after 1st April, 2014.

What provisions are applicable for Financial years that commenced earlier than 1st April 2014?

It is clarified that in respect of financial years that commenced earlier than 1st April 2014, shall be governed by the relevant provisions/schedules and rules of the Companies Act, 1956.

## PREPARATION AND PRESENTATION OF FINANCIAL STATEMENTS

Section 129 of the Companies Act, 2013 governs the preparation and presentation of financial statements of a company.

The financial statements shall give a true and fair view of the state of affairs of a company or companies, comply with the accounting standards notified under Section 133 and shall be in the form or forms as may be provided for different class or classes of companies in Schedule III.

- The items contained in such financial statements shall be in accordance with the accounting standards.
- Nothing contained in this sub-section shall apply to any insurance or banking company or any company engaged in the generation or supply of electricity, or to any other class of company for which a form of financial statement has been specified in or under the Act governing such class of company.
- The financial statements shall not be treated as not disclosing a true and fair view of the state of affairs of the company, merely by reason of the fact that they do not disclose –

  (a) in the case of an insurance company, any matters which are not required to be disclosed by the Insurance Act, 1938, or the Insurance Regulatory and Development Authority Act, 1999;

  (b) in the case of a banking company, any matters which are not required to be disclosed by the Banking Regulation Act, 1949;

  (c) in the case of a company engaged in the generation or supply of electricity, any matters which are not required to be disclosed by the Electricity Act, 2003;

  (d) in the case of a company governed by any other law for the time being in force, any matters which are not required to be disclosed by that law.
- According to the rules for the purposes of Sub-section (1) of Section 129, the class of companies as may be notified by the Central Government from time to time, shall mandatorily file their financial statements in Extensible Business Reporting Language (XBRL) format and the Central Government may specify the manner of such filing under such notification for such class of companies. The term 'Extensible Business Reporting Language' means a standardized language for communication in electronic form to express, report or file financial information by companies under this rule.

  **Extensible Business Reporting Language (XBRL)** is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. It provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data. XBRL stands for eXtensible Business Reporting Language. It is already being put to practical use in a number of countries and implementations of XBRL are growing rapidly around the world.
- At every annual general meeting of a company, the Board of Directors of the company shall lay before all members financial statements for the financial year.

- Where a company has one or more subsidiaries, it shall, in addition to financial statements provided under Sub-section (2), prepares a consolidated financial statement of the company and of all the subsidiaries in the same form and manner as that of its own which shall also be laid before the annual general meeting of the company along with the laying of its financial statement under Sub-section (2).
- The company shall also attach along with its financial statement, a separate statement containing the salient features of the financial statement of its subsidiary or subsidiaries. According to the rules the statement shall contain the salient features of the financial statement of a company's subsidiary or subsidiaries, associate company and joint venture.
- Further as per the rules the consolidation of financial statements of the company shall be made in accordance with the Accounting Standards, subject however, to the requirement that if under such Accounting Standards (AS), consolidation is not required for the reason that the company has its immediate parent outside India, then such companies will also be required to prepare Consolidated Financial Statements in the manner and format as specified under Schedule III to the Act.
- The provisions of this Act are applicable to the preparation, adoption and audit of the financial statements of a holding company shall, mutatis mutandis, apply to the consolidated financial statements.
- Without prejudice to Sub-section (1), where the financial statements of a company do not comply with the accounting standards referred to in Sub-section (1), the company shall disclose in its financial statements, the deviation from the accounting standards, the reasons for such deviation and the financial effects, if any, arising out of such deviation.
- The Central Government may, on its own or on an application by a class or classes of companies, by notification, exempt any class or classes of companies from complying with any of the requirements of this section or the rules made thereunder, if it is considered necessary to grant such exemption in the public interest and any such exemption may be granted either unconditionally or subject to such conditions as may be specified in the notification.
- If a company contravenes the provisions of this section, the managing director, the whole-time director in charge of finance, the Chief Financial Officer or any other person shall be give the charge by the Board with the duty to complying with the requirements of this section and in the absence of any of the officers mentioned above, all the directors shall be punishable with imprisonment for a term which may extend to one year or with fine which shall not be less than fifty thousand rupees but which may extend to rupees five lakh or with both.

> *Explanation* – For the purposes of this section, except where the context otherwise requires, any reference to the financial statement shall include any notes annexed to or forming part of such financial statement, giving information required to be given and allowed to be given in the form of such notes under this Act.

## SCHEDULE III OF THE COMPANIES ACT, 2013

According to Section 129 of the Companies Act, 2013, all the companies registered under this Act will have to present its financial statements in Schedule III of the Act. The Schedule III of the Companies Act, 2013 has been formulated to keep pace with the changes in the economic philosophy leading to privatization and globalization and consequent desired changes/reforms in the corporate financial reporting practices. It deals with the Form of Balance Sheet, Statement of Profit and Loss, and disclosures to be made therein, and it applies uniformly to all the companies registered under the Companies Act, 2013, for the preparation of financial statements of an accounting year. It has several new features like:

- A vertical format for presentation of Balance Sheet with classification of Balance Sheet items into current and non-current categories.
- A vertical format of Statement of Profit and Loss with classification of expenses based on nature.
- Elimination of the concept of "Schedules" and such information is now to be furnished in terms of "Notes to Accounts".

- It does not contain any specific disclosure for items included in Schedule VI under the head, "Miscellaneous Expenditure". As per AS-16 borrowing cost and discount or premium relating to borrowing could be amortized over the loan period. Further, share issue expenses, discount on shares, discount/ premium on borrowing, etc. are excluded from AS-26. These items be amortized over the period of benefit, i.e., normally 3-5 years. The draft guidance note issued by ICAI suggests that unamortized portion of such expenses be shown under the head "Other Current/Non-current Assets" depending on whether the amount will be amortized in the next 12 months or thereafter.
- Debit Balance of Statement of Profit & Loss A/c will be disclosed under the head, Reserves & Surplus as the negative figure.
- No change in the format of cash flow statement as per revised schedule and therefore its preparation continues to be as per AS-3 on cash flow statement.
- It gives prominence to Accounting Standards (AS), i.e., in case of any conflict between the AS and the Schedule, AS shall prevail.

## GENERAL INSTRUCTIONS FOR THE PREPARATION OF BALANCE SHEET AND PROFIT AND LOSS ACCOUNT

The Schedule III sets out minimum requirements for disclosure on the face of the Balance Sheet, and the

Statement of Profit and Loss (hereinafter referred to as "Financial Statements") and Notes.

Line items, sub-line items and sub-totals shall be presented as an addition or substitution on the face of the Financial Statements when such presentation is relevant to an understanding of the company's financial position or performance or to cater to industry/sector-specific disclosure requirements or when required for compliance with the amendments to the Companies Act or under the Accounting Standards.

This means new line items or sub-items can be added or substituted on the face of the Financial Statements when such presentation is:

- Relevant to an understanding of the company's financial position or performance or to cater to industry/ sector-specific disclosure requirements.
- To cater to industry/sector-specific disclosure requirements or when required for compliance with the amendments to the Companies Act.
- Under the Accounting Standards.

Where compliance with the requirements of the Act including Accounting Standards as applicable to the companies require any change in treatment or disclosure including addition, amendment, substitution or deletion in the head or sub-head or any changes, inter se, in the financial statements or statements forming part thereof, the same shall be made and the requirements of this Schedule shall stand modified accordingly.

The disclosure requirements specified in this Schedule are in addition to and not in substitution of the disclosure requirements specified in the Accounting Standards prescribed under the Companies Act, 2013. Additional disclosures specified in the Accounting Standards shall be made in the notes to accounts or by way of additional statement unless required to be disclosed on the face of the Financial Statements. Similarly, all other disclosures as required by the Companies Act shall be made in the notes to accounts in addition to the requirements set out in this Schedule.

Notes to accounts shall contain information in addition to that presented in the Financial Statements and shall provide where required

- Narrative descriptions or disaggregation of items recognized in those statements; and
- Information about items that do not qualify for recognition in those statements.

Each item on the face of the Balance Sheet and Statement of Profit and Loss shall be cross-referenced to any related information in the notes to accounts. In preparing the Financial Statements including the notes to accounts, a balance shall be maintained between providing excessive detail that may not assist users of financial statements and not providing important information as a result of too much aggregation.

Depending upon the turnover of the company, the figures appearing in the Financial Statements may be rounded off as given below: –

| | Turnover | Rounding off |
|---|---|---|
| (a) | less than one hundred crore rupees | To the nearest hundreds, thousands, lakhs or millions, ordecimals thereof. |
| (b) | one hundred crore rupees or more | To the nearest lakhs, millions or crores, or decimals thereof. |

Once a unit of measurement is used, it shall be used uniformly in the Financial Statements.

Except in the case of the first Financial Statements laid before the Company (after its incorporation) the corresponding amounts (comparatives) for the immediately preceding reporting period for all items shown in the Financial Statements including notes shall also be given.

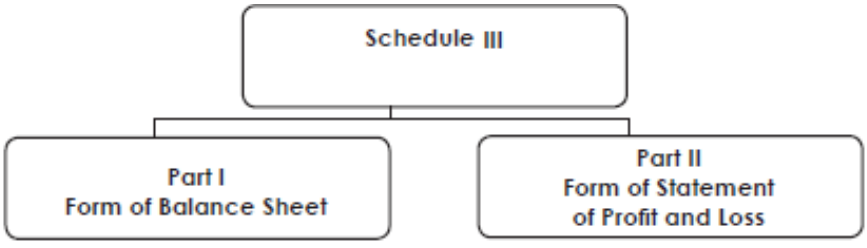
For the purpose of this Schedule, the terms used herein shall be as per the applicable Accounting Standards.

## PRESENTATION OF BALANCE SHEET

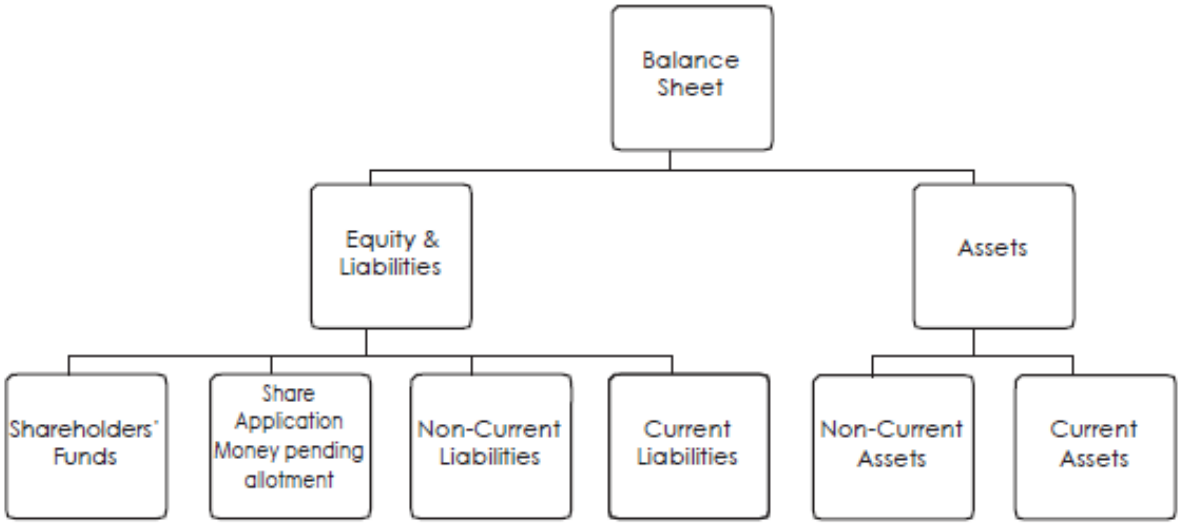
A Balance Sheet is a statement of the financial position of an enterprise as at a given date, which exhibits its assets, liabilities, capital, reserves and other account balances at their respective book values.

How often is a Balance sheet of a company calculated?

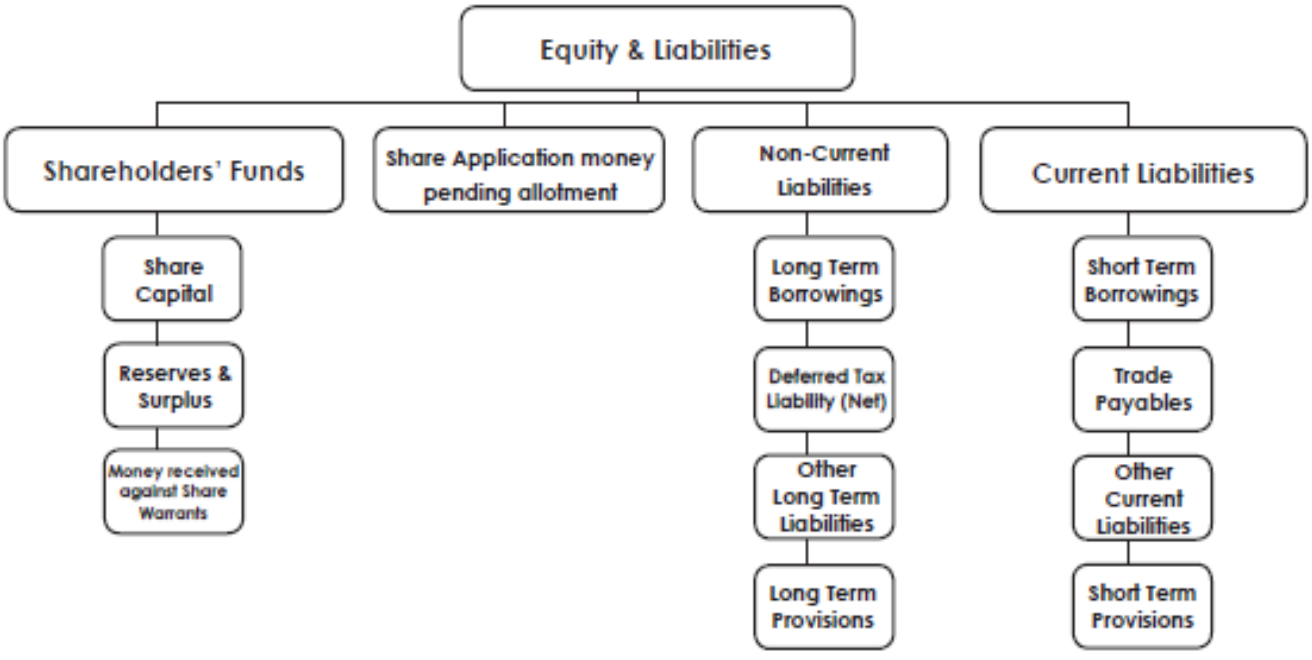
Balance sheet is more like a snapshot of the financial position of a company at a specified time, usually calculated after every quarter, six months or one year.



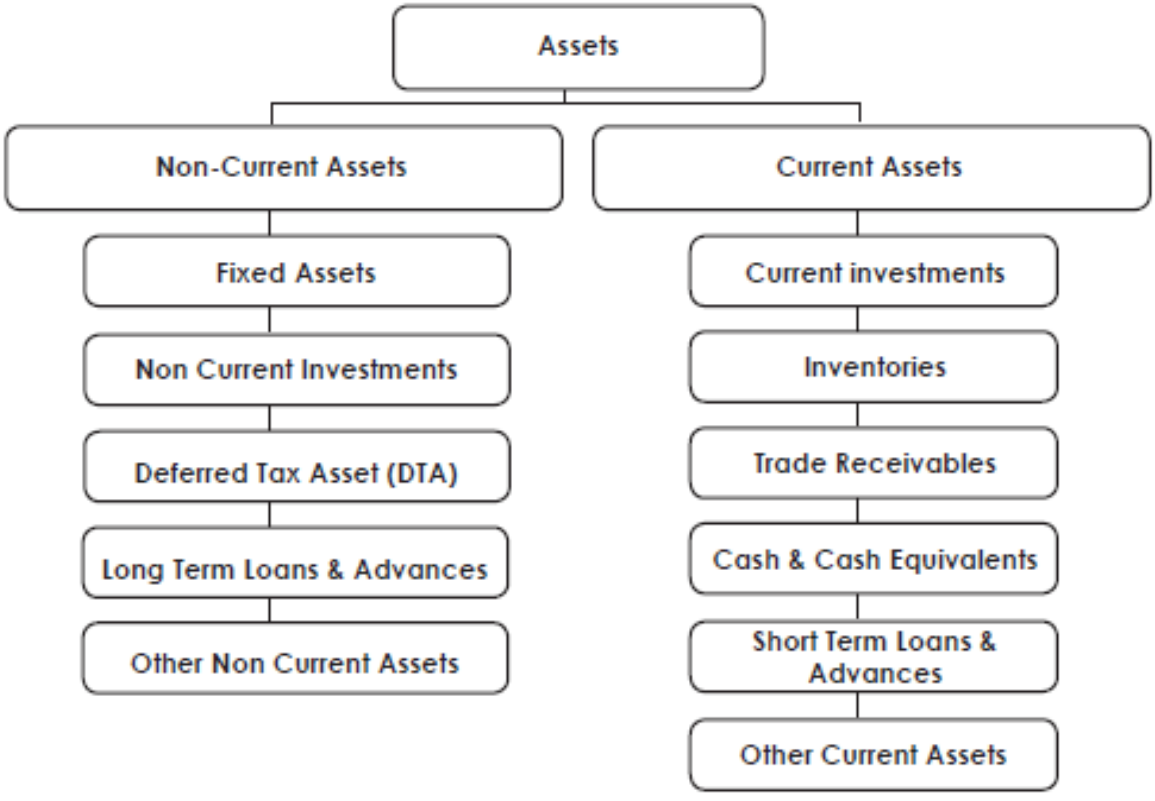

PART I – FORM OF BALANCE SHEET



Break-up of Equity & Liabilities




Break-up of Assets



## PART-I – FORM OF BALANCE SHEET

Name of the Company: .....

Balance Sheet as at: .....

| | Particulars | Note | Figure as at the end of Current Reporting Period | Figures as at the end of the Previous Reporting Period |
|---|---|---|---|---|
| | | | (Rs.) | (Rs.) |
| **I.** | **EQUITY AND LIABILITIES** | | | |
| (1) | Shareholders' Funds | | | |
| | (a) Share Capital | | | |
| | (b) Reserves & Surplus | | | |
| | (c) Money Received against Share Warrants | | | |
| (2) | Share Application money pending allotment | | | |
| (3) | Non-Current Liabilities | | | |
| | (a) Long-Term Borrowings | | | |
| | (b) DTI (Net) | | | |
| | (c) Other Long-Term Liabilities | | | |
| | (d) Long-Term Provisions | | | |
| (4) | Current Liabilities | | | |
| | (a) Short-Term Borrowings | | | |
| | (b) Trade Payables | | | |
| | (c) Other Current Liabilities | | | |
| | (d) Short-Term Provisions | | | |
| | Total | | | |
| **II.** | **ASSETS** | | | |
| (1) | Non-Current Assets | | | |
| | (a) Property, Plant and Equipment and Intangible assets | | | |
| | (i) Tangible Assets | | | |
| | (ii) Intangible Assets | | | |
| | (iii) Capital WIP | | | |
| | (iv) Intangible Assets under Development | | | |

| | | | | |
|---|---|---|---|---|
| | (b) Non-Current Investments | | | |
| | (c) Deferred Tax Assets (DTA) (Net) | | | |
| | (d) Long-Term Loans & Advances | | | |
| | (e) Other Non-Current Assets | | | |
| (2) | Current Assets | | | |
| | (a) Current Investments | | | |
| | (b) Inventories | | | |
| | (c) Trade Receivables | | | |
| | (d) Cash & Cash Equivalents | | | |
| | (e) Short-Term Loans & Advances | | | |
| | (f) Other Current Assets | | | |
| | Total | | | |

## DISCLOSUREREQUIREMENT: SCHEDULES FORMING PART OF FINANCIAL STATEMENTS

### (A) FOR "EQUITY AND LIABILITIES" ITEMS

### (1) SHAREHOLDERS' FUNDS

### (a) SHARE CAPITAL

| Sch. III Disclosure Requirement | Points to be considered |
|---|---|
| General | • Sch III deals only with presentation and disclosure requirements.<br>• Accounting classification into Debt and Equity components is governed by the applicable Accounting Standard.<br>• Preference Shares will have to be classified as "Share Capital" and they also include such Preference Shares of which redemption is overdue. |
| For each Class of Share Capital (different classes of Preference Shares to be treated separately): | |
| (a) Authorized Capital | It is the maximum number and face/par value, of each class of shares that a corporate entity may issue in accordance with its instrument of incorporation. |
| (b) Number of Shares Issued, Subscribed and Fully Paid, and Subscribed but not Fully Paid | • Subscribed Share Capital" is "that portion of the Issued Share Capital which has actually been subscribed by the public and subsequently allotted to the shareholders by the entity. This also includes any Bonus shares issued to the Shareholders.<br>• "Paid-up Share Capital" is "that part of the Subscribed Share Capital for which consideration is cash or otherwise has been received. This also includes Bonus Shares allotted and Shares issued otherwise than for cash against purchase consideration, by the corporate entity."<br>• If Shares are not fully called, then disclose the called up value per share. |

| | |
|---|---|
| (c) Face/Par Value per Share | Face/Par Value, as per Capital Clause in Memorandum of Association should be disclosed. |
| (d) Reconciliation of No. of Shares | • For the Amount of Share Capital;<br>• For comparative previous period;<br>• Separate statements for both Equity and Preference Shares, which should again be sub-classified and represented for each class of Shares |
| (e) Rights, Preferences and Restrictions attaching to shares including restrictions on the distribution of Dividends and the Repayment of Capital | • For Equity Share Capital, such rights / preferences / restrictions may be with voting rights, or with differential voting rights as to dividend, voting or otherwise as per Companies (Issue of Share Capital with Differential Voting Rights) Rules, 2001.<br>• For Preference Shares, the rights include dividend and/ or capital related rights. Further, Preference Shares can be cumulative, non-cumulative, redeemable, convertible, non-convertible, etc.<br>• All such Rights, Preferences and Restrictions attached to each class of Shares, terms of redemption, etc., should be disclosed separately. |
| (f) Shares held in the Company held by its Holding Company or its ultimate Holding Company including Shares held by Subsidiaries or Associates of the Holding Company or the ultimate Holding Company in aggregate | • Disclose number of Shares held by the entire chain of Subsidiaries and Associates starting from the Holding Company and ending right up to the Ultimate Holding Company.<br>• All such disclosures should be made separately representing for each class of Shares, (for both Equity and Preference Shares). |
| (g) List of Shareholders holding more than 5% shares as on the Balance Sheet Date | • Date for computing the 5% limit should be taken as the Balance Sheet date. So, if during the year, any Shareholder held more than 5% Equity Shares but does not hold as much at the Balance Sheet date, disclosure is not required.<br>• Companies should disclose the Shareholding for each class of Shares, both within Equity and Preference Shares. So, such% should be computed separately for each class of Shares.<br>• This information should also be given for comparative previous period. |
| (h) Shares Reserved for issue under Options and Contracts/ commitments for the sale of Shares/ Disinvestment, including the Terms and Amounts | • Shares under Options generally arise under Promoters or Collaboration Agreements, Loan Agreements or Debenture Deeds (including Convertible Debentures), agreement to convert Preference Shares into Equity Shares, ESOPs or Contracts for supply of Capital Goods, etc.<br>• Disclosure is required for the Number of Shares, Amounts and Other Terms for Shares so reserved. Such options are in respect of Unissued Portion of Share Capital |

| | |
|---|---|
| (i) For the period of 5 years immediately preceding the date as at which the Balance Sheet is prepared-<br>• Aggregate Number & Class of Shares allotted as Fully Paid and Up Pursuant to Contract(s) without payment being received in Cash<br>• Aggregate No. and Class of Shares allotted as fully Paid up by way of Bonus Shares<br>• Aggregate Number & Class of Shares bought back | Disclose only if such event has occurred during a period of 5 years immediately preceding the Current Year Balance Sheet date<br>• The aggregate number of shares allotted or bought back<br>• If the company is in operation for a period of less than 5 years, then disclosure should cover all such earlier financial years<br>Not to disclose the following allotments:<br>The following allotments are considered as Shares allotted for payment being received in cash, and hence should not be disclosed under this Clause – (a) If the subscription amount is adjusted against a bonafide debt payable in money at once by the Company, (b) Conversion of Loan into Shares in the event of default in repayment |
| (j) Terms of any Securities Convertible into Equity / Preference Shares issued along with the earliest date of conversion in descending order starting from the farthest such date | • In case of Compulsorily Convertible Securities, where conversion is done in fixed tranches, all the dates of conversion have to be considered.<br>• In case of Convertible Debentures/Bonds, etc., for the purpose of simplification, reference may also be made to the terms disclosed under the note on Long- Term Borrowings where these are required to be classified in the Balance Sheet, rather than disclosing the same against under this Clause. |
| (k) Calls Unpaid (showing aggregate value of Calls Unpaid by Directors and Officers) | Unpaid Amount towards Shares subscribed by the Subscribers of Memorandum of Association should be considered as 'Subscribed and paid-Up Capital' in the Balance Sheet and the Debts due from the Subscribers should be appropriately disclosed as an Asset in the B/Sheet. |
| (l) Forfeited Shares (amount originally paid up) | ---- |

## (1) (b) RESERVES & SURPLUS

| Sch. III Disclosure Requirement | Points |
|---|---|
| Reserves & Surplus shall be classified as –<br>(a) Capital Reserves | • Capital Reserve is a Reserve of a Corporate Enterprise which is not available for distribution as Dividend.<br>• Profit on Re-issue of Forfeited Shares is basically profit of a Capital Nature and, hence, it should be credited to Capital Reserve. |
| (b) Capital Redemption Reserve | Capital Redemption Reserve (CRR) is required to be created u/s 55 and 68 (for redemption of PSC and buyback of ESC), subject to conditions specified in the respective Sections. |
| (c) Securities Premium Reserve | Sch III uses the term "Securities Premium Reserve" but the Act uses the term "Securities Premium Account". Hence, the term used in the Act should be used. |

| | |
|---|---|
| (d) Debenture Redemption Reserve | Debenture Redemption Reserve (DRR) is required to be created u/s 71, and maintained until such Debentures are redeemed. On redemption of the Debentures, the amounts no longer necessary to be retained in this Account should be transferred to the General Reserve. |
| (e) Revaluation Reserve | Revaluation Reserve is a Reserve created on the revaluation of Assets or Net Assets of an Enterprise represented by the surplus of the estimated Replacement Cost or estimated market values over the Book Values thereof. |
| (f) Share Options Outstanding Account | As per ICAI Guidance Note on ESOP, Share Options Outstanding should be shown as separate line item. Under Sch III, this line item should be shown separately under Reserves & Surplus. |
| (g) Other Reserves (specify the nature & purpose of each Reserve and the amount in respect thereof) | This includes any other Statutory Reserves, e.g. Tonnage Tax reserve to be created under the Income Tax Act, 1961. |
| (h) Surplus, i.e., balance in Statement of P&L disclosing allocations & appropriations, such as, Dividend, Bonus Shares and Transfer to/from Reserves, etc. | |
| (Additions & Deductions since last Balance Sheet to be shown under each of specified heads) | Appropriations to the Profit for the year (including carried forward balance) is to be presented under the main head 'Reserves and Surplus'. Under Sch III, the Statement of P&L will no longer reflect any appropriations, like Dividends transferred to Reserves, Bonus Shares, etc. |

**Notes:**

1. **Fund:** A Reserve specifically represented by Earmarked Investments shall be termed as a 'Fund'.
2. **Profit and Loss Account (Dr.):** Debit Balance Statement of P&L shall be shown as a Negative Figure under the head 'Surplus'. Similar, the balance of 'Reserves & Surplus', after adjusting Negative balance of Surplus, if any, shall be shown under the head 'Reserves & Surplus' even if the resulting figure is in the negative.

### (1) (c) MONEY RECEIVED AGAINST SHARE WARRANTS

| Sch. III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line item on the face of Balance Sheet | In case of Listed Companies, Share warrants are issued to Promoters & others in terms of the Guidelines for Preferential Issues, viz. SEBI (Issue of Capital and Disclosure Requirements), Guidelines, 2009. Effectively, Share Warrants are amounts which would ultimately form a part of the Shareholder's Funds. Since Shares are yet to be allotted against the same, these are not reflected as a part of Share Capital, but as a separate line-item |

## (2) SHARE APPLICATION MONEY PENDING ALLOTMENT

| Sch. III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line item on the face of Balance Sheet | Share Application Money not exceeding the Issued Capital and to the extent not refundable is to be disclosed as a separate line item after "Share Holders Funds" and before "Non-Current Liabilities". If the Company's Issued Capital is more than the Authorized Capital, and approval of increase in Authorized Capital is pending, the amount of Share Application Money received over and above the Authorized Capital should be shown under the head "Other Current Liabilities".<br><br>The amount shown as 'Share Application Money Pending Allotment' will not include Share Application Money to the extent refundable, for example, the amount in excess of Issued Capital, or where Minimum Subscription requirement is not met. Such amount will have to be shown separately under 'Other Current Liabilities'.<br><br>Calls Paid in Advance are to be shown under "Other Current Liabilities". The amount of interest which may accrue on such advance should also is to be reflected as a Liability. |

## (3) NON-CURRENT LIABILITIES

## (3) (a) LONG-TERM BORROWINGS

| Sch. III Disclosure Requirement | Points |
|---|---|
| Long-Term Borrowings shall be classified as –<br>(a) Bonds/Debentures, | ----- |
| (b) Terms Loans – (i) from Banks, and (ii) from Other Parties, | Loans with repayment period beyond 36 months are usually known as "Term Loans". So, Cash Credit, Overdraft and Call Money Accounts/ Deposits are not covered by the expression "Term Loans". |
| (c) Deferred Payment Liabilities, | Deferred Payment Liabilities would include any Liability for which payment is to be made on deferred credit terms, e.g., Deferred Sales Tax Liability, Deferred Payment for Acquisition of fixed Assets, etc. |
| (d) Deposits, | Deposits classified under Borrowings would include Deposits accepted from Public and Inter-Corporate Deposits which are in the nature of Borrowings. |
| (e) Loans & Advances from Related Parties, | Loans and Advances from related parties are required to be disclosed. Advances under this head should include those Advances which are in the nature of loans. |
| (f) Long-Term Maturities of Finance Lease Obligations, | |
| (g) Other Loans & Advances (specify nature) | |

| | |
|---|---|
| **Notes:**<br>**1. Security-wise Classification:** Borrowings shall further be sub-classified as Secured and Unsecured. Nature of Security shall be specified separately in each case. | • Nature of Security shall be specified separately in each case. A blanket disclosure of different securities covering all Loans classified under the same head such as "All Term Loans from Banks" will not suffice.<br>• However, where one security is given for multiple Loans, the same may be clubbed together for disclosure purposes with adequate details of cross referencing.<br>• Disclosure about the nature of security should also cover the type of asset given as security, e.g., Inventories, Plant and Machinery, Land and Building, etc.<br>• When Promoters, other Shareholders or any third party have given any personal security for any borrowing, e.g., Shares or Other Assets held by them, disclosure should be made thereof, though such security does not result in the classification of such borrowing as secured. |
| **2. Guarantees:** Where Loans have been guaranteed by Directors or Others, the aggregate amount of such Loans under each head shall be disclosed. | The word "Others" used in the phrase "Directors or Others" would mean any Person or Entity other than a Director, e.g., Related Parties, or any person associated with the Company in some manner. |
| **3. Maturity Date wise:** Bonds / Debentures (along with Rate of Interest & particulars of Redemption or Conversion, as the case may be) shall be stated in descending order of maturity or conversion, starting from farthest Redemption or Conversion Date, as the case may be. | • Current Maturities of all Long-Term Borrowings will be disclosed under "Other Current Liabilities" and not under Long-Term Borrowings and Short-Term Borrowings.<br>• So, it is possible that the same Bonds/Debentures/ Term Loans may be bifurcated under both "Long-Term Borrowings" as well as under "Other Current Liabilities". |
| **4. Installment Redemption:** Where Bonds/ Debentures are redeemable by Installments, the Date of Maturity for the purpose must be reckoned as the Date on which the First Installment becomes due. | |
| **5. Power to Reissue:** Particulars of any redeemed Bonds/Debentures which the Company has power to reissue shall be disclosed. | |
| **6. Terms of Repayment:** Repayment of Term Loans and Other Loans shall be stated. | Other Loans should be interpreted to mean all categories listed under the heading 'Long-Term Borrowings' as per Sch VI (R). Disclosure of terms of repayment should be made preferably for each Loan unless the repayment terms of individual loans within a category are similar, in which case, they may be aggregated. |

| | |
|---|---|
| **7. Default:** Period and amount of continuing default as on the Balance Sheet date in repayment of Loans and Interest, shall be specified separately in each case. | The term "Continuing Default" is used w.r.t. Long-Term Borrowings, whereas the term "Default" is used w.r.t. Short-Term Borrowings.<br>• Under CARO, the Auditor shall report on the default made and the period of default.<br>• As per Sch VI (R), the period and amount of continuing default as on the Balance Sheet date in repayment or Term Loans and Interest shall be specified separately in each case.<br>• Disclosures relating to default should be made for all items listed under the category of Borrowings such as Bonds/ Debentures, Deposits, Deferred Payment Liabilities, Finance Lease Obligations, etc., and not only to items classified as "Loans" such as Term Loans, Loans and Advances.<br>• Defaults other than in respect of repayment of Loan and Interest, e.g., non-compliance with Debt Covenants, etc., need not be disclosed.<br>• Any default that had occurred during the year and was subsequently made good before the end of the year need not be disclosed. |

## (3) (b) DEFERRED TAX LIABILITIES (Also Refer AS-22)

| Sch. III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line item on the face of Balance Sheet. | ---- |

## (3) (c) OTHER LONG-TERM LIABILITIES

| Sch. III Disclosure Requirement | Points |
|---|---|
| It shall be classified as –<br>(a) Trade Payables | Sundry Creditors for Goods or Services, and Acceptances should be disclosed as part of Trade Payables. Disclosure Requirements under MICRO, SMALL & MEDIUM ENTERPRISES DEVELOPMENT<br>(MSMED) Act will also be required to be made in the annual Financial Statements. |
| (b) Others | Amounts due under contractual obligations, e.g., payables in respect of statutory obligations, like contribution to Provident Fund, Purchase of Fixed Assets, Contractually Reimbursable Expenses, Interest Accrued on Trade Payables, etc., should be classified as "Others" and each such item should be disclosed naturewise. |

## (3) (d) LONG-TERM PROVISIONS

| Sch. III Disclosure Requirement | Points |
|---|---|
| It shall be classified as – (a) Provision for Employee Benefits | This should be classified into short-term and long-term portions, and the latter amount should be included here. |
| (b) Others (Specifying nature) | This would include items like Provisions for Warranties. |

## (1) CURRENT LIABILITIES

### (4) (a) SHORT-TERM BORROWINGS

| Sch. III Disclosure Requirement | Points |
|---|---|
| 1. Short-Term Borrowings shall be classified as –<br>• Loans Repayable on demand–<br>(i) from Banks, &<br>(ii) Other Parties,<br>• Loans and Advances from Related Parties,<br>• Deposits,<br>• Others Loans and Advances (specify nature) | • Short-Term Borrowings will include all Loans within a period of 12 months from the date of the loan, Loans payable on demand, etc., but they will not include Current Maturity of Long-Term Borrowings (which should be treated only as "Other Current Liabilities").<br>• In case of Short-Term Borrowings, all defaults (not continuing defaults as in the case of Long Term Borrowings) existing as at the date of the Balance Sheet should be disclosed (item wise)<br>• A 3-Year Loan taken for a business with a 4-year Operating Cycle will be categorized only as Short- Term Borrowings, and not as Long-Term Borrowings. |

### (4) (b) TRADE PAYABLES

**As per Notification – G.S.R 679(E) (by Ministry of Corporate Affairs dated 4th September, 2015):**

In exercise of the powers conferred by Sub-section (1) of Section 467 of the Companies Act, 2013 (18 of 2013), the Central Government hereby makes the following further alterations in Schedule III and the details relating to Micro, Small and Medium Enterprises shall be discussed in the notes.

| Sch. III Disclosure Requirement | Points |
|---|---|
| It shall be classified as –<br>(A) Total outstanding dues of micro enterprises and small enterprises; and<br>(B) Total outstanding dues of creditors other than micro enterprises and small enterprises." | • Liability for Capital Goods Purchases: Amount due towards purchase disclosed under "Other Current Liabilities" with a suitable description.<br>• Liability under Contractual Obligations: Liability towards Employees, Leases or other Contractual Liabilities should not be included under Trade Payables. Only "Commercial Dues" can be included under Trade Payables. |

**Note:**

The following details relating to Micro, Small and Medium Enterprises shall be disclosed in the notes:

(a) The principal amount and the interest due thereon (to be shown separately) remaining unpaid to any supplier at the end of each accounting year;

(b) The amount of interest paid by the buyer in terms of Section 16 of the Micro, Small and Medium Enterprises Development Act, 2006, along with the amount of the payment made to the supplier beyond the appointed day during each accounting year;

(c) The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under the Micro, Small and Medium Enterprises Development Act, 2006;

(d) The amount of interest accrued and remaining unpaid at the end of each accounting year; and

(e) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues above are actually paid to the small enterprise, for the purpose of disallowance of a deductible expenditure under Section 23 of the Micro, Small and Medium Enterprises Development Act, 2006.

(f) *Explanation* – the terms 'appointed day', 'buyer', 'enterprise', 'micro enterprise', 'small enterprise' and 'supplier' shall have the same meaning assigned to those under (b),(d),(e),(h),(m) and (n) respectively of Section 2 of the Micro, Small and Medium Enterprises Development Act, 2006.

## (4) (c) OTHER CURRENT LIABILITIES

| Sch. III Disclosure Requirement | Points |
|---|---|
| It shall be classified as –<br>(a) Current maturities of Long-Term Debt,<br>(b) Current Maturities of Finance Lease Obligations,<br>(c) Interest Accrued but not due on Borrowings,<br>(d) Interest Accrued and due on Borrowings,<br>(e) Income Received in Advance,<br>(f) Unpaid Dividends,<br>(g) Application Money received for allotment of Securities and due for Refund and Interest Accrued thereon (Refer note below)<br>(h) Unpaid Matured Deposits and Interest Accrued thereon,<br>(i) Unpaid Matured Debentures and Interest Accrued thereon,<br>(j) Other Payables (specify nature).<br>**Note:**<br>1. Share Application Money includes Advances towards allotment of Share Capital.<br>2. Terms and Conditions include the Number of Shares proposed to be issued, the Amount of Premium, if any, and the period before which shares be allotted shall be disclosed.<br>3. It shall also be disclosed whether the Company has sufficient Authorized Capital to cover the Share Capital Amount resulting from Allotment of Shares out of such Share Application Money.<br>4. Further, the period for which the Share Application Money has been pending beyond the period for Allotment as mentioned in the document inviting application for shares along with the reason for such Share Application Money being pending shall be disclosed.<br>5. Share Application Money not exceeding the Issued Capital and to the extent not refundable shall be shown under the head 'Equity' and Share Application Money to the extent refundable, i.e., the amount in excess of subscription or in case the requirements of minimum subscription are not met, shall be separately shown under 'Other Current Liabilities'. | • The portion of Long Term Debts/ Lease Obligations, which is due for payments within 12 months of the reporting date is required to be classified under "Other Current Liabilities", while the balance amount should be classified under Long-Term Borrowings.<br>• Trade Deposits and Security Deposits which are not in the nature of Borrowings should be classified separately under Other Non-Current/ Current Liabilities.<br>• Other Payables under this head may be in the nature of statutory dues such as Withholding Taxes, Service Tax, VAT, Excise Duty, etc.<br>• Current Year Classification as Current Liability and Previous Year Non-Current Liability: Current/ Non/Current Classification of Assets / Liabilities is determined on a particular date, i.e., Balance Sheet date. So, if there is any change in the position at the end of the current year resulting in a different classification of Assets / Liabilities in the current year, it will not impact the classification made in the previous year. |

### (4) (d) SHORT TERM PROVISIONS

| Schedule III Disclosure Requirement | Points |
|---|---|
| It shall be classified as – (a) Provision for Employee Benefits | This should be classified into short-term and long-term portions, and the former amount should be included here. |
| (b) Others (Specifying nature) | This includes Provision for Dividend, Provision for Taxation, Provision for Warranties, etc. |

## 4C. DISCLOSURE REQUIREMENTS FOR "ASSETS" ITEMS

### (1) NON-CURRENT ASSETS

### (1) (a) (i) TANGIBLE ASSETS (Also Refer AS – 6, 10)

| Schedule III Disclosure Requirement | Points |
|---|---|
| **1. Classification shall be given as –**<br>(a) Land, (b) Buildings, (c) Plant and Equipment, (d) Furniture & Fixtures, (e) Vehicles, (f) Office Equipment, (g) Others (Specify Nature). | AS-19 excludes Land Leases from its scope. Leasehold Land should be presented as a separate assets class under Tangible Assets. Also, Freehold Land should be presented as a separate asset class. |
| 2. Assets under Lease shall be separately specified under each class of Asset. | • The term "under lease" should mean –<br>(a) Assets given on Operating Lease in the case of Lessor, and<br>(b) Assets held under Finance Lease in the case of Lessee.<br>• Leasehold Improvements should continue to be shown as a separate asset class. |
| **3. Re-evaluation:** Where sums have been written off on a Reduction of Capital or Re-evaluation of Assets of where sums have been added on Re-evaluation of Assets, every Balance Sheet subsequent to date of such write off, in addition shall show the Reduced or Increased figures as applicable and shall be way of a Note also show the amount of the Reduction or Increase as applicable together with the date thereof for the first 5 years subsequent to the dare of such Reduction or Increase. | • AS-10 requires disclosure of details such as Gross Book Value of Re-evalued Assets, Method adopted to compute re-evalued amounts, Nature of indices used, Year of appraisal, Involvement of External Valuer, etc. as long as the concerned assets are held by the Enterprise. [but only 5 years period is specified in Sch III]<br>• AS-10 requirements will preveail. [Note: AS 26 does not permit re-evaluation of Intangible Assets.] |
| **4. Reconciliation:** A Reconciliation of the Gross and Net Carrying Amounts of each Class of Assets at the Beginning and End of the Reporting period showing Additions, Disposals, Acquisitions through Business Combinations and other Adjustments and the related Depreciation and Impairment Losses / Reversals shall be disclosed separately. | (a) Since reconciliation of Gross and Net Carrying Amounts of Fixed assets is required, the Depreciation/ Amounts of fixed assets is required, the Depreciation/ Amortization for each class of asset should be disclosed in terms of –<br>• Opening Accumulated Depreciation,<br>• Depreciation/Amortization for the year,<br>• Deductions/Other Adjustments, and<br>• Closing Accumulated Depreciation/ Amortization |

| | |
|---|---|
| | (b) Similar disclosures should also be made for Impairment, if any, as applicable.<br>(c) Business Combinations:<br>• Business Combination should be taken as an amalgamation or acquisition or any other mode of restructuring of a set of Assets and/or a group of Assets and Liabilities constituting a business.<br>• Acquisitions through 'Business Combinations' should be disclosed separately for each class of assets.<br>• Asset Disposals through Demergers, etc., if any also be disclosed separately for each class of assets.<br>**(d) Other Adjustments: This includes –**<br>• Capitalization of FOREX Differences where such option has been exercised by the Company as per AS-11.<br>• Adjustments on a/c of Exchange Fluctuations for Fixed Assets in case of Non-Integral Operations (AS-11).<br>• Borrowing Costs capitalized as per AS-16. |

## (1) (a)(ii) INTANGIBLE ASSETS (Also Refer AS-26)

| Schedule III Disclosure Requirement | Points |
|---|---|
| **Classification shall be given as –**<br>(a) Goodwill, (b) Brands / Trademarks, (c) Computer Software, (d) Mastheads and Publishing Titles, (e) Mining Rights, (f) Copyrights, and Patents and Other Intellectual Property Rights, Services and Operating Rights, (g) Recipes, Formula, Models, Designs and Prototypes, (h) Licenses and Franchise, (i) Others (specify nature). | Classification of Intangible Assets has been introduced under Sch VI (R).<br>Intangible Assets under development should also be disclosed separately, if AS-26 criteria are met. |

## (1) (a)(iii) CAPITAL WORK IN PROGRESS

| Schedule III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line item on the face of Balance Sheet | Capital Advances should be included under Long-Term Loans and Advances and hence, cannot be included under Capital WIP. |

## (1) (a)(iv) INTANGIBLE ASSETS UNDER DEVELOPMENT

| Schedule III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line-item on the face of Balance Sheet | Intangible Assets under development should be disclosed under this head provided they can be recognized based on the criteria laid down in AS-26. |

## (1) (b) NON CURRENT INVESTMENTS (Also Refer AS – 13)

| Schedule III Disclosure Requirement | Points |
|---|---|
| Non-Current Investments shall be classified as Trade Investments and Other Investments, and further classified as Investments in –<br>(a) Property,<br>(b) Equity Instruments,<br>(c) Preference Shares,<br>(d) Government / Trust Securities,<br>(e) Debentures or Bonds,<br>(f) Mutual Funds,<br>(g) Partnership Firms, and<br>(h) Other Non-Current Investments (specify nature). | • If a Debenture is to be redeemed partly within 12 months and balance again after 12 months, the amount to be redeemed within 12 months should be disclosed as current, and balance as Non-Current.<br>• "Trade Investment" is normally understood as an Investment made by a Company in Shares or Debentures of another Company, to promote the trade or business of the first Company |
| **Notes:**<br>1. Under each classification, details shall be given about the Names of Bodies Corporate (indicating separately whether such bodies are – (i) Subsidiaries, (ii) Associates, (iii) Joint Ventures, or (iv) Controlled Special Purpose Entities) in whom Investments have been made and the nature and extent of the Investment so made in each such Body Corporate (showing separately Investments which are partly-paid). | **(a) Controlled SPEs:**<br>• Sch III requires separate disclosure of Investments in "Controlled Special Purpose Entities" in addition to Subsidiaries, Joint Venture, Associates, etc.<br>• Since the expression "Controlled SPEs" is not defined in the Act/Sch. III/AS, no disclosures would be additionally required to be made under this caption. If and when such terminology is explained/ introduced in the applicable AS, the disclosure requirement would become applicable.<br>• (b) Other Points: "Nature and Extent" of Investment in each Body Corporate should be interpreted to mean the Number and Face Value of Share. Also, it is advisable to clearly disclose whether Investments are fully paid or partly paid. (item wise) |
| 2. With regard to Investments in the capital of Partnership Firms, the Names of the Firms (with the names of all their Partners, Total Capital and the Shares of each Partner) shall be given. | **(a) LLP:** A LLP is a Body Corporate, and not a Partnership Firm as envisaged under the Partnership Act,1932. Hence, disclosures pertaining to Investments, in Firms will not include LLPs. Investments in LLPs will be disclosed separately under "Other Investments".<br>**(b)** Change in Constitution: In case of change in constitution of the Firm during the year, the names of the Other Partners should be disclosed based on the position existing as on the date of Company's Balance Sheet. |
| | **(c) Capital:**<br>• The Total Capital of the Firm, to be disclosed, should be with reference to the Amount of Capital on the date of the Company's Balance Sheet. |

| | |
|---|---|
| | • If the Partnership Firm has separate accounts for Partners' Capital, Drawings or Current, Loans to or from Partners, etc. disclosure must be made with regard to the Total of Capital Accounts alone, since this is what constitutes the capital of the Partnership Firm.<br>• Where, however, such Accounts have not been segregated, or where the Partnership Deed Provides that the Capital of each Partner is to be calculated by reference to the Net Amount at his credit after merging all the Accounts, the disclosure relating to the Partnership Capital must be made on the basis of the total effect of such accounts taken together.<br>• **Share of each Partner:** Share of each Partner means share in the Profits of the Firm, rather than the share in the Capital.<br>• **Different Reporting Dates:** If it is not practicable to draw up the Financial Statements of the Partnership upto such date and, are drawn upto different reporting dates, drawing analogy from AS-21 and AS-27, adjustments should be made for effects of significant transactions or other events that occur between those dates and the date of the Partners' Financial Statements. Also, the difference between reporting dates should not be more than 6 months. In such cases, the difference in reporting dates should be disclosed. |
| 3. Investments carried at other than at Cost should be separately stated specifying the basis for valuation thereof. | **Basis of Valuation:** Disclosure for the basis of valuation of Non-Current Investments may be either of – (a) Cost, or (b) Costless Provision for other than temporary diminution, or (c) Lower of Cost and Fair Value. |
| 4. The following shall also be disclosed- (a) Aggregate amount of Quoted Investments and Market Value thereof, (b) Aggregate Amount of Unquoted Investments, (c) Aggregate Provision for Diminution in value of Investments. | It is recommended to disclose the amount of provision netted-off for each Long-Term Investment. However, the aggregate amount of provision made in respect of all Non- Current Investments should also be separately disclosed to comply with the specific disclosure requirement in Sch III. |

## (1) (c) DEFERRED TAX ASSET (Also Refer AS – 22)

| Schedule III Disclosure Requirement | Points |
|---|---|
| To be shown as a separate line-item on the face of Balance Sheet. | –– |

## (d) LONG TERM LOANS AND ADVANCES

| Schedule III Disclosure Requirement | Points |
|---|---|
| **1. General Classification:** Long-Term Loans and<br>Advances shall be classified as –<br>(a) Capital Advances,<br>(b) Security Deposits,<br>(c) Loans and Advances to Related Parties (giving details thereof),<br>(d) Other Loans and Advances (specify nature) | Capital Advances:<br>• It should be specifically included under Long-Term Loans and Advances and hence, cannot be included under Capital Work-In-Progress.<br>• Capital Advances are advances given for procurement of Fixed Assets which are Non-Current Assets. They are not realized back in cash, and over a period, get converted into Fixed Assets. Assets. Hence, they are always Long-Term Advances, irrespective of when the Fixed Assets are expected to be received.<br>Other Loans and Advances should include all other items in the nature of advances recoverable in cash or kind, e.g., Prepaid Expenses, Advance Tax, CENVAT Credit Receivable, VAT Credit Receivable and Service Tax Credit Receivable which are not expected to be realized within the next 12 months or operating cycle whichever is longer, from the Balance Sheet date. |
| **2. Security wise Classification:** The above shall be separately sub-classified as –<br>(a) Secured, considered Good<br>(b) Unsecured, considered Good<br>(c) Doubtful. | – |
| **3. Bad / Doubtful:** Allowance for Bad and Doubtful Loans and Advances shall be disclosed under the relevant heads separately. | – |
| **4. Directors, etc.:** Loans and Advances due by Directors or Other Officers of the Company or any of them either severally or jointly with any other persons or amounts due by Firms or Private Companies respectively in which any Director is a Partner in a Director of a Member should be separately stated. | The term "Details" of Loans and Advances of Related Parties would mean disclosure requirements contained in AS-18. |

## (1) (e) OTHER NON-CURRENT ASSETS

| Schedule III Disclosure Requirement | Points |
|---|---|
| 1. Other Non-Current Assets shall be classified as – (a) Long-term Trade Receivables (including Trade Receivables on Deferred Credit Terms) (b) Others (specify nature) | • A Receivable shall be classified as 'Trade Receivable' if it is in respect of the amount due on account of goods sold or services rendered in the normal course of business. |
| 2. **Security wise Classification:** Long-Term Receivables shall be separately sub classified as – (a) Secured, considered good (b) Unsecured, Considered Good (c) Doubtful. | • Dues in respect of Insurance Claims, Sale of Fixed Assets, Contractually Reimbursable Expenses, Interest Accrued on Trade Receivables, etc., should be classified as "Others" and each such item should be disclosed according to their nature. |

## 2. CURRENT ASSETS

### (2) (a) CURRENT INVESTMENTS (Also Refer AS – 13)

| Schedule III Disclosure Requirement | Points |
|---|---|
| Current Investments shall be classified as –<br>(a) Investments in Equity Instruments,<br>(b) Investment in Preference Shares,<br>(c) Investments in Government or Trust Securities,<br>(d) Investments in Debentures or Bonds,<br>(e) Investments in Mutual Funds,<br>(f) Investments in Partnership Firms,<br>(g) Other Investments (specify nature).<br>**Notes:**<br>1. Under each classification, details shall be given of Names of Bodies Corporate [indicating separately whether such Bodies are – (i) Subsidiaries, (ii) Associates, (iii) Joint Ventures, or (iv) Controlled Special Purpose Entities] in whom Investments have been made and the nature and extent of the Investment so made in each such Body Corporate (showing separately investments which are party- paid). In regard to Investments in the Capital of Partnership Firms, the names of the Firms (with the names of all their Partners, Total Capital and the percentage of Shares of each Partner) shall be given.<br>2. The following shall also be disclosed:<br>(a) Basis of Valuation of individual Investments,<br>(b) Aggregate Amount of Quoted Investments and Market Value thereof,<br>(c) Aggregate Amount of Unquoted Investments,<br>(d) Aggregate Provision made for Diminution in Value of Investments. | Principles given for Non-current Investments will apply here also to the relevant. However, Trade vs Non-Trade Classification, is not required for Current Investments. |

### (2) (b) INVENTORIES (Also Refer AS-2)

| Schedule III Disclosure Requirement | Points |
|---|---|
| Inventories shall be classified as –<br>(a) Raw materials,<br>(b) Work In Progress,<br>(c) Finished Goods,<br>(d) Stock-in-Trade (in respect of goods acquired for Trading),<br>(e) Stores and Spares,<br>(f) Loose Tools,<br>(g) Others (specify nature)<br>**Note:** Goods-in-Transit shall be disclosed under the relevant subhead of Inventories. Mode of Valuation shall be stated. | • Goods in Transit should be included under relevant heads with suitable disclosure.<br>• The heading "Finished Goods" should comprise all Finished Goods other than those acquired for trading purposes. Those acquired for trading purposes are to be shown under "Stock in Trade". |

## (2) (c) TRADE RECEIVABLES

| Schedule III Disclosure Requirement | Points |
|---|---|
| 1. Aggregate amount of Trade Receivables outstanding for a period exceeding 6 months from the date they are due for payment should be separately stated.<br>**2. Security wise Details:** Trade Receivables shall be separately sub classified as –<br>(a) Secured, considered Good<br>(b) Unsecured, considered Good<br>(c) Doubtful.<br>**3. Bad /Doubtful:** Allowance for Bad and Doubtful Loans and Advances shall be disclosed under the relevant heads separately.<br>**4. Directors, etc:** Debts due by Directors or Other Officers of the Company or any of them either severally or jointly with any other person or debts due by Firms or Private Companies, respectively in which any Director is a Partner, or a Director, or a Member should be separately stated. | • Sch III requires separate disclosure of "Trade Receivables O/s for a period exceeding 6 months from the date they become due for payment", only for the current portion of Trade Receivables.<br>• Where no due date is specifically agreed upon, normal credit period allowed by the Company should be taken into consideration for computing the due date, which may vary depending upon the Nature of Goods or Services sold and the Type of Customers, etc.<br>• Amounts due under contractual obligations, e.g., dues in respect of Insurance Claims, Sale of Fixed Assets, Contractually Reimbursable Expenses, Interest Accrued on Trade Receivables, etc., cannot be included within Trade Receivables. Such Receivables should be classified as "Other Current Assets" and each such item should be disclosed naturewise.<br>• Lean Period Activities: Receivables arising out of sale of materials / rendering of services during a Company's lean period, should be included under "Trade Receivables", if such activity is in the normal course of business. If they are not part of "normal course of business", they are to be classified under "Other Assets". |

## (2) (d) CASH AND CASH EQUIVALENTS (Also Refer AS-3)

| Schedule III Disclosure Requirement | Points |
|---|---|
| Cash and Cash Equivalents shall be classified as –<br>(a) Balances with Banks,<br>(b) Cheques, Drafts on Hand,<br>(c) Cash on Hand,<br>(d) Other (Specify nature).<br>**Notes:**<br>• Earmarked Balances with Banks (e.g. for Unpaid Dividend) shall be separately stated.<br>• Balances with Banks to the extent held as margin Money or Security against the Borrowings, Guarantees, Other Commitments shall be disclosed separately.<br>• Repatriation restrictions, if any, in respect of Cash and Bank Balances shall be separately stated.<br>• Bank Deposits with more than 12 months Maturity shall be disclosed separately. | • "Other Bank Balances" would comprise items like Balances with Banks to the extent of holding as Margin Money or Security against Borrowings, etc., and Bank Deposits with more than 3 months maturity.<br>• Bank Deposits with more than 12 months maturity will also need to be separately disclosed under the above subhead.<br>• The Non-Current Portion of each of the above balances should be classified under the head "Other Non-Current Assets" with separate disclosure thereof. |

## (2) (e) SHORT TERM LOANS AND ADVANCES

| Schedule III Disclosure Requirement | Points |
|---|---|
| 1. General Classification: Short-Term Loans and Advances shall be classified as –<br>(a) Loans and Advances to Related Parties (giving details thereof),<br>(b) Others (specify nature).<br>2. Security wise Classification: The above shall also be sub classified as-<br>(a) Secured, considered Good,<br>(b) Unsecured, considered Good,<br>(c) Doubtful<br>3. Bad / Doubtful: Allowance for Bad and Doubtful Loans and Advances shall be disclosed under the relevant heads separately.<br>4. Directors, etc.: Loans & Advances due by Directors or Other Officers of the Company or any of them either severally or Jointly with any other person or amounts due by Firms or Private Companies, respectively in which any Director is a Partner or a Director or a Member shall be separately stated. | Principles given for Long-Term Loans and Advances will apply here to the relevant extent. |

## (f) OTHER CURRENT ASSETS

| Schedule III Disclosure Requirement | Points |
|---|---|
| • This is an all-inclusive heading, which incorporates Current Assets which do not fit into any other Asset Categories.<br>• Nature of each item should be specified<br>• In case any amount classified under this category is doubtful, it is advisable that such doubtful amount as well as any provision made there against should be separately disclosed. | • This is an all-inclusive heading, which incorporates Current Assets that do not fit into any other asset categories, e.g., Unbilled Revenue, Unamortized Premium on Forward Contracts, etc. |

**Special Point: Unamortised portion of share issue expenses, etc.**

1. Sch III does not contain any specifies disclosure requirement for the unamortized portion of expense items such as Share Issue Expenses, Ancillary Borrowing Costs and Discount or Premium relating to Borrowings.
2. As per AS-16, Ancillary Borrowing Costs and Discount or Premium relating to Borrowings could be amortized over the loan period. Further, share Issue Expenses, Discount on Shares, Ancillary Costs-Discount, Premium on Borrowing, etc. being special nature items, are excluded from the scope of AS- 26 Intangible Assets.
3. Certain companies have taken a view that it is an acceptable practice to amortize these expenses over the period of benefit, i.e., normally 3 to 5 years.
4. Conclusion: Schedule III does not deal with any accounting treatment of these items, and the same continues to be governed by the respective AS / best practices. So, a Company can disclose the Unamortized Portion of such expenses as "Unamortized Expenses", under the head "Other Current/ Non-Current Assets", depending on whether the amount will be amortized in the next 12 months or thereafter.

## PART II-FORM OF STATEMENT OF PROFIT AND LOSS

**Name of the Company :……**

**Profit and Loss Statement for the year ended:…….. (Rs. in ……..)**

| Particulars | Note No. | Figures for the Current Reporting Period | Figures for the Previous Reporting Period |
|---|---|---|---|
| I | Revenue from Operations | XXX | XXX |
| II | Other Income | XXX | XXX |
| III | **Total Revenue (I+II)** | XXX | XXX |
| IV | **Expenses:** | XXX | XXX |
| | Cost of Materials Consumed | XXX | XXX |
| | Purchases of Stock-In-Trade | XXX | XXX |
| | Changes in Inventories of Finished Goods/ Work-in-progress and Stock-In-Trade | | |
| | Employee Benefits Expense | | |
| | Finance Costs | | |
| | Depreciation and Amortization Expense | | |
| | Other Expenses | | |
| **Total Expenses** | | **XXX** | **XXX** |
| V | Profit before Exceptional & Extraordinary Items and Tax (III – IV) | XXX | XXX |
| VI | Exceptional Items | XXX | XXX |
| VII | Profit before Extraordinary Items and IAX (V- VI) | XXX | XXX |
| VIII | Extraordinary Items | XXX | XXX |
| IX | Profit before Tax (VII-VIII) | XXX | XXX |
| X | Tax Expenses: | XXX | |
| | (1) Current Tax | | |
| | (2) Deferred Tax | | |
| XI | Profit /(Loss) for the period from Continuing Operations (IX – X) | XXX | XXX |
| XII | Profit /(Loss) from Discontinuing Operations | XXX | XXX |
| XIII | Tax Expense of Discontinuing Operations | XXX | XXX |
| XIV | Profit /(Loss) from Discontinuing Operations (After Tax) (XII-XIII) | XXX | XXX |
| XV | Profit / (Loss) for the period (XI + XIV) | XXX | XXX |
| XVI | Earnings per Equity Share: | XXX | XXX |
| | (1) Basic | | |
| | (2) Diluted | | |

## GENERAL INSTRUCTIONS FOR PREPARATION OF STATEMENT OF PROFIT AND LOSS

| Item | Description | |
|---|---|---|
| **1. Sec.25 Companies** | The provisions of this part shall apply to the Income and Expenditure Account referred to in Sec. 129 of the Act, in the same manner as they apply to a Statement of Profit and Loss. | |
| **2. Revenue from Operations** | **For Company other than a Finance Company:**<br>Revenue from Operations shall disclosed separately in the Notes, Revenue from –<br>(a) Sale of Products<br>(b) Sale of Services<br>(c) Other Operating Revenues<br>(d) Less: Excise Duty | **For Finance Company:**<br>Revenue from Operations shall include Revenue from:<br>(a) Interest &<br>(b) Other Financial Services<br>Revenue under each of the above heads shall be disclosed separately by way of Notes to Accounts to the extent applicable. |
| **3. Finance Costs** | Finance Costs shall be classified as –<br>(a) Interest Expenses,<br>(b) Other Borrowing Costs,<br>(c) Applicable Net Gain / Loss on Foreign Currency Transactions and Translation. | |
| **4. Other Income** | Other Income shall be classified as –<br>(a) Interest Income (in case of a Company other than a Finance Company),<br>(b) Dividend Income,<br>(c) Net Gain/Loss on Sale of Investments,<br>(d) Other Non-Operating Income (Net of Expenses directly attributable to such income). | |
| **5. Additional Information:** | A Company shall disclose by way of Notes, additional information regarding Aggregate Expenditure and Income on the following items referred below. | |

### (i) Employee Benefits, Expense, Income Items, etc:

(a) Employee Benefits Expense [showed separately – (i) Salaries & Wages, (ii) Contribution to PF and Other Funds, (iii) Expense on ESOP and Employee Stock Purchase Plan (ESPP), (iv) Staff Welfare Expenses]

(b) Depreciation and Amortization Expenses,

(c) Any item of Income of Expenditure which exceeds 1% of Revenue from Operations or Rs. 1,00,000 whichever is higher,

(d) Interest Income,

(e) Interest Expense,

(f) Dividend Income,

(g) Net Gain / Loss on Sale of Investments,

(h) Adjustments to the Carrying Amount of Investments,

(i) Net Gain / Loss on Foreign Currency Transaction & Translation (other than the cost considered as Finance Cost),

(j) Payments to the Auditor as – (a) Auditor, (b) For Taxation Matters, (c) For Company Law Matters, (d) For Management Services, (e) For other Services, (f) For Reimbursement of Expenses,

(k) Item of Exceptional and Extraordinary Nature,

(l) Prior Period Items.

**(ii) Materials, Goods, Services, etc.**

(a) In the case of Manufacturing Companies –

Raw Materials under broad heads. Goods Purchased under broad heads.

(b) In the case of Trading Companies, Purchases in respect of goods Traded in by the Company under broad heads.

(c) In the case of Companies rendering or supplying services, Gross Income derived from Services Rendered or Supplied, are shown under broad heads.

(d) In the case of a Company, which falls under more than one of the categories mentioned in (a), (b) and (c) above, it shall be sufficient compliance with the requirements herein if Purchases, Sales and Consumption of Raw Material and the Gross Income from Services rendered is shown under broad head.

(e) In the case of Other Companies, Gross Income derived under broad heads are shown.

(iii) In the case of all concerns regarding Works-in-Progress are shown under broad heads.

**(iv) Reserves – Creation & Utilization:**

(a) The aggregate, if material, of any amounts set aside or proposed to be set aside to Reserve, without including Provisions made to meet any Specific Liability, Contingency or Commitment known to exist at the date as to which the Balance Sheet is made up.

(b) The aggregate, if material, of any amounts withdrawn from such Reserves.

**(v) Provision – Creation & Utilization:**

(a) The aggregate, if material, of the amounts set aside to Provisions made for meeting Specific Liabilities, Contingencies or Commitments.

(b) The aggregate, if material, of the amounts withdrawn from such provisions, as no longer required.

**(vi) Expenses, etc: Expenditure incurred on each of the following items, separately for each item:**

(a) Consumption of Stores and Spare Parts,

(b) Power and Fuel,

(c) Rent,

(d) Repairs of Buildings,

(e) Repairs of Machinery,

(f) Repairs of Machinery,

(g) Insurance,

(h) Rates and Taxes, excluding Taxes on Income,

(i) Miscellaneous Expenses.

**(vii) Subsidiaries Information:**

(a) Dividends from Subsidiary Companies.

(b) Provisions for Losses of Subsidiary Companies.

**(viii) FOREX Information:** The P&L A/c shall also contain by way of a Note the following Information, namely –

(a) Value of Imports calculated on CIF basis by the Company during the Financial Year in respect of – (I) Raw Materials, (II) Components and Spare Parts, (III) Capital Goods,

(b) Expenditure in Foreign Currency during the Financial Year on account of Royalty, Know-How, Professional and Consultation Fees, Interest, and Other Matters,

(c) Total Value if all Imported Raw Materials, Spare Parts and Components consumed during the Financial Year and the Total Value of all Indigenous Raw Materials, Spare Parts and Components similarly consumed and the Percentage of each to the Total Consumption,

(d) Amount remitted during the year in Foreign Currencies on account of Dividends with a specific mention of the total number of Non-Resident Shareholders, the Total Number of Shares held by them on which the Dividends were due and the year to which the Dividends related.

(e) Earnings in Foreign Exchange classified under the following heads, namely-

Export of Goods calculated on FOB Basis,

Royalty, Know-How, Professional & Consultation Fees, Interest and Dividend,

Other Income, indicating the nature thereof.

**Note:** Broad heads shall be decided taking into account the concept of Materiality and Presentation of True and Fair view of Financial Statements.

## TRUE AND FAIR VIEW OF FINANCIAL STATEMENTS

According to Section 128 (1) of the Companies Act, 2013, every company shall prepare and keep its registered office books of account and other relevant books and papers and financial statements for every financial year which give a true and fair view of the state of the affairs of the company.

Further Section 129(1) of the Companies Act, 2013, states that the financial statements shall give a true and fair view of the state of affairs of the company or companies, comply with the accounting standards notified under Section 133 and shall be in the form provided for different class or classes of companies in Schedule III. It also provides also that the financial statements shall not be treated as not disclosing a true and fair view of the state of affairs of the company, merely by reason of the fact that they do not disclose –

(a) in the case of an insurance company, any matters which are not required to be disclosed by the Insurance Act, 1938, or the Insurance Regulatory and Development Authority Act, 1999;

(b) in the case of a banking company, any matters which are not required to be disclosed by the Banking Regulation Act, 1949;

(c) in the case of a company engaged in the generation or supply of electricity, any matters which are not required to be disclosed by the Electricity Act, 2003;

(d) in the case of a company governed by any other law for the time being in force, any matters which are not required to be disclosed by that law.

Thus, the Companies Act requires that the profit and loss account must exhibit a true and fair view of the profit earned or loss suffered by the company during the period for which the account has been prepared.

The term 'true and fair' has not been defined nor has it been the subject of any judicial decision. But in order to show a true and fair view financial statement (Statement of Profit and Loss and Balance Sheet) should not mislead the user about the financial health of organization.

From the accounting point of view, the profit and loss account should be drawn upon the principles stated below:

(a) **Materiality:** All significant factors which will have an impact on the mind of the reader should be disclosed.

> For example, if a large quantity of raw materials is sold and there is a amount of profit or loss, the sale should not be included in the Sales Account; instead, the cost of the materials should be deducted from materials consumed and the profit or loss on the sale of raw materials should be separately disclosed in the profit and loss account. The reader will then know why the profit or loss occurred and how much it was; the reason will not be clear if the sale of raw materials is added to Sales or deducted from materials consumed. If, however, only a small quantity was sold leading to a rather insignificant profit or loss, separate disclosure is not necessary because such a disclosure will not change the impression of the reader about the profit situation.

What is material does not depend upon the judgment of the management. But the materiality of a figure should be judged from the point of view of both the total amount of the item and the amount of the profit or loss. In the above example, materiality has to be seen from the point of view of :

(i) the amount of materials consumed and

(ii) the profit or loss during the year.

(b) **Prior-Period Items:** The rule in India is that once accounts are adopted at the annual general meeting, they cannot be reopened. If any error is discovered, it can be corrected only in the accounts of the subsequent period. Apart from errors, some of the accounts relating to the previous year may come to knowledge or may be ascertained only in the current year.

> For example, rates have been revised with effect from October, 2015, but the decision was made only in March, 2017, The increased wages for 2016-17 can certainly be added to the 2016-2017 wages but the increased wages for six months of 2015-2016 will also have to be taken out into account. Errors and other items relating to the previous year should be shown separately in the profit and loss account, and not clubbed with the item relating to the current year unless the concerned amounts are not material. Preferably, errors and prior year items should be stated below the line, i.e., in the Profit and Loss Appropriation Account.

(c) **Extraordinary Items:** If expenses or income that do not arise in the ordinary course and are material they should be stated separately in the profit and loss account.

> For example, if a fixed asset is sold, its profit or loss has to be shown separately. Another example would be speculation loss or profit; yet another would be subsidy received from government for operational purposes.

(d) **Change in Accounting Policies:** It is well known that if there is any change in an accounting policy, say method of valuation of inventories or of change in depreciation, there has to be a disclosure about the fact of change and on profit or loss resulting from such a change.

## LESSON ROUND-UP

- Final accounts of a company consist of balance sheet as at the end of the accounting period, and profit and loss account for that period.
- Section 129 of the Companies Act, 2013 prescribes the form and contents of balance sheet, and profit and loss account of a company.
- Balance sheet of a company shall be prepared according to Schedule III of the Companies Act, 2013.
- The Schedule III sets out minimum requirements for disclosure on the face of the Balance Sheet, and the Statement of Profit and Loss (hereinafter referred to as "Financial Statements") and Notes.
- Statement of Profit & Loss of a company shall be prepared according to Part II of Schedule III of the Companies Act, 2013.
- Section 129(1) of the Companies Act 2013, states that the financial statements shall give a true and fair view of the state of affairs of the company or companies, comply with the accounting standards notified under section 133 and shall be in the form provided for different class or classes of companies in Schedule III.

## GLOSSARY

**Extensible Business Reporting Language**

Extensible Business Reporting Language (XBRL) is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world.

**Balance Sheet**

A Balance Sheet is a statement of the financial position of an enterprise as at a given date, which exhibits its assets, liabilities, capital, reserves and other account balances at their respective book values

**Extraordinary Items:** If expenses or income that do not arise in the ordinary course and are material they are stated separately in the profit and loss account are called Extraordinary items.

**Profit and Loss Account**

The profit and loss (P&L) statement is a financial statement that summarizes the revenues, costs, and expenses incurred during a specified period, usually a fiscal quarter or year.

## TEST YOURSELF

1. The following information has been extracted from the books of account of Hero Cycle Ltd. as on 31st March, 2017:

| Particulars | Dr. (Rs. '000) | Cr. (Rs. '000) |
|---|---|---|
| Administration Expenses | 480 | |
| Cash at Bank and on Hand | 228 | |
| Cash Received on Sale of Fittings | | 10 |
| Long-Term Loan | | 70 |
| Investments | 200 | |

## TEST YOURSELF

| | | |
|---|---|---|
| Depreciation on Fixtures, Fittings, Tools and Equipment (1st April, 2016) | | 260 |
| Distribution Costs | 102 | |
| Factory Closure Costs | 60 | |
| Fixtures, Fittings, Tools and Equipment at Cost | 680 | |
| Profit & Loss Account (at 1st April, 2016) | | 80 |
| Purchase of Equipment | 120 | |
| Purchases of Goods for Resale | 1710 | |
| Sales (net of Excise Duty) | | 3,000 |
| Share Capital | | |
| (1,00,000 shares of Rs 10 each fully paid) | | 1,000 |
| Stock (at 1st April, 2016) | 140 | |
| Trade Creditors | | 80 |
| Trade Debtors | 780 | |
| | **4,500** | **4,500** |

**Additional Information:**

(1) The stock on 31st March, 2017 (valued at the lower cost or net realizable value) was estimated to be worth Rs. 2,00,000.

(2) Fixtures, fittings, tools and equipment are all related to administration. Depreciation is charged at a rate of 20% per annum on the cost. A full year's depreciation is charged in the year of acquisition, but no depreciation is charged in the year of disposal.

(3) During the fiscal year from 1st April, 2016 to 31st March, 2017, the Company purchased equipment worth Rs. 1,20,000. It also sold some fittings (which had originally cost Rs. 60,000) for Rs. 10,000 and for which depreciation of Rs. 30,000 had been set aside.

(4) The average income tax for the company is 50%. Factory closure cost is to be presumed as an allowable expenditure for income tax purposes.

(5) The company proposes to pay a dividend of 20% per Equity Share.

Prepare Hero Cycle Ltd.'s Profit and Loss Account for the fiscal year from 1st April, 2016 to 31st March, 2017, and the Balance Sheet as on that date in accordance with the Companies Act, 2013 in Vertical Form.

# Lesson 3 Accounting for Share Capital

***Key Concepts One Should Know***

- Share capital
- Premium
- Bonus shares
- ESOP
- Rights issue
- Preference shares
- Capital Redemption Reserve

## *Learning Objectives*

**To understand the:**

- Meaning of share capital, types of shares, a company's capital structure and its disclosure in the balance sheet.
- Accounting procedure of issuing of shares
- Accounting treatment in case of forfeiture and reissue of shares
- Nuances of redemption and concept of Capital Redemption Reserve
- Aspects of ESOPs, Sweat Equity Shares and Bonus Shares along with the accounting
- Procedure and accounting of buyback of shares.
- Steps for Underwriting and its methods
- Difference between marked applications and unmarked applications along with determining the liability of underwriters

## *Lesson Outline*

- Share Capital- Meaning, Types and Disclosure
- Issue of Shares
- Accounting treatment of premium
- Forfeiture and Re-issue of Shares
- Buyback of Shares
- Bonus Shares
- ESOPs
- ESPS
- Rights Issue
- Sweat Equity Shares
- Redemption and Conversion
- Capital Redemption Reserve
- Underwriting
- LESSON ROUND UP
- TEST YOURSELF

## MEANING OF SHARES

A share may be understood as an individual part or a singular unit into which the total share capital of a company is divided. Shares are used to raise the capital of a company and each share constitutes a unit of ownership which is offered for sale. A share represents a part of the share capital of the company.

For example, Company ABC has a share capital of Rs. 50,00,000 divided into 5,00,000 shares of Rs.10 each and Mr. Naveen is in possession of 6,000 shares, then he has a share of Rs. 60,000 in the share capital of the company.

The nature of shares of a company are considered as movable property which are transferable, as provided by the articles of the company.

According to Section 2(84) of the Companies Act, 2013, "share" means a share in the share capital of a company and its stock.

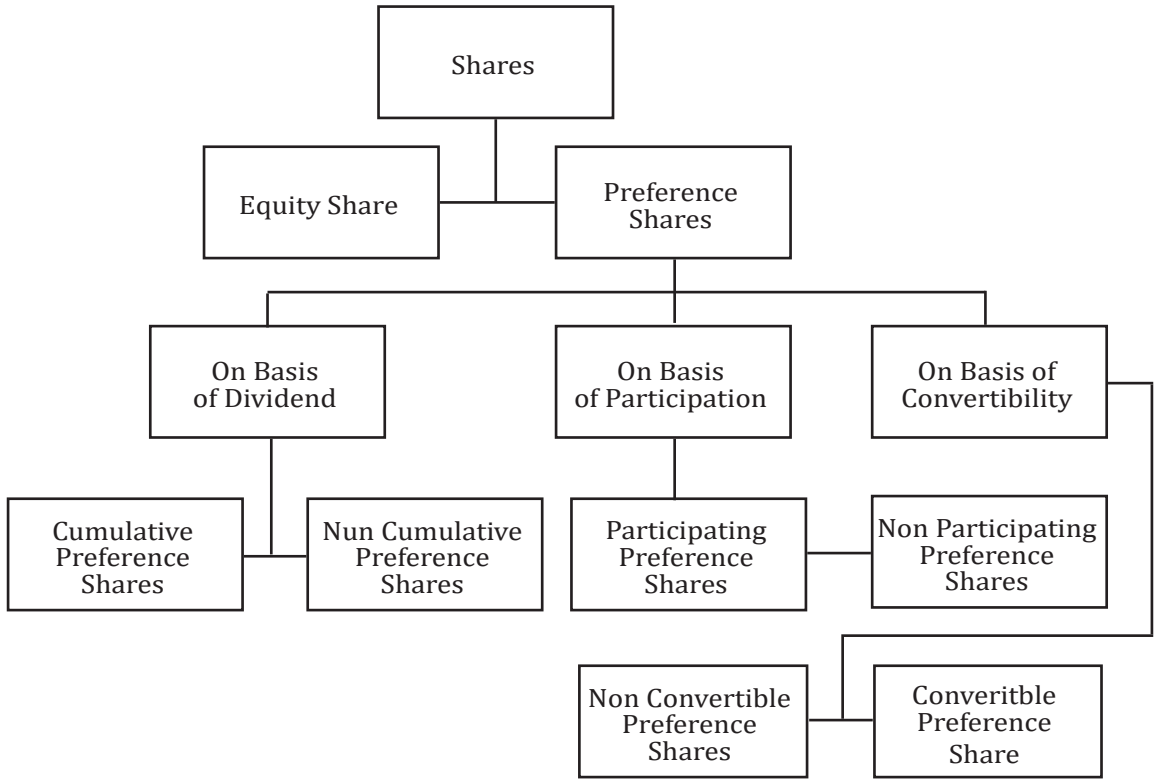
Nominal Value/ Share Denomination: Face value of the share which is the par value of the share.

### Meaning of Share Capital

A company raises its capital by issuing its issue of shares to finance and carry out its business. The Memorandum of Association, which lays down the foundation of the company contains the amount of capital with which the company decides to register and the number of shares into which it is to be divided. It constitutes the basis of the capital structure of a company. When total capital of a company is divided into shares, then it is called share capital.

### Kinds of Share Capital

The share capital of a company limited by shares can constitute of two kinds of share capital under the Companies Act, 2013, as follows:



**I. Equity Share Capital:** Equity share capital with reference to any company limited by shares means all share capital that does not come under preference share capital. Equity share capital can further be divided into the following types:

(i) with voting rights; or

(ii) with differential rights regarding dividend or voting or any other such rights.

**II. Preference Share Capital:** Preference, as the name suggests, with reference to any company limited by shares, refers to that share capital of the issued share capital of the company which would carry a preferential right with regard to-

- Payment of dividend-it can either be as a fixed amount or an amount calculated at a fixed rate, which may either be free of or subject to income tax; and
- Repayment- It is the case in winding up or repayment of capital, of the amount of the share capital paid up or deemed to have been paid up, whether or not, there is a preferential right to the payment of any fixed premium or premium on any fixed scale, specified in the memorandum or articles of the company.

**Deemed preference share capital:** The share capital is deemed to be preference share capital, notwithstanding that it is entitled to either or both of the following rights, namely: -

- that in respect of dividends, in addition to the preferential rights to the payment of dividend, it has a right to participate, whether fully or to a limited extent, with capital not entitled to the preferential right aforesaid;
- that in respect of capital, in addition to the preferential right to the repayment, in case of a winding up, it has a right to participate, whether fully or to a limited extent, with capital not entitled to that preferential right in any surplus which may remain after the entire capital has been repaid.

The following table summarizes the major distinctions between Equity Share Capital and Preference Share Capital:

| Basis | Equity Shares | Preference shares |
|---|---|---|
| 1. Refund of Capital | On winding up, the equity share capital is paid after the preference share capital or equity shareholder receives residual amount | On winding up, the preference share capital is paid before the equity share capital is paid or preference shareholders have preference to get refund of capital over equity shareholders |
| 2. Right of Dividend | Dividend is paid on equity shares after payment of dividend on preference shares | Dividend is paid on preference shares before payment of dividend on equity shares |
| 3. Rate of Dividend | No fixed rate of dividend. It is decided by the board of directors every year and it varies periodically | Fixed rate of dividend is paid as prescribed on the face of preference shares, e.g., Issue at 12%, in that case prefer shares would have 12% rate of dividend |
| 4. Right to Vote | Equity shareholders have the right to vote in a meeting of shareholders and they elect the director for managing the company | In normal course of business, preference shareholders do not enjoy the right to vote in the meetings of shareholders.<br>But they may have the right to vote but only in special circumstances. |
| 5. Redemption | Equity shares are not redeemable; however, a company may buy back its equity shares as conditions prescribed under Companies Act, 2013 | Preference shares are always redeemable |

## TYPES/CLASSES OF PREFERENCE SHARES

**(a) On basis of Dividend:**

(i) Cumulative Preference Shares: Cumulative preference shares are the preference shares whose holders are entitled to receive arrears of dividend before any dividend is paid on equity shares.

(ii) Non-cumulative Preference Shares: Non-cumulative preference shares are the preference shares whose holders do not have the right to receive arrears of dividend. If no dividend is declared in any year due to any reason, they get nothing, nor can they claim unpaid dividend in any subsequent years.

**(b) On basis of Participation**

**(i) Participating Preference Shares:** In addition to the fixed preference dividend, such shares carry a right to participate in the surplus profit, if any, after providing dividend at a stipulated rate to equity shareholders.

**(ii) Non-Participating Preference Shares:** Such shares get only a fixed rate of dividend every year and do not have a right to participate in the surplus profit, if any.

**(c) On basis of Convertibility**

**(i) Convertible Preference Shares:** They are preference shares with a right/option to get converted into equity shares

**(ii) Non-Convertible Preference Shares:** These are preference shares which do not have the right/ option to get converted into equity shares.

## DISCLOSURE OF SHARE CAPITAL

Capital refers to the amount which is invested in a business with the basic aim of generating revenue. Capital is raised from public and people who contribute to the share capital are known as shareholders.

**Authorized Capital** is also known as Nominal or Registered Capital which means the maximum amount of capital a company can issue. It is disclosed in the Memorandum of Association.

**Issued Capital** is a part of Authorized capital which is offered to the public for subscription.

**Called Up Capital** is the amount of nominal value of shares that has been called up by the company for payment from the shareholder.

**Paid Up Capital** is that part of Called Up Capital which the members of company or shareholders have paid for.

The following table describes the disclosure of Share Capital, as included in the Liabilities column of the Balance Sheet of a company:

| **Particulars** | **Amount** |
|---|---|
| **Equity and Liabilities** | |
| **Shareholders' Fund** | |
| **Share Capital:** | |
| **Authorized Capital:** | |
| 2,00,000 shares of Rs. 10 each | 20,00,000 |
| **Issued Capital:** | |
| 1,50,000 shares of Rs. 10 each | 15,00,000 |
| **Subscribed Capital:** | |
| 1,00,000 shares of Rs. 10 each | 10,00,000 |
| **Paid up Capital** | |
| 1,00,000 shares of Rs. 10 each, Rs 5 paid up | 5,00,000 |

## Procedure for Issue of Shares

To issue shares, company has to follow a definite procedure with prescribed rules and regulations, which is controlled and regulated by the Companies Act, 2013 and Securities Exchange Board of India (SEBI).

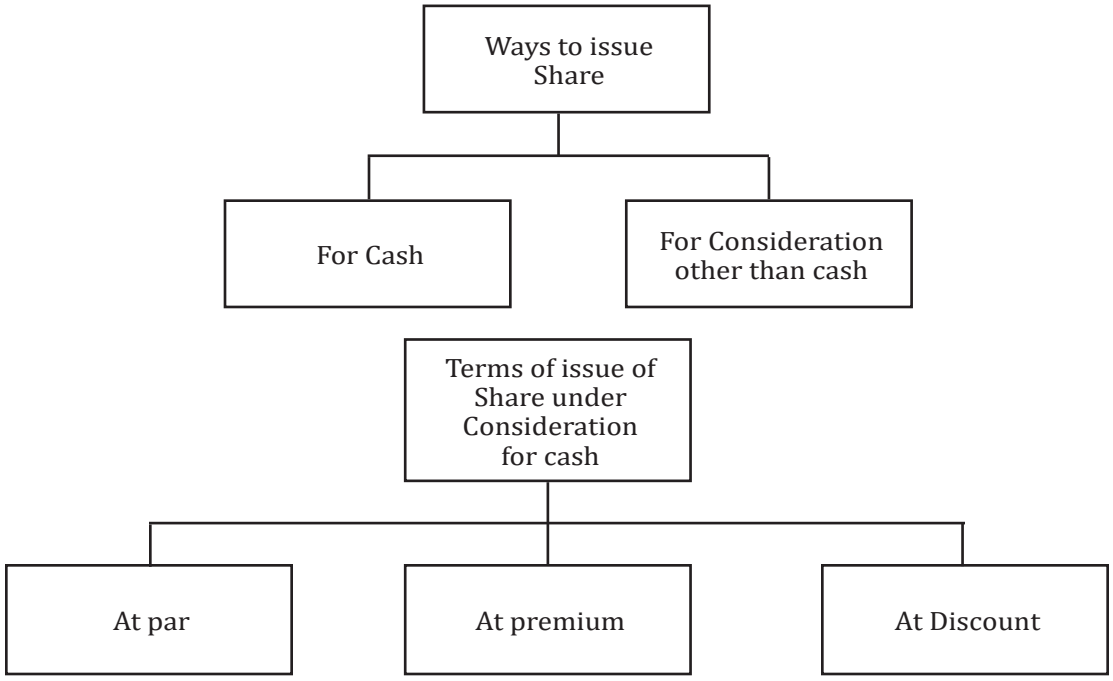
When a public company desires to raise capital by issuing its shares to the public, it must invite them to subscribe for the shares. The person who intends to become a shareholder must thus subscribe to those shares by making an application for the desired number of shares to the company. Consequently, the company will allot shares to the applicant.

Allotment means allocating or apportioning a certain number of shares to an applicant in response to his application. The company cannot allot more than the number of shares offered to the public for subscription through the prospectus. Moreover, the company cannot make allotment unless the amount stated in the prospectus as the minimum subscription has been subscribed and the sum payable on application for the stated amount has been received by the company.

If the number of shares applied for is less than the number of shares offered the allotment can be only for the shares applied for, provided minimum subscription is raised. Shares can be issued either for cash or for consideration other than cash

In general, shares are issued for cash. The company may call the share money either in one instalment or in two or more instalments.

## Terms of Issue of Share




## A. ISSUE OF SHARES AT PAR:

Shares are said to be issued at par when the issue price is equal to the face value or nominal value of the shares i.e., when the issue price is Rs. 10 and face value is also Rs. 10. When the shares are issued, the company may ask for the payment of the shares either payable in lump sum/single instalment or in multiple installments.

*(a) When shares are issued at par and are payable in full in a lump sum:*

(1) On receipt of application money -

| | | |
|---|---|---|
| Bank A/c | Dr. | (With the amount received on application) |
| To Share Application A/c | | |

(Being application money received)

(2) On allotment of shares -

Share Application A/c Dr. (With the money received on the number of
To Share Capital A/c shares allotted)

(Being application money transferred to share capital)

**Additional Points to note:**

(i) Although shares may be of either kind, i.e., equity shares or preference shares, but if only the term shares is used it means equity shares.

(ii) Separate share application account will be opened for each class of shares, i.e., equity share application account/preference share application account and the like

(iii) Unless shares are allotted by the company, the receipt of application money is simply an offer and cannot be credited to Share Capital Account.

(iv) Refund of application money: If the company fails to raise the minimum subscription, then no shares can be allotted and the application money has to be returned to the applicants. For this, the entry will be as follows:

Share Application and Allotment Dr. (With the application money received now refunded)

To Bank

(v) In actual practice, the cash transactions are not journalized but the same have to be entered in the cash (bank columns) book. The entry in the Cash Book (Bank columns)will be as follows:

**Cash Book (Bank Columns)**

Dr. Cr.

| Particulars | Rs. | Particulars | Rs. |
|---|---|---|---|
| To Share Application A/c (Application money on shares @ Rs……per share) | XXX | By Share Application A/c (Refund of application money on shares @ Rs..... per share) | XXX |

*(c) When shares are issued at par and the amount is payable in installments:*

When shares are not payable in lump sum/single installment, they can be called in number of installments. After allotment, whenever the need arises, the directors may require further installments from the shareholders towards payment of the value of shares subscribed by them. Such demands are termed as 'calls'. The different calls are distinguished from one another by their serial numbers, i.e., first call, second call, third call and so on. The last installment is also termed the final call along with the number of the last call.

| | |
|---|---|
| 1st installment | Application Money |
| 2nd installment | Allotment Money |
| 3rd installment | First Call Money |
| 4th installment | Second Call Money |
| …… | …… |
| Last installment | Final Call Money |

**Journal Entries**

(i) On receipt of application money with the total amount received on application

Bank A/c Dr.

To Share Application Account

(Being the application money received in respect of shares @ Rs..... per share)

(ii) On allotment of shares: After receiving application within prescribed time, Board proceeds to allot shares.

Share Application Account Dr. (with the amount of application money on allotted)

To Share Capital Account

(Being the application money on allotted shares now transferred to share capital account)

(iii) On refund of application money on rejected applications

Share Application Account Dr. (with the amount actually repaid)

To Bank Account

(Being application money on shares refunded)

(iv) Allotment money becoming due and received (second installment)

Share Allotment Account Dr. (with the amount due on allotment)

To Share Capital Account

(Being the allotment money due in respect of allotment of shares @ Rs..... each)

(v) On receipt of allotment money is received the following journal entry is made.

Bank Account Dr. (with the actual amount received as allotment money)

To Share Allotment Account

(Being the amount received on shares @ Rs.....each)

(vi) On making the first call

Share First Call Account Dr. (with the amount due on first call)

To Share Capital Account

(Being the amount due on first call @ Rs..... per share on shares)

(vii) On receipt of first call money

Bank Account Dr. (with the amount received on first call)

To Share First Call Account

(Being the amount received in respect of first call @ Rs..... per share on ..... shares)

(viii) When second call is made

Share Second Call Account Dr. (with the amount due on second call)

To Share Capital Account

(Being the amount due on second call @ Rs..... per share on.... shares)

(ix) On receipt of second call money:

Bank Account Dr. (with the amount actually received on second call)

To Share Second Call Account

(Being the amount received in respect of second call @ Rs.....per share on....shares)

(x) When the final call is made:

Share Final Call Account Dr. (with the amount due on final call)

To Share Capital Account

(Being the amount due on final call @ Rs..... per share on..... shares)

(xi) On receipt of final call money:

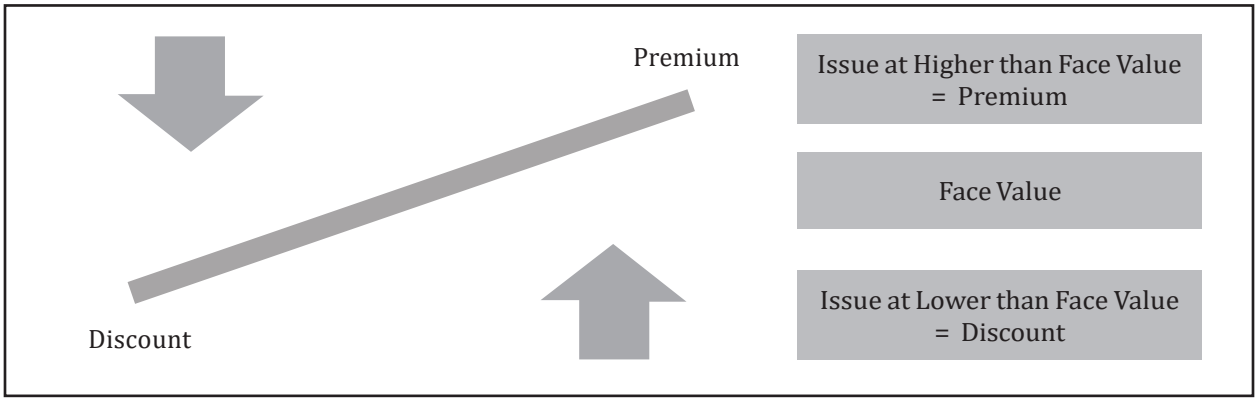
Bank Account Dr. (with the amount actually received on final call)

To Share Final Call Account

(Being the amount received in respect of final call @ Rs..... per share on ..... shares)

## B. ISSUE OF SHARES AT PREMIUM

A company can issue shares at face value. However, for good successful companies which attract higher value can issue shares at value higher than their face value. When shares are issued at a price higher than their face value, they are said to be issued at a premium. Thus, the excess of issue price over the face value is the amount of premium. For example, if a share of Rs. 10 is issued at Rs. 12, (Rs. 12 - 10) = Rs. 2 is the premium.




### Securities Premium Account:

The premium on issue of shares is not to be treated as revenue profits. In fact it is considered as capital receipt.

As per the Companies Act, 2013, when a company issues shares at a premium, whether for cash or otherwise, a sum equal to the aggregate amount of the premium collected on shares must be credited to a separate account called "Securities Premium Account". There are no restrictions in the Companies Act on the issue of shares at a premium, but there are certain restrictions at the time of its disposal.

**Restrictions on application of premium money received:** Under Section 52(2) of the Companies Act, 2013, the Securities Premium Account may be applied by the company -

(a) towards the issue of unissued shares of the company to the members of the company as fully paid bonus shares;

(b) in writing off the preliminary expenses of the company;

(c) in writing off the expenses of, or the commission paid or discount allowed on, any issue of shares or debentures of the company;

(d) in providing for the premium payable on the redemption of any redeemable preference shares or of any debentures of the company; or

(e) for the purchase of its own shares or other securities under section 68.

It is to be noted here that utilization of the amount of Securities Premium Account except in any of the modes specified above, will attract the provisions relating to the reduction of share capital of a company under the Section 66 of the Companies Act, 2013.

Disclosure: The Securities Premium Account must be shown as "Securities premium reserves" separately on the liabilities side of the balance sheet under the head "Reserves & Surplus".

**Note:** The premium is usually payable with the installment due on allotment. However, some companies may charge premium with share application money or partly with share application money and partly at the time of allotment of shares. It may be included in call money also.

## ACCOUNTING TREATMENT OF THE ISSUE OF SHARES AT PREMIUM

**Journal Entry**

When allotment money becomes due:

| | | |
|---|---|---|
| Share Allotment A/c | Dr. | (with the money due on allotment including premium) |
| To Securities Premium A/c | | (with the premium amount) |
| To Share Capital A/c | | (with the share allotment amount) |

(Being allotment money due on shares issued at premium)

## C. ISSUE OF SHARES AT DISCOUNT:

When the issue price of a share is less than its face value, it is said to have been issued at a discount. For example, if a company issues shares of Rs. 10 each at Rs. 9 each, the shares are said to be issued at a discount. The amount of discount would be to Rs. 1 per share (i.e. Rs. 10 – Rs. 9) in this case. Discount on shares is a loss to the company.

Prohibition on the issue of Shares on Discount: As per Section 53 of Companies Act, 2013, a company shall not issue shares at a discount except as provided in Section 54 for issue of sweat equity shares. Any share issued by a company at a discounted price shall be void.

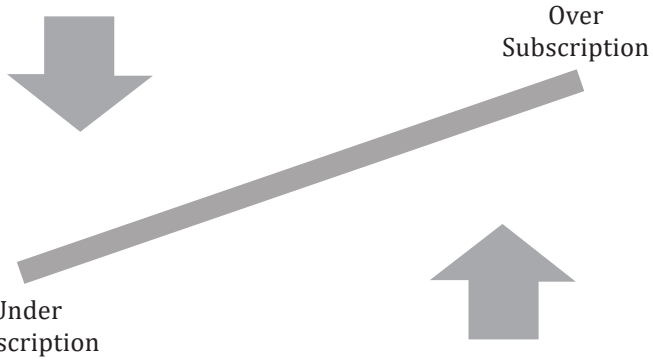
Further Section 53(3) of Companies Act, 2013 mentions of the penalty provisions which reads as: Where any company fails to comply with the provisions of this section, such company and every officer who is in default shall be liable to a penalty which may extend to an amount equal to the amount raised through the issue of shares at a discount or five lakh rupees, whichever is less, and the company shall also be liable to refund all monies received with interest at the rate of twelve per cent. per annum from the date of issue of such shares to the persons to whom such shares have been issued.

### Subscription

**Minimum Subscription**– It is the minimum amount which has been mentioned in the prospectus that must be subscribed by the public before an allotment of any security can be made.

**Prospectus :** It is an invitation to public for subscription of shares or debentures.

Any company does not receive application equal to the number of shares offered for subscription and there may be either of the following two situations:




### (i) Under Subscription

The issue is said to have been under subscribed when the company receives applications for less number of shares than offered to the public for subscription. In this case company does not face any problem regarding allotment since every applicant will be allotted the shares applied for, and the company can proceed with allotment provided the minimum subscription for shares is met.

### (ii) Over Subscription

In case a company receives applications for more number of shares than the number of shares offered to the public for subscription, it is a case of over subscription. A company cannot allot more shares than what it has offered.

In case of over subscription company has the following options:

### Option I

### (i) Rejection of Excess Applications and Money Returned

The company may reject the applications for shares which are received in excess of the shares offered and a letter of rejection is sent to such applicants. In this case the application money received from these applicants is refunded to them in full.

The journal entry is as follows:

**Journal Entry**

| | | |
|---|---|---|
| Share Application A/c | Dr. | (with Excess application money) |
| To Bank A/c | | |

(Application money on … shares refunded to the applicants)

### (ii) Excess application money adjusted towards sums due on allotment

**Journal Entry**

| | | |
|---|---|---|
| Share Application A/c | Dr. | (with Excess application money) |
| To Share Allotment A/c | | |

(Excess application money adjusted towards sums due on allotment)

If the application money received on partially accepted applications is more than the amount required for adjustment towards allotment money, the excess money is refunded.

However, if the Articles of the company so authorise, the directors may retain the excess money as calls in advance to be adjusted against the call/calls falling due at a later date. The consent of the applicant has to be taken either by a separate letter or by inserting a clause in the company's prospectus.

The company can retain the calls in advance at maximum to the amount as is sufficient to make the allotted shares fully paid up ultimately. The following entry is made:

**Journal Entry**

| | | |
|---|---|---|
| Share Application A/c | Dr. | (with Excess application money left over the amount due on application and allotment) |
| To Call-in-advance A/c | | |

(The adjustment of excess share application money retained as call-in advance in respect of ... shares)

### Option II

### Partial acceptance of Applications (Pro-rata acceptance):

In some cases, the company accepts the applications for subscription partially. It means that the company does not allot the full number of shares that are applied for. The shares are accepted in a ratio, as determined, this is known as pro-rata acceptance.

For example, if an applicant has applied for 5000 shares and is allotted only 2000 shares, then his application is said to has been partially accepted. The company may evolve some formula of accepting applications partially or making proportionate allotment/ the Pro-rata allotment means that the applicants are allotted shares proportionately such that no applicant is refused of shares and no applicant allotted shares in full.

In such a case, the company adjusts the excess share money received on application towards share allotment money due on partially accepted applications.

The journal entry recording the adjustment of application money towards share allotment money, is as under:

**Journal Entry**

| | | |
|---|---|---|
| Share Application A/c | Dr. | (with Excess application money) |
| To Share Capital Account | | |
| (Share application money transferred to Share Allotment Account in respect of ... shares) | | |

## Calls-in-Advance and Interest on Calls-in-Advance

**Meaning:** A company may receive the amount remaining unpaid on shares, from the shareholders, even though the amount has not been called up subject to the authorization in its articles. In a case where the number of shares allotted to a person is much smaller than the number applied for and the terms of issue permit the company to retain the amount received in excess of application and allotment money, it shall be calls-in advance. Of course, the company can retain only so much as is required to make the allotted shares fully paid ultimately. On actual time when calls are made, the calls-in-advance account is ultimately closed by transfer to the relevant call accounts.

**Disclosure Treatment:** The money received on calls-in-advance does not become part of the share capital. It is shown under a separate heading, namely 'calls-in-advance' on the liabilities side of the Balance Sheet. Further, the liability to sundry shareholders is to be treated as outstanding liability and should be shown under the head "Current Liabilities" in the balance sheet.

It is to be noted that no dividend can be paid on calls-in-advance.

**Accounting Treatment**

(i) On receipt of call money in advance:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the amount of call money received in advance) |
| To Call-in-Advance A/c | | |
| (Being the calls received in advance) | | |

(ii) As and when calls are made:

| | | |
|---|---|---|
| Calls-in-Advance A/c | Dr. | (with the amount adjusted on relevant call becoming due) |
| To Relevant Call A/c | | |

## Interest on Calls-in-Advance

The amount received as calls-in-advance is a debt to the company and thus the company is liable to pay interest on the amount received as Calls-in-Advance from the date of receipt of the amount till the date when the call is scheduled and made due for payment.

Generally, the Articles of the company specify the rate at which interest will be payable on Calls-in-Advance. If the articles do not contain such rate, Table F of the Companies Act, 2013 will be applicable which leaves the matter to the Board of Directors to decide the rate of such interest, subject to a maximum rate of 12% p.a.

Note: Interest payable on Calls-in- Advance is a charge against the profits of the company. As such, Interest on Calls-in-Advance must be paid even when no profit is earned by the company.

**Accounting Treatment:**

(i) If Interest on Calls-in-Advance is paid in cash -

| | | |
|---|---|---|
| Interest on Calls-in-Advance A/c | Dr. | (with the amount of interest paid) |
| To Bank A/c | | |
| (Interest on Calls-in-Advance paid @ % p.a. on Rs...for... | | |

(ii) If interest on Calls-in-Advance is not paid in cash - months)

| | | |
|---|---|---|
| Interest on Calls-in-Advance A/c | Dr. | (with the amount of interest payable) |
| To Sundry Shareholders A/c | | |

(iii) At the end of the year, when interest on Calls-in-Advance is transferred to Profit and Loss A/c -

| | | |
|---|---|---|
| Profit and Loss A/c | Dr. | (with the amount of interest) |
| To Interest on Calls-in-Advance A/c | | |

## Calls-in-Arrear and Interest on Calls-in-Arrear

**Meaning:** When calls are made upon shares allotted, the shareholders holding the shares are bound to pay the call money within the date fixed for such payment. If a shareholder makes a default in payment of the call money within the appointed date, the amount thus failed for payment on a call is called Calls-in-Arrear.

### Interest on Calls-in-Arrear:

The interest is recoverable according to the provisions in this regard in Articles of the company.

But if the Articles are silent, Table 'F' of Schedule I of the Companies Act, 2013, shall be applicable which prescribes that if a sum called in respect of shares is not paid before or on the day appointed for payment, the person who failed to pay shall pay thereof from the day appointed for payment to the time of actual payment at a rate not exceeding 10% per annum. However, the Directors have the right to waive the payment of interest on Calls-in- Arrear.

The interest on Calls-on-Arrear Account is transferred to the Profit and Loss Account at the end of the year.

**Journal Entries**

(i) When call money is in arrear:

| | | |
|---|---|---|
| Calls-in-Arrear A/c | Dr. | (with the amount failed by the shareholders) |
| To Relevant Call A/c | | |

(ii) On receipt of amount of Calls-in-Arrear with interest, on a subsequent date:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the amount received) |
| To Calls-in-Arrears A/c | | |

(Being Amount due on allotment/ call remaining unpaid now received on……)

## Issue of Shares for Consideration other than Cash

**Meaning:** Any allotment of shares against which cash is not to be received is called 'issue of shares for consideration other than cash'.

**Case 1:** In some cases, shares are issued to the promotors of the company in lieu of the services provided by them during the incorporation of the company. This would generate good will.

**Journal Entries**

(i) During incorporation of Company

| | | |
|---|---|---|
| Goodwill A/c | Dr. | (with the fair value of services, as agreed) |
| To Share Capital A/c | | |

**Case 2:** In case a company does not have sufficient funds for the purchase of fixed assets or for payment to creditors, it may offer and allot its shares to vendors/ creditors in lieu of cash.

Such shares may be issued by the vendors either (i) at par, or (ii) at a premium.

**Journal Entries**

(i) When assets are acquired from the vendors -

| | | |
|---|---|---|
| Sundry Assets A/c (individually) | Dr. | (with the purchase price payable for the assets acquired) |
| To Vendors A/c | | |

(ii) When fully paid shares are issued to vendors at par -

| | | |
|---|---|---|
| Vendors A/c | Dr. | (with the nominal value of the shares allotted) |
| To Share Capital A/c | | |

(iii) When fully paid shares are issued to vendors at a premium -

| | | |
|---|---|---|
| Vendors | Dr. | (with the purchase price) |
| To Share Capital A/c | | (with the nominal value of the shares allotted) |
| To Securities Premium A/c | | (with the amount of premium) |

**Case 3:** Shares are also issued/ exchanged during a business purchase or merger of the companies. In such a situation, following entries are to be passed:

**Journal Entries**

(i) When purchase consideration is more than net assets acquired -

| | | |
|---|---|---|
| Sundry Assets A/c (individually) | Dr. | (at agreed purchase price) |
| Goodwill A/c (B/F) | Dr. | (at purchase price less net assets acquired) |
| To Sundry Liabilities A/c | | |
| To Vendor A/c | | |

(ii) When purchase consideration is less than net assets acquired -

| | | |
|---|---|---|
| Sundry Assets A/c (individually) | Dr. | (at agreed price) |
| To Sundry Liabilities A/c | | |
| To Vendor | | (at agreed price) |
| To Capital Reserve (B/F) | | (at difference of Purchase price &net assets acquired) |

## FORFEITURE OF SHARES

**Meaning & Procedure:** In case where a shareholder fails to pay the allotment money and/or calls made on him, his shares are liable to be forfeited. Forfeiture of shares may be said to be the compulsory termination of his membership by way of penalty for non-payment of allotment and/or any call money.

**Effect:** The effect of forfeiture of shares is that the defaulting shareholder loses all his rights in the forfeited shares and ceases to be a member of the company. The name of the shareholder is removed from the Register of Members and the amount already paid by him is forfeited. He is not entitled in future to dividends and rights of membership.

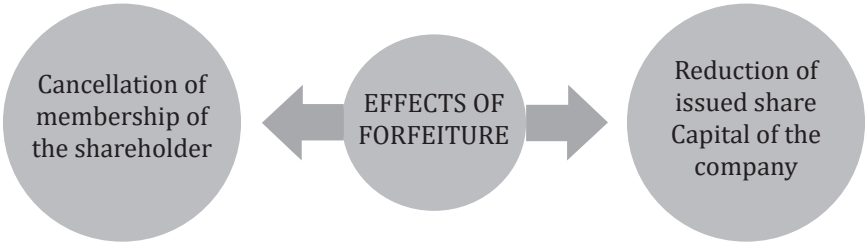



***Illustration:*** S.K. Ltd. issued 100000 shares of Rs. 10 each payable as Rs. 2 on application, Rs. 2 on allotment, Rs. 3 on first call and Rs. 3 on second and final call. Mr. Harish, the allottee of 100 shares, fails to pay the second and final call money made by the company. In this case if the Board of Directors decides to forfeit his shares, his membership will be cancelled and the amount of Rs 700 paid by him (on 100 shares Rs. 2 on application, Rs. 2 on allotment and Rs.3 on first call per share) will be forfeited. Now Mr. Harish will no longer be the member of the company and the issued capital of the company will be reduced by Rs. 1000.

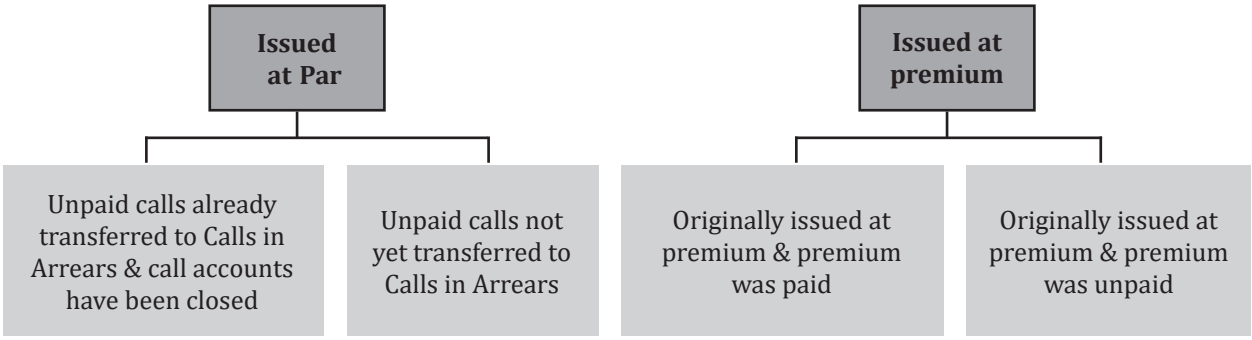
## Procedure for Forfeiture of Shares

Articles of Association of the Company provide the authority to forfeit shares to the Board of Directors.

- The Board has to give at least 14 days' notice to the defaulting members calling upon them to pay outstanding amount, with or without interest as the case may be, before the specified date.
- The notice must also state that if the shareholders fail to remit the amount mentioned therein within the stipulated period, their shares will be forfeited.
- If they still fail to pay the amount within the specified period of time, the Board of Directors of the company may decide to forfeit such shares by passing a resolution.
- The decision regarding the forfeiture of shares should be communicated to the concerned allottees

**Disclosure:** Forfeited shares account is to be shown in the balance sheet by way of addition to the paid-up share capital on the 'liabilities' side, until the concerned shares are reissued.

## Accounting Treatment as per below cases:




### A: Forfeiture of Shares issued at par:

The forfeiture of shares can be recorded in following two ways:

1. Where the unpaid calls have already been transferred to Calls-in-

   Arrear A/c and the respective call accounts have been closed:

| | | |
|---|---|---|
| Share Capital A/c | Dr. | (with the amount of called up value of shares forfeited i.e. no. of shares forfeited x the called up value per share.) |
| To Shares Forfeited A/c | | (with the amount already paid-up by the shareholders on the shares forfeited.) |
| To Calls-in-Arrear A/c | | (with the amount of unpaid calls.) |

OR

2. Where the unpaid calls have not been transferred to Calls-in-Arrear A/c and the respective call accounts are showing balances representing unpaid amounts:

| | | |
|---|---|---|
| Share Capital A/c | Dr. | (with the amount of called up value of shares forfeited i.e., no. of shares forfeited x the called up value per share.) |
| To Shares Forfeited A/c | | (with the amount already paid up by the shareholders on the shares forfeited.) |
| To Share Allotment A/c | | (with the amount failed on allotment, if any.) |
| To Share First Call A/c | | (with the amount failed on first call, if any.) |
| To Share Final Call A/c | | (with the amount failed on final call, if any.) |

## B. Forfeiture of Shares Issued at PREMIUM

**Case 1:** Where shares to be forfeited were issued at a premium and the premium money remained unpaid:

In such a case, the credit already given to the 'Securities Premium A/c' will be cancelled at the time of forfeiture of the shares by debiting the "Securities Premium A/c".

**Journal Entries**

| | | |
|---|---|---|
| Share Capital A/c | Dr. | with the amount of called up value of shares forfeited, i.e.,no. of shares forfeited x called up value per share. (excluding premium). |
| Securities Premium A/c | Dr. | (with the amount of premium money remaining unpaid on shares forfeited.) |
| To Shares Forfeited A/c | | (with the amount already paid by the shareholders on the shares forfeited.) |
| To Calls-in-Arrear A/c | | (with the amount unpaid on calls.) |
| OR | | |
| Share Capital A/c | Dr. | with the amount of called up value of shares for feited, i.e. no. of shares forfeited x called up value per share. (excluding premium). |
| Securities Premium A/c | Dr. | (with the amount of premium money remaining unpaid on shares forfeited.) |
| To Shares Forfeited A/c | | (with the amount already paid by the shareholders on the shares forfeited.) |
| To Share Allotment A/c | | (with the amount failed on allotment, if any.) |
| To Share First Call A/c | | (with the amount failed on first call, if any.) |
| To Share Final Call A/c | | (with the amount failed on final call, if any.) |

**Case 2:** Where shares to be forfeited were issued at a premium and the premium money was duly received for the shares to be forfeited:

If the amount of premium on shares forfeited has been received by the company prior to the forfeiture, Securities Premium Account shall not be affected. In this case, Securities Premium Account is already credited at the time of making the call and will not be cancelled when the shares are forfeited. In such a case, the accounting entry on forfeiture will be the same as the one passed in case of shares issued at par.

**Journal Entry**

| | | |
|---|---|---|
| Share Capital A/c | Dr. | (with the amount of called up value of shares forfeited i.e. no. of shares forfeited x the called up value per share.) |
| To Shares Forfeited A/c | | (with the amount already paid-up by the shareholders on the shares forfeited.) |
| To Calls-in-Arrear A/c | | (with the amount of unpaid calls.) |

### Illustration 1:

M/s Herbal Tea Plantations Ltd. was registered with a capital of Rs 1 crore divided into equity shares of Rs 100 each. The company offered to public 50000 shares at a premium of Rs 20 per share. The amount on shares was payable as:

Rs 25 on application

Rs 50 (including Rs 20 premium) on allotment Rs 20 on first call and

Rs 25 on final call.

Applications were received for 75000 shares. Shares were alloted to the applicants on prorata basis. Kanti Bhai who was allotted 500 shares did not pay the allotment money. He also failed to pay the first call. His shares were forfeited. Sheetal was holding 200 shares did not pay the first call. Final call was not made.

Make journal entries in the books of the company.

**Solution:**

**M/s Herbal Tea Plantations Ltd**

**Journal**

| Date | Particulars | | Amount (Dr.) | Amount (Cr.) |
|---|---|---|---|---|
| 1 | Bank A/c | Dr. | 18,75,000 | |
| | To Share Application A/c | | | 18,75,000 |
| | (Being application money received on 75000 shares @ Rs 25 per share) | | | |
| 2 | Share Application A/c | Dr. | 18,75,000 | |
| | To Share Capital A/c | | | 12,50,000 |
| | To Share Allotment A/c | | | 6,25,000 |
| | (Application money of 50000 share transferred to share Capital A/c on their allotment and remaining adjusted towards shares allotment) | | | |
| 3 | Share Allotment A/c | Dr. | 25,00,000 | |
| | To Share Capital A/c | | | 15,00,000 |
| | To Securities premium A/c | | | 10,00,000 |
| | (Allotment money due including premium) | | | |
| 4 | Bank A/c | Dr. | 18,56,250 | |
| | To Share Allotment A/c | | | 18,56,250 |
| | (Allotment money received) | | | |
| 5 | Share First Call A/c | Dr. | 10,00,000 | |
| | To Share Capital A/c | | | 10,00,000 |
| | (First Call money due) | | | |
| 6 | Bank A/c | Dr. | 9,86,000 | |
| | Calls-in-Arrears | Dr | 4,000 | |
| | To Share First Call A/c | | | 9,90,000 |
| | (First call money received of 49300 shares, and of 200 shares debited to Calls in Arrears) | | | |
| 7 | Share capital A/c | Dr. | 37,500 | |
| | Securities premium A/c | Dr. | 10,000 | |
| | To Share Forfeited A/c | | | 18,750 |
| | To Share Allotment A/c | | | 18,750 |
| | To Share First Call A/c | | | 10,000 |
| | (Forfeiture of 500 shares on non- payment of allotment and call money) | | | |

**Working Notes:**

Shares applied for 75,000; Share Allotted 50,000

Ratio = 3 : 2

Kanti Bhai Number of shares holding = 500 Number of shares applied= 750

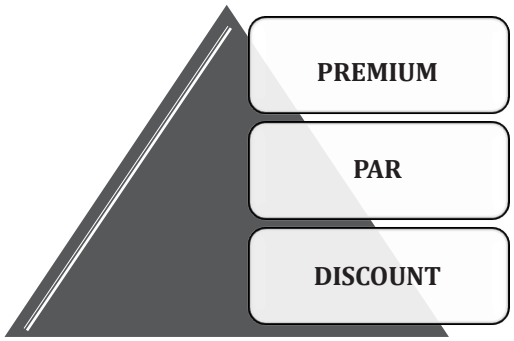
Excess application money received = 250 × 25 = Rs. 6,250 Share allotment money due = 500 × Rs. 50 = 25,000

Net Amount due after adjustment of excess application money= Rs. 25,000 – Rs. 6,250 = Rs. 18,750

| | |
|---|---|
| Total allotment money due = | Rs. 25,00,000 |
| Less excess application money adjusted | (Rs. 625,000) |
| Less Kanti Bhai's amount due on allotment | (Rs. 18,750) |
| **Net Amount Received** | **Rs. 18,56,250** |

## REISSUE OF FORFEITED SHARES

The Board of Directors can sell/ re-issue or dispose off the forfeited shares on such terms as it deems fit. However, the amount receivable on re-issue of such shares together with the amount already received from the defaulting member shall not, in any case, be less than the face value of the shares. Forfeited shares may be re-issued at:




**RE-ISSUE OF FORFEITED SHARES - AT PAR:** In one of the cases, forfeited shares can be re-issued at par. In such a case, the entire amount standing to the credit of Shares Forfeited Account for those shares would be treated as net gain and transferred to Capital Reserve Account.

**Journal entries**

1. On re-issue of shares:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the amount received on reissue i.e. no. of |
| To Share Capital A/c | | shares re-issued x amount received per share.) |

2. On transfer of Shares Forfeited Account to Capital Reserve Account:

| | | |
|---|---|---|
| Shares Forfeited A/c | Dr. | (with the forfeited amount on shares re-issued.) |
| To Capital Reserve A/c | | |

## RE-ISSUE OF FORFEITED SHARES - AT A PREMIUM

If forfeited shares are re-issued at a premium, the amount of such premium should be credited to Securities Premium Account.

Also, in such a case, the entire amount standing to the credit of Shares Forfeited Account would be treated as net gain and transferred to Capital Reserve Account.

**Journal entries**

1. On Re-issue of shares:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the total amount received on re-issue.) |
| To Share Capital A/c | | (with nominal value or paid-up value of shares.) |
| To Securities Premium A/c | | (with the premium amount received.) |

2. On transfer of Shares Forfeited A/c to Capital Reserve A/c:

| | | |
|---|---|---|
| Shares Forfeited A/c | Dr. | (with the forfeited amount on shares re-issued) |
| To Capital Reserve A/c | | |

**Note:** There may arise a situation when only part of shares forfeited be re-issued. In such a case, only the respective proportionate amount which represents the net gain on shares that are re-issued shall be transferred to the Capital Reserve Account and the remaining amount (balance) which represents the amount that is received on the forfeited shares, not yet re-issued, must be left in Shares Forfeited Account itself.

**Disclosure:** This amount is disclosed as addition to the paid up share capital on liabilities side of the balance sheet.

**Forfeiture and Re-issue of Shares Allotted on Pro-rata Basis in Case of Over-subscription**

In case where the shares of a Company are oversubscribed, it is not possible for the company to satisfy the demand of all the applicants. In such a case allotment may be made on a pro-rata basis, i.e., proportionately.

If such shares are subsequently forfeited for non-payment of allotment money and/or call money, the entries shall remain the same, but it may involve some difficulty in calculation. In such a case, it is to be noted carefully that if there is any excess amount received along with the application and it is adjusted against the allotment money which is failed by the shareholder, such amount should be deducted from the amount due on allotment to arrive at the net amount defaulted by the shareholder.

***Example:*** Company A allots 10,000 shares on pro-rata basis among the applicants for 12,000 shares. In this case, the ratio between allotment of shares and application for shares will be 10,000: 12,000 or 5: 6, i.e., those applying for every 6 shares will be allotted 5 shares. If shares are allotted on pro-rata basis, the excess application money received on shares allotted will be retained by the company and may be adjusted subsequently against allotment money and/or call money

## Illustration 2:

Arjun & Co. Ltd. issued a prospectus offering 2,00,000 shares of Rs.10 each on the following terms :

| | |
|---|---|
| On Application | Rs. 1 per share |
| On Allotment | Rs.3 per share (including premium of Rs. 2) |
| On First Call (three months after allotment) | Rs.4 per share |
| On Second Call (three months after first call) | Rs.4 per share |

Subscriptions were received for 3,17,000 shares on 3rd April and the allotment was made on 30th April as under :

**Shares Allotted**

| | | |
|---|---|---|
| (i) | Allotment in full (two applicants paid in full on allotment In respect of 4,000 shares each) | 38,000 |
| (ii) | Allotment of two-thirds of shares applied for | 1,60,000 |
| (iii) | Allotment of one-fourth of shares applied for | 2,000 |

Cash amounting to Rs. 31,000 (being application money received with applications for 31,000 shares upon which no allotments were made) was returned to the applicants on 5th May. The amounts due were received on

the due dates with the exception of the final call on 100 shares. These Shares were forfeited on 15th November and re-issued to Aayan on the 16th November for payment of Rs.9 per share. The company paid the interest due on calls-in-Advance on 31st October in cash.

Show the Journal and Cash Book Entries and draw a balance sheet of the Company giving effect to the above transactions.

**Solution:**

**Journal**

| Date | Particulars | | Amount(Dr.) | Amount(Cr.) |
|---|---|---|---|---|
| April 30 | Share Application Account<br>To Share Capital Account<br>To Share Allotment Account<br>(Being application money transferred to Share Capital Account on allotment of 2,00,000 shares and excess application money on 86,000 shares @ Rs. 1 per share utilized towards allotment) | Dr. | 2,86,000 | <br>2,00,000<br>86,000 |
| " 30 | Share Allotment Account<br>To Share Capital Account<br>To Securities Premium Account<br>(Being allotment money due on 2,00,000 shares @ Rs.3 per share including Rs.2 per share) | Dr. | 6,00,000 | <br>2,00,000<br>4,00,000 |
| July 31 | Share first Call Account<br>To Share Capital Account<br>(Being amount due in respect of first call on 2,00,000 shares @ Rs.4 per share) | Dr. | 8,00,000 | <br>8,00,000 |
| July 31 | Calls-in-Advance Account<br>To Share First Call Account<br>(Being first call money received on 8,000 shares @ Rs. 4 per share received in advance is debited to the Calls-in-Advance Account) | Dr. | 32,000 | <br>32,000 |
| Oct 31 | Share Second and final Call Account<br>To Share Capital Account<br>(Being amount due in respect of second and final call on 2,00,000 shares @ Rs.4 per share) | Dr. | 8,00,000 | <br>8,00,000 |
| Oct 31 | Calls-in-Advance Account<br>To Share Second and Final Call Account<br>(Being second call money received on 8,000 shares @ Rs. 4 per share received in advance is debited to the Calls-in-Advance Account) | Dr. | 32,000 | <br>32,000 |
| Nov. 15 | Share Capital Account<br>To Share Second and final Call Account<br>To Share Forfeited Account<br>(Being forfeiture of 100 shares for non-payment of second and final call) | Dr. | 1,000 | <br>400<br>600 |
| Nov. 16 | Share Forfeited Account<br>To Share Capital Account<br>To Capital Reserve Account<br>(Being discount allowed on re-issue of 100 forfeited shares @ Rs. 1 per share and profit on re-issue transferred to Capital Reserve Account) | Dr. | 600 | <br>100<br>500 |

## CASH BOOK

| Date | Particulars | Amount | Date | Particulars | Amount |
|---|---|---|---|---|---|
| April 3 | To Share Application A/c | 3,17,000 | May 5 | By Share Application A/c | 31,000 |
| April 30 | To Share Allotment A/c | 514,000 | Oct 31 | By Interest on Calls-in- | 1,440 |
| April 30 | To Calls-In-Advance A/c | 64,000 | | Advance By Balance c/d | 23,99,060 |
| July 31 | To Share First Call Account | 768,000 | | | |
| Oct. 31 | To Share Second & Final | 7,67,600 | | | |
| | Call A/c | | | | |
| Nov. 16 | To Share Capital A/c | 900 | | | |
| | | **24,31,500** | | | **24,31,500** |
| | To Balance b/d | 23,99,060 | | | |

Interest on Calls-in-Advance has been calculated as follows :Amount (Rs.)

On first call money from April 30 to July 31 @ 6% p.a. for 3 months

(Rs.32,000 * 6/100*3/12) 480

On second and final call money from April 30 to October 31@ 6% p.a.

For 6 months (Rs.32,000 * 6/100 * 6/12) 960

1,440

## Balance Sheet of Arjun & Co. Ltd.
## As at March 31, 20XX

| Particulars | Amount |
|---|---|
| **Equity and Liabilities:** | |
| Share Capital: | 20,00,000 |
| Issued, Subscribed and Paid Up: | |
| 2,00,000 shares of Rs. 10 each fully paid up Reserves and Surplus: | |
| **Capital Reserve** | 500 |
| Securities Premium Account | 4,00,000 |
| **Total** | **24,00,500** |
| **Assets:** | |
| CurrentAssets: | |
| Cash at Bank | 23,99,060 |
| Interest on Calls inAdvanceAccount (Pending adjustment) | 1,440 |
| **Total** | **24,00,500** |

### Working notes:

Analysis of Application Money Received

| Shares Applied | Shares Allotted | Amount Received @ Rs.1 per share | Application Money | Adjusted as Allotment Money | Money Returned to Applicants |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 38,000 | 38,000 | 38,000 | 38,000 | - | - |
| 2,40,000(160000 * 3/2) | 1,60,000 | 2,40,000 | 1,60,000 | 80,000 | - |
| 8,000(2,000 * 4/1) | 2,000 | 8,000 | 2,000 | 6,000 | |

| | | | | | |
|---|---|---|---|---|---|
| (2,000 * 3) | - | | | | |
| 31,000 | Nil | 31,000 | Nil | - | 31,000 |
| 3,17,000 | 2,00,000 | 3,17,000 | 2,00,000 | 86,000 | 31,000 |

## BUY-BACK OF SHARES

Buy-Back of Shares means the purchase of its own shares by the Company. It is kind of a corporate financial strategy and is an imperative mode of capital restructuring. It is a practice which is prevalent globally with the underlying objectives of increasing Earnings per Share, averting hostile takeovers, improving returns to the stakeholders and realigning the capital structure.

Buy-Back is an alternative way of Reduction of Share Capital. When a company has substantial cash resources, it may like to buy its own shares from the market particularly when the prevailing rate of its shares in the market is much lower than the book value or what the company perceives to be its true value. Buy back of shares enables the company to go back to its shareholders and off to purchase from them the shares that they hold.

**Free Reserves:** 'Reserves which, as per latest audited Balance Sheet of the company are free for distribution as dividend and shall include balance to the credit of Security Premium A/c but shall not include Share Application Money'.

### *Advantages of Buy Back:*

I. To improve the earnings per share;

II. To improve return on capital, return on net worth and to enhance the long-term value for shareholders;

III. To provide an additional exit route to shareholders when shares are undervalued or thinly traded;

IV. It is an alternative mode of reduction in capital without requiring approval of the Court/CLB (NCLT),

V. To enhance consolidation of stake in the company;

VI. To prevent unwelcome takeover bids;

VII. To return surplus cash to shareholders;

VIII. To achieve optimum capital structure;

IX. To support share price during periods of sluggish market conditions;

X. To serve the equity more efficiently.

*Example:* Improvement in EPS can be explained by below example:

| Particulars | Pre Buy – Back | Post Buy – Back |
|---|---|---|
| Profit | 100 | 100 |
| Number of Shares | 10 | 5 |
| EPS | 10 | 20 |

Further, given below is a table for relevant sections and their applicability:

| | |
|---|---|
| For Unlisted Public and Private Companies | • Section 68, 69 and 70 of Companies Act, 2013<br>• Rule 17 of Companies (Share Capital and Debentures) Rules, 2014 |
| For Listed Companies | • Section 68, 69 and 70 of Companies Act, 2013<br>• Rule 17 of Companies (Share Capital and Debentures) Rules, 2014<br>• Securities and Exchange Board of India (Buy-back of Securities) Regulations, 1998 and Securities and Exchange Board of India (Buy-back of Securities) (Amendment) Regulations, 2013 |

## RELEVANT EXTRACTS FOR SECTIONS 68, 69 AND 70 OF COMPANIES ACT, 2013 PROVIDES FOR BUY-BACK OF SHARES.

**1. Purchase can be made out of:**

According to section 68(1) of the Companies Act 2013, a company may purchase its own shares or other specified securities (referred to as buy-back) out of –

(a) its free reserves;

(b) the securities premium account; or

(c) the proceeds of the issue of any shares or other specified securities:

However, no buy-back of any kind of shares or other specified securities shall be made out of the proceeds of an earlier issue of the same kind of shares or same kind of other specified securities.

**2. Preliminary Conditions for buy-back:**

According to section 68(2), following conditions must be satisfied in order to buy-back the shares :

(a) must be authorized by its articles;

(b) a special resolution has been passed at a general meeting of a company authorizing the buy-back, but

(c) the same is not required when:

  (i) the buy-back is 10% or less of the total paid-up equity capital and free reserves of the company; and

  (ii) such buy-back has been authorized by the Board by means of a resolution passed at its meeting;

(d) the buy-back is twenty-five per cent or less of the aggregate of paid-up capital and free reserves of the company. But in case of Equity Shares, the same shall be taken as 25% of paid up equity capital only;

(e) debt equity ratio should be 2:1, where debt is the aggregate of secured and unsecured debts owed by the company after buy-back and Equity is the aggregate of the paid-up capital and its free reserves; Provided that the Central Government may, by order, notify a higher ratio of the debt to capital and free reserves for a class or classes of companies;

(f) all the shares or other specified securities for buy-back are fully paid-up;

(g) if shares or securities are listed, buy-back will be in accordance with the regulations made by the Securities and Exchange Board in this behalf; and

(h) the buy-back in respect of unlisted shares or other specified securities is in accordance with such Rules as may be prescribed

(i) no offer of buy-back shall be made within a period of one year from the date of the closure of the preceding offer of buy-back, if any.

**3. Explanatory Statement**

Section 68(3) spells out additional requirements as follows:

The notice of the meeting at which the special resolution is proposed to be passed shall be accompanied by an explanatory statement stating -

(a) a full and complete disclosure of all material facts;

(b) the necessity for the buy-back;

(c) the class of shares or securities intended to be purchased under the buy-back;

(d) the amount to be invested under the buy-back; and

(e) the time-limit for completion of buy-back.

As per the rules, following more details are to be included in the Explanatory Statement:

(f) the date of the board meeting at which the proposal for buy-back was approved by the board of directors of the company;

(g) the number of securities that the company proposes to buy-back;

(h) the method to be adopted for the buy-back;

(i) the price at which the buy-back of shares or other securities shall be made;

(j) the basis of arriving at the buy-back price;

(k) the maximum amount to be paid for the buy-back, and the sources of funds from which the buy-back would be financed;

(l) Shareholding:

  (i) the aggregate shareholding of the promoters and directors, where the promoter is a company, and of the directors and key managerial personnel as on the date of the notice convening the general meeting;

  (ii) the aggregate number of equity shares purchased or sold by persons mentioned in the sub-clause during a period of twelve months preceding the date of the board meeting at which the buy-back was approved and from that date till the date of notice convening the general meeting;

  (iii) the maximum and minimum price at which purchases and sales referred to in sub-clause (ii) were made along with the relevant date;

(m) if the persons mentioned in l(i) intend to tender their shares for buy-back -

  (i) the quantum of shares proposed to be tendered;

  (ii) the details of their transactions and their holdings for the last twelve months prior to the date of the board meeting at which the buy-back was approved including information of number of shares acquired, the price and the date of acquisition;

(n) a confirmation that there are no defaults subsisting in repayment of deposits, interest payment thereon, redemption of debentures or payment of interest thereon, or redemption of preference shares or payment of dividend due to any shareholder, or repayment of any term loans, or interest payable thereon to any financial institution or banking company;

(o) a confirmation:

  (i) that the Board of Directors have made a full enquiry into the affairs and prospects of the company and that they have formed the opinion- general meeting is convened that there shall be no grounds on which the company could be found unable to pay its debts;

  (ii) that the company's prospect for the year immediately following that date and its financial resources be available to meet its liabilities as and when they fall due, and the company shall not be rendered insolvent within a period of one year from that date; and

  (iii) the directors have already taken into account the liabilities(including prospective and contingent liabilities), as if the company were being wound up under the provisions of the Companies Act, 2013.

(p) a report addressed to the Board of Directors by the company's auditors stating that-

  (i) they have inquired into the company's state of affairs;

  (ii) the amount of permissible capital payment for the securities in question is in their view properly

  (iii) determined;

  (iv) that the audited accounts on the basis of which calculation with reference to buy-back is done is not more than six months old from the date of offer document; and

(v) the Board of Directors have formed the opinion as specified in point 'o' on reasonable grounds and that the company, with regard to its state of affairs, shall not be rendered insolvent within a period of one year from that date.

**Other Conditions for Buy-back**

- Time period u/s Section 68(4): Every buy-back shall be completed within a period of one year from the date of passing of the special resolution, or as the case may be, the resolution passed by the Board.
- Options for buy-back: The buy-back can be:
  (a) from the existing shareholders or security holders on a proportionate basis;
  (b) from the open market;
  (c) by purchasing the securities issued to employees of the company pursuant to a scheme of stock option or sweat equity. [Section 68(5)]
- Solvency Declaration:

  Before making such buy-back, it has to be filed with the Registrar a declaration of solvency signed by at least two directors of the company, one of whom shall be the managing director, if any, Form No. SH.9 may be prescribed and verified by an affidavit to the effect that the Board of Directors of the company has made a full inquiry into the affairs of the company, as a result of which they have formed an opinion that it is capable of meeting its liabilities and will not be rendered insolvent within a period of one year from the date of declaration adopted by the Board. [Section 68(6)]
- Extinguish Certificate: Company shall extinguish and physically destroy the shares or securities so bought back within seven days of the last date of completion of buy-back. [Section 68(7)]
- No Further Issuance: When a company completes a buy-back of its shares or other specified securities, it shall not make a further issue of the same kind of shares or other securities including allotment of new shares or other specified securities within a period of six months except by way of:
  (a) issue a bonus, or
  (b) discharging of subsisting obligations, such as conversion of warrants, stock option schemes, sweat equity or conversion of preference shares or debentures into equity shares.
- Register to be maintained: A company shall maintain a register in Form No. SH.10 of the shares or securities so bought, the consideration paid for the shares or securities bought back, the date of cancellation of shares or securities, the date of extinguishing and physically destroying the shares or securities. The register of shares or securities bought back shall be maintained at the registered office of the company and shall be kept in the custody of the secretary of the company or any other person authorized by the board in this behalf. The entries in the register shall be authenticated by the secretary of the company or by any other person authorized by the Board for the purpose.
- Return of Buy-Back & Declaration: A company shall, after the completion of the buy-back under this section, file with the Registrar a return in Form No. SH.11 containing such particulars relating to the buy-back within thirty days of such completion. There shall be annexed to the return, a certificate in Form No. SH.15 signed by two directors of the company including the managing director, if any, certifying that the buy-back of securities has been made in compliance with the provisions of the Act and the rules made thereunder.
- Punishment for Default: If a company makes any default in complying with the provisions of this section, it shall be punishable with fine which shall not be less than one lakh rupees and which may extend to three lakh rupees and every officer of the company who defaults shall be punishable with imprisonment for a term which may extend to three years or with a fine which shall not be less than one lakh rupees and which may extend to three lakh rupees, or with both.

## TRANSFER OF CERTAIN SUMS TO CAPITAL REDEMPTION RESERVES ACCOUNT (SECTION 69)

Capital Redemption Reserves: Where a company purchases its own shares out of free reserves or securities premium account, a sum equal to the nominal value of the shares so purchased shall be transferred to the capital redemption reserves account and details of such transfer shall be disclosed in the balance sheet.

Utilization: The capital redemption reserve account may be applied by the company, in paying up unissued shares of the company to be issued to its members as fully paid bonus shares.

## PROHIBITION ON BUY-BACK IN FOLLOWING CIRCUMSTANCES: (SECTION 70)

**Restrictions on Buy-Back** : No company shall directly or indirectly purchase its own shares or other specified securities

(a) through any subsidiary company including its own subsidiary companies;

(b) through any investment company or group of investment companies; or

(c) through a default made by the company in the repayment of deposits accepted either before or after the commencement of this Act, interest payment thereon, redemption of debentures or preference shares or payment of dividend to any shareholder, or repayment of any term loan or interest payable thereon to any financial institution or banking company, provided that the buy-back is not prohibited, if the default is remedied and a period of three years has lapsed after such default ceased to subsist.

**Prohibitions**: No company shall, directly or indirectly, purchase its own shares or other specified securities in case such company has not complied with the provisions of:

(a) Sections 92: Annual Return

(b) Section 123: Declaration and Payment of Dividend

(c) Section 127: Failure to pay Dividend

(d) Section 129: Failure to give True and Fair Statement

### Companies (Share Capital and Debentures) Rules, 2014

**Rule 17: Buy-back of shares or other securities:**

Unless stated otherwise, the following norms shall be complied with by the Private companies and Unlisted public companies for buy-back of their securities.

**1. Information disclosure in Explanatory Statement to be annexed with Special Resolution and Notice of General Meeting:**

The Explanatory Statement to be annexed to the notice of the general meeting pursuant to Section 102 shall contain the following disclosures, namely:-

(a) The date of the board meeting at which the proposal for buy-back was approved by the Board of Directors of the company;

(b) The objective of the buy-back;

(c) The class of shares or other securities intended to be purchased under the buy-back;

(d) The number of securities that the company proposes to buy-back;

(e) The method to be adopted for the buy-back;

(f) The price at which the buy-back of shares or other securities shall be made;

(g) The basis of arriving at the buy-back price;

(h) The maximum amount to be paid for the buy-back and the sources of funds from which the buy-back would be financed;

(i) The time-limit for the completion of buy-back;

(j) (i) The aggregate shareholding of the promoters and of the directors of the promoter, where the promoter is a company of the directors and key managerial personnel as on the date of the notice convening the general meeting;

(ii) The aggregate number of equity shares purchased or sold by persons mentioned in sub-clause (i) during a period of twelve months preceding the date of the board meeting at which the buy-back was approved and from that date till the date of notice convening the general meeting;

(iii) The maximum and minimum price at which purchases and sales referred to in sub-clause (ii) were made along with the relevant date;

(k) If the persons mentioned in sub-clause (i) of clause (j) intend to tender their shares for buy-back–

(i) The quantum of shares proposed to be tendered;

(ii) The details of their transactions and their holdings in the last twelve months prior to the date of the board meeting at which the buy-back was approved including information of number of shares acquired, the price and the date of acquisition;

(l) A confirmation that there are no defaults subsisting in repayment of deposits, interest payment thereon, redemption of debentures or payment of interest thereon or redemption of preference shares or payment of dividend due to any shareholder, or repayment of any term loans or interest payable thereon to any financial institution or banking company;

(m) A confirmation that the Board of Directors have made a full enquiry into the affairs and prospects of the company and that they have formed the opinion-

(i) That immediately following the date on which the general meeting is convened there shall be no

(ii) grounds on which the company could be found unable to pay its debts;

(iii) The the company's prospects for the year immediately following that date and its financial resources will be available to met its liabilities as and when they fall due and shall not be rendered insolvent within a period one year from that date; and

(iv) The directors have taken into account the liabilities(including prospective and contingent liabilities), as if the company were being wound up under the provisions of the Companies Act, 2013

(n) A report addressed to the Board of Directors by the company's auditors stating that–

(i) They have inquired into the company's state of affairs;

(ii) The amount of the permissible capital payment for the securities in question is in their view properly determined;

(iii) That the audited accounts on the basis of which calculation with reference to buy-back is done not more than six months before from the date of offer document; and

Provided that where the audited accounts are more than six months old, the calculations with reference to buy back shall be on the basis of un-audited accounts not older than six months from the date of offer document which are subjected to limited review by the auditors of the company.

(iv) The Board of Directors have to form the opinion as specified in clause (m) on reasonable grounds that the company, with regard to its state of affairs, shall not be rendered insolvent within a period of one year from that date.

**2. File letter of offer with ROC in Form SH-8:**

The company which has been authorized by a special resolution shall, before the buy-back of shares, file with the Registrar of Companies (ROC) a letter of offer in Form No. SH.8, along with the fee, provided that

such letter of off shall be dated and signed on behalf of the Board of directors of the company by not less than two directors of the company, one of whom shall be the managing director, if there is one.

**3. File declaration of solvency in Form SH-9 along with Form SH-8:**

The company shall file with the Registrar along with the letter of offer and in case of a listed company with the Registrar and the Securities and Exchange Board a declaration of solvency in Form No. SH.9 along with the fee, and signed by at least two directors of the company, one of whom shall be the managing director, if there is one, and verified it shall be by an affidavit as specified in the said Form.

**4. Circulate among the shareholders in 20 days from filing with ROC:**

The letter of offer shall be dispatched to the shareholders or security holders immediately after filing the same with the Registrar of Companies but not later than twenty days from its filing with the Registrar of Companies.

**5. Offer period between 15-30 days from the date of circulation**

The offer for buy-back shall remain open for a period of not less than fifteen days and not exceeding thirty days from the date of dispatch of the letter of offer. Provided that where all members of a company agree, the offer for buy back may remain open for a period less than fifteen days.

**6. Acceptance on proportionate basis:**

In case the number of shares or other specified securities offered by the shareholders or security holders is more than the total number of shares or securities to be bought back by the company, the acceptance per shareholder shall be on proportionate basis out of the total shares offered for being bought back.

**7. Verification by the company:**

The company shall complete the verifications of the offers received within fifteen days from the date of closure of the offer and the shares or other securities lodged shall be deemed to be accepted unless a communication of rejection is made within twenty-one days from the date of closure of the offer.

**8. Opening of separate bank account:**

The company shall immediately after the date of closure of the offer, open a separate bank account and deposit therein, such sum, as would make up the entire sum due and payable as consideration for the shares tendered for buy-back in terms of these rules.

**9. Make payment or return share certificates:**

The company shall within seven days of the time specified in point 7-

(a) make payment of consideration in cash to those shareholders or security holders whose securities have been accepted; or

(b) return the share certificates to the shareholders or security holders whose securities have not been accepted at all, or the balance of securities in case of part acceptance

**10. Other restrictions:**

The company shall ensure that –

(a) the letter of offer shall contain true, factual and material information and shall not contain any misleading information and must state that the directors of the company accept the responsibility for the information contained in such document;

(b) the company shall not issue any new shares including by way of bonus shares from the date of passing of special resolution authorizing the buy-back till the date of the closure of the offer under these rules, except those arising out of any outstanding convertible instruments;

(c) the company shall confirm in its offer the opening of a separate bank account adequately funded for this purpose and to pay the consideration only by way of cash;

(d) the company shall not withdraw the offer once it has announced the offer to the shareholders;

(e) the company shall not utilize any money borrowed from banks or financial institutions for the purpose of buying back its shares; and

(f) the company shall not utilize the proceeds of an earlier issue of the same kind of shares or same kind of other specified securities for the buy-back.

**11. Maintain register of buy-back in Form SH-10**

(a) The company shall maintain a register of shares or other securities which have been bought-back in Form No. SH.10.

(b) The register of shares or securities bought-back shall be maintained at the registered office of the company and shall be kept in the custody of the secretary of the company or any other person authorized by the board in this behalf.

(c) The entries in the register shall be authenticated by the secretary of the company or by any other person authorized by the Board for the purpose.

**12. File return of buy-back in Form SH-11:**

The company, after the completion of the buy-back under these rules, shall file with the Registrar, and in case of a listed company with the Registrar and the Securities and Exchange Board of India, a return in the Form No. SH.11 along with the fee.

**13. File compliance certificate in Form SH-15 along with Form SH-11:**

There shall be annexed to the return filed with the Registrar in Form No. SH.11, a certificate in Form No. SH.15 signed by two directors of the company including the managing director, if there is one, certifying that the buy- back of securities has been made in compliance with the provisions of the Act and the rules made thereunder.

**Time Schedule Summary:**

| Time Taken | Procedure |
|---|---|
| Starting Day say 'A' | Obtaining:<br>• Auditors Report stating maximum amount permissible for buy-back;<br>• Board of Directors Affidavit regarding solvency of company for one year;<br>• Then holding Board meeting for considering proposal of buy-back, getting resolution passed and determine price for such buy-back. |
| A + 2 | Issue of notice with Explanatory Statement (along with disclosures mentioned below) to all members. |
| A + 23 | Holding EGM and passing special resolution, if required. |
| A + 24 | Obtaining Declaration of Solvency (verified by an affidavit in e-form SH9);<br>• Filing draft letter of Off with the ROC along with declaration of Solvency and e-form SH8;<br>• Filing of e-form for registration of such resolution with MCA21. |
| A + 44 | Maximum time for dispatch of letter of offer to all members. |
| Within 15 days from the closure of offer | Verification of offer to be completed;<br>**Note:** Offer for buy-back shall remain open to the members for a period not less than 15 days and not exceeding 30 days from the date of dispatch of letter of offer. The shares or other securities lodged shall be deemed to be accepted unless a communication of rejection is made within twenty-one days from the date of closure of the offer. |

| | |
|---|---|
| Immediately on Closure of offer | Open a Special Bank Account with Schedule Bank. |
| Within 7 days from completion of Verification | Making payment in cash to those shareholders whose offer has been accepted or return the share certificates to the shareholders forthwith. |
| Within 7 days from completion of Acceptance | Extinguish and physically destroy the share certificates of shares bought back. |
| After completion of buy-back | File requisite return in e-form SH 11 with MCA21 and a declaration signed by 2 directors, one of whom shall be Managing Director, if there is one, in e-form SH 15 |

**Accounting Entries**

1. In case investments are sold for buying back own shares

   Bank A/c Dr.

   To Investment A/c

2. In case the proceeds of fresh issues are used for buy-back purpose

   Bank A/c Dr.

   To debentures/other Investment A/c

   To Securities Premium A/c (if any)

3. For Buying back of shares:

   Equity Shareholders A/c Dr.

   To Bank A/c (With the amount paid)

4. For cancellation of shares bought back:

   Equity Share Capital A/c Dr. (with the nominal value of shares bought back)

   Free reserves/Securities Premium A/c Dr. (with the excess amount/premium paid over nominal value)

   To Equity Shareholders A/c (with the amount payable)

5. In case the shares are bought back at discount:

   Equity Share Capital A/c Dr. (with the nominal value)

   To Equity shareholders A/c (with the amount paid)

   To Capital Reserves A/c (with the amount of discount on buy-back)

6. For transfer of nominal value of shares purchased out of free reserves/securities premium to Capital Redemption Reserves Account:

   Free Reserves A/c Dr. (with the amount transferred)

   Securities Premium A/c Dr. (with the amount transferred)

   To Capital Redemption Reserves A/c (with the nominal value of shares bought back)

7. For expenses incurred in buy-back of shares:

   Buy-back Expenses A/c Dr. (with the amount)

   To Bank A/c

   For transfer of buy-back expenses:

   Profit and Loss A/c Dr.

   To buy-back Expenses A/c

**Illustration 4:**

**ALLUWALIA Ltd**

**BALANCE SHEET as at 31st March, 2019**

| | | |
|---|---|---|
| **I. EQUITIES AND LIABILITIES** | | |
| 1. Shareholders' funds | | |
| (a) Share Capital | 1 | 10,00,000 |
| (b) Reserve & Surplus | 2 | 7,05,000 |
| 2. Non-Current Liability | | |
| Long-term borrowings | | |
| 3. Current Liability | 3 | 4,00,000 |
| Trade payables | | 60,000 |
| **TOTAL** | | **21,65,000** |
| **II. ASSETS** | | |
| 1. Non-current assets | | |
| (a) Fixed Assets | | |
| (i) Tangible fixed assets | 4 | 13,30,000 |
| (b) Non-Current Investment | | 1,50,000 |
| 2. Current Assets | | |
| Inventories | 1,00,000 | |
| Trade receivables | 1,00,000 | |
| Cash and cash equivalents Balance | 4,85,000 | 6,85,000 |
| **TOTAL** | | **21,65,000** |
| Notes | | |
| 1. Share Capital | | |
| Authorized Share Capital | | |
| Issued, Subscribed Called-Up and Paid-Up Share Capital:- | | |
| 1,00,000 shares of Rs. 10 each fully paid-up | | 10,00,000 |
| 2. Reserve and Surplus | | |
| Securities Premium | 2,00,000 | |
| General Reserve | 5,05,000 | 7,05,000 |
| 3. Long-term borrowings | | |
| 14% Debentures | | 4,00,000 |
| 4. Tangible Fixed assets | | |
| Land-building | 9,30,000 | |
| Plant and machinery | 3,50,000 | |
| Furniture and fitting | 50,000 | 13,30,000 |

On 1st April, 2019 the shareholders of the company have approved the scheme of buy-back of equity shares as under:

(i) 5% of the equity shares would be bought back at Rs 15.

(ii) 12% Debentures to be issued for Rs 10,000 to finance for the buy-back, and balance from the General reserve may be utilized for this purpose.

(iii) Premium paid on buy-back of shares should be met from securities premium account.

(iv) Investments would be sold for Rs 275,000.

Pass journal entries to record the above transactions and prepare the balance sheet of the company immediately after the buy-back of shares.

**Solution:**

**Alluwalia Ltd.**

**Journal**

| **Particulars** | | **Dr. (Rs)** | **Cr. (Rs)** |
|---|---|---|---|
| Bank A/c | Dr. | 275,000 | |
| To Investments A/c | | | 150,000 |
| To Profit and Loss A/c | | | 125,000 |
| (Sale of investments, the profit being transferred to profit and loss account as per shareholder's special resolution) | | | |
| Shareholders A/c | Dr. | 75,000 | |
| To Bank A/c | | | 75000 |
| (Purchase of 5,000 of own shares @ Rs 15 each) | | | |
| Equity Share Capital A/c | Dr. | 50,000 | |
| Securities Premium A/c | Dr. | 25,000 | |
| To Shareholders A/c | | | 75,000 |
| (Cancellation of 5,000 equity shares bought back, and securities premium utilized as per shareholders' special resolution) | | | |
| General Reserve A/c | Dr. | 40,000 | |
| To Capital Redemption Reserve A/c | | | 40,000 |
| (Transfer of general reserve utilized to the extent of nominal value of shares bought back) | | | |
| Bank A/c | Dr. | 10,000 | |
| To 12% Debentures A/c | | | 10,000 |
| (Issue of 12% Debentures to partly finance the buy-back) | | | |

**Alluwalia Ltd.**

**Balance Sheet (After Buy-back) as at 1st April, 2019**

| | | | |
|---|---|---|---|
| **I.** | **EQUITIES AND LIABILITIES** | | |
| | 1. Shareholders' funds | | 950,000 |
| | (a) Share Capital | | |
| | (b) Reserve & Surplus | | 805,000 |
| | 2. Non-Current Liability Long-term borrowings | | 410,000 |
| | 3. Current Liability Trade payables | | 60,000 |
| | **TOTAL** | | **22,25,000** |
| **II.** | **ASSETS** | | |
| | 1. Non-current assets | | |
| | (a) Fixed assets | | 13,30,000 |
| | (i) Tangible fixed assets | | |
| | 2. Current Assets Stock | 1,00,000 | |
| | Sundry debtors | 1,00,000 | |
| | Cash and Cash equivalents | 6,95,000 | 8,95,000 |
| | **TOTAL** | | **22,25,000** |
| | **Notes** | | |
| | 1. Share Capital | | |
| | Authorized Share Capital | | |
| | Issued, Subscribed Called Up And Paid Up Share Capital | | |
| | 95,000 shares of Rs/ 10 each fully paid up | | 9,50,000 |
| | 2. Reserve and Surplus | 1,75,000 | |
| | Securities Premium | 4,65,000 | |
| | General Reserve | 40,000 | |
| | Capital Redemption Reserve Profit and Loss Account | 125,000 | 8,05,000 |
| | 3. Long-term borrowings | | |
| | 14% Debentures – | 400,000 | |
| | 12%Debentures- | 10,000 | 4,10,000 |

**Note:** The debt-equity ratio of the company after buy-back of shares:

Debt-equity ratio = Debt/ Equity (Capital and free reserves)

= (410000 + 60000) / (950,000 + 175,000 + 465,000 + 125,000)

= 0.274 : 1

The debt equity ratio is within the limit.

## ISSUE OF BONUS SHARES (SECTION 63)

### Issue & its related conditions

A company may issue fully paid up bonus shares to its members, in any manner out of -

(i) its free reserves;

(ii) the securities premium account; or

(iii) the capital redemption reserve account.

However, no issue of bonus shares shall be made by capitalizing reserves created by the revaluation of assets.

No company shall capitalize its profits or reserves for the purpose of issuing fully paid up bonus shares under above, unless -

(a) it is authorized by its articles;

(b) it has, on the recommendation of the Board, been authorized in the general meeting of the company;

(c) it has not defaulted in payment of interest or principal in respect of fixed deposits or debt securities issued by it;

(d) it has not defaulted in respect of the payment of statutory dues of the employees, such as contribution to provident fund, gratuity and bonus;

(e) the partly paid up shares, if any outstanding on the date of allotment, are made fully paid up;

(f) The company which has once announced the decision of its Board recommending a bonus issue, shall not subsequently withdraw the same. [Rule 14 of Companies (Share Capital and Debentures) Rules, 2014]

(1) The bonus shares shall not be issued in lieu of dividend.

**Journal Entries for Issue of Bonus Shares**

**(A) On capitalization of reserve for the issue of shares**

| | |
|---|---|
| Profit & Loss A/c | Dr. |
| General Reserve A/c | Dr. |
| Capital Reserve A/c (realised in cash only) | Dr. |
| Securities Premium A/c | Dr. |
| Capital Redemption Reserve A/c | Dr. |
| To Bonus Shareholders A/c | |

**(B) On issue of Bonus share**

| | |
|---|---|
| Bonus to Shareholders A/c | Dr. |
| To Share Capital A/c. | |

**Note:** If some shares are party paid up, first the shares are to be made fully paid up. Journal entries are as follows:

**(c) Capitalization of Reserve for Issue of Shares**

| | |
|---|---|
| Profit & Loss A/c | Dr. |
| General Reserve A/c | Dr. |
| Capital Reserve Account (realized in cash only) | Dr. |
| To Bonus Shareholders A/c | |

**(d) On making the final call due**

Share Final Call Account Dr.

To Share Capital Account

**(e) On adjustment of final call**

Bonus Shareholders A/c Dr.

To Share Final Call A/c

## EMPLOYEE STOCK OPTION SCHEME (ESOP)

The idea that the employees should have an option to have an ownership stake in the company led to the emergence of concept of Employee Stock Option Plan (ESOP).The concept of ESOP is believed to be the brain child of Louis Kelso,a lawyer, economist and philosopher who persuaded a Senator from Louisiana to support legislation for legalizing ESOPs.

**OBJECTIVE OF ISSUING ESOPs**

- To provide an incentive to draw, retain and reward employees of the company;
- To motivate employees to contribute to the growth and profitability of the company.

**IMPORTANT TERMS:**

- **'Option' in stock options:** Having an option in stock option gives the employees the choice to purchase the shares of the company on the fulfillment of the conditions mentioned in the ESOP plan at the price decided at the time of grant of options.
- **Grant:** The eligibility of a particular employee for the grant of stock options is based on his role and performance, hence grant of option.
- **Vesting:** Vesting has two components – Vesting percentage and vesting period
- Vesting period implies the period on the completion of which the said portion can be exercised. Vesting percentage refers to that portion of total options granted, which the employee will be eligible to exercise.
- **Exercise:** The activity of converting the options granted to an employee into shares by paying the required exercise price is known as the exercise of options.
- **Exercise price and exercise period:** Exercise price is the price which the employee has to pay to convert the options into shares. The exercise period is the time frame within which the employee can decide to exercise the stock options.
- **Effective date of exercise:** The effective date of exercise is the date on which the Company allots the shares.

**Issue of Employee Stock Options by Unlisted Public Company as per provisions of Companies Act**

As per Section 2(37) of the Companies Act, 2013 "employees' stock option" means the option given to the directors, officers or employees of a company or of its holding company or subsidiary company or companies, if any, which gives such directors, officers or employees, the benefit or right to purchase, or to subscribe for, the shares of the company at a future date at a pre-determined price.

As per provisions of Sec 62(1)(b) of Companies Act, 2013, "where at any time a company having a share capital proposes to increase its subscribed capital by the issue of further shares, such shares shall be offered to employees under a scheme of employees' stock option, subject to special resolution passed by the company and subject to such conditions as may be prescribed."

**Issue of Employee Stock Options**

The above provision needs to be read with Rule 12 of The Companies (Share Capital and Debentures) Rules, 2014. As per the said Rule, a Company, other than a listed company, shall not offer shares to its employees under a scheme of employees' stock option, unless it complies with the following requirements, namely:-

(1) **Sanction by Special Resolution:** The issue of Employees Stock Option Scheme has been approved by the shareholders of the company by passing a special resolution.

Employees to whom ESOPs may be issued: For the purpose of above statement the word "Employee'' means -

(a) a permanent employee of the company who has been working in India or outside India; or

(b) a director of the company, but excluding an independent director; or

(c) an employee as defined in 1(a) or (b) above of a subsidiary, in India or outside India, or of a holding company of the company.

Excluding -

(i) an employee who is a promoter or a person belonging to the promoter group; or

(ii) a director who either himself or through his relatives or through anybody in corporate, directly or indirectly, holds more than ten percent of the outstanding equity shares of the company.

(2) **Disclosures in the explanatory statement annexed to the notice for passing of the resolution:** The company shall make the following disclosures in the explanatory statement annexed to the notice for passing of the resolution -

(a) total number of stock options to be granted;

(b) identification of classes of employees entitled to participate in the ESOP;

(c) the appraisal process for determining the eligibility of employees to participation the ESOP;

(d) the requirements of vesting and the period of vesting;

(e) the maximum period within which the options shall be vested;

(f) the exercise price or the formula for arriving at the same;

(g) the exercise period and process of exercise;

(h) the lock-in period, if any;

(i) the maximum number of options to be granted per employee and in aggregate;

(j) The method which the company shall use to value its options;

(k) the conditions under which option vested in employees may lapse, e.g., in case of termination of employment for misconduct;

(l) the specified time period within which the employee shall exercise the vested options in the event of a proposed termination of employment or resignation of employee; and

(m) a statement to the effect that the company shall comply with the applicable accounting standards.

(3) **Pricing:** The companies granting option to its employees pursuant to Employees Stock Option Scheme will have the freedom to determine the exercise price in conformity with the applicable accounting policies, if any.

(4) **Shareholders' approval by way of separate resolution:** The approval of shareholders by way of separate resolution shall be obtained by the company in case of-

(a) grant of option to employees of subsidiary or holding company; or

(b) grant of option to identified employees, during any one year, equal to or exceeding one percent of the issued capital of the company at the time of grant of option.

(5) (a) The company may by special resolution, vary the terms of ESOP not yet exercised by the employees

(b) The notice for passing special resolution for variation of terms of ESOP shall disclose full details of the variation, the rationale therefore, and the details of the employees who are beneficiaries of such variation.

(6) **Minimum vesting period:**

(a) There shall be a minimum period of one year between the grant of options and vesting of option. However, in a case where options are granted by a company under its Employees Stock Option Scheme in lieu of options held by the same person under an Employees Stock Option Scheme in another company, which has merged or amalgamated with the first mentioned company, the period during which the options granted by the merging or amalgamating company were held by him shall be adjusted against the minimum vesting period required (i.e., 1 year)

(b) Lock-in-period for shares issued on exercise of option : The company shall have the freedom to specify the lock-in period for the shares issued in pursuant to exercise of option.

(c) Right to receive dividends: The Employees shall not have right to receive any dividend or to vote or in any manner enjoy the benefits of a shareholder in respect of option granted to them, till shares are issued on exercise of option.

(7) **Forfeiture/ Refund of amount paid by employees under ESOP :** The amount, payable by the employees, at the time of grant of option -

(a) may be forfeited by the company if the option is not exercised by the employees within the exercise period; or

(b) the amount may be refunded to the employees if the options are not vested due to non-fulfillment of conditions relating to vesting of option as per the Employees Stock Option Scheme.

(8) (a) The option granted to employees shall not be transferable.

(b) The option granted to the employees shall not be pledged, hypothecated, mortgaged or otherwise encumbered or alienated in any other manner.

(c) Subject to clause (d), no person other than the employees to whom the option has been granted shall be entitled to exercise the option.

(d) In the event of the death of the employee while in employment, all the options granted to him till such date shall vest in the legal heirs or nominees of the deceased employee.

(e) In case the employee suffers a permanent incapacity while in employment, all the options granted to him as on the date of permanent incapacitation, shall vest in him on that day.

(f) In the event of resignation or termination of employment, all options not vested in the employee as on that day shall expire. However, the employee can exercise the options granted to him which were vested within the period specified in this behalf, subject to the terms and conditions under the scheme granting such options as approved by the Board.

(9) **Disclosures in Board of Directors Report :** The Board of Directors, shall, inter alia, disclose in the Directors' Report for the year, the following details of the Employees Stock Option Scheme: (a) options granted; (b) options vested; (c) options exercised; (d) the total number of shares arising as a result of exercise of option; (e) options lapsed; (f) the exercise price; (g) variation of terms of options; (h) money realized by exercise of options; (i) total number of options in force; (j) employee wise details of options granted to;- (i) key managerial personnel; (ii) any other employee who receives a grant of options in any one year of option amounting to five percent or more of options granted during that year. (iii) identified employees who were granted option, during any one year, equal to or exceeding one percent of the issued capital (excluding outstanding warrants and conversions) of the company at the time of grant;

(10) **Register of Employees Stock Options :**

(i) The company shall maintain a Register of Employee Stock Options in Form No. SH.6 and shall forthwith enter therein the particulars of option granted under clause (b) of sub-section (1) of section 62.

(ii) The Register of Employee Stock Options shall be maintained at the registered office of the

(iii) company or such other place as the Board may decide.

(iv) The entries in the register shall be authenticated by the company secretary of the company or by any other person authorized by the Board for the purpose.

Rule 12(11) specifically provides that, where the equity shares of the company are listed on a recognized stock exchange, the Employees Stock Option Scheme shall be issued in accordance with the regulations made by Securities and Exchange Board of India. In this behalf. SEBI (Share Based Employee Benefits) Regulations, 2014 issued in October 28, 2014 (applicable from the even date) have replaced the erstwhile SEBI Employee Stock Option Scheme and Employee Stock Purchase Scheme Guidelines (applicable for listed companies) 1999.

## Illustration 5:

Raman Ltd. granted 1000 options on April 01, 2016 at Rs. 40 (nominal value Rs. 10 each) when the market price was Rs. 120, and the vesting period was 2.5 years. The maximum exercise period was one year. On Oct 1, 2018, 200 unvested options lapsed and 600 options were exercised. On 30th Oct, 2019 remaining 200 options lapsed at the end of exercise period.

Pass necessary journal entries.

**Solution:**

**In the Books of Raman Ltd.**

**JOURNAL**

| Date | Particulars | Amount (Rs.) | Amount (Rs.) |
|---|---|---|---|
| 2016 April 1 | Deferred Employee Compensation Expense A/c Dr.<br>To Employee Stock Options Outstanding A/c<br>(Being grant of 1,000 options at a discount of Rs. 80, i.e., Rs. 120 - Rs.40) | 80,000 | <br>80,000 |
| 2017 March 31 | Employee Compensation Expense A/c Dr.<br>To Deferred Employee Compensation Expense A/c<br>(Being amortization of Deferred Compensation, i.e., Rs. 80,000 / 2.5) | 32,000 | <br>32,000 |
| 2018 March 31 | Employee Compensation Expense A/c Dr.<br>To Deferred Employee Compensation Expense A/c<br>(Being amortization of Deferred Compensation, i.e., Rs. 80,000 / 2.5) | 32,000 | <br>32,000 |
| 2018 Oct 1 | Employee Stock Options Outstanding A/c Dr.<br>To Employee Compensation Expense A/c<br>[(200 * Rs.80) * 2/2.5]<br>To Deferred Employee Compensation Expense A/c<br>[(200 * Rs.80) * 0.5/2.5]<br>(Being reversal of compensation accounting on lapse of 200 unvested options ) | 16,000 | <br>12,800<br><br>3,200 |
| 2018 Oct 1 | Employee Compensation Expense A/c Dr.<br>To Deferred Employee Compensation Expense A/c<br>(Being amortization of Deferred Compensation) (800*80*0.5/2.5) | 12,800 | <br>12,800 |

| | | | | |
|---|---|---|---|---|
| 2018 Oct 1 | Bank A/c (600 *40) | Dr. | 24,000 | |
| | Employee Stock Options Outstanding A/c | Dr. | 48,000 | |
| | [Rs. 600 * (Rs. 120 - Rs. 40)] | | | |
| | To Equity Share Capital A/c (600 * 10) | | | 6,000 |
| | To Securities Premium A/c | | | 66,000 |
| | [Rs.600 *(Rs. 120 - Rs. 10)] | | | |
| | (Being excise of 600 options at an excise price of Rs. 20 each and an accounting value of Rs. 60 each ) | | | |
| 2019 Oct. 30 | Employee Stock Options Outstanding A/c | Dr. | 16,000 | |
| | To Employee Compensation Expense A/c | | | 16,000 |
| | (Being reversal of compensation accounting on lapse of 200 vested options at the end of the excise period i.e., Rs.200 * 80 ) | | | |

## ISSUE OF SWEAT EQUITY SHARES (SECTION 54)

Sweat equity shares refer to equity shares which are given to the company's employees on favourable terms, in recognition of their work. Sweat equity shares are one of the modes of making share-based payments to employees. Sweat equity shares rewards the beneficiaries by giving them incentives in lieu of their contribution towards development of the company. Further, sweat equity shares facilitate greater employee stakes as well as interest in company's growth and encourages employees to add more value towards the company.

### Definition

(1) Sweat Equity Shares: As per Section 2(88) of the Companies Act, 2013 "sweat equity shares" means such equity shares as are issued by a company to its directors or employees at a discount or for consideration, other than cash, for providing their know-how or making available rights in the nature of intellectual property rights or value additions, by whatever name called;

For the purposes of above-

(i) the expressions ''Employee'' means-

(a) a permanent employee of the company who has been working in India or outside India; or

(b) a director of the company, whether a whole time director or not; or

(c) an employee or a director as defined in sub-clauses (a) or (b) above of a subsidiary, in India or outside India, or of a holding company of the company;

(ii) the expression 'Value additions' means actual or anticipated economic benefits derived or to be derived by the company from an expert or a professional for providing know-how or making available rights in the nature of intellectual property rights, by such person to whom sweat equity is being issued for which the consideration is not paid or included in the normal remuneration payable under the contract of employment, in the case of an employee.

### Conditions to be fulfilled

(1) The issue is authorized by a special resolution passed by the company;

(2) The resolution specifies the number of shares, the current market price, consideration, if any, and the class or classes of directors or employees to whom such equity shares are to be issued;

(3) The special resolution authorizing the issue of sweat equity shares shall be valid for making the allotment within a period of not more than twelve months from the date of passing of the special resolution.

(4) The sweat equity shares issued to directors or employees shall be locked in/non-transferable for a period of three years from the date of allotment and the fact that the share certificates are under lock-in and the period of expiry of lock-in shall be stamped in bold or mentioned in any other prominent manner on the share certificate.

(5) Where the equity shares of the company are listed on a recognized stock exchange, the sweat equity shares are issued in accordance with the regulations made by the Securities and Exchange Board in this behalf and if they are not so listed, the sweat equity shares are issued in accordance with the Companies (Share Capital and Debentures) Rules, 2014.

## Quantum of sweat equity share

The company shall not issue sweat equity shares for more than fifteen percent of the existing paid up equity share capital in a year or shares of the issue value of rupees five crores, whichever is higher.

Provided that the issuance of sweat equity shares in the company shall not exceed twenty five percent, of the paid up equity capital of the company at any time.

Provided further that a startup company, as defined in notification number GSR 180(E) dated 17th February, 2016 issued by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India, may issue sweat equity shares not exceeding fifty percent of its paid up capital upto five years from the date of its incorporati on or registration.

## Pricing of sweat equity share

(1) The sweat equity shares to be issued shall be valued at a price determined by a registered valuer as the fair price giving justification for such valuation.

(2) The valuation of intellectual property rights or of know how or value additions for which sweat equity shares are to be issued, shall be carried out by a registered valuer, who shall provide a proper report addressed to the Board of Directors with justification for such valuation.

(3) A copy of gist along with critical elements of the valuation report obtained under clause (1) and clause (2) shall be sent to the shareholders with the notice of the general meeting.

## Procedure for issue of sweat equity share

For issue to sweat equity shares, the following broad procedure needs to be followed:

(1) Convene and hold a board meeting to consider the proposal of issue of sweat equity shares and to fix up the date, time, place and agenda for general meeting and to pass a special resolution for the same.

(2) Issue notices in writing to shareholders for general meeting alongwith explanatory statement. The explanatory statement to be annexed to the notice for the general meeting pursuant to section 102 of the Act must contain the following particulars:

   (a) the date of the Board meeting at which the proposal for issue of sweat equity shares was approved;

   (b) the reasons or justification for the issue;

   (c) the class of shares under which sweat equity shares are intended to be issued;

   (d) the total number of shares to be issued as sweat equity;

   (e) the class or classes of directors or employees to whom such equity shares are to be issued;

   (f) the principal terms and conditions on which sweat equity shares are to be issued, including basis of valuation;

   (g) the time period of association of such person with the company;

   (h) the names of the directors or employees to whom the sweat equity shares will be issued and their relationship with the promoter or/and Key Managerial Personnel;

(i) the price at which the sweat equity shares are proposed to be issued;

(j) the consideration including consideration other than cash, if any to be received for the sweat equity;

(k) the ceiling on managerial remuneration, if any, be breached by issuance of such sweat equity and how it is proposed to be dealt with;

(l) a statement to the eff that the company shall conform to the applicable accounting standards; and

(m) diluted Earnings per Share pursuant to the issue of sweat equity shares are calculated in accordance with the applicable accounting standards.

(3) Convene the General Meeting and Pass a special resolution;

(4) File the resolution with MCA in Form No. MGT-14 within 30 days of passing the same;

(5) Call a Board meeting and allot sweat equity shares in the meeting;

(6) File Form No. PAS-3 within 30 days of passing of the Board resolution for allotting sweat equity shares;

(7) The company shall maintain a Register of Sweat Equity Shares in Form No. SH-3 and shall forthwith enter therein the particulars of Sweat Equity Shares issued.

(8) The Register of Sweat Equity Shares shall be maintained at the registered office of the company or such other place as the Board may decide.

(9) The entries in the register shall be authenticated by the Company Secretary of the company or by any other person authorized by the Board for the purpose.

## Disclosure in the directors' report in respect of sweat equity share

The Board of Directors shall, inter alia, disclose in the Directors' Report for the year in which such shares are issued. The following are the details about the issue of sweat equity shares namely:

(1) the class of director or employee to whom sweat equity shares were issued;

(2) the class of shares issued as Sweat Equity Shares;

(3) the number of sweat equity shares issued to the directors, key managerial personnel or other employees showing separately the number of such shares issued to them, if any, for consideration other than cash and the individual names of allottees holding one percent or more of the issued share capital;

(4) the reasons or justification for the issue;

(5) the principal terms and conditions for the issue of sweat equity shares, including pricing formula;

(6) the total number of shares arising as a result of issuing of sweat equity shares; the percentage of the sweat equity shares of the total post issued and paid up share capital;

(8) the consideration (including consideration other than cash) received or benefit accrued to the company from the issue of sweat equity shares;

(9) the diluted Earnings Per Share (EPS) pursuant to issuance of sweat equity shares.

## Accounting treatment of sweat equity share issued

(1) Where sweat equity shares are issued for a non-cash consideration on the basis of a valuation report in respect thereof obtained from the registered valuer, such non-cash consideration shall be treated in the following manner in the books of account of the company

(a) where the non-cash consideration takes the form of a depreciable or amortizable asset, it shall be carried to the balance sheet of the company in accordance with the accounting standards; or

(b) where clause (a) is not applicable, it shall be expensed as provided in the accounting standards.

(2) The amount of sweat equity shares issued shall be treated as part of managerial remuneration for the purposes of sections 197 and 198 of the Act, if the following conditions are fulfilled, namely.-

(i) the sweat equity shares are issued to any director or manager; and

(ii) they are issued for consideration other than cash, which does not take the form of an asset which can be carried to the balance sheet of the company in accordance with the applicable accounting standards.

(3) In respect of sweat equity shares issued during an accounting period, the accounting value of sweat equity shares shall be treated as a form of compensation to the employee or the director in the financial statements of the company, if the sweat equity shares are not issued as pursuant to the acquisition of an asset.

(4) If the shares are issued as pursuant to the acquisition of an asset, the value of the asset, as determined by the valuation report, shall be carried in the balance sheet as per the Accounting Standards, and such amount of the accounting value of the sweat equity shares that is in excess of the value of the asset acquired, as per the valuation report, shall be treated as a form of compensation to the employee or the director in the financial statements of the company.

*Explanation*.- For the purposes of this sub-rule, it is hereby clarified that the accounting value shall be the fair value of the sweat equity shares as determined by a registered valuer under Rule 8(6) of the Companies (Share Capital and Debentures) Rules, 2014.

## ISSUE OF RIGHT SHARES

**Meaning:** Right issue means offering shares to existing members in proportion to their existing shareholding

(1) Where at any time, a company having a share capital proposes to increase its subscribed capital by the issuing further shares, such shares shall be offered –

(a) to persons who, at the date of the offer, are holders of equity shares of the company in proportion, as nearly as circumstances admit, to the paid up share capital on those shares by sending a letter of offer subject to the following conditions, namely: -

(i) the offer shall be made by notice specifying the number of shares offered and limiting a time not being less than fifteen days and not exceeding thirty days from the date of the offer within which the offer, if not accepted, shall be deemed to have been declined;

(ii) unless the articles of the company otherwise provide, the offer aforesaid shall be deemed to include a right exercisable by the person concerned to renounce the shares offered to him or any of them in favour of any other person; and the notice referred to in clause (i) shall contain a statement about this right;

(iii) after the expiry of the time specified in the notice aforesaid, or on receipt of earlier intimation from the person to whom such notice was given and he declined to accept the shares offered, the Board of Directors may dispose of them in such manner which is not disadvantageous to the shareholders and company;

(b) to employees under a scheme of employees' stock option, subject to special resolution passed by company and subject to such conditions as may be prescribed; or

(c) to any persons, if it is authorized by a special resolution, whether or not those persons include the persons referred to in clause (a) or clause (b), either for cash or for a consideration other than cash, if the price of such shares is determined by the valuation report of a registered valuer subject to such conditions as may be prescribed.

(2) The notice referred to in sub-clause 1(a)(i) above shall be despatched through registered post or speed post or through electronic mode to all the existing shareholders at least three days before the opening of the issue.

(3) Nothing in this section shall apply to the increase of the subscribed capital of a company caused by the exercise of an option as a term attached to the debentures issued or loan raised by the company to convert such debentures or loans into shares in the company:

Provided that the terms of issue of such debentures or loans containing such an option have been approved before the issue of such debentures or the raising of loans by a special resolution passed by the company in the general body meeting.

## ISSUE AND REDEMPTION OF PREFERENCE SHARES

### Issue of preference shares

A company which is limited by shares, if the articles so authorize,can issue preference shares liable to be redeemed within a period not exceeding twenty years from the date of their issue under section 55 of the Companies Act, 2013. No company limited by shares shall issue any irredeemable preference shares.

A company may issue preference shares for a period exceeding 20 years but not beyond 30 years for infrastructure projects (Specified in Schedule VI). However, the redemption is subject to minimum 10% of such preference shares per year from the twenty-first year onwards or earlier, on proportionate basis, at the option of the preference shareholders.

### Redemption of preference shares

The preference shares can be redeemed only when they are fully paid up -

– out of the profits of the company which would otherwise be available for dividend, or

– out of the proceeds of a fresh issue of shares made for the purposes of such redemption.

## CAPITAL REDEMPTION RESERVE ACCOUNT

If preference shares are to be redeemed out of the profits of a company, a sum equal to nominal amount of shares that are to be redeemed, shall be transferred to a reserve called Capital Redemption Reserve Account out of profits of the company and provisions of this Act relating to reduction of share capital of a company shall apply as if the Capital Redemption Reserve Account were paid up share capital of the company.

The capital redemption reserve account may be used by the company, in paying up of unissued shares of the company to be issued to members of the company as fully paid bonus shares.

### Premium on redemption of preference shares

(a) For the companies whose financial statements comply with the accounting standards as prescribed in section 133, the premium payable on redemption shall be provided out of the profits of the company, before the shares are redeemed.

(b) For redemption of any preference shares issued on or before the commencement of Companies Act, 2013, the premium payable on redemption shall be provided out of the profits of the company, or out of the company's securities premium account, before such shares are redeemed.

(c) For companies whose financial statements need not comply with the accounting standards as under section 133, the premium payable on redemption shall be provided out of the profits of the company, or out of the company's securities premium account, before such shares are redeemed.

**Case 1:** Redemption of preference shares out of the profits of the company which would otherwise be available for dividend.

In case redeemable preference shares are redeemed out of company profits, which are otherwise available for dividend, the "Capital Redemption Reserve Account" is to be created that will represent the redeemable preference shares in the balance sheet after redemption. This capital redemption reserve should be equivalent to the amount of Preference Shares which are to be redeemed. The profits available for dividend have to be transferred to Capital Redemption Reserve Account.

**Journal Entries**

1. Transfer profits available for dividend to Capital Redemption Reserve Account:

| | | |
|---|---|---|
| General Reserve Account | Dr. | as the case may be |
| Profit and Loss Appropriation A/c | Dr. | |
| Dividend Equalization Account | Dr. | |
| To Capital Redemption Reserve A/c | | with the nominal value of the shares to be redeemed |

2. If current assets are realized to provide cash for redemption of preference shares:

| | | |
|---|---|---|
| Bank A/c | Dr. | |
| To Respective Assets Account | | with the realized value of assets |

3. On transfer of redeemable preference share-capital to be redeemed to Preference Shareholders Account:

| | | |
|---|---|---|
| Redeemable Preference Share-Capital A/c | Dr. | with the nominal value of the shares to be redeemed |
| To Preference Shareholders A/c | | |

4. If preference shares are redeemed at a premium:

| | | |
|---|---|---|
| Redeemable Preference Share-Capital A/c | Dr. | |
| Premium on Redemption of Preference Shares A/c | Dr. | with the amount of premium payable |
| To Preference Shareholders A/c | | |

5. For providing premium on redemption of preference shares:

| | | |
|---|---|---|
| Securities Premium Account | Dr. | with amount of premium paid on redemption |
| or Profit and Loss Appropriation A/c | Dr. | |
| To Premium on Redemption of Preference Shares Account | | |

6. On redemption of preference shares:

| | | |
|---|---|---|
| Preference Shareholders Account | Dr. | with the amount paid |
| To Bank A/c | | |

### Illustration 6:

Hello Ltd. had an issue of 2,000, 10% Redeemable Preference Shares of Rs 100 each, repayable at a premium of 10%. These shares are to be redeemed out of the accumulated reserves, which are more than the necessary sum required for redemption. Show the necessary entries in the books of the company, assuming that the premium on redemption of shares has to be written off against the company's Securities Premium Reserves.

### Solution:

**Journal**

| **Particulars** | | **Dr. (Rs)** | **Cr.(Rs)** |
|---|---|---|---|
| General Reserve Account | Dr. | 2,00,000 | |
| To Capital Redemption Reserve A/c | | | 2,00,000 |
| (Transfer of reserves to Capital Redemption Reserve Account on Redemption of Redeemable Preference Shares) | | | |
| 10% Redeemable Preference Share Capital A/c | Dr. | 2,00,000 | |
| Premium on Redemption of Preference Shares A/c | Dr. | 20,000 | |
| To 12% Preference Shareholders A/c | | | 2,20,000 |
| (Amount payable to 10% preference shareholders on redemption of 10% preference shares at a premium of 10%) | | | |

| | | | |
|---|---|---|---|
| Securities Premium Reserves | Dr. | 20,000 | |
| To Premium on Redemption of Preference Share A/c | | | 20,000 |
| (Application of Securities Premium Account to write off premium on Redemption of Preference Shares) | | | |
| 10% Preference Shareholders A/c | Dr. | 2,20,000 | |
| To Bank A/c | | | 2,20,000 |
| (Amount due to 10% preference shareholders on redemption paid) | | | |

**Note:** Capital Redemption Reserve Account replaces the 10% Redeemable Preference Shares Capital Account and the capital structure of the company remains unchanged.

**Case 2:** If the redeemable preference shares are redeemed out of the proceeds of a fresh issue of shares made for the purpose of redemption:

In a case where redeemable preference shares are redeemed out of proceeds received from fresh issue of shares, the Share Capital Account raised by fresh issue shall take the place of Redeemable Preference Share Capital Account after redemption. Thus, in such a case, new Share Capital Account (Equity or Preference) must be equal to the redeemable preference shares redeemed.

First of all, entries for fresh issue of shares will be passed. Then entries for redemption passed as has been given in the previous case.

### Illustration 7:

Diamond Ltd. has part of its share capital consisting of 20000, 12% Redeemable Preference Shares of Rs 100 each, repayable at a premium of 10%. The shares have now become ready for redemption. It is decided that the whole amount will be redeemed out of a fresh issue of 20,000 equity shares of Rs 10 each at Rs 15 each. The whole amount is received in cash and the 12% preference shares are redeemed for the relevant portion.

Show the necessary journal entries in the books of the company.

### Solution:

**Journal**

| **Particulars** | | **Dr. Rs)** | **Cr. (Rs)** |
|---|---|---|---|
| Bank | Dr. | 3,00,000 | |
| To Equity Share Application and Allotment A/c | | | 3,00,000 |
| (Application money on 20,000 equity shares @ Rs 15 per share including a premium of Rs 5 per share) | | | |
| Equity Share Application and Allotment A/c | Dr. | 3,00,000 | |
| To Equity Share Capital A/c | | | 200,000 |
| To Securities Premium Reserves A/c | | | 100,000 |
| (Allotment of 20,000 equity shares Rs 10 each issued at a premium of 5 per share as per Board's Resolution dated....) | | | |
| 12% Redeemable Preference Share Capital A/c | Dr. | 2,00,000 | |
| Premium on Redemption of Preference Share A/c | Dr. | 10,000 | |
| To 12% Preference Shareholders A/c | | | 2,10,000 |
| (Amount due to 12% preference shareholders on redemption of 8% preference shares at a premium of 5%) | | | |

| | | | |
|---|---|---|---|
| Securities Premium Reserves A/c | Dr. | 10,000 | |
| To Premium on Redemption of Preference Shares A/c | | | 10,000 |
| (Application of Securities Premium Account to write off Premium on Redemption of Preference Shares) | | | |
| 12% Preference Shareholders A/c | Dr. | 2,10,000 | |
| To Bank A/c | | | 2,10,000 |
| (Amount due to 12% preference shareholders on redemption paid) | | | |

**Case 3:** If the redeemable preference shares are redeemed partly out of the profits of the company which would otherwise be available for dividend and partly out of the proceeds of a fresh issue of shares made for the purpose of redemption:

In such a case, the Capital Redemption Reserve Account and the new Share Capital Account taken together

will replace the Redeemable Preference Share Capital redeemed.

Thus, Redeemable Preference Share Capital redeemed = Capital Redemption Reserve Account + New Share Capital Account (Equity or Preference).

Here, all the entries shown under Case (i) and Case (ii) have to be passed. But there are certain common entries which can be combined together.

### Illustration 8

**Jumpers Ltd**

**Balance Sheet as at 31st March, 2019**

| | | | |
|---|---|---|---|
| **I. EQUITY AND LIABILITIES** | | | |
| 1. Shareholders' funds | | | |
| (a) Share Capital | 1 | | 350,000 |
| (b) Reserve & Surplus | 2 | | 64,000 |
| 2. Current Liabilities | | | |
| Trade Payable | | 23,700 | |
| Short-term provisions | | 38,500 | 62,200 |
| TOTAL | | | 4,76,200 |
| **II. ASSETS** | | | |
| 1. Non-current assets | | | |
| (a) Fixed Assets | | | |
| I. Tangible fixed assets | | | 2,25,000 |
| (b) Non-Current Investments | | | 60,000 |
| 2. Current Assets | | | |
| Inventories | | 1,30,500 | |
| Trade receivable | | 49,550 | |
| Cash and cash equivalents | | 9,950 | |
| Other current assets | | 1,200 | 1,91,200 |
| TOTAL | | | 4,76,200 |

Notes

1. Share capital

| | |
|---|---|
| Authorized Share Capital | |
| 40,000 equity shares of Rs 10 each fully paid up | 4,00,000 |
| 1000, 8% preference shares of Rs 100 each | 1,00,000 |
| | **5,00,000** |
| Issued, Subscribed Called Up And Paid up Share Capital | |
| 1000, 10% Preference shares of Rs 100 each fully paid up | 1,00,000 |
| 25,000 equity shares of Rs 10 each fully paid up | 2,50,000 |
| | **3,50,000** |

2. Reserve and Surplus

| | |
|---|---|
| Securities Premium Reserves | 9,000 |
| Surplus Account | 55,000 |
| | **64,000** |

In order to redeem its preference shares, the company issued 5,000 equity shares of' 10 each at a Premium of 10% and sold its investment of' 70,800. Preference shares were redeemed at a premium of 10%.

Show the necessary journal entries in the books of the company.

**Solution:**

| **Particulars** | | **Dr. (Rs)** | **Cr. ( Rs)** |
|---|---|---|---|
| Bank A/c | Dr. | 55,000 | |
| To Equity Share Application and Allotment A/c | | | 55,000 |
| (Application money received on 5,000 equity shares of Rs. 10 at a premium of 10%). | | | |
| Equity Share Application and Allotment A/c | Dr. | 55,000 | |
| To Equity Share Capital A/c | | | 50,000 |
| To Securities Premium Reserves A/c | | | 5,000 |
| (Allotment of 5000 equity shares of Rs. 10 each issued at a premium of 10% as per Board's resolution dated....) | | | |
| Surplus A/c | Dr. | 50,000 | |
| To Capital Redemption Reserve A/c | | | 50,000 |
| (Transfer of the balance amount of the nominal value preference shares to be redeemed not covered by fresh issue, i.e., Rs 1,00,000 - 50,000 on redemption to Capital Redemption Reserve A/c) | | | |
| Bank A/c | Dr. | 70,800 | |
| To Investments A/c | | | 60,000 |
| To Surplus A/c | | | 10,800 |
| (Sale on Investments at a profit and transfer of profit on sale to Profit and Loss A/c) | | | |

| | | | |
|---|---|---|---|
| 10% Redeemable Preference Share Capital A/c | Dr. | 1,00,000 | |
| Premium on Redemption of Preference Shares A/c | Dr. | | 10,000 |
| To 10% Preference Shareholders A/c | | | 1,10,000 |
| (Amount due to 8% preference shareholders on redemption) | | | |
| Securities Premium Reserves A/c | Dr. | 10,000 | |
| To Premium on Redemption of Preference Shares A/c | | | 10,000 |
| (Application of securities premium to write off premium on redemption of preference shares) | | | |
| 10% Preference Shareholders A/c | Dr. | 1,10,000 | |
| To Bank A/c | | | 1,10,000 |
| (Amount due to 10% Preference Shareholders on redemption paid) | | | |

**Note:** In the above example, the capital structure of the company remains unchanged, as seen by fact - the Equity Share Capital is issued at Rs 50,000 and Capital Redemption Reserve is at Rs 50,000, which jointly replaces 10% Redeemable Preference Share Capital Rs 1,00,000.

## UNDERWRITING OF SHARES

1. Underwriting is a process which refers to a definite and unambiguous assurance by underwriter(s) to take up a fixed number of shares/ debentures of a company irrespective of shares or debentures subscribed for by public. In such cases, underwriters are committed to subscribe to pre-agreed number of shares or debentures, along with unsubscribed shares or debentures, if any. Even if issue of shares is over-subscribed, underwriters are liable to take up the decided number of shares of debentures.

2. *Underwriters and Brokers*:

   Brokers merely promise to attempt to secure subscriptions of shares or debentures issued. However, they are not responsible for subscribing to shares or debentures of the company. Brokers only procure subscriptions for shares/debentures from public on company's behalf. The remuneration they get for their service rendered to the company is known as brokerage.

   Underwriters are the individuals or institutions underwriting a public issue of shares or debentures. The underwriters may be individuals, partnership firms or joint stock companies Some specialized financial institutions set up by the Government in public sector also play an active role in underwriting shares or debentures.

3. *Types of Underwriting*

   Two kinds of underwriting agreement are given below:

   (a) Complete Underwriting

   In case of complete underwriting, the whole issue of shares or debentures is underwritten. It may be underwritten by a single firm or institution, agreeing to take the complete risk. It can also be done by multiple firms or institutions together, each agreeing to take risk only to a limited extent.

   (b) Partial Underwriting

   In cases where only a part of shares or debentures issue of a company is underwritten, it is said to be partial underwriting.

4. *Underwriting Commission*

   It is the consideration which is payable to underwriters for underwriting an issue of shares/ debentures of a company. Underwriting commission is paid at a specified rate on the issue price of the whole of the shares or debentures underwritten, whether the underwriters are called upon to take up any shares

or debentures not. In totality, the risk bore by the underwriters, bears them the fruit of commission. Underwriting commission may also be along with a brokerage amount.

5. *Payment of Underwriting Commission*

Section 40(6) of the Companies Act 2013, provides that a company may pay commission to any person in connection with the subscription or procurement of subscription to its securities, whether absolute or conditional, subject to the following conditions which are prescribed under Companies (Prospectus and Allotment of Securities) Rules, 2014:

(a) the payment of such commission shall be authorized in the company's articles of association;

(b) the commission may be paid out of proceeds of the issue or the profit of the company or both;

(c) the rate of commission paid or agreed to be paid shall not exceed, in case of shares, five percent (5%) of the price at which the shares are issued or a rate authorized by the articles, whichever is less, and in case of debentures, it shall not exceed two and a half per cent (2.5%) of the price at which the debentures are issued, or as specified in the company's articles, whichever is less;

(d) the prospectus of the company shall disclose -

- the name of the underwriters;
- the rate and amount of the commission payable to the underwriter; and
- the number of securities which is to be underwritten or subscribed by the underwriter absolutely or conditionally.

(e) there shall not be paid commission to any underwriter on securities which are not offered to the public for subscription;

(f) a copy of the contract for the payment of commission is delivered to the Registrar at the time of delivery of the prospectus for registration.

Thus, the underwriting commission is limited to 5% of issue price in case of shares, and 2.5% in case of debentures. The rates of commission given above are the maximum rates, and if the company negotiates with the underwriter, it may pay lower rates also.

*Marked and Unmarked Applications*

When shares/ debentures issue of a company is underwritten by two or more persons, the applications for shares/ debentures sent through underwriters should bear a stamp of the respective underwriters. If it is not done, it would be very difficult for the company to determine the number of applications from each underwriter and in turn it will become an issue in determining the liability of each of the underwriters. Hence, "Marked Applications" are the ones bearing stamp of respective underwriters, while the applications received directly by the company, and which do not bear the stamp of underwriters are known as "Unmarked Applications".

If the entire share/debenture issue is underwritten by a single underwriter, marking of applications becomes immaterial since he is to get paid for all the applications. Whether sent through him or received directly while determining his liability. When the shares/ debentures issue is underwritten by more than one underwriter, the risk is distributed among all underwriters in a pre-agreed ratio.

6. *Determining the Liability of Underwriters*

An underwriter's liability can be determined in the following ways: In case of Complete Underwriting:

(a) *In case of a single underwriter*: The underwriter will be liable to take up all the shares or debentures that have not been subscribed for by the public. In such a case, it is not material to know how many applications are sent through him and how many applications are received directly by the company. Thus, the liability of the underwriter in such a case will be as follows:

Liability = Shares or debentures offered - Total applications received.

If shares/ debentures are oversubscribed or fully subscribed by the public, the underwriter is free from his liability and is not liable to take up any shares or debentures of the company. However, he will be entitled to get the commission which is due to him on the total issue price of the shares or debentures.

(b) In case issue is underwritten by a number of underwriters in an agreed ratio the liability of the respective underwriters can be determined as under:

Gross liability of every individual underwriter in agreed ratio would first be reduced by marked applications and then credit may be given in respect of unmarked applications, sent directly to the company by way of deduction from the balance left in the ratio of their gross liability. The liability of each underwriter in such a case will be:

| | |
|---|---|
| Gross liability according to the agreed ratio | ..... |
| Less: Marked applications | ..... |
| Balance left | ..... |
| Less: Unmarked applications in the ratio of gross liability | ..... |
| Net liability | ..... |

At times credit to unmarked application is given in the ratio of gross liability as reduced by the marked applications. In this case, the individual liability calculated will differ from the liability calculated as per the previous procedure.

**Note:** In case some figure is negative it will be transferred to other underwriters' account in the ratio of gross liability inter se.

In case of Partial Underwriting

(a) If a part of the issue of shares or debentures is underwritten only by one underwriter: In such a case only a part of the whole issue, like 60% or 70% is underwritten only by a single underwriter and for the balance 40% or 30% of the issue, company itself is said to underwrite the same. In this case, unmarked applications are treated as marked as far as the company is concerned.

In such a case, the gross liability of the underwriter will be that part of the issue of shares or debentures which is underwritten, say 60% or 70% and the net liability will be determined by deducting the marked applications (the applications sent through him) from the gross liability. Thus, the net liability will be determined as follows:

(b) Net liability = Gross liability (say 60% or 70% of the issue) - Marked applications.

(c) If the part of the issue of shares or debentures is underwritten by a number of underwriters: In such a case part of the whole issue, like 70% or 80% is underwritten by a number of underwriters and for the balance 30% or 20%, the company itself is said to have underwritten the same. As such, the unmarked applications are treated as marked so far as the company is concerned. In such a case, the method of determining the net liability of the respective underwriters is similar to the method discussed above (a).

7. *Firm Underwriting*

In the case of 'firm underwriting', the underwriters take up the agreed number of shares or debentures to be 'firm underwritten' in addition to unsubscribed shares or debentures, if any. In such an instance an underwriter is not allowed to set off his firm underwriting against his liability otherwise determined, he will then have to subscribe for both shares/debentures 'underwritten firm' and for shares which he has to take under the underwriting contract, ignoring firm underwriting.

While computing the individual liability of the underwriters, the 'firm underwriting' can be dealt with in any of the below mentioned manner in case of no specific instructions:

(a) The 'firm underwriting' may be adjusted against the individual liability of each underwriter separately or may be treated at par with marked applications.

When firm underwriting is treated at par with marked applications the statement of liability of underwriters will be as under :

| | |
|---|---|
| Gross Liability (agreed ratio-total shares underwritten) | ..... |
| Less: Marked applications including firm underwriting | ..... |
| Balance left | ..... |
| Less: Unmarked application (ratio of gross liability) | ..... |
| Net liability | ..... |
| Add: Firm underwriting | ..... |
| Total Liability | ..... |

(b) The benefit of 'firm underwriting' may be shared by all underwriters or 'firm underwriting' may be treated at par with unmarked applications. In such a case, the shares/debentures underwritten firm will be included in the unmarked forms. Hence, the state of liability of underwriters will appear as shown above except that shares/debentures underwritten firm by each underwriter will not be specifically adjusted against his individual liability but will be included in the total unmarked forms to be distributed amongst all underwriters in the ratio of their gross liability.

*Note* : If the question is not specific regarding the treatment of 'firm underwriting' students may follow anyone of the treatments discussed above and may give a footnote to this effect.

8. *Accounting Treatment relating to Underwriting of Shares or Debentures*

(a) *When* the shares or debentures are allotted to the underwriters in respect of their liability:

| | | |
|---|---|---|
| Underwriters A/c | Dr. | with the value of the shares or debentures taken |
| To Share Capital A/c | | up by the underwriters |
| To Debentures A/c | | |

(b) When commission becomes payable to the underwriters:

| | | |
|---|---|---|
| Underwriters Commission A/c | Dr. | with the amount of commission due on the total |
| To Underwriters A/c | | issue price of the shares underwritten |

(c) When the net amount due from the underwriters on the shares or debentures taken up by them is received:

| | | |
|---|---|---|
| Bank | Dr. | with the net amount due |
| To Underwriters A/c | | |

**Note:** Underwriting commission is not generally paid in cash. Instead the same is adjusted against the money due on shares or debentures taken up by the underwriters and only the net amount (i.e., total amount due on shares or debentures taken up by the underwriters minus the underwriting commission) is received from the underwriters.

### Illustration 9:

Lillies Ltd. issued 1,00,000 equity shares, where the issue was underwritten by 3 underwriters as follows: A 40%; B 30%; C 30%

Applications for 60,000 shares were received in all, out of which applications for 20,000 shares had the stamp of A; those for 10,000 shares that of B and those for 20,000 shares that of C. The remaining applications for 10,000 shares did not bear any stamp.

Determine the liability of the underwriters.

**Solution:**

Net Liability of Underwriters

| | A (40%) Shares | B (30%) Shares | C (30%) Shares |
|---|---|---|---|
| Gross liability in the agreed ratio of 40 : 30 : 30 | 40,000 | 30,000 | 30,000 |
| Less: Marked applications | 20,000 | 10,000 | 20,000 |
| Balance left | 20,000 | 20,000 | 10,000 |
| Less: Unmarked applications in the ratio of gross liability, i.e., 40 : 30 : 30 (10,000 Unmarked) | 4,000 | 3,000 | 3,000 |
| Net liability | 16,000 | 17,000 | 7,000 |

**Illustration 10:**

Ramona Ltd., issued 50,000 equity shares of which only 60% was underwritten by Green. Applications for 45,000 shares were received in all out of which application for 26,000 were marked.

Determine the liability of Green.

**Solution:**

| | | |
|---|---|---|
| Gross liability of Green being 60% of 50,000 shares | = | 30,000 shares |
| Less: Marked applications Net liability of Green | = | 26,000 shares |
| Net liability of Green | = | 4,000 shares |

Notes:

(1) Had the marked applications been were for 30,000 shares or more, Green would have had no liability at all.

(2) Had the applications received by the company been for all the 50,000 shares Green would have had no liability at all, even though the marked applications were for 26,000 shares.

(3) Had the applications received by the company been for 48,000 shares, Green's liability would have had restricted to (50,000 - 48,000) = 2,000 shares, even though the marked applications were for 26,000 shares.

*Working Assumption*: In case the marked and unmarked applications is not be given in the question, then one can assume the number of applications received as marked applications (as proportionate to that part of the issue underwritten as received through the underwriters.)

**Illustration 11:**

ABC Ltd. issued 30,000, 6% debentures of Rs. 100 each. 60% of the issue was underwritten by Delton. Applications for 28,000 debentures were received by the company. Determine the liability of Delton.

**Solution:**

Gross liability of Delton being 60% of 30,000 debentures = 18,000 debentures

Less: Marked applications (assumed 60%) i.e., 60/100 x 28,000 = 16,800 debentures

Net liability of Delton = 1,200 debentures

Alternatively Delton's liability can be determined in the following way:

Number of debentures not subscribed for by the public = (30,000 - 28,000) = 2,000 debentures

Delton's liability = 60% of 2,000 debentures = 1,200 debentures

### Illustration 12:

Binsar Ltd. issued 12% 10,000 Preference Shares of Rs 10 each. The issue was underwritten as follows: Apple 30%, Mango 30%, Orange 20%. Application for 8,000 shares were received by the company in all. Determine the liability of the respective underwriters.

**Solution:**

| | Apple (30%) Shares | Mango (30%) Shares | Orange (20%) Shares |
|---|---|---|---|
| Gross liability in the agreed ratio or 30 : 30 : 20 | 3,000 | 3,000 | 2,000 |
| Less: Marked application, i.e., 8,000 application in the ratio of 3/10 : 3/20 : 2/10 | 2,400 | 2,400 | 1,600 |
| Net liability | 600 | 600 | 400 |

Alternatively the liability of the respective underwriters can also be determined in the following manner:

Shares issued 10,000

Less: Applications received 8,000 Unsubscribed shares 2,000

Apple's liability = 30% of 2,000 = 600 shares

Mango's liability = 30% of 2,000 = 600 shares

Orange's liability = 20% of 2,000 = 400 shares

Total liability of Apple, Mango and Orange = 600 + 600 + 400 = 1,600 shares.

which represent 80% of the total issue underwritten. The balance (2,000 - 20% of the issue not underwritten will remain as unissued. 1,600) = 400 shares representing

### Illustration 13:

Emess Ltd. issued 40,000 shares which were underwritten. P: 24,000 shares Q: 10,000 shares and R: 6,000

shares. The underwriters made applications for firm underwriting as under:

P: 3,200 shares; Q: 1,200 shares; and R: 4,000 shares. The total subscriptions excluding firm underwriting (including marked applications) were 20,000 shares.

The marked applications were - P: 4,000 shares; Q: 8,000 shares; and R: 2,000 shares

Prepare a statement showing the net liability of underwriters

**Solution:**

**Working Note**: Firm underwriting shares are treated as unmarked applications.

Statement of Computation of Liability

| | P | Q | R | Total |
|---|---|---|---|---|
| Gross Liability | 24000 | 10000 | 6000 | 40000 |
| Less: marked Applications | 4000 | 8000 | 2000 | 14000 |
| Balance | 20000 | 2000 | 4000 | 26000 |
| Less: Unmarked Applications in ratio of gross Liability (12:5:3) | 8640 | 3600 | 2160 | 14400 |
| Balance Net | 11360 | (1600) | 1840 | 11600 |
| Credit of Q's capital over P & R in ratio of 12:3 | (1280) | +1600 | (320) | |

| | | | | |
|---|---|---|---|---|
| Net Liability | 10,080 | 0 | 1,520 | 11,600 |
| Add: Firm Underwriting | 3,200 | 1,200 | 4,000 | 8,400 |
| **Total Liability** | **13,280** | **1,200** | **5,520** | **20,000** |

### Illustration 14:

Sam Limited invited applications from public for 1,00,000 equity shares of Rs 10 each on a premium of X 5 per share. The entire issue was underwritten by the underwriters Anita, Babita, Chavi and David to the extent of 30%, 30%, 20% and 20% respectively with the provision of firm underwriting of 3,000, 2,000, 1,000 and 1,000 shares respectively. The underwriters were entitled to the maximum commission permitted by law.

The company received applications for 70,000 shares from public out of which applications for 19,000, 10,000; 21000 and 8,000 shares were marked in favour of Anita, Babita, Chavi and David respectively.

Calculate the liability of each one of the underwriters. Also ascertain the underwriting commission @ 2.5% payable to the different underwriters.

**Solution:**

Statement of Liability of Underwriters:

Note: by treating 'firm underwriting shares' on a par with marked applications

| | **Anita** | **Babita** | **Chavi** | **David** | **Total** |
|---|---|---|---|---|---|
| Gross Liability | 30000 | 30000 | 20000 | 20000 | 100,000 |
| Less: marked Applications | 19000 | 10000 | 21000 | 8000 | 58000 |
| Balance | 11000 | 20000 | (1000) | 12000 | 42000 |
| Less: unmarked Applications in ratio of gross Liability (30;30:20:20) | 3600 | 3600 | 2400 | 2400 | 12000 |
| Balance Net | 7400 | 16400 | (3400) | 9600 | 30000 |
| Less: Firm Underwriting | 3000 | 2000 | 1000 | 1000 | 7000 |
| Balance | 4400 | 14400 | (4400) | 8600 | 23000 |
| Less: Credit of excess to others in ratio (30:30:20) | (1650) | (1650) | +4400 | (1100) | |
| Net Liability | 2750 | 12750 | 0 | 7500 | 23000 |
| **Total Liability, including Firm Underwriting** | **5750** | **14750** | **1000** | **8500** | **30000** |

Alternatively, the 'firm underwriting shares' may be treated on a par with unmarked applications. Applications received including firm underwritten = 70,000 + 7,000 = 77,000

Less: Marked application = 58,000

Net Unmarked Application liability of underwriters (No. of Shares) = 19,000

| | **Anita** | **Babita** | **Chavi** | **David** | **Total** |
|---|---|---|---|---|---|
| Gross Liability | 30000 | 30000 | 20000 | 20000 | 100,000 |
| Less: unmarked Applications in ratio of gross Liability (30:30:20:20) | 5700 | 5700 | 3800 | 3800 | 19,000 |
| Balance | 24300 | 24300 | 16200 | 16200 | 81,000 |
| Less: Marked Application | 19000 | 10000 | 21000 | 8000 | 58000 |
| Balance Net | 5300 | 14300 | (4800) | 8200 | 23000 |

| | | | | | |
|---|---|---|---|---|---|
| Adjustment of excess | (1800) | (1800) | +4800 | (1200) | |
| Balance | 3500 | 12500 | - | 7000 | 23000 |
| Add: Firm Liability | 3000 | 2000 | 1000 | 1000 | 7000 |
| Total Liability, including Firm Underwriting | 6500 | 14500 | 1000 | 8000 | 30000 |

Calculation of Underwriting commission

| Underwriting commission is payable at the rate of 2.5% of the issue price of shares; | Amount |
|---|---|
| A = 30000 * 15 * 2.5% | 11,250 |
| B = 30000 * 15 * 2.5% | 11,250 |
| C = 20000 * 15 * 2.5% | 7,500 |
| D = 20000 * 15 * 2.5% | 7,500 |

## LESSON ROUND-UP

- Share represents a singular unit into which the total share capital of a company is divided.
- Share capital includes majorly the following two types of shares under the Companies Act, 2013:
  (a) preference shares and (b) equity shares.
- An equity share is the one which is not a preference share. Equity shares are also known for their risk-bearing. Preference shares are the shares that hold preferential rights as to the payment of dividend at a fixed rate; and the return of capital on winding up of the company.
- Shares may be issued for cash or for a consideration other than cash. When a company allots fully paid shares to promoters or to creditors or to any other party for the services rendered by them, it is known as issue of shares for consideration other than cash.
- Shares of a company may be issued at :
  a. Par – When shares are issued on a price equivalent to its face value.
  b. Premium – When shares are issued at a price higher than the face value.
  c. Discount – When shares are issued at a price lower than the face value.
- Restrictions on the usage of the Securities premium money received has been laid under section 52 (2) of Companies Act 2013
- When the number of shares applied for exceeds the number of shares issued, the shares are said to be oversubscribed. In such a case, some applications may be rejected; some applications are accepted in full; and allotment is made to the remaining applicants on pro-rata basis.
- Forfeiture of shares is considered as the compulsory termination of membership by way of penalty for non-payment of allotment and/or any call money.
- The forfeited shares may be reissued at:
  a. Par
  b. Premium
  c. Discount
- In case of reissue of forfeited shares at a premium, the entire amount standing to the credit of Shares Forfeited Account would be treated as net gain and transferred to Capital Reserve Account.

- In case the forfeited shares are reissued at a discount, the amount of discount can, in no case, exceed the amount credited to Shares Forfeited Account.
- As per Section 68, 69, 70 of the Companies Act, 2013, a company may purchase its own shares or other specified securities out of its free reserves and this is known as buy-back.
- A company is under a legal obligation to first offer the subsequent issue of shares to its existing equity shareholders. This right is called rights issue.
- Company may issue fully paid up bonus shares to its members, in any manner out of (i) its free reserves; (ii) the securities premium account; or (iii) the capital redemption reserve account.
- Sweat equity shares refers to equity shares given to the company's employees/ directors on favourable terms in recognition of their work at a discount or consideration other than cash
- Underwriting is known as a guarantee given by the underwriters to the company that the shares or debentures offered to the public will be subscribed for in full. An underwriting agreement may be:
  a. Complete Underwriting
  b. Partial Underwriting. Firm Underwriting.

## TEST YOURSELF

1. Distinguish between equity shares and preference shares.
2. Discuss the classes of shares on the basis of participation.
3. Enumerate the restrictions on application of premium money received.
4. ABC Ltd. brought out an issue which was oversubscribed. What option does the company have in case of over subscription?
5. Describe the accounting treatment of Calls in advance.
6. What do you mean by share forfeiture?
7. Discuss the advantages of buy-back of shares.
8. Enumerate the procedure for issue of sweat equity shares.
9. Elaborate the types of underwriting options available to a company.

# Lesson 4 Accounting for Debentures

***Key Concepts One Should Know***

- Issue of Debentures
- Redemption of debentures
- Collateral security
- Debenture Interest
- Conversion of Debenture

## *Learning Objectives*

**To understand the:**

- Meaning of debentures
- Methods for the issue of debentures
- Methods of the redemption of debentures
- Open market operations
- Working of cum-interest and ex-interest

## *Lesson Outline*

- Introduction
- Kinds of Debentures
- Issue of Debentures at
  - Par
  - Premium
  - Discount
- Issue of Debentures for Consideration Other than Cash
- Issue of Debentures as Collateral Security
- Debenture Interest
- Treatment of Discount/loss on Issue of Debentures
- Redemption of Debentures
  - Par
  - Premium
  - Discount
- Conversion of Debentures
- Purchase of Debentures in the open market
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

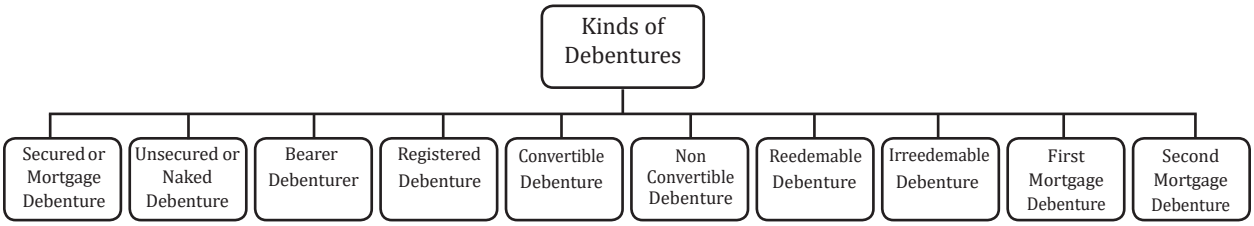
In addition to raising funds by the issue of different kinds of shares, a company may supplement its capital by arranging money in the form of both short-term and long-term borrowings. Short-term borrowings are carried out by way of promissory notes, bills of exchange, bank overdrafts, cash credits, public deposits, etc. while long-term borrowings include by loan on mortgage of property, term loans from financial institutions, public deposits for a long period, issue of debentures, etc.

## DEBENTURES

Debentures are part of loan capital and the company is liable to pay interest thereon whether it earns profit or not. Debentures include debenture stock, bonds or any other instrument of a company evidencing a debt whether constituting a charge on the assets of the company or not.

## KINDS OF DEBENTURES

Debentures may be of different kinds depending upon the conditions of their issue




***(a) Secured or Mortgage***

When debentures are secured by a mortgage or charge on the property of the company, they are called secured or mortgage debentures.

***(b) Unsecured or Naked***

When debentures are issued without any security, they are termed as unsecured or naked debentures.

***(c) Bearer***

These debentures are payable to bearer and are transferable by mere delivery. Interest coupons are attached to each individual debenture. The interest and principal amount on such debentures is payable upon presentation and delivery of coupons and debentures.

***(d) Registered***

Interest and principal amount is paid only to the person whose name is registered in the debenture ledger. Such debentures are transferable through a transfer deed.

***(e) Convertible***

Debentures may be convertible into preference or equity shares of the company on certain specified dates on the basis of an agreement between the company and the debenture holders.

***(f) Non-Convertible***

Such debentures are paid into cash.

***(g) Redeemable***

Such debentures are paid either at par or at a premium after the expiry of a particular period or under a system of periodical drawings.

***(h) Irredeemable or Perpetual***

Such debentures are payable either on a happening of the contingency, or when the company winds its business up, or when the company decides to redeem, itself.

***(i) First Mortgage Debentures***

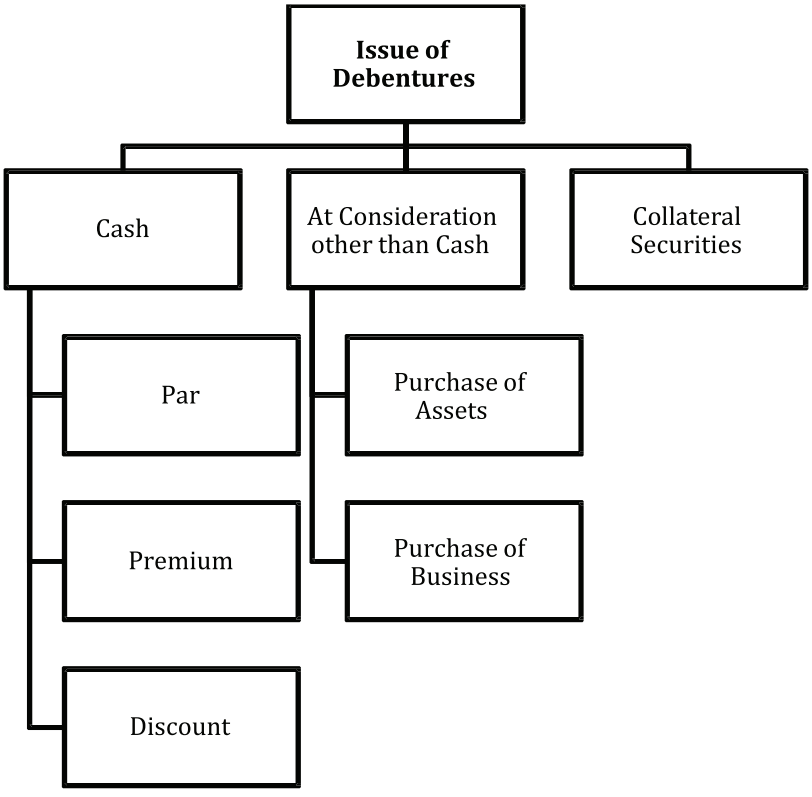
Such debentures are paid on the basis of priority as compared to other debentures.

***(j) Second Mortgage Debentures***

Such debentures are paid after the redemption of first mortgage debentures.

## ISSUE OF DEBENTURES

Subject to the restrictions imposed by Section 71 of the Companies Act, 2013, a company can issue debentures. Applications for debentures are invited from the public through a prospectus and the applicants are asked to pay the application money along with the applications. The company may ask for payment of the whole of the amount along with the application or by installments.




(a) For Cash
  (i) At Par
  (ii) At a Premium
  (iii) At a Discount

(b) For Consideration Other than Cash

(c) As Collateral Security

## Conditions for issue of debentures as per Companies Act, 2013

**1. Issue of Debentures by Special Resolution**

A company can issue partly or fully convertible debentures by passing special resolution at a general body meeting.

**2. No Voting Rights**

No company can issue any debentures carrying any voting rights.

**3. Terms for the Issue of Secured Debentures**

Secured debentures may be issued according to prescribed terms and conditions.

**4. Creation and Utilization of Debenture Redemption Reserve**

The company shall create Debenture Redemption Reserve out of its divisible profits and the amount credited to such an account shall not be utilized for any purpose other than the redemption of debentures.

**5. Debenture Trustee(s)**

A company cannot issue a prospectus or make an offer or invitation to more than 500 persons for subscribing to debentures unless the company has before issuing such a prospectus, appointed one or more debenture trustees.

A debenture trustee shall take steps to protect the interest of the debenture holders and redress the grievances in accordance with the rules as may be prescribed.

## Difference between debentures and shares:

| Points | Debentures | Shares |
|---|---|---|
| Capital | Debenture is a part of loan capital or borrowing | Share capital is an ownership capital. |
| Status | Debenture holder is creditor of company | Shareholder is the owner of the company |
| Income | Interest is the income on the investment in debentures | Dividend is the income on investment in shares |
| Charges or Appropriation | Payment of interest is charge against and is payable even if there is no profit | Payment of dividend is an appropriation of profit and not payable if there is no profit. |
| Voting rights | Debenture holders do not have any voting rights. | Shareholders generally enjoy the voting rights |
| Issue at discount | No restriction is imposed on the issue of debentures at discount | Section 53 prohibits the issue of shares at discount |
| Rate | Rate of interest is fixed | Rate of dividend may vary from year to year for equity shares |
| Convertibility | Debentures can be convertible | Equity shares can never be convertible |

## Issue of debentures for cash

Debentures may be issued for cash on a par, a premium or discount. When the debentures are issued for cash, the entire issue price may be received on application itself or the amount may be payable in installments, such as on application, on allotment and balance in calls.

Any premium or discount on the issue of debentures is generally recorded at the time of making allotment.

Accounting treatment when the debentures are issued at par:

(a) When the full issue price is payable in lumpsum along with application

(1) On receipt of application money:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the money received on application) |
| To Debentures Application and Allotment A/c | | |

(2) On allotment:

| | | |
|---|---|---|
| Debentures Application and Allotment A/c | Dr. | (with the money received on debentures allotment) |
| To Debentures A/c | | |

(b) When the amount is payable in instalments

(1) On receipt of application money:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the money received on application) |
| To Debenture Application A/c | | |

(2) On Allotment of debentures:

| | | |
|---|---|---|
| Debenture Application A/c | Dr. | (with the application money on debentures allotted) |
| To Debentures A/c | | |

(3) On allotment money due

| | | |
|---|---|---|
| Debenture allotment A/c | Dr. | (with the allotment money due) |
| To Debenture A/c | | |

(4) On receipt of allotment money:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the money received on allotment) |
| To Debenture Allotment A/c | | |

(5) On making calls:

| | | |
|---|---|---|
| Debenture Calls A/c | Dr. | (with the money due on respective calls) |
| To Debenture A/c | | |

(6) On receipt of call money:

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the money received on respective calls) |
| To Debenture Calls A/c | | |

Over subscription: The excess application money may be retained for adjustment towards allotment and particular calls similar to share application money.

But money received from applicants to whom no debenture has been allotted will be refunded to them. The following journal entry is made in this regard:

| | |
|---|---|
| Debenture Application A/c | Dr |
| To Bank A/c | |

**Illustration 1.**

ABC Ltd. made an issue of 50,000 12% Debentures of Rs 100 each, payable as follows: Rs. 25 on Application Rs. 50 on Allotment

Rs. 25 on First and Final Call.

Applications were received for 52,000 debentures and the directors allotted 50,000 debentures rejecting applications for 2,000 debentures. The application money received for 2,000 rejected debentures was duly refunded. All the calls were made and the moneys duly received.

Show the Journal Entries to record the above transactions and prepare the Balance Sheet of the company.

**Solution:** **ABC Ltd.**

**Journal Entries**

| S.No | Particulars | | Debit (Rs) | Credit (Rs) |
|---|---|---|---|---|
| (i) | Bank A/c | Dr | 13,00,000 | |
| | To 12% Debenture Application A/c | | | 13,00,000 |
| | (Being application money of Rs 25 each on 52,000 debentures received) | | | |
| (ii) | 12% Debenture Application A/c | Dr | 13,00,000 | |
| | To 12% Debentures A/c | | | 12,50,000 |
| | To Bank A/c | | | 50,000 |
| | (Being allotment of 50,000 debentures as per board's resolution dated and 2,000 debentures rejected and refunded) | | | |
| (iii) | 12% Debenture Allotment A/c | Dr | 25,00,000 | |
| | To 12% Debentures A/c | | | 25,00,000 |
| | (Being allotment money due on 50,000 debentures @ Rs 50 each) | | | |
| (iv) | Bank A/c | Dr | 25,00,000 | |
| | To 12% Debenture Allotment A/c | | | 25,00,000 |
| | (Being allotment money received) | | | |
| (v) | 12% Debenture First and Final call A/c | Dr | 12,50,000 | |
| | To 12% Debentures A/c | | | 12,50,000 |
| | (Being call money due on 50,000 debentures @ Rs 25 each) | | | |
| (vi) | Bank A/c | Dr | 12,50,000 | |
| | To 12% Debenture First and Final call A/c | | | 12,50,000 |
| | (Being the call money received) | | | |

**ABC Ltd.**

**Balance Sheet as on ……**

| Particulars | Note | Rs |
|---|---|---|
| EQUITY AND LIABILITIES | | |
| Non Current Liabilities Long Term Borrowings | 1 | 50,00,000 |
| ASSETS | | |
| Cash and cash equivalent | | 50,00,000 |

**Notes to Account**

| | Particulars | Note | Rs |
|---|---|---|---|
| 1. | Long Term Borrowings | | |
| | 12% Debentures | 1 | 50,00,000 |
| 2 | Cash and Cash Equivalent | | |
| | Cash at Bank | | 50,00,000 |

## Issue of Debentures at Premium

When the debentures are issued for cash at premium, the amount of premium is recorded at the time of making entries for allotment money.

The entries for receipt of application money and transfer of application money to debenture account are same as issue at par.

The entries for allotment are

(i) When allotment money becomes due

Debenture Allotment A/c Dr

To Debenture A/c

To Securities Premium A/c

(ii) When allotment money is received

Bank A/c Dr

To Debenture Allotment A/c

And for calls the entries are same as for issue at par.

**Illustration 2.**

Z Ltd. issued 2,500, 10% Debentures of Rs.100 each, a premium of 10% payable as Rs. 20 on application, Rs.50 on allotment (including the premium) and the balance on first & final call. The public applied for 3,500 debentures. Applications for 2,250 debentures were accepted in full, applicants for 500 were allotted 250 debentures, and remaining applications were rejected. All money was duly received.

Journalize these transactions.

**Solution:** **Z Ltd.**

**Journal Entries**

| | Particulars | | Debit (Rs) | Credit (Rs) |
|---|---|---|---|---|
| (i) | Bank A/c | Dr. | 70,000 | |
| | To Debenture Application A/c | | | 70,000 |
| | (Being application money received on 3,500 debentures) | | | |
| (ii) | Debentures Application A/c | Dr. | 70,000 | |
| | To 10% Debentures A/c | | | 50,000 |
| | To Debentures Allotment A/c | | | 5,000 |
| | To Bank A/c | | | 15,000 |
| | (Being the application money adjusted and the surplus refunded) | | | |

| | | | | |
|---|---|---|---|---|
| (iii) | Debenture Allotment A/c | Dr. | 1,25,000 | |
| | To 10% Debentures A/c | | | 1,00,000 |
| | To Securities Premium A/c | | | 25,000 |
| | (Being the Amount due on allotment @ Rs. 50 on 2,500 debentures) | | | |
| (iv) | Bank A/c | Dr. | 1,20,000 | |
| | To Debentures Allotment A/c | | | 1,20,000 |
| | (Being the Balance of the amount due on allotment received) | | | |
| (v) | Debentures Call A/c | Dr. | 1,00,000 | |
| | To 10% Debentures A/c | | | 1,00,000 |
| | (Being the Amount due on Call @ Rs. 40 on 2,500 debentures) | | | |
| (vi) | Bank A/c | Dr. | 1,00,000 | |
| | To Debentures Call A/c | | | 1,00,000 |
| | (Being the Amount due on call received) | | | |

## Issue of debentures at discount

If the debentures are issued at a price lower than the nominal value of the debentures, the debentures are said to be issued at a discount. The difference between the nominal value and the issue price is regarded as the discount.

Such a discount on the issue of debentures may either be written off against revenue profit or capital profits of the company. When debentures are issued at a discount the Debentures Account should be credited with the nominal value of the debentures and the discount allowed on issue of debentures. It being a capital loss should be debited to "Discount on Issue of Debentures Account". Thus, the accounting entry will be as follows:

| | | |
|---|---|---|
| Debentures Allotment A/c | Dr | (with the amount due on allotment) |
| Discount on issue of Debentures A/c | Dr | (with the amount of discount) |
| To Debentures A/c (with the total) | | |

**Illustration 3.**

Z Ltd. issued 5,000, 14% debentures of Rs 100 each at a discount of 5%, the discount being adjustable on allotment.

The debentures were payable as follows: On Application - Rs. 20

On Allotment - Rs. 25

On First and Final Call - Rs. 50

The debentures were fully subscribed and the money was duly received.

Show the cash book and journal entries and prepare the balance sheet of the company.

**Solution:**

**Dr.** **Cash Book (Bank Column)** **Cr.**

| Particulars | Amount (Rs) | Particulars | Amount (Rs) |
|---|---|---|---|
| To 14% Debenture Application A/c | 1,00,000 | By Balance c/d | 4,75,000 |
| (Application money on 5,000 debentures @ Rs 20 per debenture) | | | |
| To 14% Debenture Allotment A/c | 1,25,000 | | |
| (Allotment money on 5,000 debentures @ Rs.25 per debenture) | | | |
| To 14% Debenture First and Final Call A/c | | | |
| (First and final call money on 5,000 debentures @ Rs.50 per debenture) | 2,50,000 | | |
| | 4,75,000 | | 4,75,000 |

**Z Ltd.**

**Journal Entries**

| S. No | Particulars | | Debit (Rs) | Credit (Rs) |
|---|---|---|---|---|
| (i) | 14% Debenture Application A/c | Dr. | 1,00,000 | |
| | 14% Debenture Allotment A/c | Dr. | 1,25,000 | |
| | Discount on Issue of Debentures A/c | Dr. | 25,000 | |
| | To 14% Debentures A/c | | | 2,50,000 |
| | (Allotment of 5,000 14% debentures of Rs. 100 each issued at a discount of 5% and allotment money due on 5,000 debentures @ Rs 25 per debenture as per Board's resolution dated.....) | | | |
| (ii) | 14% Debenture First and Final Call A/c | Dr. | 2,50,000 | |
| | To 14% Debentures A/c | | | 2,50,000 |
| | (First and final call money due on 5,000 debentures @ Rs 50 per debentures as per Board's resolution dated.....) | | | |

**Z Ltd.**

**Balance Sheet as on ……**

| Particulars | Note | Rs. |
|---|---|---|
| EQUITY AND LIABILITIES | | |
| **Non-Current Liabilities** | | |
| Long-Term Borrowings | 1 | 5,00,000 |
| ASSETS | 2 | |
| **Non-current assets** Other non-current assets **Current Assets** | | 25,000 |
| Cash and cash equivalent | | 4,75,000 |

**Notes to Account**

| | | | |
|---|---|---|---|
| 1 | Long-Term Borrowings<br>14% Debentures | 1 | <br>5,00,000 |
| 2 | Other non-current assets<br>Discount on the issue of debentures | 2 | <br>25,000 |

## ISSUE OF DEBENTURES FOR CONSIDERATION OTHER THAN CASH

Sometimes a company may allot debentures (on a par, premium or discount) to vendors as a payment for the purchase price of the assets. The issue of debentures is then for consideration other than cash. In such a case, the following journal entries are made:

**(1) For acquisition of assets:**

Sundry Assets (Individually) A/c Dr. (with the value of assets)

To Vendors A/c(with the purchase price)

*Notes:* (i) If the value of debentures allotted is more than the agreed purchase price, the difference is debited to Goodwill Account.

(ii) Similarly, if the value of debentures allotted is less than the agreed purchase price, it is credited to Capital Reserve Account.

**2. (a) On allotment of debentures (at par)**

Vendors A/c Dr. (with the value of debentures)

To Debentures A/c

**(b) On allotment of debentures (at premium)**

Vendors A/c Dr. (with the purchase price)

To Debentures A/c (with the nominal value)

To Securities Premium A/c (with the amount of premium)

**(c) On allotment of debentures (at a discount)**

Vendors A/c Dr. (with the amount of purchase)

Discount on Issue of Debentures A/c Dr. (with the amount of discount)

To Debentures A/c (with the nominal value)

**Illustration 4.**

Radha Ltd. purchased machinery worth Rs.1,20,000 and building worth Rs. 2,00,000 from Deepa Ltd. for an agreed purchase consideration of Rs. 3,00,000 to be satisfied by the issue of 3,000, 12% debentures of Rs. 100 each.

Show the necessary journal entries in the books of Radha Ltd.

**Solution:**

**Radha Ltd.**

**Journal Entries**

| S.No | Particulars | Debit (Rs) | Credit (Rs) |
|---|---|---|---|
| **1** | Building A/c Dr. | 2,00,000 | |
| | Plant and Machinery A/c Dr. | 1,20,000 | |
| | To Deepa Ltd. | | 3,00,000 |
| | To Capital Reserve A/c | | 20,000 |
| | (Purchase of sundry assets and transfer of capital profits as per agreement with the vendor dated.....) | | |
| **2** | Deepa Ltd. Dr. | 3,00,000 | |
| | To 12% Debentures A/c | | 3,00,000 |
| | (Being 3,000, 12% Debentures of Rs 100 each allotted to vendors for consideration other than cash as per Board's resolution dated.....) | | |

## DEBENTURES ISSUED AS A COLLATERAL SECURITY

The term 'Collateral Security' may be defined as additional security given for a loan. Where a company obtains a secured loan from a bank or insurance company, it may mortgage some of its assets as a security against the said loan. But the lending institution may insist on some more assets as a collateral security so that the amount of loan can be realized in full with the help of collateral security, in case the amount realized from the sale of first security falls short of the loan money. In such a situation, the company may issue its own debentures to the lender as collateral security against the loan in addition to any other security that may be offered. Such an issue of debentures is known as "Debentures issued as Collateral Security".

In such a case, the lender has the absolute right over the debentures until and unless the loan is repaid. On repayment of the loan, however, the lender is legally bound to release the debentures forthwith. But in case the loan is not repaid by the company on the due date or in the event of any other breach of agreement, the lender has the right to retain these debentures and to realize them.

The holder of such debentures is entitled to interest only on the amount of loan, but not on the debentures.

### Accounting Treatment of Collateral Security

**FIRST METHOD**

No accounting entry is required to be shown in the books of account at the time of issue of such debentures because there is no immediate liability created by the company.

But the existence of such debentures issued as collateral security has to be mentioned by way of a note on the Balance Sheet under the specific loan account.

**Illustration 5.**

B Ltd. secured an overdraft of Rs. 80,000 from the bank by issuing 900, 12% Debentures of Rs. 100 each as collateral security. Prepare the Balance Sheet of the Company.

**Solution**

**Balance Sheet of Z Ltd. as at.....**

| Particulars | Note | Amount (Rs.) |
|---|---|---|
| EQUITY AND LIABILITIES | 1 | |
| **Current liability** | | |
| Short-term borrowings | | 80,000 |

**Notes to Account**

| | Particulars | Amount |
|---|---|---|
| 1 | Short-term borrowings<br>Bank Overdraft<br>(Secured by the issue of 900, 12% Debentures of Rs.100 each as collateral security) | 80,000 |

**SECOND METHOD**

If it is desired that such an issue of debentures as collateral security is to be recorded in the books of account, the accounting entries will be as follows:

**(i) On issue of debentures as collateral security**

Debentures Suspense A/c Dr. (with the nominal value of the debentures issued)

To Debentures A/c

In this case, Debentures Suspense Account will appear on the asset side of the balance sheet under the heading Miscellaneous Expenditure. Debentures Account will appear as a liability on the liabilities side of the Balance Sheet.

**(ii) On repayment of the loan and release of debentures**

Debentures A/c Dr. (with the nominal value of the debentures released)

To Debentures Suspense A/c

**Note:** The net effect of the above two entries is nil. Both the Debentures Suspense Account and the Debentures Account are cancelled on repayment of the loan. As such, this method is rarely followed in practice.

**Illustration 6.**

B Ltd. secured an overdraft of Rs.80,000 from the bank by issuing 900,12% Debentures of Rs.100 each as collateral security. Prepare the Balance Sheet of the Company.

**Solution**

**Journal Entries**

| | | | |
|---|---|---|---|
| Debentures Suspense A/c | Dr. | 90,000 | |
| To Debentures A/c | | | 90,000 |

(Issue of 900, 12% Debentures of Rs.100 each as collateral security for a bank overdraft of Rs. 80,000 as per Board's resolution dated.....)

**Balance Sheet of Z Ltd. as at.....**

| Particulars | Note | Amount (Rs.) |
|---|---|---|
| **EQUITY AND LIABILITIES** | 1 | 90,000 |
| **Non-current liabilities** | | |
| Long-term borrowings | 2 | 90,000 |
| **Current liability** | | |
| Short-term borrowings | | |
| **ASSETS** | | |
| **Non-Current Assets** | 3 | 90,000 |
| Other non-current assets | | |

**Notes to Account**

| | Particulars | Amount |
|---|---|---|
| 1 | Long-term borrowings<br>900, 12% Debentures of Rs.100 each<br>(Issued as collateral security as per contra) | 90,000 |
| 2 | Short-term borrowings<br>Bank Overdraft<br>(Secured by the issue of 900, 12% Debentures of Rs.100 each as collateral security) | 80,000 |
| 3 | Other non-current assets<br>Debentures Suspense Account<br>(Issued as collateral security as per contra) | 90,000 |

## DEBENTURE INTEREST

Wherever a company issues debentures it undertakes to pay interest thereon at a fixed percentage. As the debentures acknowledge a debt, the payment of interest on the debt is obligatory on the part of the company issuing them irrespective of the fact whether the company earns profit or not. Thus, interest payable on debentures is a charge against the profits of the company. Interest on debentures is normally payable half-yearly and it is calculated at the fixed percentage on the nominal value of debentures issued and not on the issue price. Thus, the issue of debentures at par or at a premium or at a discount would not make any difference for the purpose of calculating interest on debentures.

In certain cases, the company must deduct income tax at the prescribed rate from the gross amount of interest payable on debentures and only net amount is paid to the debentureholder. It is called tax deducted at source and has to be deposited with the tax authorities.

**(i) On interest becoming due**

Debenture Interest A/c Dr. (with the gross interest due)

To Income-tax Payable A/c or

Tax Deducted at (with the amount of Income-tax to be Source A/c. deducted at source)

To Debenture holders' A/c (with the net amount payable after deduction of income-tax)

**(ii) On payment of interest to the debenture holders**

Debenture holders' A/c Dr. (with the net amount of paid interest)

To Bank A/c

**(iii) On payment of income-tax to the Government**

Income-tax Payable A/c Dr. (with the amount of income-tax deducted at

To Bank A/c source and deposited with the Government)

**(iv) On transfer of Debenture Interest to Profit and Loss Account at the end of the year**

Profit and Loss A/c Dr. (with the gross amount of interest on debentures)

To Debenture Interest A/c

**Illustration 7.**

M Ltd. had issued Rs. 5,00,000, 10% debentures on which interest was payable half-yearly on 30th September and 31st March. Show the necessary journal entries relating to debenture interest for the year ended 31st March, 2019 assuming that all moneys were duly paid by the company. Tax deducted at source is 10%.

**Solution:**

**M Ltd.**

**Journal Entries**

| Date | Particulars | Debit (Rs) | Credit (Rs) |
|---|---|---|---|
| 2018 | Debenture Interest A/c Dr. | 25,000 | |
| Sep,30 | To Income-tax Payable A/c | | 2,500 |
| | To Debenture-holders A/c | | 22,500 |
| | (Interest due on Rs 5,00,000, 10% debentures for 6 months and income-tax deducted at source thereon @ 10%) | | |
| Sep,30 | Debenture-holders' A/c Dr. | 22,500 | |
| | To Bank A/c | | 22,500 |
| | (Payment of interest to debenture-holders) | | |
| Sep,30 | Income-tax Payable A/c Dr. | 2,500 | |
| | To Bank A/c | | 2,500 |
| | (Deposit of income-tax deducted at source from Debenture Interest with the Government) | | |
| March,31 | Debenture Interest A/c Dr. | 25,000 | |
| | To Income-tax Payable A/c | | 2,500 |
| | To Debenture-holders A/c | | 22,500 |
| | (Interest due on Rs 5,00,000, 10% debentures for 6 months and income-tax deducted at source thereon @ 10%) | | |
| 2019 | Debenture-holders' A/c Dr. | 22,500 | |
| March,31 | To Bank A/c | | 22,500 |
| | (Payment of interest to debenture-holders) | | |

| | | | |
|---|---|---|---|
| March,31 | Income-tax Payable A/c Dr.<br>To Bank A/c<br>(Deposit of income-tax deducted at source from Debenture Interest with the Government) | 2,500 | <br>2,500 |
| March,31 | Profit and Loss A/c Dr.<br>To Debenture Interest A/c<br>(Transfer of Debenture Interest to Profit and Loss A/c) | 50,000 | <br>50,000 |

## Interest accrued and due (outstanding interest)

Interest on debentures is paid periodically. Suppose a company pays interest on 30th September and 31st March on Rs. 5,00,000, 14% Debentures. The company will pay Rs. 35,000 in every six months. The debenture-holders cannot demand interest before these specified due dates. Assuming that the accounting period ends on 31st March and the interest from 1st October to 31st March remains unpaid. In that case the debenture interest is accrued and due and it is technically termed as outstanding interest and will be recorded as under:

Debenture Interest A/c Dr 35,000

To outstanding debenture interest A/c 35,000

The liability of outstanding debenture interest will be shown as "other current liability" in Balance sheet

## Interest accrued but not due (accrued interest)

While preparing final accounts, interest upto closing date must be taken into account, though the same is simply accrued but not payable.

For example, if the debenture interest is paid on 30th June and 31st December and the company closes its books on 31st March. After the payment of interest on 31st December, the next payment will be made on 30th June in next accounting period. But for proper accounting, interest from 1st January to 31st March must be accounted for. It is called interest accrued but not due or simply accrued interest and will be recorded as:

Debenture interest A/c Dr

To Accrued debenture interest A/c

Accrued debenture interest will be shown as "other current liability" in Balance sheet.

## Accounting entries for issue of debentures (based on conditions of redemption)

A company may issue debentures on certain terms as to their issue price at par or a premium or discount and as to their redemption which can be either at par or at premium.

**(i) Issued at par and redeemable at par:**

Bank Account Dr. (with the nominal value of debentures)

To Debentures Account

**(ii) Issued at discount and redeemable at par:**

Bank Account Dr. (with the amount received)
Discount on Issue of Debentures Account Dr. (with the amount of discount)

To Debentures Account (with the nominal value)

**(iii) Issued at premium and redeemable at par:**

Bank Account Dr. (with the amount received)

| | | | |
|---|---|---|---|
| | To Debentures Account | | (with the nominal value) |
| | To Securities Premium Account | | (with the amount of premium) |

**(iv) Issued at par and redeemable at premium:**

| | | |
|---|---|---|
| Bank Account | Dr. | (with the amount received) |
| Loss on issue of Debentures Account | Dr. | (with the amount of premium on redemption) |
| To Debentures Account | | (with the nominal value) |
| To Premium on Redemption of Debentures Account | | (with the premium on redemption) |

**(v) Issued at discount, and redeemable at premium**

| | | |
|---|---|---|
| Bank Account | Dr. | (with the amount received) |
| Discount on Issue of Debentures Account | Dr | (with the discount allowed on issue) |
| Loss on Issue of Debentures Account | Dr. | (with the premium payable on redemption) |
| To Debentures Account | | (with the nominal value) |
| To Premium on Redemption of Debentures Account | | (with the premium on redemption) |

**Note :** (i) Premium on Redemption of Debentures Account is shown as liabilities side of the balance sheet.

Loss on Issue of Debentures Account is written off gradually every year during the life of the debentures. The unwritten off amount is shown in the balance sheet under 'Other Current or other Non-Current Asset'.

Premium on Redemption of Debentures Account is transferred to debenture holders account at the time of redemption.

**Illustration 8.**

Journalize the following transactions.

Issue of 12%, 1,00,000 debentures of Rs. 100 each

1. at par and redeemable at par.
2. at 10% discount and redeemable at par.
3. at 10% premium and redeemable at par.
4. at 10% premium and redeemable at a premium of 5%.
5. at par and redeemable at a premium of 5%.
6. at 10% discount and redeemable at a premium of 5%.

**Solution:** **Journal Entries** **(in '000)**

| S.No | Particulars | | Debit (Rs.) | Credit (Rs.) |
|---|---|---|---|---|
| (i) | Bank Account | Dr. | 10,000 | |
| | To 12% Debentures Account | | | 10,000 |
| | (Being 12% Debentures issued at par) | | | |
| (ii) | Bank Account | Dr. | 9,000 | |
| | Discount on Issue of Debentures Account | Dr. | 1,000 | |
| | To 12% Debentures Account | | | 10,000 |
| | (Being 12%debentures issued at 10% discount) | | | |

| | | | | |
|---|---|---|---|---|
| (iii) | Bank Account | Dr. | 11,000 | |
| | To 12% Debentures Account | | | 10,000 |
| | To Securities Premium Account | | | 1,000 |
| | (Being 12% debentures issued at 10% premium) | | | |
| (iv) | Bank Account | Dr. | 11,000 | |
| | Loss on Issue of Debenture Account | Dr. | 500 | |
| | To 12% Debentures Account | | | 10,000 |
| | To Securities Premium Account | | | 1,000 |
| | To Premium on redemption of Debentures | | | 500 |
| | (Being 12% debentures issued at 10% premium and redeemed at 5% premium) | | | |
| (v) | Bank Account | Dr. | 10,000 | |
| | Loss on issue of Debentures Account | Dr. | 500 | |
| | To 12% Debentures Account | | | 10,000 |
| | To Premium on Redemption of Debentures Account | | | 500 |
| | (Being 12% debentures issued at par and redeemed at 5% premium) | | | |
| (vi) | Bank Account | Dr. | 9,000 | |
| | Loss on Issue of Debentures Account | Dr. | 1,500 | |
| | (1000+500) | | | |
| | To 12% Debentures Account | | | 10,000 |
| | To Premium on redemption of Debentures Account | | | 500 |
| | (Being 12% debentures issued at 10% discount and redeemed at 5% premium) | | | |

## TREATMENT OF DISCOUNT/LOSS ON THE ISSUE OF DEBENTURES

The discount/loss on debentures is in the nature of capital loss and therefore the same must be written off over the life time of debentures. The entire amount of discount or loss on issue of debenture cannot be written off in the year of issue since the benefit of debenture capital will continue till the redemption of debentures takes place. However, the following alternatives are available to write off discount/loss on issue of debentures.

1. Discount on issue of debentures being a capital loss can be written off against capital profits.
2. Discount on issue of debentures can be treated as deferred revenue expenditure and written off against revenue over the period of life of the debentures.

In case there is no capital profit and it is decided to treat discount on the issue of debentures as deferred revenue expenditure, it is desirable to write it off against revenue over the period of life of the debentures on an equitable basis. The following are the two methods which are generally adopted for this purpose.

### (a) Fixed Instalment Method

Where the debentures are redeemable at the end of specific period, the total amount of discount should be written off by equal instalments of fixed amount over that period.

**(b) Fluctuating Instalment Method**

If the debentures are to be repaid by annual drawings or instalments it would be equitable in such a case to write off discount in proportion to unpaid amount of debentures.

### Illustration 9.

Bee Ltd. issued 2,000, 12% Debentures of Rs.100 each at a discount of 6% on 01.04.2016 repayable by equal annual drawings in four years.

You are required to show the discount on Issue of Debentures Account over the period.

**Solution:**

Total amount of discount on issue of debentures:

= Rs. 2,00,000 x 6/100 = Rs. 12,000

This total discount of Rs. 12,000 has to be written off in proportion to the debentures outstanding at the beginning of each year. Thus, outstanding balance ratio will be as follows:

1.4.2016 = Rs. 2,00,000

1.4.2017 = Rs. (2,00,000 - 50,000) = Rs.1,50,000

1.4.2018 = Rs. (1,50,000 - 50,000) = Rs. 1,00,000

1.4.2019 = Rs. (1,00,000 - 50,000) = Rs.50,000

Outstanding balance ratio = 2,00,000 : 1,50,000 : 1,00,000 : 50,000

= 4 : 3 : 2 : 1

Therefore, amount of discount to be written off every year will be as follows:

| | | Rs. |
|---|---|---|
| 31.3.2017 = 12,000 x 4/10 = | | 4,800 |
| 31.3.2018 = 12,000 x 3/10 = | | 3,600 |
| 31.3.2019 = 12,000 x 2/10 = | | 2,400 |
| 31.3.2020 = 12,000 x 1/10 = | | 1,200 |
| Total | Rs. | 12,000 |

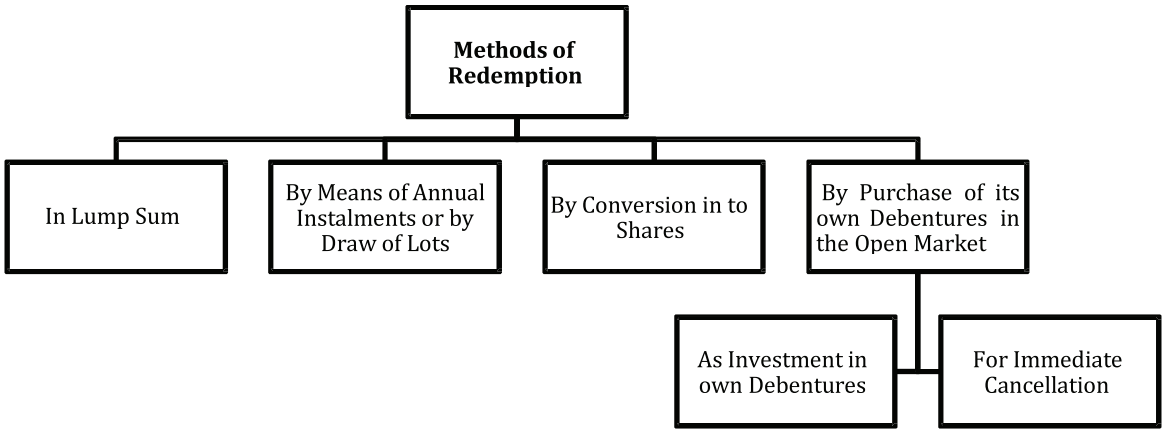
## REDEMPTION OF DEBENTURES

**MEANING**

Redemption of debentures means repayment of loan due on debentures to the debenture holders. The terms and conditions of redemption are generally given in the prospectus. But irredeemable debentures are perpetual in nature and are redeemable on the happening of a contingency and not otherwise.

**METHODS OF REDEMPTION**

Redeemable debentures are redeemed either at par or at a premium and following methods of redemption are available to the company to discharge its liability.




**(1) Lumpsum**

The redemption is made in one lumpsum at the expiry of a specified period promised as the redemption date when the debentures were issued.

**(2) Annual Instalments or Draw by Lots**

Under this method, a certain amount of debentures is redeemed at regular intervals,say yearly, during the life of debentures. The amount of annual drawings may or may not be equal.

**(3) Conversion into Shares**

A company may issue convertible debentures, giving options to the debenture holders to exchange their debentures for equity shares or preference shares in the company.

**(4) Purchase of Its Own Debentures in Open Market**

A company is entitled to purchase its own debentures in open market, i.e., through the stock exchange. When the company purchases its own debentures for immediate cancellation, it leads to automatic redemption. Own debentures may also be purchased by the company for its own investment and same may be reissued in future too.

## Sources of Redemption

A company can arrange funds from the following sources

(a) Out of capital

(b) Out of profit

(c) Through conversion

**REDEMPTION OUT OF CAPITAL**

When debentures are redeemed out of capital, no debenture redemption reserve is created out of profit of the company. Thus, the profit would not be reduced and the same can be utilized in future for the payment of dividend.

**A. When debentures are redeemed at par**

(i) On debentures becoming due for payment

| | | |
|---|---|---|
| Debentures A/c | Dr | (with the nominal value of debentures) |
| To Debenture holders A/c | | |

(ii) On redemption

| | | |
|---|---|---|
| Debenture holders A/c | Dr | |
| To Bank A/c | | |

**B. When debentures are redeemed at premium**

(i) On debentures becoming due for payment

| | | |
|---|---|---|
| Debentures A/c | Dr | (with the nominal value of debentures) |
| Premium on redemption of Debentures A/c | Dr | (with the amount of premium) |
| To Debenture holders A/c | | |

(ii) On redemption

| | |
|---|---|
| Debenture holders A/c | Dr |
| To Bank A/c | |

(iii) On writing off premium on redemption since it was not recorded at the time of issue of debentures

| | |
|---|---|
| Securities Premium A/c | Dr |
| Free reserves A/c | Dr |
| To Premium on redemption of debentures A/c | |

**C. When debentures are redeemed at discount**

Although it's a very rare possibility, the accounting treatment would be

(i) On debentures becoming due for payment

| | | |
|---|---|---|
| Debentures A/c | Dr | (with the nominal value of debentures) |
| To Debenture holders A/c | | (with the mount payable) |
| To Capital Reserve A/c | | (with the amount of discount) On redemption |

(ii) On redemption

| | |
|---|---|
| Debenture holders A/c | Dr |
| To Bank A/c | |

**Illustration 10.**

Amritsar Ltd. issued Rs 5 Crores, 10% debentures of Rs. 1000 each at Rs. 940. The debentures are redeemable in five annual instalments.

Pass appropriate entries in year 1 and 2

**Solution:**

**Amritsar Ltd.**
**Journal Entries**

| | **Particulars** | | **Debit (Rs.)** | **Credit (Rs.)** |
|---|---|---|---|---|
| Year 1 (i) | Bank A/c | Dr | 4,70,00,000 | |
| | Discount on issue of Debentures A/c | Dr | 30,00,000 | |
| | To 10% Debentures A/c | | | 5,00,00,000 |
| | (Being issue of 50,000, 10% debentures of Rs 1000 each at Rs. 940) | | | |
| (ii) | Debenture interest A/c | Dr | 50,00,000 | |
| | To Bank A/c | | | 50,00,000 |
| | (Being payment of interest) | | | |

| | | | | |
|---|---|---|---|---|
| (iii) | Profit & Loss A/c | Dr | 60,00,000 | |
| | To Debenture interest A/c | | | 50,00,000 |
| | To discount on issue of Debenture A/c | | | 10,00,000 |
| Year | 10% Debenture A/c | Dr | 1,00,00,000 | |
| 2 | Debenture interest A/c | Dr | 40,00,000 | |
| (i) | To Bank A/c | | | 1,40,00,000 |
| (ii) | Profit & Loss A/c | Dr | 48,00,000 | |
| | To Debenture interest A/c | | | 40,00,000 |
| | To discount on issue of Debentures A/c | | | 8,00,000 |

## Debenture Redemption Reserve (DRR)

Section 71(4) of the companies Act, 2013 provides that the debentures shall be redeemed out of divisible profits of the company through the creation of Debenture Redemption Reserve in accordance with the conditions given below:

(i) Debenture Redemption Reserve is created out of profits of the company available for payment of dividend. (ii) Every company is required to create DRR shall on or before the 30th day of April in each year invest or deposit, as the case may be, a sum which shall not be less than 15% of the amount of its debentures maturing during the year ending on 31st day of March of next year in any one or more of the following methods, namely;

(a) In deposits with any scheduled banks free of any charge or lieu.

(b) In unencumbered securities of the Central Government or of any State Government.

(c) In unencumbered securities mentioned in sub-clauses (a) to (d) and (e) of Section 20 of Indian Trusts Act, 1882.

(d) In unencumbered bonds issued by any other company which is notified under sub-clause (f) of Section 20 of Indian Trusts Act, 1882.

(iii) The amount invested or deposited as stated above shall be used only for the redemption of the debentures maturing during the year.

(iv) The amount remaining invested or deposited as the case may be, shall not, at any time, fall below 15% of the amount of debentures maturing during the year ending on 31st March of every year.

(v) In case of partly convertible debentures, DRR shall be created in respect of non-convertible portion of debentures issue in accordance with subrule.

(vi) The amount credited to DRR shall not be utilized by the company except for the purpose of redemption of debentures.

(vii) No DRR is required for debentures issued by All India Financial Institutions (AIFIs) regulated by Reserve Bank of India (RBI) and Banking companies for both public as well as privately placed debentures.

(viii) For other financial institutions within the meaning of Section 2(72) of the Companies Act, 2013, DRR will be applicable as applicable to NBFCs registered with RBI.

(ix) For Non-Banking Financial Companies registered with the RBI under Section 45-IA of the RBI(Amendment) Act 1997, the adequacy of DRR will be 25% of the value of outstanding debentures issued through public issue as per SEBI (Issue and Listing of Debt Securities) Regulations, 2008 and no DRR is required in case of privately placed debentures.

(x) For other companies including manufacturing and infrastructure companies, the adequacy of DRR will be 25% of the value of outstanding debentures issued through public issue as per present SEBI (Issue and Listing of Debt Securities), Regulations 2008 and also 25% DRR is required in the case of privately

placed debentures by listed companies. For unlisted companies issuing debentures on private placement basis, the DRR will be 25% of the value of outstanding debentures.

Further, where a company intends to redeem its debentures prematurely, it may provide for transfer of such amount in Debenture Redemption Reserve as is necessary for redemption of such debentures even if it exceeds the limits specified in this sub-rule.

## Accounting Treatment

For appropriation of surplus or withholding of profits in the form of DRR

Surplus A/c Dr (with the amount appropriated)

To DRR A/c

DRR would be shown or disclosed as Shareholder's Funds on the Balance Sheet under the heading: Reserves and Surplus.

On transferring the balance of DRR when the debentures are redeemed

DRR A/c Dr

To General Reserve A/c

**Illustration 11.**

Jai Bhagwan Ltd has a balance of Rs. 4,00,000 in the Profit & Loss Statement. The company decided to forego the payment of dividend and utilize the profits to repay 12%, Rs. 3,50,000 debentures on 30th June 2019 at a premium of 10%. Debenture interest is paid annually on 31st December every year when the accounts are closed. The company has a balance of Rs. 2,00,000 in DRR.

Journalize and ignore narration.

**Solution:**

**Jai Bhagwan Ltd.**
**Journal Entries**

| | Particulars | | Debit (Rs.) | Credit (Rs.) |
|---|---|---|---|---|
| June 30,2019 | Debenture interest A/c | Dr | 21,000 | |
| | To Bank A/c | | | 21,000 |
| | 12% Debentures A/c | Dr | 3,50,000 | |
| | Premium on redemption of Debentures A/c | Dr | 35,000 | |
| | To Debenture holders A/c | | | 3,85,000 |
| | Surplus A/c | Dr | 1,50,000 | |
| | To DRR A/c | | | 1,50,000 |
| | Debenture holders A/c | Dr | 3,85,000 | |
| | To Bank A/c | | | 3,85,000 |
| | Profit & Loss A/c | Dr | 35,000 | |
| | To Premium on redemption of Debentures A/c | | | 35,000 |

## Sinking Fund Method (Debenture Redemption Fund Method)

A sinking fund may be defined as a fund created by an appropriation of certain profits and investments of the

same for the redemption of debentures. The investment may be in the form of Government Bonds or other quickly saleable securities so that the same can be sold without much difficulty.

**Types of Sinking Funds**

(i) Cumulative Sinking Fund

(ii) Non- Cumulative Sinking Fund

## Cumulative Sinking Fund

A cumulative sinking fund is maintained on the basis of annual appropriation of the profits plus the interest earned on the sinking fund investments.

The accounting entries for maintaining a cumulative sinking fund are as follows:

A. At the end of First year

(i) For appropriation of required amount for Sinking Fund

Surplus A/c Dr

To Sinking Fund A/c

(ii) For investing the surplus appropriated

Sinking fund investment A/c Dr

To Bank A/c

B. At the end of second and subsequent years

(i) For receiving interest on Sinking Fund Investment

Bank A/c Dr

To interest on Sinking Fund Investment A/c

(ii) For transferring interest to Sinking Fund Account

Interest on sinking fund investment A/c Dr

To Sinking Fund A/c

(iii) For annual appropriation

Surplus A/c Dr

To Sinking Fund A/c

(iv) For investing the surplus appropriated and the interest received

Sinking Fund Investment A/c Dr

To Bank A/c

C. At the end of Last Year

(i) For receiving interest on Sinking Fund Investment

Bank A/c Dr

To Sinking Fund A/c

(ii) For annual appropriation

Surplus A/c Dr

To Sinking Fund A/c

(iii) For sale of Sinking Fund Investment

(a) In case of profit

Bank A/c Dr

To Sinking Fund Investment A/c (with the amount of profit)
To Sinking Fund A/c

(b) In case of loss
Bank A/c Dr
Sinking Fund A/c Dr (with the amount of loss)
To Sinking Fund Investment A/c

(iv) For redemption of debentures

(a) At par
Debentures A/c Dr
To Bank A/c

(b) At premium
Debentures A/c Dr
Premium on Redemption of Debentures A/c Dr
To Bank A/c

(c) For closing the Sinking Fund Account
Sinking Fund A/c Dr
To General Reserve A/c

**Illustration 12.**

Prakash Ltd. issued Rs. 10,00,000, 10% debentures on January 1, 2017. These were to be redeemed on 31st December, 2019. For this purpose the company established Sinking Fund. Investments were expected to earn 5% interest p.a. Sinking Fund table shows that 0.317208 invested annually at 5% amount to Rs. 1 in 3 years. On 31st December, 2019 the investment was sold for Rs. 6,56,000. Interest received and investments are made in multiples of Rs. 100. Journalize and ignore narration and debenture interest.

**Solution:**

Calculation of annual appropriation =Rs. 10,00,000 x 0.317208 = Rs. 3,17,208

**Prakash Ltd.**

**Journal Entries**

| | **Particulars** | | **Debit (Rs)** | **Credit (Rs)** |
|---|---|---|---|---|
| 2017 Jan 1 | Bank A/c | Dr | 10,00,000 | |
| | To 10% Debentures A/c | | | 10,00,000 |
| Dec 31 | Surplus A/c | Dr | 3,17,208 | |
| | To Sinking Fund A/c | | | 3,17,208 |
| | Sinking Fund Investment A/c | Dr | 3,17,208 | |
| | To Bank A/c | | | 3,17,208 |
| 2018 Dec 31 | Bank A/c | Dr | 15,860 | |
| | To Sinking Fund A/c | | | 15,860 |
| | Surplus A/c | Dr | 3,17,208 | |
| | To Sinking Fund A/c | | | 3,17,208 |

| | | | | |
|---|---|---|---|---|
| | Sinking Fund Investment A/c<br>To Bank A/c | Dr | 3,33,100 | <br>3,33,100 |
| 2019<br>Dec 31 | Bank A/c<br>To Sinking Fund A/c | Dr | 32,515 | <br>32,515 |
| | Surplus A/c<br>To Sinking Fund A/c | Dr | 3,17,2018 | <br>3,17,208 |
| | Bank A/c<br>To Sinking fund Investment A/c<br>To Sinking Fund A/c | Dr | 6,56,000 | <br>6,50,300<br>5700 |
| | 10% Debentures A/c<br>To Bank A/c | Dr | 10,00,000 | <br>10,00,000 |
| | Sinking Fund A/c<br>To General Reserve A/c | Dr | 10,00,000 | <br>10,00,000 |

## Non-Cumulative Sinking Fund

If the sinking fund is non-cumulative, the interest received on Sinking Fund Investment is not invested and not credited to Sinking Fund A/c. The amount of interest is credited to Profit & Loss statement.

**Illustration 13.**

The following balances appeared in the books of a company as on December 31, 2014:

6% Mortgage 10,000 debentures of Rs.100 each; Debenture Redemption Reserve (for redemption of debentures) Rs.10, 42,000;

Investment Rs.5,28,000, 4% Government Loan purchased at par and 5,60,000, 3-1/2% Government paper purchased for Rs. 5,42,000.

The interest on debentures had been paid up to December 31, 2010. On February 28, 2015, the investments were sold at Rs. 90 and Rs. 87 respectively, and the debentures were paid off at 101 together with accrued interest.

Write the ledger accounts concerned. The Debenture Redemption Reserve is non-cumulative.

**Solution:**

**6% Mortgage Debentures Account**

| | | | | | |
|---|---|---|---|---|---|
| Feb 28 | To Debenture holders A/c | 10,00,000 | Jan 1 | By Balance b/d | 10,00,000 |
| | | 10,00,000 | | | 10,00,000 |

**Premium on Redemption of Debentures Account**

| | | | | |
|---|---|---|---|---|
| To Debenture holders A/c | 10,000 | Jan 1 | By Debenture Redemption Reserve. A/c | 10,000 |
| | 10,000 | | | 10,000 |

**Debentures Redemption Fund Investment Account**

| | | | |
|---|---|---|---|
| To Balance B/d | 10,70,000 | By Bank (Rs. 5,28,000 Govt. Loan @ Rs. 90) | 4,75,200 |
| | | By Bank (Rs. 5,60,000 Govt. Paper @ Rs.87) | 4,87,200 |
| | | By D.R.R. (Loss) | 1,07,600 |
| | 10,70,000 | | 10,70,000 |

**Debentures Redemption Fund Account**

| | | | |
|---|---|---|---|
| To Premium on Redemption | 10,000 | By Balance b/d | 10,42,000 |
| To DRR investment A/c | 1,07,600 | By Profit & Loss Appropriation A/c | 75,600 |
| To General Reserve | 10,00,000 | | |
| | 11,17,600 | | 11,17,600 |

## Insurance Policy Method

Under this method also, annual sum is appropriated out of surplus and credited to Debenture Redemption Fund A/c in the same manner as it is done in Sinking Fund method. However, the appropriate profit is not invested in marketable securities, instead an insurance policy is taken for the required amount and an amount equal to profit set aside is paid as premium to insurance company. At the end of policy period, the insurance company returns the total accumulated amount which is sufficient to pay the debenture holders.

## Accounting Treatment

A. From year to year

(i) On payment of premium

Debenture Redemption Fund Policy A/c Dr. (with the annual premium amount)

To Bank A/c

(ii) For appropriation of profit equivalent to amount of premium paid during the year

Surplus A/c Dr

To Debenture Redemption Fund A/c

B. At the time of maturity and redemption

(i) On realization of policy

Bank A/c Dr (with the amount of policy)

To Debenture Redemption Fund Policy A/c

(ii) On transfer of interest earned on premium

Debenture Redemption Fund Policy A/c Dr (with the difference between the amount of

To Debenture Redemption Fund A/c policy realized and the total premium paid)

(iii) On transfer of premium on redemption of debentures

Debenture Redemption Fund A/c Dr

To Premium on redemption

(iv) For closing the Debenture Redemption Fund Account

Debenture Redemption Fund A/c Dr

To General Reserve A/c

**Illustration 14.**

Go Ltd. issued 500, 12% Debentures of Rs. 100 each at par on 1st April, 2015, repayable at par after 3 years on 31st March, 2018. The directors decided to take out an insurance policy to provide necessary cash for the redemption of the debentures. The annual premium for the policy payable on 1st April every year was Rs. 15,705.

You are required to show the journal entries in the books of the company.

**Solution:**

**Go Ltd.**

**Journal Entries**

| | **Particulars** | **Debit (Rs.)** | **Credit (Rs.)** |
|---|---|---|---|
| 2015 April 1 | Bank A/c Dr. | 50,000 | |
| | To 12% Debentures A/c | | 50,000 |
| | (Allotment of 500 12% Debenture of Rs 100 each as per Board's resolution dated....) | | |
| | Debenture Redemption Fund Policy A/c Dr. | 15,705 | |
| | To Bank A/c | | 15,705 |
| | (Payment of annual premium for the policy taken out to provide cash for redemption of debentures) | | |
| 2016 March 31 | Profit and Loss Appropriation A/c Dr. | 15,705 | |
| | To Debenture Redemption Fund A/c | | 15,705 |
| | (Transfer of profit to Debenture Redemption Fund Account) | | |
| April 1 | Debenture Redemption Fund Policy A/c Dr. | 15,705 | |
| | To Bank A/c | | 15,705 |
| | (Payment of annual premium for the policy taken out to provide cash for redemption of debentures) | | |
| 2017 March 31 | Profit and Loss Appropriation A/c Dr. | 15,705 | |
| | To Debenture Redemption Fund A/c | | 15,705 |
| | (Transfer of profit to Debenture Redemption Fund Account) | | |
| April 1 | Debenture Redemption Fund Policy A/c Dr. | 15,705 | |
| | To Bank A/c | | 15,705 |
| | (Payment of annual premium for the policy taken out to provide cash for redemption of debentures) | | |
| 2018 March 31 | Profit and Loss Appropriation A/c Dr. | 15,705 | |
| | To Debenture Redemption Fund A/c | | 15,705 |
| | (Transfer of profit to Debenture Redemption Fund Account) | | |
| | Bank A/c Dr. | 50,000 | |
| | To Debenture Redemption Fund Policy A/c | | 50,000 |
| | (Receipt of policy amount on maturity) | | |

| | | | |
|---|---|---|---|
| | Debenture Redemption Fund Policy A/c Dr.<br>To Debenture Redemption Fund A/c<br>(Transfer of accumulated interest on the policy to Debenture Redemption Fund A/c) | 2,885 | <br>2,885 |
| | 12% Debentures A/c Dr.<br>To Debentureholders A/c<br>(Amount due on redemption) | 50,000 | <br>50,000 |
| | Debentureholders A/c Dr.<br>To Bank A/c<br>(Payment made for the amount due) | 50,000 | <br>50,000 |
| | Debenture Redemption Fund A/c Dr.<br>To General Reserve A/c<br>(Transfer of the balance of Debenture Redemption Fund A/c to General Reserve) | 50,000 | <br>50,000 |

## REDEMPTION BY CONVERSION

A company can issue convertible debentures. It means that the debentures would be converted into new class of debentures or shares.

**Accounting Treatment**

(a) When shares are issued at par

Debentures A/c Dr

To Share capital A/c

(b) When shares are issued at a premium

Debentures A/c Dr

To Share Capital A/c (with the nominal value of shares issued)

To Securities Premium A/c (with the amount of premium)

**Illustration 15.**

Bima Ltd. had issued 11% 5,00,000 debentures of Rs. 100 each redeemable on 31st March 2019 at a premium of 5%.

The company offered three options to debenture holders as under:

(i) 13% Preference shares of Rs.10 each at Rs.10.50

(ii) 14% debentures of Rs. 100 at par.

(iii) Redemption in cash.

The options were accepted as under :

Option (i) by holders of 1,00,000 debentures. Option (ii) by holders of 1,00,000 debentures. Option (iii) by holders of 3,00,000 debentures.

The company carried out the redemption. Pass the necessary journal entries.

**Solution:**

**Bima Ltd.**

**Journal Entries (in Lacs)**

| Particulars | | Debit (Rs.) | Credit (Rs.) |
|---|---|---|---|
| 11% Debentures A/c | Dr. | 500 | |
| Premium on redemption of Debentures A/c | Dr. | 25 | |
| To Debenture holder A/c | | | 525 |
| (Being redemption due at premium@ 5%) | | | |
| Debenture holders account | Dr. | 105 | |
| To 13% Preference Share Capital Account | | | 100 |
| To Securities premium account | | | 5 |
| (Being debentures converted into preference shares) | | | |
| Debenture holders A/c | Dr. | 105 | |
| To 14% Debenture A/c | | | 105 |
| (Being debentures converted into 14% debentures) | | | |
| Debenture holders A/c | Dr. | 315 | |
| To Bank A/c | | | 315 |
| (Being payment made to remaining debenture holders) | | | |

## Purchase of Debentures in the Open Market

A company, if authorized by its Articles of Association, can buy its own debentures in the open market. The debentures so purchased can be used either for immediate cancellation or redemption of debentures or for investment. The debentures so purchased for investment can subsequently either be reissued when the company requires additional cash or be cancelled if the company so desires. Debentures when purchased for investment are popularly known as "Own Debentures". This can be categorized as follows:

**(1) For immediate cancellation**

When the company cancels the debentures so purchased, it amounts to redemption of debentures. It means after cancellation, redemption is automatic and these debentures cannot be reissued.

**(2) For investment in the form of own debentures**

If the company purchases its debentures from open market and holds them for sometime before cancellation, such debentures are known as own debentures. Own debentures are held by company as investment and may be resold till cancellation. After cancellation, the debentures are said to be redeemd and cannot be resold.

**Accounting treatment for immediate cancellation of debentures**

**(a) Where no Sinking Fund exists**

On purchase and cancellation of debentures -

Debentures A/c Dr. (with the amount paid)

To Bank A/c

**Notes:** 1. If there is any difference between the nominal value of the debentures cancelled and the price paid for them, the same has to be treated as profit or loss on cancellation, and should be credited or debited to Profit on Redemption of Debentures Account or Loss on Redemption of Debentures Account.

Thus, the entry for this will be as follows:

**In case of profit -**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (with the nominal value of debentures cancelled) |
| To Bank A/c | | (with the price paid for them) |
| To Profit on Redemption of Debentures A/c | | (with the profit, if any). |

**In case of loss -**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (with the nominal value of debentures cancelled) |
| Loss on Redemption of Debentures A/c | Dr. | (with the loss, if any) |
| To Bank A/c | | (with the total) |

Such profit or loss, being of capital nature, should be transferred to Capital Reserve Account (if profit) or written off against the Profit and Loss Account or Capital Profit including Securities Premium Account (if loss). The entry for this will be as follows:

**In case of profit -**

| | |
|---|---|
| Profit on Redemption of Debentures A/c | Dr. |
| To Capital Reserve A/c | |

**In case of loss -**

| | |
|---|---|
| Profit and Loss A/c | Dr. |
| Or, Capital Reserve A/c (if any) | Dr. |
| Or, Securities Premium A/c (if any) | Dr. |
| To Loss on Redemption of Debenture A/c | |

2. On transfer of profits which would otherwise be available for dividend to Debenture Redemption Reserve -

| | | |
|---|---|---|
| Profit and Loss Appropriation A/c | Dr. | (with the nominal value of debentures cancelled) |
| To Debenture Redemption Reserve A/c | | |

**(b) Where Sinking Fund Exists –**

1. On Sale of Sinking Fund Investments -

| | | |
|---|---|---|
| Bank A/c | Dr. | (with the realisation value) |
| To Debenture Redemption Fund Investment A/c | | |

**Note**: If there is any profit or loss on sale of investments, the same has to be transferred to Debenture Redemption Fund Account.

2. On purchase and cancellation of debentures -

| | | |
|---|---|---|
| Debentures A/c | Dr. | (with the amount paid) |
| To Bank A/c | | |

3. Profit or loss on cancellation or redemption of debentures shall be transferred to Sinking Fund or Debenture Redemption Fund Account. The accounting entries:

**In case of profit:**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (with the nominal value) |
| To Bank A/c | | (with the price paid) |
| To Profit on Redemption Debentures A/c | | (with the amount of profit) |

Profit on Redemption of Debentures A/c Dr.

To Sinking Fund A/c

**In case of loss:**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (with the nominal value) |
| Loss on Cancellation or Redemption of Debentures A/c | Dr. | (with the loss on cancellation) |
| To Bank A/c | | (with the amount paid) |
| Sinking Fund A/c | Dr. | |

To Loss on Cancellation or Redemption of Debentures A/c

4. On transfer of the nominal value of the debentures cancelled to General Reserve Account from the Debenture Redemption Fund Account –

| | | |
|---|---|---|
| Debenture Redemption Fund A/c | Dr. | (with the nominal value of the debentures cancelled) |

To General Reserve A/c

**Purchase of Debentures as Investment (Own Debentures)**

The accounting entries in such a case will be as follows:

(a) Where no Sinking Fund Exists:

On purchase of debentures as investment –

| | | |
|---|---|---|
| Own Debentures A/c | Dr. | |
| Or Investment in Own Debentures A/c | Dr. | ( with the amount paid for the debentures) |

To Bank A/c

(b) Where Sinking Fund Exists:

On sale of investments -

| | | |
|---|---|---|
| Bank A/c | Dr | (with the realised amount) |

To Debenture Redemption Fund Investment A/c

**Note**: If there is any profit or loss on sale of investments the same has to be transferred to Debenture Redemption Fund Account.

On purchase of debentures as investment -

| | | |
|---|---|---|
| Bank A/c | Dr. | (With the amount received) |
| Own Debentures A/c | Dr. | |
| Or Investment in Own Debentures A/c | Dr. | (with the amount paid for the debentures) |

To Bank A/c

**Cancellation of Own Debentures**

When own debentures are subsequently cancelled -

| | | |
|---|---|---|
| Bank A/c | Dr. | (With the amount received) |
| Debentures A/c | Dr. | (with the nominal value of the debentures |

To Own Debentures A/c cancelled)

Or

To Investment in Own Debentures A/c

**In case of profit -**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (nominal value of the debentures cancelled) |
| To Own Debentures A/c | | (book value of the Own Debentures cancelled) |

To Profit on Redemption of Debentures A/c

**In case of loss –**

| | | |
|---|---|---|
| Debentures A/c | Dr. | (nominal value of the debentures cancelled) |
| Loss on Redemption of Debentures A/c | Dr. | |
| To Own Debenture A/c | | (book value of the Own Debentures cancelled) |

(2) If Sinking Fund exists, the accounts of profit on redemption of debentures or loss on redemption of debentures should be transferred to Debenture Redemption Fund Account.

(3) If no Sinking Fund exists it is desirable that an amount equal to the nominal value of the debentures cancelled should be transferred to Debenture Redemption Reserve Account out of the profit of the company on cancellation.

(4) If Sinking Fund exists, on cancellation, an amount equal to the nominal value of the debentures cancelled should be transferred to General Reserve from the Debenture Redemption Fund Account.

## PURCHASE OF DEBENTURES BEFORE THE SPECIFIED DATE OF PAYMENT OF INTEREST [CUM-INTEREST AND EX-INTEREST QUOTATIONS]

Interest on debentures is generally paid half yearly to the holders on certain specified dates, e.g., 30th September and 31st March every year. If debentures are purchased exactly on these specified dates, it involves no problem. In such a case, interest is payable to the holders of debentures. But, where debentures are purchased at a date before the specified date of payment of interest the question which naturally arises is whether the price paid for such debentures includes the interest for the expired period (i.e., from the previous date of payment of interest up to the date of purchase) or not.

In case of Ex-interest quotation, interest has to be paid to the holders for the expired period in addition to the price paid for the debentures. In any case, the company must pay interest for the expired period and while making entry in its books at the time of purchase of the debentures, the amount paid by way of interest should be treated separately from the price actually paid for the debentures.

For this purpose it is important to note whether the price paid for the debentures is quoted as "Cum-interest" or "Ex-interest". If the purchase price for the debentures includes interest for the expired period, the quotation is said to be "Cum-interest". If, on the other hand, the purchase price for the debentures excludes the interest for the expired period, the quotation is said to be "Ex-interest".

**Illustration 16. (Purchase of debentures for immediate cancellation)**

XYZ Ltd. has 5000, 10% debentures of Rs.100 each. The interest on these debentures is paid half yearly on June 30, December 31 every year. The company is not maintaining any sinking fund. On 01-04-2018, the company purchased 500 debentures at Rs. 95 each cum – interest for immediate cancellation. On 01-10-2018, the company purchased 600 debentures at Rs. 90 each ex-interest for immediate cancellation. Journalize.

**Solution:**

**XYZ Ltd.**

**Journal Entries**

| Date | Particulars | | Debit (Rs.) | Credit (Rs.) |
|---|---|---|---|---|
| 2018 | 10% Debentures A/c | Dr | 50,000 | |
| April1 | Debenture Interest A/c | Dr | 1250 | |
| | To Bank A/c | | | 47,500 |
| | To Profit on cancellation of debentures A/c | | | 3750 |
| | (Purchase of debentures-cum-interest for immediate cancellation) | | | |

| | | | |
|---|---|---|---|
| June 30 | Debenture Interest A/c Dr | 22,500 | |
| | To Bank A/c | | 22,500 |
| | (Payment of interest on Rs 4,50,000 debentures for six months) | | |
| October 1 | 10% Debentures A/c Dr | 60,000 | |
| | Debenture Interest A/c Dr | 1500 | |
| | To Bank A/c | | 55,500 |
| | To Profit on cancellation of debentures A/c | | 6,000 |
| | (Purchase of debentures ex-interest for immediate cancellation) | | |
| December 31 | Debenture Interest A/c Dr | 19,500 | |
| | To Bank A/c | | 19,500 |
| | (payment of interest on Rs 3,90,000 debentures for six months) | | |
| December 31 | Profit & Loss A/c Dr | 44,750 | |
| | To Debenture interest A/c | | 44,750 |
| | (Transfer of debenture interest to P&L A/c) | | |
| | Profit on cancellation of Debentures A/c Dr | 9750 | |
| | To Capital Reserve A/c | | 9750 |
| | (Profit on cancellation transferred to Capital Reserve) | | |
| | Surplus A/c Dr | 1,10,000 | |
| | To Debenture Redemption Reserve A/c | | 1,10,000 |
| | (Transfer to DRR) | | |

**Illustration 17. (Purchase of Own Debentures as investment)**

Sugandha Ltd. issued 10,000 12% Debentures of Rs. 100 each on 1st April, 2017. Interest is payable on 30th September and 31st March every year. On 1st July, 2018, the company purchased 1,000 of its Own Debentures at Rs. 96 ex-interest as investments. On 1st January, 2019, the company purchased 2000 of its Own Debentures at Rs. 96 cum interest as investment. On 31st March 2019, the company cancelled all of its Own Debentures and books closes on 31st March every year. Journalize.

**Solution:**

Sugandha Ltd. Journal Entries

| **Date** | **Particulars** | **Debit (Rs.)** | **Credit (Rs.)** |
|---|---|---|---|
| 2017 | Bank A/c Dr | 10,00,000 | |
| April1 | To 12% Debentures A/c | | 10,00,000 |
| | (Being issued 10,000, 12% debentures of Rs 100 each) | | |
| September 30 | Debenture Interest A/c Dr | 60,000 | |
| | To Bank A/c | | 60,000 |
| | (being paid interest on debentures for six months) | | |

| | | | |
|---|---|---|---|
| 2018 March 31 | Debenture Interest A/c Dr | 60,000 | |
| | To Bank A/c | | 60,000 |
| | (Being interest paid on debentures for six months) | | |
| March 31 | Profit & Loss A/cDr | 1,20,000 | |
| | To Debenture interest A/c | | 1,20,000 |
| July 1 | Own Debentures A/c Dr | 96,000 | |
| | Debenture Interest A/c Dr | 3,000 | |
| | To Bank A/c | | 99,000 |
| | (Being purchase of 1000 debentures at Rs 96 ex interest) | | |
| September 30 | Debenture interest A/c Dr | 57,000 | |
| | To Bank A/c | | 54,000 |
| | To Interest on Own Debentures A/c | | 3,000 |
| | (Being interest on 9000 debentures for 6 months and own debentures for 3 months) | | |
| 2019 January 1 | Own Debentures A/c Dr | 1,86,000 | |
| | Debenture Interest A/c Dr | 6,000 | |
| | To Bank A/c | | 1,92,000 |
| | (Being 2000 own debentures purchased at Rs 96 cum interest) | | |
| March 31 | Debenture Interest A/c Dr | 54,000 | |
| | To Bank A/c | | 42,000 |
| | To Interest on own debentures A/c | | 12,000 |
| | (Being interest on 7000 debentures for 6 months and own debentures for 3 months) | | |
| | Profit & Loss A/c Dr | 1,20,000 | |
| | To Debenture Interest A/c | | 1,20,000 |
| | Interest on Own Debentures A/c Dr | 15,000 | |
| | To Profit & Loss A/c | | 15,000 |
| | (Being transfer of interest on own debentures) | | |
| | 12% Debentures A/c Dr | 3,00,000 | |
| | To Own Debentures A/c | | 2,82,000 |
| | To Profit on Cancellation A/c | | 18,000 |
| | (Being cancellation of 3000 own debentures) | | |
| | Profit on Cancellation A/c Dr | 18,000 | |
| | To Capital Reserve A/c | | 18,000 |
| | (Being profit on cancellation transferred) | | |

## LESSON ROUND-UP

- Debentures are Part of loan capital and the company is liable to pay interest thereon whether it earns profit or not
- Debentures may be of different kinds depending upon the conditions of their issue- secured , unsecured, bearer, registered, convertible, non- convertible, redeemable, irredeemable, first mortgage, second mortgage.
- Debentures may be issued at par, or at a premium, or at a discount
- Debentures can be issued for cash, consideration other than cash and as collateral security.
- The term 'Collateral Security may be defined as additional security given for a loan. Where a company obtains a secured loan from a bank or insurance company, it may mortgage some of its assets as a security against the said loan.
- Wherever a company issues debentures it undertakes to pay interest thereon at a fixed percentage. As the debentures acknowledge a debt, the payment of interest on the debt is obligatory on the part of the company issuing them irrespective of the fact whether the company earns profit or not. Thus, interest payable on debentures is a charge against the profits of the company.
- The discount/loss on debentures is in the nature of capital loss and therefore the same must be written off over the life time of debentures.
- When debentures are redeemed out of capital, no debenture redemption reserve is created out of profit of the company.
- Section 71(4) of the companies Act,2013 provides that the debentures shall be redeemed out of divisible profits of the company through the creation of Debenture Redemption Reserve.
- A company if authorized by its articles of association, can buy its own debentures in the open market. The debentures so purchased can be used either for immediate cancellation or redemption of debentures or for investment.
- If the purchase price for the debentures includes interest for the expired period, the quotation is said to be "Cum-interest". If, on the other hand, the purchase price for the debentures excludes the interest for the expired period, the quotation is said to be "Ex-interest".

## GLOSSARY

**Debentures :** Debentures are part of loan capital and the company is liable to pay interest thereon whether it earns profit or not.

**Collateral Security**: Collateral Security may be defined as additional security given for a loan.

Debenture interest: the payment of interest on the debt is obligatory on the part of the company issuing them irrespective of the fact whether the company earns profit or not.

**Discount/loss on issue of debentures**: The discount/loss on issue of debentures is in the nature of capital loss and therefore the same must be written off over the life time of debentures.

**Redemption of debentures** : Redemption of debentures means repayment of loan due on debentures to the debenture holders.

**Debenture Redemption Reserve** : Debenture Redemption Reserve is created out of profits of the company available for payment of dividend.

**Sinking fund:** A sinking fund may be defined as a fund created by an appropriation of certain profits and investments of the same for the redemption of debentures.

**Ex-interest quotation** : In Ex-interest quotation, interest has to be paid to the holders for the expired period in addition to the price paid for the debentures.

## TEST YOURSELF

1. Kakloo Ltd issues Rs 1000, 15%, 5,000 debentures on which amount payable is Rs 200 on application, Rs 300 on allotment and balance on first call. In addition the company offers 1,000 – 12% second mortgage debentures of Rs 1000 each. In case of 15% debentures, the company received applications for 6200 debentures and the directors made pro-rata allotment and excess money was refunded. Journalise.
2. Rajkumar Ltd, purchased a building from Alok Ltd. for Rs 65,00,000. The payment was made as to 25% by accepting a bill of exchange, and for the balance debentures are allotted at 25% premium. Journalise in the books of purchaser.
3. Babli Ltd has 10,00,000 12% Debentures on which the interest is payable on 30th September and 31st March. Show the entries related to debenture interest. Tax deducted at source is 10%.
4. A company issued 15,000 10% Debentures of Rs 100 each on 1 April, 2015 at a discount of 6% redeemable at par by drawings method as follows :

| **Date of redemption** | **Amt of Redemption (FV)** |
|---|---|
| 31 March 2017 | 5,00,000 |
| 31 March 2018 | 5,00,000 |
| 31 March, 2019 | 5,00,000 |

5. On 30th June 2018 following balances stood in the books of a company :

| | Rs |
|---|---|
| 8% First Mortgage Debentures Stock | 2,00,000 |
| Debenture Redemption Fund | 2,13,080 |
| Debenture Redemption Fund Investments: | |
| Rs 70,000 6% Punjab Electricity Board Bonds | 71,260 |
| Rs 80,000 5% UP Water Board Bonds | 64,068 |
| Rs 60,000 8% Government of India Loan | 61,710 |
| Rs 16,000 7% Cooperative Bank Loan | 16,042 |

On the same day the investments were sold : Electricity bonds at par, 5% loan at Rs 91, 8% loan at Rs 109 and 7% loan at Rs 103. On 1st July the debentures were redeemed at a premium of 5%.

Write up the accounts concerned :

6. MM Ltd. had the following among their ledger opening balances on January 1, 2019 :

| | |
|---|---|
| 11% Debentures A/c (2000 issue) | 50,00,000 |
| Debenture Redemption Reserve A/c | 45,00,000 |
| 13.5% Debentures in XX Ltd. A/c (Face Value Rs. 20,00,000) | 19,50,000 |
| Own Debentures A/c (Face value Rs. 20,00,000) | 18,50,000 |

As 31st December 2019 was the date for redemption of the 2000 debentures, the company started buying Own Debentures and made the following purchases in the open market :

1-2-2019 2,000 debentures at Rs. 98 cum-interest.

1-6-2019 2,000 debentures at Rs. 99 ex-interest.

Half yearly interest is due on the debentures on the 30th June and 31st December in the case of both the companies.

On 31st December 2019 the debentures in XX Ltd. were sold for Rs. 95 each ex-interest. On that date, the outstanding debentures of MM Ltd. were redeemed by payment and by cancellation. Show the entries in the following ledger accounts of MM Ltd. during 2019 :

(a) Debenture Redemption Reserve A/c

(b) Own Debentures A/c

The face value of a debenture was Rs. 100 (Round off calculations to the nearest rupee.).

7. On 1st April, 2015 A Ltd. made an issue of 10,00,000 14% debentures of Rs. 100 each at Rs. 98 per debenture. According to the terms of issue, the company should redeem 10000 debentures either by purchasing them from the open market or by drawing lots at par at the company's option. Profit, if any, on redemption is to be transferred to capital reserve.

   The company's accounting year ends on 31st March. Interest is payable on 30th September and 31st March.

   During 2015-16 the company wrote off 20% of Debenture Discount Account.

   During 2018-19, the company purchased and cancelled the debentures as given below:

   Rs. 200,00,000 at Rs. 95 per debenture on 30th September, and

   Rs. 300,00,000 at Rs. 97 per debenture on 31st March. Give the journal entries in the books of A Ltd. for both the years

8. A company issued 100,000 debentures of Rs. 100 each redeemable at the end of 10th year, but reserves the right to redeem earlier from the end of the 5th year. The company decides at the end of the 5th year to redeem 20,000 debentures out of the profits it has made.

   Pass necessary journal entries relating to redemption.

# Lesson 5

# Related Aspects of Company Accounts

***Key Concepts One Should Know***

- Buy back
- Escrow account
- Collateral security
- ESOP
- ESOS
- Underwriting
- Under subscription

## *Learning Objectives*

**To understand the:**

- Share capital structure in the balance sheet of a company.
- Methods and accounting procedure of issue of shares.
- Accounting procedure of buy-back of shares.
- Accounting treatment for ESOPs and ESPS.
- Meaning and types of Underwriting
- Difference between marked application and unmarked applications.
- Liability of underwriters.
- Meaning of debenture and bonds;
- Methods for the issue of debenture for cash and for consideration Other than cash;
- Issue of debenture as a collateral security;
- Sources and record transaction relating to redemption of Debenture;
- Methods of redemption of debenture;
- Sinking Fund Investment
- Cum-interest and Ex-interest, open market operations

## *Lesson Outline*


- Buy-Back of Shares
- Modes of Buy-Back
- Debentures-Issue & Redemption
- Accounting for Debentures
- Accounting Aspects of Issue
- Redemption of Debentures
- Different Methods of Redemption of Debentures
- Issue of Employee Stock Options
- Explanatory Statement Annexed to Notice
- Disclosure in Board's Reports
- General Rights available
- Entry in Register of Members
- Underwriting of Shares
- Underwriting Agreement
- Sub-Underwriters
- Underwriting Commission
- Full and Partial Underwriting
- Accounting Entries
- LESSON ROUND UP
- TEST YOURSELF

## BUY-BACK OF SHARES

When a company has substantial cash resources, it may like to buy its own shares from the market particularly when the prevailing rate of its shares in the market is much lower than the book value; or what the company perceives to be its true value. Buy-back of shares enables the company to go back to its shareholders and offers to purchase from them the shares they hold. Buy-back of Securities is a very important tool for companies that wants to reduce their Share Capital.

**Conditions for buy-back:**

According to Section 68(2), following conditions must be satisfied in order to buy-back the shares:

(a) must be authorized by its articles;

(a) a special resolution has been passed at a general meeting of the company authorizing the buy-back, but the same is not required when:

  (i) the buy-back is 10% or less of the total paid up equity capital and free reserves of the company; and

  (ii) such buy-back has been authorized by the Board by means of a resolution passed at its meeting;

(b) the buy-back is twenty-five per cent or less of the aggregate of paid up capital and free reserves of the company. But in case of Equity Shares, the same shall be taken as 25% of paid up equity capital only.

(c) Debt Equity ratio should be 2:1, where: Debt is aggregate of secured and unsecured debts owed by the company after buy-back, and Equity: is the aggregate of the paid up capital and its free reserves;

(d) all the shares or other specified securities for buy-back are fully paid up;

(e) If shares or securities are listed, buy-back will be in accordance with the regulations made by the Securities and Exchange Board in this behalf; and

(f) the buy-back in respect of unlisted shares or other specified securities will be in accordance with Share Capital and Debentures Rules, 2014.

(g) no offer of buy-back shall be made within a period of one year from the date of the closure of the preceding offer of buy-back, if any.

**Explanatory Statement – Section 68(3):**

The notice of the meeting at which the special resolution is proposed to be passed shall be accompanied by an explanatory statement stating –

(a) a full and complete disclosure of all material facts;

(b) the necessity for the buy-back;

(c) the class of shares or securities intended to be purchased under the buy-back;

(d) the amount to be invested under the buy-back; and

(e) the time-limit for the completion of buy-back.

As per the rules, following more details is to be included in the Explanatory Statement:

(f) the date of the board meeting at which the proposal for buy-back was approved by the Board of Directors of the company;

(g) the number of securities that the company proposes to buy-back;

(h) the method to be adopted for the buy-back;

(i) the price at which the buy-back of shares or other securities shall be made;

(j) the basis of arriving at the buy-back price;

(k) the maximum amount to be paid for the buy-back and the sources of funds from which the buy-back would be financed;

(l) Shareholding:

(a) it is the aggregate shareholding of the promoters and of the directors of the promoter, where the promoter is a company, of the directors and key managerial personnel, as on the date of the notice convening the general meeting;

(b) the aggregate number of equity shares purchased or sold by persons mentioned in sub-clause (a) during a period of twelve months preceding the date of the board meeting at which the buy-back was approved and from that date till the date of notice convening the general meeting;

(c) the maximum and minimum price at which purchases and sales referred to in sub-clause (b) were made along with the relevant date;

(m) if the persons mentioned in l (a) intend to tender their shares for buy-back –

(a) the quantum of shares proposed to be tendered;

(b) the details of their transactions and their holdings in the last twelve months, prior to the date of the board meeting at which the buy-back was approved including information of number of shares acquired, the price and the date of acquisition;

(n) a confirmation that there are no defaults subsisting in repayment of deposits, interest payment thereon, redemption of debentures or payment of interest thereon, or redemption of preference shares, or payment of dividend due to any shareholder, or repayment of any term loans, or interest payable thereon to any financial institution or banking company;

(o) a confirmation:

(a) that the Board of Directors have made a full enquiry into the affairs and prospects of the company and that they have formed the opinion- general meeting is convened there shall be no grounds on which the company could be found unable to pay its debts;

(b) about the company's prospect for the year immediately following that date, its management character and initiations, its financial resources that will be available during that year so that the company shall he able to meet its liabilities as and when they fall due and shall not be rendered insolvent within a period of 1 year from that date; and

(c) the directors have taken into account the liabilities(including prospective and contingent liabilities), as if the company were being wound up under the provisions of the Companies Act, 2013.

(p) a report addressed to the Board of Directors by the company's auditors stating that-

(i) they have inquired into the company's state of affairs;

(ii) the amount of the permissible capital payment for the securities in question is in their view properly determined;

(iii) that the audited accounts on the basis of which calculation with reference to buy-back is done is not more than six months old from the date of offer document; and

(iv) the Board of Directors have formed the opinion as specified in point 'o' on reasonable grounds and that the company, with regard to its state of affairs, shall not be rendered insolvent within a period of one year from that date.

**Other Conditions for Buy back**

- Every buy-back shall be completed within a period of one year from the date of the resolution or special resolution, as the case may be, passed by the Board. [Section 68(4)]
- The buy-back can be :

(a) from the existing shareholders or security holders on a proportionate basis;

(b) from the open market;

(c) by purchasing the securities issued to employees of the company pursuant to a scheme of stock option or sweat equity. [Section 68(5)]

- Before making such buy-back, file with the Registrar, a declaration of solvency signed by at least two directors of the company, one of whom shall be the managing director, if any, Form No. SH.9 may be prescribed and verified by an affidavit to the effect that the Board of Directors has made a full inquiry into the affairs of the company as a result of which they have formed an opinion that it is capable of meeting its liabilities and will not be rendered insolvent within a period of one year from the date of declaration adopted by the Board. [Section 68(6)]
- Company shall extinguish and physically destroy the shares or securities so bought back within seven days of the last date of completion of buy-back. [Section 68(7)]
- Where a company completes a buy-back of its shares or other specified securities, it shall not make a further issue of the same kind of shares or other securities including allotment of new shares or other specified securities within a period of six months except by way of:
  (a) bonus issue, or
  (b) in the discharge of subsisting obligations such as conversion of warrants, stock option schemes, sweat equity or conversion of preference shares or debentures into equity shares.
- Company shall maintain a register in Form No. SH.10 of the shares or securities so bought, the consideration paid for the shares or securities bought back, the date of cancellation of shares or securities, the date of extinguishing and physically destroying the shares or securities. The register of shares or securities bought back shall be maintained at the registered office of the company and shall be kept in the custody of the secretary of the company or any other person authorized by the board in this behalf. The entries in the register shall be authenticated by the secretary of the company or by any other person authorized by the Board for the purpose.
- A company shall, after the completion of the buy-back under this section, shall file with the Registrar a return in Form No. SH.11 containing such particulars relating to the buy-back within thirty days of such completion. There shall be annexed to the return, a certificate in Form No. SH.15 signed by two directors of the company including the managing director, if any, certifying that the buy-back of securities has been made in compliance with the provisions of the Act and the rules made thereunder.
- If a company makes any default in complying with the provisions of this section or any regulation made by the Securities and Exchange Board, for the purposes of clause (f) of sub-section (2), the company shall be punishable with fine which shall not be less than one lakh rupees but which may extend to three lakh rupees and every officer of the company who is in default shall be punishable with fine which shall not be less than one lakh rupees but which may extend to three lakh rupees.

## Transfer of certain sums to capital redemption reserves account (Section 69)

Where a company purchases its own shares out of free reserves or securities premium account, a sum equal to the nominal value of the shares so purchased shall be transferred to the Capital Redemption Reserve Account and details of such transfer shall be disclosed in the balance sheet. The Capital Redemption Reserve Account may be applied by the company, in paying up unissued shares of the company to be issued to members of the company as fully paid bonus shares.

## Prohibition on buy-back in following circumstances (Section 70)

No company shall directly or indirectly purchase its own shares or other specified securities –

(a) through any subsidiary company including its own subsidiary companies;

(b) through any investment company or group of investment companies; or

(c) if a default, is made by the company, in the repayment of deposits accepted either before or after the commencement of this Act, interest payment thereon, redemption of debentures or preference shares or payment of dividend to any shareholder, or repayment of any term loan or interest payable thereon to any financial institution or banking company. Provided that the buy-back is not prohibited, if the default is remedied and a period of three years has lapsed after such default ceased to subsist.

No company shall, directly or indirectly, purchase its own shares or other specified securities in case such company has not complied with the provisions of:

(a) Sections 92: Annual Return

(b) Section 123: Declaration and Payment of Dividend

(c) Section 127: Failure to pay Dividend

(d) Section 129: Failure to give True and Fair Statement

## SEBI (Buy-back of Securities) Regulations, 2018

The Securities and Exchange Board of India, has issued the SEBI (Buy-back of Securities) Regulations, 2018 with regard to buy-back of shares or other specified securities by companies.

## Modes of buy-back

A company may buy-back its shares or other specified securities by any one of the following methods:

a) from the existing share holders or other specified securities holders on a proportionate basis through the tender offer;

b) from the open market through—

   i) book-building process,

   ii) stock exchange;

c) from odd-lot holders, provided that no offer of buy-back for fifteen per cent or more of the paid up capital and free reserves of the company shall be made from the open market.

## Disclosures, filing requirements and timelines for public announcement and draft letter of offer

When a company proposes to buy-back its own shares, and it has been authorised by a special resolution or a resolution passed by the board of directors, as the case may be, shall make a public announcement within two working days from the date of declaration of results of the postal ballot for special resolution/board of directors resolution in at least one English National Daily, one Hindi National Daily and one Regional language daily, all with wide circulation at the place where the Registered Office of the company is situated and the said public announcement shall contain all the material information as specific in these Regulations. A copy of the public announcement along with the soft copy, shall also be submitted to SEBI, simultaneously, through a merchant banker.

The company shall within five working days of the public announcement file the following :

a) A draft letter of offer, along with a soft copy, containing disclosures as specified in these regulations through a merchant banker who is not associated with the company.

b) A declaration of solvency in specified form and in a manner provided in Section 68(8) of the Companies Act, 2013.

c) Prescribed fees as specified in these regulations.

SEBI may provide its comments on the draft letter of offer within seven working days of the receipt of the draft letter of offer. Letter of Offer shall be dispatch to the Shareholders

The company shall dispatch the letter of offer along with the tender form to all securities holders which are eligible to participate in the buy-back offer not later than five working days from the receipt of communication of comments from SEBI.

**Note:**

- Letter of Offer may also be dispatched through electronic mode in accordance with the provisions of the Companies Act, 2013.
- On receipt of a request from any shareholder to receive a copy of the letter of offer in physical form, the same shall be provided.

If in case an eligible public shareholder does not receive the tender offer/offer form, even though he can participate in the buy-back offer and tender shares in the manner as provided by SEBI.

The date of the opening of the offer shall be not later than five working days from the date of dispatch of the letter of offer. It shall be remain opened for a period of ten working days.

The company shall provide the facilities for tendering of shares by the shareholders and settlement of the same, through the stock exchange mechanism in the manner as provided by SEBI.

## Additional Conditions for Buyback of Shares or Other Securities

A company shall not buy-back its shares or other specified securities :

a) so as to delist its shares or other specified securities from the stock exchange.

b) from any person through negotiated deals, whether on or off the stock exchange or through spot transactions or through any private arrangement.

A company shall not make any offer of buy-back within a period of one year reckoned from the date of expiry of buyback period of the preceding offer of buy-back, if any.

A company shall not allow buy-back of its shares unless the consequent reduction of its share capital is affected.

## Escrow account

Regulation 9(xi) of SEBI (Buy back of Securities) Regulations, 2018 provides that a company shall, as and by way of security for performance of its obligations under the regulations, on or before the opening of the offer, deposit in an escrow account such sum as specified below:

The escrow amount shall be payable in the following manner:

a) if the consideration payable does not exceed Rupees 100 crores; 25 per cent of the consideration payable;

b) if the consideration payable exceeds Rupees 100 crores; 25 per cent upto Rupees 100 crores and 10 per cent thereafter.

The escrow account referred to in this regulation shall consist of,

(i) cash deposited with a scheduled commercial bank, or

(ii) bank guarantee in favour of the merchant banker, or

(iii) deposit of acceptable securities with appropriate margin, with the merchant banker, or

(iv) a combination of (i), (ii) and (iii) above.

## Advantages of Buy-Back

Buy-back have the following advantages:

(i) A company with capital, which cannot be profitably employed, may get rid of it by resorting to buy-back, and restructuring its capital.

(ii) Free reserves which are utilized for buy-back instead of paying dividend enhance the value of the company's shares and improve its earnings per share.

(iii) Surplus cash may be utilized by the company for buy-back and avoid the payment of dividend tax.

(iv) Buy-back may be used as a weapon to frustrate any hostile takeover of the company by undesirable persons.

## Accounting for Buy-Back

Buy-back of shares is just the opposite of issue of shares. Just as shares may be issued at par, at a premium, even buy-back may be at par, at a premium or at a discount. The basis of accounting for buy-back is Section 68 of the Companies Act, 2013. This Section not only permits a company to buy-back or redeem its equity shares, but also specifies the sources from out of which repurchase is to be effected.

According to Section 68(1), a company may buy-back its shares or other specified securities from out of:

1. Its free reserves, or
2. The securities premium account, or
3. The proceeds of any shares or other specified securities.

However, no buy-back of shares shall be made out of the proceeds of an earlier issue of the same kind of shares or same kind of other specified securities. This Section also lays down that all the shares or other specified securities for buy-back are fully paid up.

As per Section 69, when a company purchases its own shares out of free reserves. Then a sum equal to the nominal value of the shares so purchased shall be transferred to the Capital Redemption Reserve Account and details of such transfer should be disclosed in the balance sheet.

The Capital Redemption reserve account may be applied by the company, in paying up unissued share of the company to be issued to members of the company as fully paid bonus shares.

## DEBENTURES-ISSUE AND REDEMPTION

### Introduction

"Debenture" includes debenture stock, bonds or any other instrument of a company evidencing a debt, whether constituting a charge on the assets of the company or not.

A commercial definition of the debenture is an acknowledgement of a debt in writing, given under the seal of the company, containing a contract for the repayment of the principal sum at a specified date, and for the payment of interest (usually half yearly) at a fixed rate until the principal sum is repaid. It may or may not give a charge on the assets of the company as a security for the loan.

A debenture like a share is also a movable property transferable in the manner provided in the Articles of the company.

### Requirement

The long-term requirements of capital are raised by any company primarily through issue of shares and debentures. The shareholders are essentially the owners of the enterprise, those who buy debentures are creditors for long-term funds and do not enjoy voting rights. In brief all securities other than shares issued by a company come under the term debentures.

According to the guidelines issued by the Controller of Capital Issues, the objects of the issue can be among other things:

(1) Setting up of new projects;

(2) Expansion or diversification of existing projects;

(3) Normal capital expenditure for modernization;

(4) To augment long-term resources of the company for working capital requirements;

(5) Merger /Amalgamation of companies in pursuance of schemes approved by banks, financial institutions and/or any legal authority;

### Differences between Shares and Debentures

| | **Shares** | **Debentures** |
|---|---|---|
| Definition | An instrument to acknowledge the ownership of the company | An instrument to acknowledge thecreditors of the company. |
| Status | A shareholder is the owner and a member of the company. | A debenture holder is not a member but a creditor. |
| Return | A shareholder may receive dividend only when a company makes a profit. | A debenture holder has a right to interest even if the company does not make profit. |
| Rate of return | Dividend rate can vary depending on the profit position. | Debenture carries a fixed rate of interest. |
| Accounting treatment | Dividend is given out of appropriable profit and not chargeable to Profit and Loss account. | Debenture interest is chargeable to Profit and Loss account. |

| | | |
|---|---|---|
| Redemption | In the case of shares, the concept of redemption does not apply. However, a company can buy-back shares in accordance with the provisions in the Companies Act. | Debentures are normally redeemable although a company can issue perpetual debentures. |
| Voting rights | A shareholder has voting rights. | A debentureholder cannot have voting rights. |
| Status at the time of winding up | At the time of winding up shareholders have the least priority regarding the return of amount due to them. | At the time of winding up debenture holders have a priority over the share holders regarding the return of amount due to them. |

## ACCOUNTING FOR DEBENTURES

There are three stages of accounting for debentures:

(i) When debentures are issued;

(ii) When provision for their redemption is made; and

(iii) When ultimately debentures are redeemed. A detailed study of each stage is made in the following pages.

### 1. ISSUE OF DEBENTURES

**Debenture [Section 71]**

(1) A company may issue debentures with an option to convert such debentures into shares, either wholly or partly at the time of redemption. Provided that the issue of such debentures, shall be approved by a special resolution passed at a general meeting.

(2) No company shall issue any debentures carrying any voting rights.

(3) Secured Debentures may be issued by a company subject to such terms and conditions as may be prescribed.

(4) Where debentures are issued by a company under this section, the company shall create a Debenture Redemption Reserve Account out of the profits of the company available for payment of dividend and the amount credited to such account shall not be utilized by the company except for the redemption of debentures.

(5) No company shall issue a prospectus, or make an offer, or give an invitation to the public or to its members exceeding five hundred for the subscription of its debentures, unless the company has, before such issue or offer, appointed one or more debenture trustees, and the conditions governing the appointment of such trustees shall be such as may be prescribed.

(6) A debenture trustee shall take steps to protect the interests of the debenture holders and redress their grievances in accordance with such rules as may be prescribed.

(7) Any provision contained in a trust deed for securing the issue of debentures, or in any contract with the debenture holders secured by a trust deed, shall be void in so far as it would have the effect of exempting a trustee thereof from, or indemnifying him against, any liability for breach of trust, where he fails to show the degree of care and due diligence required of him as a trustee, with regard to the provisions of the trust deed conferring on him any power, authority or discretion; provided that the liability of the debenture trustee shall be subject to such exemptions as may be agreed upon by a majority of debenture holders holding not less than three-fourths in value of the total debentures at a meeting held for the purpose.

(8) A company shall pay interest and redeem the debentures in accordance with the terms and conditions of their issue.

(9) When at any time the debenture trustee comes to a conclusion that the assets of the company are insufficient or are likely to become insufficient to discharge the principal amount as and when it becomes due, the debenture trustee may file a petition before the Tribunal and the Tribunal may, after hearing the company and any other person interested in the matter, by order, impose such restrictions on the

incurring of any further liabilities by the company as the Tribunal may consider necessary in the interests of the debenture holders.

(10) When a company fails to redeem the debentures on the date of their maturity or fails to pay interest on the debentures when it is due, the Tribunal may, on the application of any or all of the debenture holders, or debenture trustee and, after hearing the parties concerned, direct, by order, the company to redeem the debentures forthwith on payment of principal and interest due thereon.

(11) If any default is made in complying with the order of the Tribunal under this section, every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to three years, or with a fine which shall not be less than two lakh rupees and which may he extended to five lakh rupees, or with both.

(12) A contract with the company to take up and pay for any debentures of the company may be enforced by a decree for specific performance.

(13) The Central Government may prescribe the procedure, for securing the issue of debentures, the form of debenture trust deed, the procedure for the debenture holders to inspect the trust deed and to obtain copies thereof, quantum of debenture redemption reserve required to be created and such other matters.

### Issue of Secured Debenture

The company shall not issue Secured Debentures, unless it complies with the following conditions, namely:-

a) an issue of Secured Debentures may be made provided the date of its redemption shall not exceed ten years from the date of issue.

Provided that the following classes of companies may issue secured debentures for a period exceeding ten years but not exceeding thirty years,

(i) Companies engaged in setting up of infrastructure projects;

(ii) 'Infrastructure Finance Companies' as defined in clause (vii-a) of sub-direction (1) of direction 2 of Non-Banking Financial (Non-deposit accepting or holding) Companies Prudential Norms (Reserve Bank) Directions, 2007;

(iii) 'Infrastructure Debt Fund Non-Banking Financial companies' as defined in clause (b) of direction 3 of Infrastructure Debt Fund Non-Banking Financial Companies (Reserve Bank) Directions, 2011.

(iv) Companies permitted by a Ministry or Department of the Central Government or by Reserve Bank of India or by the National Housing Bank or by any other statutory authority to issue debenture for a period exceeding ten years.

(b) such an issue of debentures shall be secured by the creation of a charge, on the properties or assets of the company, having a value which is sufficient for the due repayment of the amount of debentures and interest thereon;

(c) the company shall appoint a debenture trustee before the issue of prospectus or letter of offer for subscription of its debentures and not later than sixty days after the allotment of the debentures, execute a debenture trust deed to protect the interest of the debenture holders ; and

(d) the security for the debentures by way of a charge or mortgage shall be created in favour of the debenture trustee on –

(i) any specific movable property of the company (not being in the nature of pledge); or

(ii) any specific immovable property wherever situate, or any interest therein.

## ACCOUNTING ASPECTS OF ISSUE DEBENTURES

Accounting aspects of issue of debenture may be studied from three different sides.

**(1) What would be the consideration?**

(a) Issued for cash

(b) Issued for consideration other than cash

(c) Issued as collateral security

**(2) What would be the issue price?**

(a) Issued at par

(b) Issued at a premium

(c) Issued at a discount

**(3) How the redemption be made.**

(a) Redeemed at par

(b) Redeemed at a premium

(c) Redeemed at a discount

Combining (2) and (3), the following are the options of issue.

(a) Issued at par and redeemable at par

(b) Issued at a discount and redeemable at par

(c) Issued at a premium and redeemable at par

(d) Issued at a premium and redeemable at a premium

(e) Issued at par and redeemable at a premium

(f) Issued at a discount and redeemable at a premium

The accounting entries for the above six combinations are given in the table below.

| | Transaction | Account | |
|---|---|---|---|
| | | **Debited** | **Credited** |
| A. | Issued at par and redeemable at par | Bank | Debentures |
| B. | Issued at a discount and redeemable at par | Bank<br>Discount on issue of debentures | Debentures |
| C. | Issued at a premium and redeemable at par | Bank | Debentures<br>Security Premium |
| D. | Issued at a premium and redeemable at premium | Bank<br>Loss on the issue of debenture | Debentures A/c<br>Security Premium Prem. on redemption of debentures. |
| E. | Issued at par and redeemable at a premium | Bank<br>Loss on the issue of debentures | Debentures<br>Prem. on redemption of debentures |
| F. | Issued at discount and redeemable at a premium | Bank<br>Loss on the issue of Debentures ** | Debentures<br>Prem. on redemption of debentures |

** Loss on the issue of debentures includes discount on issue and a premium on redemption.

## Issue for Consideration other than Cash

In this case debentures are issued for consideration other than cash. Examples are allotment of debentures for assets purchased or technical services received. There is no receipt of cash in these transactions for the allotment of debentures.

## Debentures issued as Collateral Security

(a) This is the third type of consideration for which company issues debentures. The issue of debentures as a collateral security means issue of debentures as a subsidiary or secondary security, that is, a security in addition to the prime security. Secondary security is to be realized only when the prime security fails to pay the amount of loan. Debentures issued as a collateral security can be dealt within two ways in the books:

**a. First Method**

No entry is made in the books. On the liability side of the balance sheet below the item of loan a note that it has been secured by the issue of debentures is to be given. This is shown in the balance sheet as follows:

**b. Second method**

Sometimes the issue of debentures as collateral security is recorded by making a journal entry as follows:

| | | |
|---|---|---|
| Debenture suspense account | Dr. | (This appears on the assets side) |
| To Debenture account | | (This appears on the liabilities side) |

When the loan is paid the above entry is cancelled by means of a reverse entry.

### Discount on the issue of Debenture

When debentures are issued at a discount, it is prudent to write off the loss during the life of debentures.

## REDEMPTION OF DEBENTURES

Redemption of debentures is the process of discharging the liability on account of debentures in accordance with the terms of redemption stated in the debenture trust deed. Discharge of debenture liability is usually by paying cash to the debenture holders. But this can take other forms, such as conversion or rollover. In the case of conversion debentures are converted into preference shares or equity shares. Rollover refers to the issue of new debentures, in exchange for the old ones. Both conversion and rollover are subject to detailed SEBI guidelines.

When a company issues debentures it must also plan the resources required for such redemption. This can be done by setting aside profits every year and investing them wisely in investments outside, so that there will be no liquidity problem at the time of redemption. Alternatively, the company can take an insurance policy by paying regular premium, so that the policy matures coinciding with the time of redemption. With the amount received on the maturity of policy the company faces no problem in carrying out the redemption. These are the two ways in which a company can make provisioning for redemption of debentures.

## CREATION OF DEBENTURE REDEMPTION RESERVE (DRR) ACCOUNT

According to Sub rule 7 of Rule 18 of The Companies (Share Capital and Debentures) Rules, 2014, The company shall create a Debenture Redemption Reserve for the purpose of redemption of debentures, in accordance with the conditions given below-

(a) the Debenture Redemption Reserve shall be created out of the profits of the company available for payment of dividend;

(b) the company shall create Debenture Redemption Reserve (DRR) in accordance with following conditions:-

(i) No DRR is required for debentures issued by All India Financial Institutions (AIFIs) regulated by Reserve Bank of India and Banking Companies for both public as well as privately placed debentures. For other Financial Institutions (FIs) within the meaning of clause (72) of section 2 of the Companies Act, 2013, DRR will be as applicable to NBFCs registered with RBI.

(ii) For NBFCs registered with the RBI under Section 45-IA of the RBI (Amendment) Act, 1997, and for housing finance companies registered with the national housing bank] 'the adequacy' of DRR will be 25% of the value of outstanding debentures issued through public issue as per present SEBI (Issue and Listing of Debt Securities) Regulations, 2008, and no DRR is required in the case of privately placed debentures.

(iii) For other companies including manufacturing and infrastructure companies, the adequacy of DRR will be 25% of the value of outstanding debentures issued through public issue as per present SEBI (Issue and Listing of Debt Securities), Regulations 2008 and also 25% DRR is required in the case of privately placed debentures by listed companies. For unlisted companies issuing debentures on private placement basis, the DRR will be 25% of the value of outstanding debentures.

Provided that where a company intends to redeem its debentures prematurely, it may provide for transfer of such amount in Debenture Redemption Reserve as is necessary for redemption of such debentures even if it exceeds the limits specified in this sub-rule.

(c) every company required to create Debenture Redemption Reserve shall on or before the 30th day of April in each year, invest or deposit, as the case may be, a sum which shall not be less than fifteen percent, of the amount of its debentures maturing during the year ending on the 31st day of March of the next year, in any one or more of the following methods, namely:-

(i) in deposits with any scheduled bank, free from any charge or lien;

(ii) in unencumbered securities of the Central Government or of any State Government;

(iii) in unencumbered securities mentioned in sub-clauses (a) to (d) and (ee) of section 20 of the Indian Trusts Act, 1882;

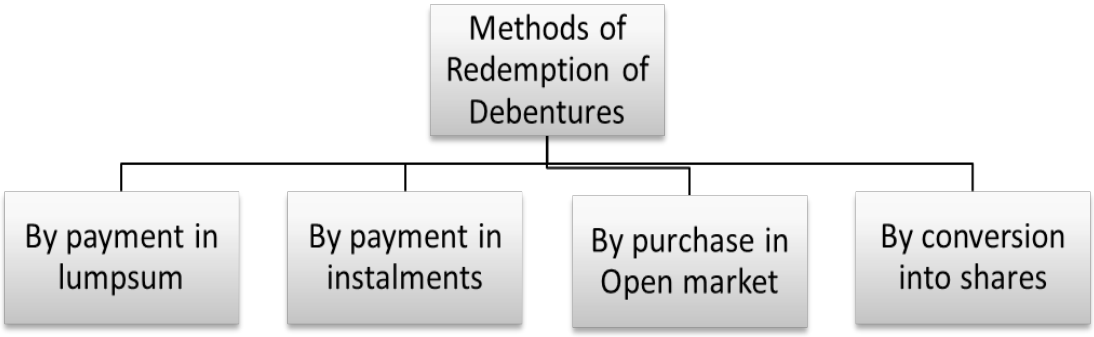
(iv) in unencumbered bonds issued by any other company w hich is notified under sub-clause (f) of section 20 of the Indian Trusts Act, 1882;

(v) the amount invested or deposited as above shall not be used for any purpose other than for redemption of debentures maturing during the year referred above: Provided that the amount remaining invested or deposited, as the case may be, shall not at any time fall below fifteen per cent of the amount of the debentures maturing during the year ending on the 31st day of March of that year;

(d) in case of partly convertible debentures, Debenture Redemption Reserve shall be created in respect of non-convertible portion of debenture issue in accordance with this sub-rule.

(e) the amount credited to the Debenture Redemption Reserve shall not be utilised by the company except for the purpose of redemption of debentures

## METHODS OF REDEMPTION OF DEBENTURES




Redemption of debentures must be done according to the terms of issue of debentures and any deviation there from will be treated as a default by the company. Redemption by paying off the debt on account of debentures issued can be done in one of the following methods:

**1. By payment in lumpsum**

Under payment in lumpsum method, at maturity or at the expiry of a specified period of debenture the payment of entire debenture is made in one lot or even before the expiry of the specified period.

**2. By payment in Instalments**

Under payment in installments method, the payment of specified portion of debenture is made in installments at specified intervals.

**3. Purchase of Debentures in Open Market**

Debentures sometimes are purchased in open market; where there is a Debenture Redemption Reserve out of the reserve and, if there is none, as a general investment; the Debenture Investment Account or Own Debenture Account is debited.

**4. Conversion into Shares**

A company may issue convertible debentures, giving options to the debenture holders to exchange their debentures for equity shares or preference shares in the company.

## EMPLOYEE STOCK OPTION PLAN (ESOP), EMPLOYEES STOCK OPTION SCHEME (ESOS)

### Issue of Employee Stock Options

A company, other than a listed company, which is not required to comply with Securities and Exchange Board of India Employee Stock Option Scheme Guidelines shall not offer shares to its employees under a scheme of employees' stock option (hereinafter referred to as "Employees Stock Option Scheme"), unless it complies with the following requirements, namely:-

(1) the issue of Employees Stock Option Scheme has been approved by the shareholders of the company by passing a special resolution.

*Explanation:* For the purposes of clause (b) of Sub-section (1) of Section 62 and this rule "Employee" means-

(a) a permanent employee of the company who has been working in India or outside India; or

(b) a director of the company, whether a whole time director or not, but excluding an independent director; or

(c) an employee as defined in clauses (a) or (b) of a subsidiary, in India or outside India, or of a holding company of the main company, or of an associate company.

Employees Stock Option Scheme does not include –

(i) an employee who is a promoter or a person belonging to the promoter group; or

(ii) a director who either himself or through his relative or through anybody in the corporate, directly or indirectly, holds more than ten percent of the outstanding equity shares of the company.

(2) The company shall make the following disclosures in the explanatory statement annexed to the notice for passing of the resolution-

(a) the total number of stock options to be granted;

(b) identification of classes of employees entitled to participate in the Employees Stock Option Scheme;

(c) the appraisal process for determining the eligibility of employees to the Employees Stock Option Scheme;

(d) the requirements of vesting and period of vesting;

(e) the maximum period within which the options shall be vested;

(f) the exercise price or the formula for arriving at the same;

(g) the exercise period and process of exercise;

(h) the lock-in period, if any ;

(i) the maximum number of options to be granted per employee and in aggregate;

(j) the method which the company shall use to value its options;

(k) the conditions under which option vested in employees may lapse, e.g., in case of termination of employment for misconduct;

(l) the specified time period within which the employee shall exercise the vested options in the event of a proposed termination of employment or resignation of employee; and

(m) a statement to the effect that the company shall comply with the applicable accounting standards.

(3) The companies granting option to their employees pursuant to Employees Stock Option Scheme will have the freedom to determine the exercise price in conformity with the applicable accounting policies, if any.

(4) The approval of shareholders by way of separate resolution shall be obtained by the company in case of-

(a) grant of option to employees of subsidiary or holding company; or

(b) grant of option to identified employees, during any one year, equal to or exceeding one percent of the issued capital (excluding outstanding warrants and conversions) of the company at the time of grant of option.

(5) (a) The company may by special resolution vary the terms of Employees Stock Option Scheme not yet exercised by the employees, provided such variation is not prejudicial to the interests of the option holders.

(b) The notice for passing special resolution for variation of terms of Employees Stock Option Scheme shall disclose complete variation, the rationale of it, and the details of the employees who are beneficiaries of such variation.

(6) (a) There shall be a minimum period of one year between the grant of options and vesting of option:

In a case where options are granted by a company under its Employees Stock Option Scheme, in lieu of options held by the same person under an Employees Stock Option Scheme in another company, which has merged or amalgamated with the first-mentioned company, the period during which the options granted by the merging or amalgamating company were held by him shall be adjusted against the minimum vesting period required under this clause;

(b) The company shall have the freedom to specify the lock-in period for the shares issued pursuant to exercise of option.

(c) The Employees shall not have right to receive any dividend, or to vote, or in any manner enjoy the benefits of a shareholder in respect of option granted to them, till shares are issued on exercise of option.

(7) The amount, if any, payable by the employees, at the time of grant of option-

(a) may be forfeited by the company if the option is not exercised by the employees within the exercise period; or

(b) the amount may be refunded to the employees if the options are not vested due to non-fulfillment of conditions relating to vesting of option as per the Employees Stock Option Scheme.

(8) (a) The option granted to employees shall not be transferable to any other person.

(b) The option granted to the employees shall not be pledged, hypothecated, mortgaged or otherwise encumbered or alienated in any other manner.

(c) Subject to clause (d), no person other than the employees to whom the option is granted shall be entitled to exercise the option.

(d) In the event of the death of employee, while in employment, all the options granted to him till such date shall vest in the legal heirs or nominees of the deceased employee.

(e) In case the employee suffers a permanent incapacity while in employment, all the options granted to him as on the date of permanent incapacitation, shall vest in him on that day.

(f) In the event of resignation or termination of employment, all options not vested in the employee as on that day shall expire. However, the employee can exercise the options granted to him which are vested within the period specified in this behalf, subject to the terms and conditions under the scheme granting such options as approved by the Board.

(9) The Board of Directors shall, inter alia, disclose in the Directors' Report for the year, the following details of the Employees Stock Option Scheme:

(a) options granted;

(b) options vested;

(c) options exercised;

(d) the total number of shares arising as a result of exercise of option;

(e) options lapsed;

(f) the exercise price;

(g) variation of terms of options;

(h) money realized by exercise of options;

(i) total number of options in force;

(j) employee-wise details of options granted to;-

(i) key managerial personnel;

(ii) any other employee who receives a grant of options in any one year of option amounting to five percent or more of options granted during that year.

(iii) identified employees who were granted the option, during any one year, equal to or exceeding one percent of the issued capital (excluding outstanding warrants and conversions) of the company at the time of grant;

(10) (a) The company shall maintain a Register of Employee Stock Options in Form No. SH.6 and shall enter therein the particulars of option granted under clause (b) of Sub-section (1) of Section 62.

(b) The Register of Employee Stock Options shall be maintained at the registered office of the company or such other place as the Board may decide.

(c) The entries in the register shall be authenticated by the company secretary of the company or by any other person authorized by the Board for the purpose.

(11) Where the equity shares of the company are listed on a recognized stock exchange, the Employees Stock Option Scheme shall be issued, in accordance with the regulations made by the Securities and Exchange Board of India in this behalf.

The Institute of Chartered Accountants of India has issued guidance note on Accounting for Employee Share-based payments. The Guidance Note has suggested the following guidelines for accounting of ESOPs:

Some employers use share-based payments as a part of remuneration package for their employees. Such payments generally take the terms of Employee Stock Option Plans (ESOPs). The guidance not recognizes that there are two methods of accounting for employee share-based payments viz. the fair value method and the intrinsic value method and permits as an alternative the intrinsic value method with fair value disclosures.

An enterprise should recognize as an expense (except where service received qualifies to be included as part of the cost of an asses) the services received in an equity-settled employee share-based payments plan when it receives the services, with a corresponding credit to an appropriate equity account, say, 'Stock Option Outstanding Account'. This account is transitional in nature as it gets ultimately transferred to another equity account such as share capital, securities premium account and/or general reserve as recommended in the Guidance Note.

If the shares or stock options granted vest immediately, the employee is not required to complete a specified period of service before becoming unconditionally entitled to those instruments. In the absence of evidence to the contrary, the enterprise should presume that services rendered by the employees as a consideration for the instruments have been received. In this case, on the grant date, the enterprise should recognize services received in full with a corresponding credit to equity account.

- If the shares or stock options granted do not vest until the employee completes a specified period of service, the enterprise should presume that the services to be rendered by the employee as consideration for those instruments would be received in the future, during the vesting period. The enterprise should account for those services as they are rendered by the employee during the vesting period, on a time-proportion basis, with a corresponding credit to the equity account.
- An enterprise should measure the fair value of shares, or stock options granted at the grant date, based on market prices if available, taking into account the terms and conditions upon which those shares or stock options were granted. If market prices are not available, the enterprise should estimate the fair value of the

instruments granted using a valuation technique to estimate what the price of those instruments granted using a valuation technique to estimate what the price of those instruments would have been on the grant date in an arm's length transaction between knowledgeable, wiling parties. The valuation technique should be consistent with generally accepted valuation methodologies for pricing financial instruments (e.g., use of an option pricing model for valuing stock option) and should incorporate all factors and assumptions that knowledgeable, willing market participants would consider in setting the price.

## Employees Stock Option Scheme (ESOS)

ESOP means a scheme under which the company grants option (a right but not an obligation) to an employee to apply for shares of the company at a predetermined price. This right is exercisable by the employee, during the specified period. Section 2(37) of the Companies Act, 2013 states that the "employee stock option" means the option given to the whole time director, officers or employees of a company which gives such directors, officers or employees the benefit or right to purchase or subscribe at a future date, the securities offered by the company at a predetermined price. The SEBI has issued guidelines for ESOS of listed companies. These guidelines are also applicable for Employee Stock Purchase Scheme (ESPS), which implies a scheme under which the company offers shares to employee as part of public issue or otherwise.

**Accounting for ESOP –** The option discount (which is also known as fair value or accounting value of options) granted to employees during the accounting period should be treated as compensation to employees. Option discount means the excess of the market value of the share at the date of grant of the option under ESOS over the exercised price of the option (including upfront payment, if any). The option discount should be amortized on a straight-line basis over the vesting period, i.e., the period over which option is exercisable.

Disclosure in the Director's Report – The Board of Directors shall inter alia disclosure either in the Director's Report or in the annexure to the Director's Report the following details of the ESOS:

(a) Options granted;

(b) The pricing formula;

(c) Options vested;

(d) Options exercised;

(e) The total number of shares arising as a result of exercise of option;

(f) Options lapsed;

(g) Variation of terms of options;

(h) Money realized by exercise of options;

(i) Total number of options in force;

(j) Employee wise details of options granted to:

  (i) Senior managerial personnel;

  (ii) Any other employee who receives a grant in any one year of option amounting to 5% or more of option granted during that year;

  (iii) Identified employees who were granted option, during any one year, equal to or exceeding 1% of the issued capital (excluding outstanding warrants and conversions) of the company at the time of grant;

(k) 'diluted earnings per share' pursuant to the issue of shares on exercise of option calculated in accordance.

## Equity Shares with Differential Rights

According to Section 43 of the Companies Act, 2013, Equity share capital may be Equity Share Capital with voting right or Equity Share Capital with differential right as to dividend, voting or otherwise.

Rule 4 of the Companies (Share Capital and Debentures) Rules 2014 deals with equity shares with differential rights.

**Which Company may issue:**

A company limited by shares shall issue equity shares with differential rights as to dividend, voting or otherwise, when it complies with the following conditions, namely:-

(a) The articles of association of the company authorize the issue of shares with differential rights.

(b) The issue of shares is authorized by an ordinary resolution passed at a general meeting of the shareholders. Where the equity shares of a company are listed on a recognized stock exchange, the issue of such shares shall be approved by the shareholders through postal ballot.

(c) The voting power in respect of shares with differential rights of the company shall not exceed seventy four per cent. of total voting power including voting power in respect of equity shares with differential rights issued at any point of time

(d) The company has not defaulted in filing financial statements and annual returns for three financial years immediately preceding the financial year in which it is decided to issue such shares.

(e) The company has no subsisting default in the payment of a declared dividend to its shareholders or repayment of its matured deposits, or redemption of its preference shares, or debentures that have become due for redemption, or payment of interest on such deposits, or debentures or payment of dividend.

(f) The company has not defaulted in payment of the dividend on preference shares or repayment of any term loan from a public financial institution, or State level financial institution, or scheduled Bank that has become repayable or interest payable thereon, or dues with respect to statutory payments relating to its employees to any authority or default in crediting the amount in Investor Education and Protection Fund to the Central Government. Provided that a company may issue equity shares with differential rights upon expiry of five years from the end of the financial Year in which such default was made good

(g) the company has not been penalized by Court or Tribunal during the last three years of any offence under the Reserve Bank of India Act, 1934, the Securities and Exchange Board of India Act, 1992, the Securities Contracts Regulation Act, 1956, the Foreign Exchange Management Act, 1999 or any other special Act, under which such companies being regulated by sectoral regulators.

This may be noted here that the, penalty by regulators itself causes no disqualification.

## EXPLANATORY STATEMENT ANNEXED TO NOTICE

The explanatory statement to be annexed to the notice of the general meeting or of a postal ballot shall contain the following particulars, namely:-

(a) The total number of shares to be issued with differential rights;

(b) The details of the differential rights;

(c) The percentage of the shares with differential rights to the total post-issue paid up equity share capital, including equity shares with differential rights issued at any point of time;

(d) The reasons or justification for the issue;

(e) The price at which such shares are proposed to be issued either at par or at a premium;

(f) The basis on which the price has been arrived at;

(g) In case of:

  (i) Private placement or preferential issue-

    (a) details of total number of shares proposed to be allotted to promoters, directors and key managerial personnel;

    (b) details of total number of shares proposed to be allotted to persons other than the promoters, directors and key managerial personnel, and their relationship, if any, with any of the promoters, director or key managerial personnel;

  (ii) Public issue-

    Reservation, if any, for different classes of applicants including promoters, directors or key managerial personnel;

(h) The percentage of voting right which the equity share capital with differential voting right shall carry to the total voting right of the aggregate equity share capital;

(i) The scale or proportion in which the voting rights of such class or type of shares shall vary;

(j) The change in control, if any, in the company that may occur consequent to the issue of equity shares with differential voting rights;

(k) The diluted Earning per Share (EPS) pursuant to the issue of such shares, calculated in accordance with the applicable accounting standards;

(l) The pre- and post-issue shareholding pattern along with voting rights as per clause 35 of the listing agreement issued by Security Exchange Board of India from time to time.

Please note here, Clause 35 is specially made applicable to the company issuing equity shares with differential rights for the purpose of these subrules.

**No Conversion:**

The company shall not convert its existing equity share capital with voting rights into equity share capital carrying differential voting rights and vice versa.

**Disclosure in Board's Reports:**

The Board of Directors shall, inter alia, disclose in the Board's Report for the financial year in which the issue of equity shares with differential rights was completed the following are the details :

(a) The total number of shares allotted with differential rights;

(b) The details of the differential rights relating to voting rights and dividends;

(c) The percentage of the shares with differential rights to the total post-issue equity share capital with differential rights issued at any point of time and percentage of voting rights which the equity share capital with differential voting right shall carry to the total voting right of the aggregate equity share capital;

(d) The price at which such shares have been issued;

(e) The particulars of promoters, directors or key managerial personnel to whom such shares are issued;

(f) The change in control, if any, in the company resolution from the issue of equity shares with differential voting rights;

(g) The diluted Earning per Share (EPS) pursuant to the issue of each class of shares, calculated in accordance with the applicable accounting standards;

(h) The pre and post issue shareholdings pattern along with voting rights in the format specified under sub-rule (2) of rule 4.

**General Rights available:**

The holders of the equity shares with differential rights shall enjoy all other rights such as bonus shares, and rights shares etc., which the holders of equity shares are entitled to, subject to the differential rights with which such shares have been issued.

**Entry in Register of Members:**

Where a company issues equity shares with differential rights, the Register of Members maintained under Section 88 shall contain all the relevant particulars of the shares so issued along with details of the shareholders.

However, according to the Companies (Share Capital and Debentures) Amendment Rules, 2014 of 18th June 2014, it is hereby clarified that equity shares with differential rights issued by any company under the provisions of the Companies Act, 1956 (1 of 1956) and the rules made thereunder, shall continue to be regulated under such provisions and rules. This means provisions of earlier Act shall continue to apply.

## UNDERWRITING OF SHARES

Underwriting is an agreement, with or without conditions, to subscribe to the securities of a body corporate when existing shareholders of the corporate or the public do not subscribe to the securities offered to them.

When a company goes in for an Initial Public Offer (IPO), it may face certain uncertainty about whether its Offer of shares or other securities will be subscribed in full or not. If the public issue does not get fully subscribed, the project for which the funds are being raised cannot be implemented. As per law, it is required that if the company is not able to collect 90% of the offer amount, then it needs to compulsorily return the money to those who have subscribed to the shares.

To avoid the risk of undersubscription companies may seek the help of a specialized group of risk redeemers called underwriters. The function of the Underwriters is to arrange subscription of floated shares.

If the whole or a certain portion of the shares or debentures of the company are not applied for by the public, the underwriters themselves apply or persuade others to apply for those shares or debentures. The underwriters, as risk takers, and are entitled to get commission at prescribed rates.

It can be easily comprehended that when the floated shares are likely to be undersubscribed, the underwriters come to the forefront. In other cases they remain in the background, acting as catalysts arranger of sale to the investing public.

Before entering into an agreement with the company, the underwriters assess the following:

(a) worth of the public issue;

(b) market response to the issue; and

(c) their own ability to get the issue fully subscribed.

Depending upon the risk assessment of the issue, the underwriters decide on their amount of commission. Owing to under subscription, if the issue is devalues, the underwriters pay up the required amount and deduct their commission from that.

From the viewpoint of the issuer company, the following are generally observed:

(a) While selecting underwriters and finalizing underwriting arrangements, lead merchant bankers shall ensure that the underwriters do not overexpose themselves so that it may become difficult to fulfill underwriting commitments.

(b) The overall exposure of underwriter(s) belonging to the same group or management in an issue shall be assessed carefully by the lead merchant banker.

(c) The lead merchant banker shall satisfy themselves about the ability of the underwriters to discharge their underwriting obligations satisfactorily.

(d) The lead merchant banker shall:

  (i) incorporate a statement in the offer document to the effect that in the opinion of the lead merchant banker, the underwriters' assets are adequate to meet their underwriting obligations;

  (ii) Obtain underwriters' written consent before including their names as underwriters in the final offer document.

(e) In order to ascertain the underwriters' worth, the lead merchant banker(s) shall undertake a minimum

(f) underwriting obligation of 5% of the total underwriting commitment, or Rs. 25 lacs whichever is less.

(g) The outstanding underwriting commitments of a merchant banker shall not exceed 20 times its net

(h) worth, any point of time.

(i) With respect to an underwritten issue, the lead merchant banker shall ensure that the relevant details are included in the offer document underwriters.

It should be noted that as per the latest SEBI Guidelines underwriting is not mandatory.

Under the SEBI rules, no person other than a share broker or merchant banker can act as an underwriter unless he holds a certificate granted by SEBI.

Regarding underwriting, the following disclosures should be made in the Offer Document:

(a) Names and addresses of the underwriters and the amount underwritten by them.

(b) Declaration by the Board of Directors of the issuing company that the underwriters have sufficient resources to discharge their respective obligations.

## Underwriting Agreement

An underwriting agreement is a contract between a group of investment bankers who form an underwriting group or syndicate and the issuing corporation of a new securities issue. The purpose of the underwriting agreement is to ensure that all of the players understand their responsibility in the process, thus minimizing potential conflict. The underwriting agreement is also called an underwriting contract.

## Sub-Underwriters

In order to spread the risk of under subscription, the principal underwriters may enter into subsidiary agreements with sub-underwriters. Such agreements are made between the underwriters alone, with the company not being a party thereto. As per agreement, the company pays commission at a prescribed rate to the principal underwriters, who in turn, disburse commission to the sub-underwriters. Sometimes an additional commission is paid to the principal underwriters to encourage sub-underwriting. This is known as over-riding commission. The payment of an over-riding commission enables the company to deal with first one or two underwriters instead of a number of them.

## Underwriting Commission

It may be paid in cash or in fully paid up shares or debentures or a combination of all these. It is paid on the issue price of the shares or debentures so underwritten. As per the provision of Section 40 of the Companies Act, 2013, commission is payable, if the following conditions are satisfied:

(a) The payment of the commission is authorized by the articles;

(b) the commission may be paid out of proceedings of the issue or the profit of the company or both.

(c) The commission paid or agreed to be paid does not exceed in the case of shares, five per cent of the price at which the shares are issued or the amount or rate authorized by the articles, whichever is less, and in the case of debentures, two and a half per cent of the price at which the debentures are issued or the amount or rate authorized by the articles, whichever is less;

(d) the prospectus of the company shall disclose -

  (i) the name of the underwriters;

  (ii) the rate and amount of the commission payable to the underwriter; and

  (iii) the number of securities which is to be underwritten or subscribed by the underwriter absolutely or conditionally.

(e) there shall not be paid commission to any underwriter on securities which are not offered to the public for subscription;

(f) A copy of the contract for the payment of the commission is delivered to the Registrar at the time of delivery of the prospectus or the statement in lieu of prospectus for registration.

## Full and Partial Underwriting

When the whole issue is underwritten by the underwriter(s) it is called full underwriting. When a part (say 75%) of the whole issue is underwritten by the underwriter(s) it is called partial underwriting. In this case the company is treated as having underwritten the balance of shares.

## Accounting Entries

**1. For Commission/brokerage due:**

Commission/Brokerage A/c Dr.

  To Underwriter Account

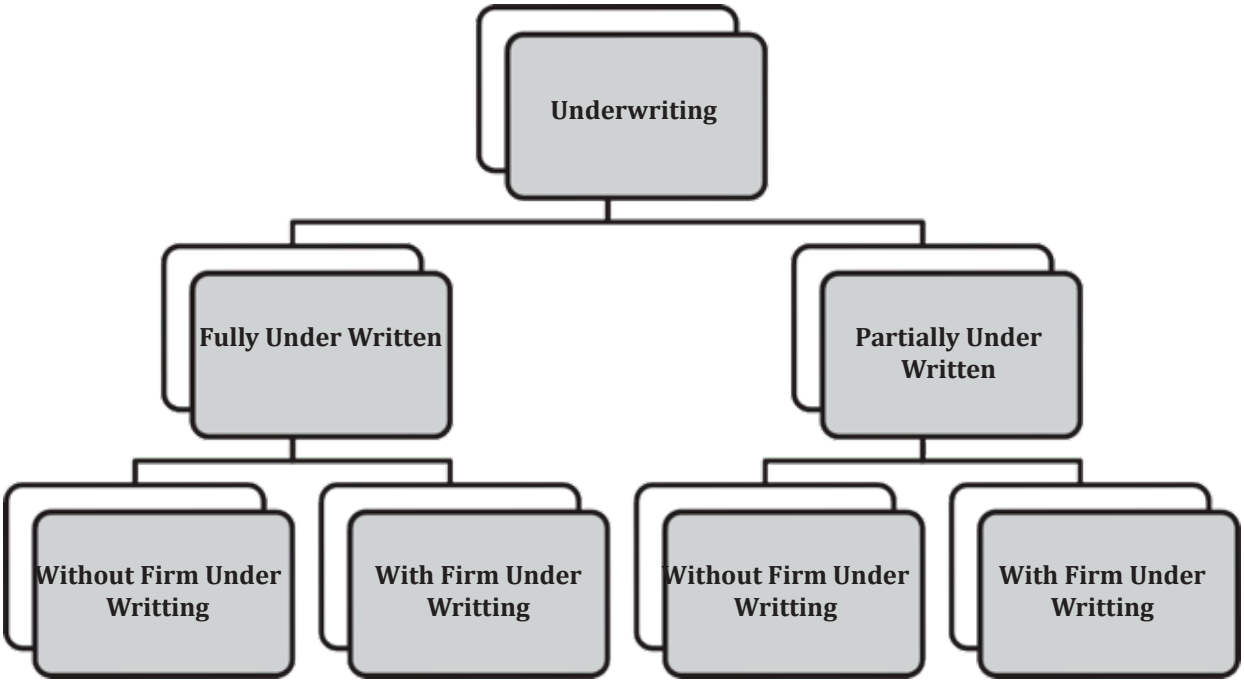
  To Broker Account

**2. For payment of Commission/brokerage**

| | |
|---|---|
| Underwriter Account | Dr. |
| Broker Account | Dr. |
| To Bank Account [Cheque] | |
| To Share Capital Account [Shares] | |
| To Debentures Account [Debentures] | |

## Determination of Liability in respect of Underwriting Contract

The nature of underwriting contract determines the liability of the underwriter. The different types of underwriting contract with their subdivisions can be shown with the help of the following diagram:




**1(a) When the Issue is Fully Underwritten [without Firm Underwriting]**

If the entire issue has been underwritten by one underwriter, the determination of his liability is very simple. The total number of applications (both marked and unmarked) are deducted from the number of shares underwritten and the resultant figure is treated as a liability of the underwriter. For example, X Ltd. issued 1,00,000 equity shares of Rs. 10 each. The issue was fully underwritten by A. However, the company received applications for 80,000 shares which includes marked applications for 60,000 shares.

Here, A's liability will be 1,00,000- 60,000- 20,000 = 20,000 shares. A would get full credit for the unmarked 20,000 applications.

If the entire issue has been underwritten by a number of underwriters, certain difficulties may arise in respect of division of unmarked applications.

The unmarked applications can be divided between the underwriters in the following two ways.

**Method 1**

Under this method, all unmarked applications are divided between the underwriters in the ratio of gross liability of individual underwriter. For determining the liability of individual underwriter, the following steps are followed:

**Step 1** Compute gross liability (if it has not been given) of individual underwriter on the basis of agreed ratio. For example, X Ltd. issued 1,00,000 Equity shares of Rs. 10 each. The issue was underwritten as : A-30%; B -40% and C-30%. Here the gross liability will be: A-30% of 1,00,000 = 30,000 Shares; B-40% of 1,00,000 = 40,000 shares C-30% of 1,00,000 = 30,000 shares.

**Step 2** Subtract marked applications from gross liability of respective underwriters.

**Step 3** Determine the number of unmarked applications. (Unmarked application = Total applications received less marked applications). Divide unmarked applications between different underw1iters in the ratio of gross liability, as per our example, in the ratio of 3:4:3. If the resultant figures are all positive or zero, then stop here. Now these figures represent the net liability of each underwriter. If some of the resultant figures are negative, then continue to Step 4.

**Step 4** Add all negative figures and divide the resultant ones between the underwriters having positive figures in the ratio of gross liability inter se (for details see Illustration 3). Repeat Step 4 unless all figures are non-negative. Now these figures represent the net liability of each underwriter.

**Method 2**

Under this method, all unmarked applications are divided between the underwriters in the ratio of gross liability less marked applications. For determining the liability of individual underwriter following steps are followed:

**Step 1** Compute gross liability in the usual manner (if it has not been given).

**Step 2** Subtract marked applications from gross liability of respective underwriters. If some of the resultant figures are negative, add all negative figures and divide their sum in the ratio of gross liability inter se.

**Step 3** Determine the number of unmarked applications. Divide unmarked applications between different underwriters in the ratio of gross liability less marked applications, i.e., the resultant figures of Step 2. If the resultant figures of Step 3 are all positive or zero, stop here. Now these figures represent the net liability of each underwriter.

If some of the resultant figures are negative, then continue to Step 4.

**Step 4** Add all negative figures and divide their sum between the underwriters having positive figures in the same ratio of Step 3. Repeat Step 4 unless all figures are non-negative. Now these figures represent the net liability.

## LESSON ROUND-UP

- When a company has substantial cash resources, it may like to buy its own shares from the market particularly when the prevailing rate of its shares in the market is much lower than the book value or what the company perceives to be its true value.
- As per Section 68, 69, 70 of the Companies Act, 2013 states that a company may purchase its own shares or other specified securities out of its free reserves, and the proceeds of any other shares or other specified securities.
- Buy-back is permissible: (a) from the existing security holders on a proportionate basis through the tender offer; or (b) from the open market.
- Regulation 10(1) of the Securities and Exchange Board of India provides that a company shall, as and by way of security for performance of its obligations on or before the opening of the offer of re- purchase, deposit in an escrow account such sum as is specified in 10(2).
- A company, other than a listed company, which is not required to comply with Securities and Exchange Board of India Employee Stock Option Scheme Guidelines shall not offer shares to its employees under a scheme of employees' stock option (hereinafter referred to as "Employees Stock Option Scheme")
- ESOP means a scheme under which the company grants option (a right but not an obligation) to an employee to apply for shares of the company at a predetermined price. This right is exercisable by the employee, during the specified period.
- Section 2(37) of the Companies Act, 2013 states that the "employee stock option" means the option given to the whole time director, officers or employees of a company which gives such directors, officers of employees the benefit or right to purchase or subscribe at a future date, the securities offered by the company at a predetermined price
- According to Section 43 of the Companies Act, 2013, Equity share capital may be Equity Share Capital
- with the voting right or Equity Share Capital with differential right as to dividend, voting or otherwise.
- Rule 4 of the Companies (Share Capital and Debentures) Rules 2014 deals with equity shares with differential rights.
- The company shall not convert its existing equity share capital with voting rights into equity share
- capital carrying differential voting rights and vice versa.
- The holders of the equity shares with differential rights shall enjoy all other rights, such as bonus shares, rights shares etc., which the holders of equity shares are entitled to, subject to the differential rights with which such shares have been issued
- Where a company issues equity shares with differential rights, the Register of Members maintained under section 88 shall contain all the relevant particulars of the shares so issued along with details of the shareholders.
- Underwriting is an undertaking or guarantee given by the underwriters to the company that the shares or debentures offered to the public will be subscribed for in full.
- An underwriting agreement may be: Complete Underwriting, Partial Underwriting and Firm Underwriting.
- Applications bearing the stamp of the respective underwriters are called marked applications and the applications received directly by the company which do not bear any stamp of the underwriters are known as unmarked applications.

- Debentures may be issued at par, or at a premium, or at a discount.
- Debentures may be issued by a company for cash, for consideration other than cash, and as collateral security.
- The issue of debentures to vendors is known as issue of debentures for consideration other than cash.
- The term 'Collateral Security' implies additional security given for a loan. When a company takes a loan from bank or insurance company, it may issue its own debentures to the lender as collateral security against the loan in addition to any other security that may be offered such an issue of debentures is known as "Debentures Issued as Collateral Security.
- A company may issue debentures on any specific condition as to its redemption, such as: issued at par and redeemable at par, issued at a discount redeemable at par, issued at a premium redeemable at par, issued at par redeemable at a premium, issued at discount, but redeemable at premium.
- When a company issues debentures it undertakes to pay interest thereon at a fixed percentage. The payment of interest on the debt is obligatory on the part of the company issuing them irrespective of the fact whether the company earns profit or not and the interest payable on debentures is a charge against the profits of the company.
- Discount on issue of debentures is a capital loss to the company and it is required to be shown on the assets side of the Balance Sheet under the heading "Other Current or Non-Current Asset" until it is written off.
- When a company issues debentures at par or at a discount which are redeemable at a premium, the premium payable on redemption of the debentures is treated as capital loss.
- Redemption of debentures refers to the discharge of the liability in respect of the debentures issued by a company. Debentures can be redeemed at any time either at par or at a premium or at a discount.
- Debentures may be redeemed by way of: annual drawings, payment in one lump sum at the expiry of a specified period or at the option of the company at a date within such specified period, purchase of debentures in the open market and conversion into shares.
- Interest on debentures is generally paid half-yearly to the holders on certain specified dates. If the purchase price for the debentures includes interest for the expired period, the quotation is said to be "Cum-interest", on the other hand, the purchase price for the debentures excludes the interest for the expired period, the quotation is said to be "Ex-interest".

## TEST YOURSELF

1. In April 2009, a company issues 13% Rs 20, 00,000 debentures at Rs 96 but redeemable at Rs 103. Redemption will be carried out by annual drawings of Rs 4 lacs (face value) commencing at the end of March 2014. What do you recommend as the amount to be charged to the profit and loss account, apart from that of interest?

[Ans.: Rs 20,000 p.a. from March 2010 to March 2014,
Rs. 16,000 in March 2015, Rs 12,000 in March 2016,
Rs. 8,000 in March 2017, Rs 4,000 March in 2018].

2. Calculate the amount of discount to be written off each year on the debentures of Rs 60,00,000 issued on 1.1.2014 at a discount of 5% repayable in annual drawings of Rs 10,00,000 each year. Accounting period ends on 31st December.

[Ans.: Ratio - 6 : 5 : 4 : 3 : 2 : 1; Discount Amount : I - Rs 85,714; II - Rs 71,429; III - Rs 57,143; IV - Rs 42,857; V - Rs 28,571 and VI - Rs 14,286].

3. (a) A company issues 11% Rs 10,00,000 debentures, repayable at the end of 10 years at a premium of 5%. It decides to establish a sinking fund to take care of the redemption. Investments in readily marketable securities yield 6% per annum. Sinking Fund Table shows that Rs 0.075868 annually is required to produce Rs 1 at the end of 10 years @ 6%. What is the annual amount that has to be set aside and what account will be debited for credit to the Sinking Fund (Debenture Redemption Fund) A/c?

(b) If investments are made to the nearest Rs 100, how much will be invested at the end of the 3rd year in the above case?

[Ans.: (a) Rs 79,661.40, debit Profit & Loss Appropriation A/c; (b) Rs 89,500].

4. P. Ltd. issued Rs.10,00,000 13.5% debentures at a discount of 5%; the debentureholders have an option of converting the amount into Rs. 10 equity shares at a premium of 10%. A debentureholder holding Rs 40,000 debentures wishes to exercise the option. How many shares will he get?

[Ans.: 3,454].

5. In 2010 Gee Ltd. issued 10% Rs. 20,00,000 debentures at a discount of 10%; the debentures were redeemable in 2014. In 2014 the company gave the debentureholders the option of converting the debentures into equity shares at a premium of 25%. One debentureholder, holding Rs. 1,00,000 debentures, wants to exercise the option. What is the face value of the shares that he will get?

[Ans.: Rs 80,000].

# Lesson 6

# Financial Statements Interpretation

***Key Concepts One Should Know***

- Balance sheet
- Profit and loss account
- Depreciation
- Corporate social responsibility report
- Related party Disclosure
- Audit query

## *Learning Objectives*

**To understand the:**

- Meaning and significance of framework of preparation and presentation of Financial Statement
- Objectives of financial statement
- Quarterly / Half Yearly / Annual Compliances under SEBI Listing Regulations 2015
- Understand how to read and interpret Financial Statements
- Depreciation provisions and reserves.
- Remuneration allowed to managerial person
- How much corporate should spend on CSR from the profit earned
- Various disclosures under the Companies Act, 2013
- Related party disclosures and segment reporting
- Conditions in which audit queries are raised.

## *Lesson Outline*

- Preparation and Presentation of Financial Statements
- Quarterly, Half yearly and Annual Financial Statement pursuant to SEBI Listing Regulations 2015
- LODR & applicable Accounting Standards
- How to read and interpret Financial Statements
- Depreciation provisions and Reserves
- Determination of Managerial Remuneration
- Corporate Social Responsibility spend
- Various disclosures under the Companies Act, 2013
- Related party and segment reporting
- Audit Queries
- LESSON ROUND UP
- TEST YOURSELF

## INTRODUCTION

In order to ascertain the financial status of the business every enterprise prepares certain statements known as financial statements. Financial Statements represent a formal record of the financial activities of an entity. These are written reports that quantify the financial strength, performance and liquidity of a company. Financial Statements reflect the financial effects of business transactions and events on the entity.

Financial statements are reports prepared and issued by company management to give investors and creditors additional information about a company's performance and financial standings. The four general purpose of financial statements include:

- Income Statement
- Balance Sheet
- Statement of Stockholders Equity
- Statement of Cash Flow

These reports are prepared in this order and are issued to the public as a full set of statements. This means they are not only published together, but they are also designed and intended to be read and used together. Since each statement only gives information about specific aspects of a company's financial position, it is important that these reports are used together.

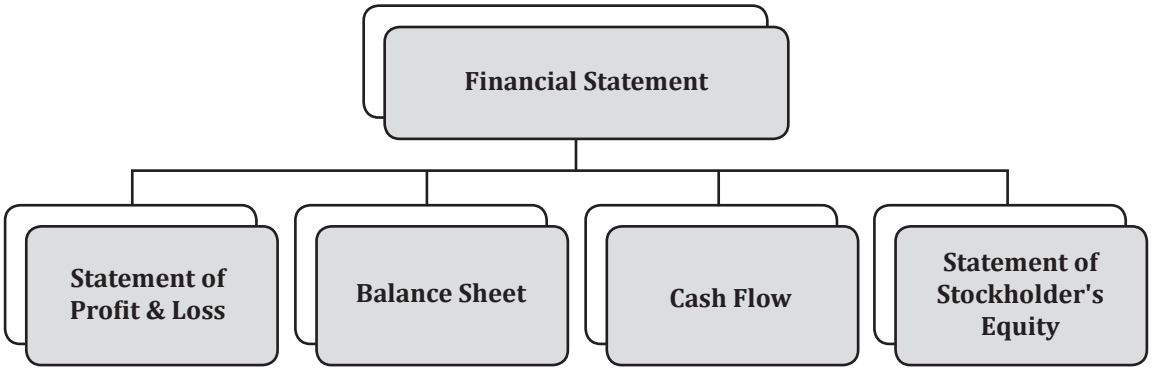
Balance Sheet is a statement of financial position of an enterprise as on a given date. It shows the assets and liabilities at their respective book values.

For instance, the Balance Sheet shows the debt levels of the company, but it doesn't show what the debt coverage costs. Both the Balance Sheet and Income Statement are needed to calculate the debt coverage ratio for investors and creditors to see a true picture of the debt burden of a company.

Cash Flow Statement is a statement of sources of cash and the uses of cash. It reports cash receipts and payments classification according to the organisation's major activities i.e. operating activities, investing activities and fi activities. Cash Flow Statement has to be prepared in accordance with Accounting Standard (AS) 3.

The purpose of these reports is to provide useful financial information to users outside of the company. In essence, these reports complete the fundamental purpose of financial accounting by providing information that is helpful in the financial decision-making process.

Understanding these business financial statements is the first critical step investors, creditors, and even you can take to learn about a company's earnings, profitability, asset management, financial leverage, cash flow, and current shareholders' stake. Once you understand all of these aspects of a company, you can gauge its relative financial health and determine whether it is worth investing in or loaning money to.



### How are Financial Statements Prepared?

Preparing general-purpose financial statements can be simple or complex depending on the size of the company. Some statements need footnote disclosures, while others can be presented without any footnotes. Details like this generally depend on the purpose of the financial statements.

Section 129 of the Companies Act 2013 governs the preparation and presentation of Financial Statements. Form of Balance Sheet has been given in Part 1 of Schedule III of the Companies Act 2013 and Statement of Profit and Loss in part II of Schedule III.

Financial statements are prepared by transferring the account balances on the adjusted trial balance to a set offinancial statement templates.

### Who Issues Financial Statements?

Companies issue different types of business financial statements for a variety of reasons at a variety of times during the year. Public companies are required to issue audited financial statements to the public at least every quarter. These regulated reports must meet guidelines as stipulated by different laws. Non-public or private companies generally issue financial sheets to banks and other creditors for financial purposes. Many creditors do not agree to loan funds unless it can prove that it is financially sound enough to make its future debt payments.

Both public and private companies issue at least 4 financial statements to attract new investors and raise funds funding for expansions.

## DIFFERENT TYPES OF FINANCIAL STATEMENTS

### Interim Statements

Financial statements that are issued for the time periods smaller than one year are called interim statements, because they are used as temporary statements to judge a company's financial position, until the full annual statements are issued.

Interim financial statements are most commonly issued quarterly or semi-annually, but it is not uncommon for companies to issue monthly reports to creditors as part of their loan covenants. Quarterly statements, as the name implies, are issued every quarter and only include financial data from that three-month span of time. Likewise, semi-annual statements include data from a six-month span of time.

### Annual Statements

The annual financial statement form is prepared once a year and covers a 12-month period of financial performance. Generally, these statements are issued at the end of a company's fiscal year instead of a calendar year.

### Who Uses Financial Statements and WhatAre They Used For?

Financial statements are mainly prepared for external users. There users are people who are outside of the company or organization itself and need information about it to base their financial decisions on. These external users typically fall into four main categories:

- Investors
- Creditors
- Competitors
- Regulators

Investors and creditors analyze these sets of statements to base their financial decisions on. They also look at extra financial reports like financial statement notes and the discussion done in management meetings.

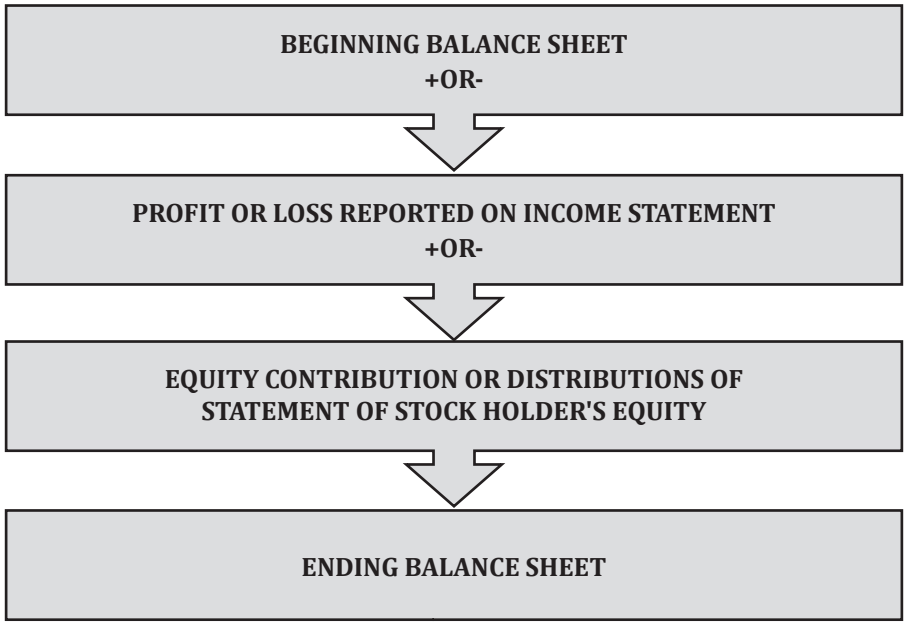
The Income Statement and Balance Sheet are compared with each other to see how efficiently a company is using its assets to generate profits. Company's debt and equity levels can also be examined to determine whether the companies are properly funding its operations and expansions.

Most investors and creditors use financial ratios to analyze these comparisons. There is almost no limit to the amount of ratios that can be combined for analysis purposes.

These ratios by themselves rarely give outside users and decision makers enough information to judge whether or not a company is fiscally sound. However, Investors and creditors generally compare different companies' ratios to develop an industry standard or a benchmark to judge a company's performance.

### Financial statement template and form

Here's a sample financial statement template that shows the order of how each statement works together to report the full economic position of a company beginning with the Balance Sheet.




As you can see, everything starts with the prior period's Balance Sheet. This is the starting point for all of the reports because it shows the asset, liability, and equity accounts at the beginning of the period. From this starting point, we can add or subtract the operating activities reported on the income statement. This includes all revenues and expenses that the company incurred during the year.

We also need to add or subtract the amount of money investors put or contributed or withdrew from the company during the year. This information is reported on the statement of stockholder's equity for corporations or the statement of partner's equity for partnerships. Once all operating, financing, and investing activities are added to the initial Balance Sheet, the investors, creditors, and management can analyze the ending balance sheet and see how well the company has performed during the period.

## PRESENTATION OF FINANCIAL STATEMENT (IndAS-1)

### Ind AS 1, Presentation of Financial Statements

Ind AS 1 prescribes the basis for presentation of general purpose financial statements to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities. It sets out overall requirements for the presentation of financial statements, guidelines for their structure and minimum requirements for their content.

General purpose financial statements (referred to as 'financial statements') are those intended to meet the needs of users who are not in a position to require an entity to prepare reports tailored to their particular information needs

### Financial Statements

The Standard requires an entity to present a complete set of financial statements at least annually, with comparative amounts for the preceding year (including comparative amounts in the notes). A complete set of financial statements comprises of:

(a) a balance sheet as at the end of the period ;

(b) a statement of profit and loss for the period;

(c) a statement of changes in equity for the period;

(d) a statement of cash flows for the period;

(e) notes, comprising significant accounting policies and other explanatory information;

(f) comparative information in respect of the preceding period; and

(g) a balance sheet as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

The Standard requires an entity to present, in a statement of changes in equity, all owner changes in equity. All non-owner changes in equity (i.e., comprehensive income) are required to be presented in single statement of profit and loss, with profit or loss and other comprehensive income presented in two sections. The sections shall be presented together, with the profit or loss section presented first followed directly by the other comprehensive income section.

The Standard requires that an entity whose financial statements comply with Ind AS must make an explicit and unreserved statement of such compliance in the notes. An entity must not describe financial statements as complying with Ind AS unless they comply with all the requirements of Ind AS. The application of Ind AS, with additional disclosure when necessary, is presumed to result in financial statements that achieve a presentation of true and fair view.

Notes contain information in addition to that presented in the balance sheet), statement of profit and loss, statement of changes in equity and statement of cash flows. Notes provide narrative descriptions or disaggregations of items presented in those statements and information about items that do not qualify for recognition in those statements

The Standard also deals with preparation of financial statements on a going concern basis using the accrual basis of accounting, materiality and aggregation issues, offsetting of assets and liabilities or income and expenses, frequency of reporting, comparative information, and consistency in presentation or classification.

## Structure and Content

The Standard requires that an entity shall clearly identify the financial statements and distinguish them from other information in the same published document. The Standard requires some line items to be presented in the balance sheet. It also prescribes the information to be presented in statement of profit and loss, other comprehensive income section and statement of changes in equity.

## Other Comprehensive Income

The statement of profit and loss shall present, in addition to the profit or loss and other comprehensive income sections:

(a) profit or loss;

(b) total other comprehensive income;

(c) comprehensive income for the period, being the total of profit or loss and other comprehensive income.

Other comprehensive income comprises items of income and expenses (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other Ind AS.

The Standard requires an entity to disclose reclassification adjustments and income tax relating to each component of other comprehensive income. Reclassification adjustments are the amounts reclassified to profit or loss in the current period that were previously recognised in other comprehensive income.

The other comprehensive income section shall present line items for amounts for the period of:

(a) items of other comprehensive income (excluding amounts in paragraph (b)), classified by nature and grouped into those that, in accordance with other Ind AS:

  (i) will not be reclassified subsequently to profit or loss; and

  (ii) will be reclassified subsequently to profit or loss when specific conditions are met.

(b) the share of the other comprehensive income of associates and joint ventures accounted for using the equity method, separated into the share of items that, in accordance with other Ind AS:

  (a) will not be reclassified subsequently to profit or loss; and

  (b) will be reclassified subsequently to profit or loss when specific conditions are met.

## Current/non-current distinction

The Standard requires that an entity shall present current and non-current assets, and current and non-current liabilities, as separate classifications in its balance sheet except when a presentation based on liquidity provides information that is reliable and more relevant. When that exception applies, an entity shall present all assets and liabilities in the order of their liquidity.

The Standard also requires that whichever method of presentation is adopted, an entity shall disclose the amount expected to be recovered or settled after more than twelve months for each asset and liability line item that combines amounts expected to be recovered or settled:

(a) no more than twelve months after the reporting period, and

(b) more than twelve months after the reporting period.

The standard requires that an entity shall disclose the following, either in the balance sheet or the statement of changes in equity, or in the notes:

(a) for each class of share capital:

  (i) the number of shares authorised;

  (ii) the number of shares issued and fully paid, and issued but not fully paid;

  (iii) par value per share, or that the shares have no par value;

  (iv) a reconciliation of the number of shares outstanding at the beginning and at the end of the period;

  (v) the rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital;

  (vi) shares in the entity held by the entity or by its subsidiaries or associates; and

  (vii) shares reserved for issue under options and contracts for the sale of shares, including terms and amounts; and

(b) a description of the nature and purpose of each reserve within equity.

(c) The Standard, among other things, requires that:

  (i) An entity shall disclose, along with its significant accounting policies or other notes, the judgements, apart from those involving estimations, that management has made in the process of applying the entity's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

  (ii) An entity shall disclose information about the assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

(iii) An entity shall disclose information that enables users of its financial statements to evaluate the entity's objectives, policies and processes for managing capital. An entity shall also provide additional disclosures on puttable financial instruments classified as equity instruments.

## HOW TO READ AND INTERPRET FINANCIAL STATEMENTS

Interpreting the financial health of a corporation requires an understanding of its financial statements. The three main ones are balance sheets, income statements and cash flow statements. All are normally put out on an annual and quarterly basis. Comprehending every detail of these statements is difficult without years of education, but knowing their functions and recognizing certain nuggets of information provides a picture of where a corporation stands. These statements are also easy to attain, as all are filed with the Ministry of Corporate Affairs (MCA).

> Financial statements are statement which provides net results from operations, cash flows from various activities and financial position of the company for a particular year

Financial statements should be prepared using globally acceptable accounting principles (such as Ind AS or AS in India) that makes these financials easy to understand and have wider acceptability.

### Types of Financial Statements:

1. Balance sheet;
2. Statement of profit and loss, or in the case of a company carrying on any activity not for profit, an income and expenditure account for the financial year;
3. Cash flow statement;
4. Statement of changes in equity (if applicable) and;
5. Any explanatory notes annexed to, or forming part of, any document referred to point (1) to (3) above.

### Objectives of Financial Statements:

Financial statements are prepared with an objective to provide information about the financial position of the entity, performance and changes in financial position of an entity, cash flows during the year to help users in comparing results and making economic decisions.

**1. Balance Sheet**

A balance sheet is a financial statement that compares the assets and liabilities of a company to find the shareholder's equity at a specific time.

The balance sheet adheres to the following formula:

Assets = Liabilities + Shareholders' Equity

A Balance sheet contains the following:

(a) Assets: Assets in balance sheet shows the amount of assets an entity holds on the date of balance sheet.

(b) Liabilities: Liabilities in balance sheet shows the amount of liability an entity is liable to pay in future (determined on the date of balance sheet).

(c) Equity & Reserves: Equity and reserves is the amount of capital entity has including reserves balances, if any. Higher amount of equity and reserves indicate higher net worth of the entity.

**2. Statement of profit and loss or income and expenditure account**

A company prepares statement of profit and loss to show the net result (profit or loss) from the revenue earned and expense incurred. In case of a company carrying on activity not for profit, income and expenditure account is prepared for the financial year which shows the income earned and expense incurred during the year, showing surplus (when income is more than expense) or deficit (when expense is more than income).

The main purpose is to know how much profit or loss the entity has made during a particular year.

**3. Cash flow statement**

Last part of a company's finances is its cash flow statement. Cash flow statement (also known as statements of cash flow) shows the flow of cash and cash equivalents during the period under report and breaks the analysis down to operating, investing and financing activities. . It helps in assessing liquidity and solvency of a company and to check efficient cash management.

Three key components of Cash flow statements:

- **Cash from operating activities:** This includes all the cash inflows and outflows generated by the revenue-generating activities of an enterprise like sale & purchase of raw materials, goods, labor cost, building inventory, advertising, and shipping the product etc.
- **Cash from investing activities:** These activities include all cash inflows and outflows involving the investments that the company made in a specific time period such as the purchase of new plant, property, equipment, improvements capital expenditures, cash involved in purchasing other businesses or investments.
- **Cash from financial activities:** This activity includes inflow of cash from investors such as banks and shareholders by getting loans, offering new shares etc, as well as the outflow of cash to shareholders as dividends as the company generates income. They reflect the change in capital & borrowings of the business.

In simple words, there can be cash inflow or the cash outflow from all three activities i.e. operation, investing and finance of a company. The sum of the total cash flows from all these activities can tell how much the company's total cash inflow/outflow is in a specific period of time.

**4. Statement of changes in equity (if applicable):**

Statement of changes in equity is statement that shows reconciliation of beginning and ending balances in a company's equity during a reporting period. It represents any change in equity that took place during the year.

**5. Any explanatory notes annexed to, or forming part of, any statement referred above**

These are working notes or information that are relevant and are required to be disclosed in relation to any of the statements discussed above. These are critical to identify the additional information relating to an entity. Explanatory notes contain details about the transactions (accounted and not accounted but disclosed).

## TREATMENT OF SPECIAL ITEMS DURING FINANCIAL STATEMENTS PREPARATION

1. Depreciation
2. Provision
3. Reserves
4. Managerial Remuneration
5. CSR Spend
6. Related party disclosure
7. Segment Reporting

## DEPRECIATION PROVISIONS & RESERVES

### Meaning and Nature of Depreciation:

Depreciation may be defined as the gradual reduction in the value of an asset due to wear and tear, like in the case of physical assets, building and such as machinery, or by mere passing of time as in the case of lease, patent and copyright.

Proper depreciation must be charged to revenue and deducted from the cost of an asset in order to find out its correct working value to the business.

The amount so provided may be either merged in the working capital of the business or invested outside so as to provide a ready fund of money unaffected by any deterioration in the financial condition of the business that may prevent the payment of a requisite sum out of liquid resources at the time of replacement.

Accounting and disclosures are required to be in accordance with Accounting Standard (AS) 10.

The real idea behind depreciation is to make adequate arrangement for replacement of an asset on its becoming use less or on the expiry of its normal life, by setting as idea part of the profits every year and allowing it to accumulate.

## Need or objectives of providing Depreciation

1. **Ascertaining true profit or loss:**
   (i) True profit of an enterprise can be ascertained when all costs incurred for the purpose of earning revenues have been debited to the profit and loss account.
   (ii) Fall in the value of assets used in business operations is a part of the cost and should be shown in the profit and loss account of concerned accounting period.
   (iii) Keeping this in view, depreciation must be debited to profit & loss account, since loss in value of fixed assets is also an expense like other expenses.
2. **Presentation of True and Fair value of assets :** If depreciation is not provided, the value of assets shown in the Balance Sheet will not present the true and fair value of assets because assets are shown at the cost price though actual value is less than the cost price of the assets.
3. **To ascertain the accurate cost of the Production :** Depreciation is an item of expense, the correct cost of production cannot be calculated unless it is also taken into consideration. Hence, depreciation must be provided to ascertain the correct cost of production.
4. **Computation of correct income tax:**
   (i) Income tax of an enterprise is determined after charging all costs of production.
   (ii) If depreciation is not charged, the profits will be higher and the income tax will also be higher.
   (iii) If depreciation is charged, tax liability gets reduced.
5. **Provision of funds and replacement of assets:** Depreciation is a non-cash expense. So that amount of depreciation charged to profit and loss account is retained in business every year. These funds are available for replacement of the assets when its useful life is over.

## Methods of providing depreciation

1. **Straight Line Method**
   (i) This method is also known as 'original cost method'.
   (ii) Under this method, depreciation is charged at fixed percentage on the original cost of the asset throughout its estimated life.
   (iii) Under this method, the amount of depreciation remains uniform from year after year. That is why this method is also known as 'Fixed Installment Method' or 'Equal installment method'.
   (iv) The annual amount of depreciation can be easily calculated by the following formula :

$$\text{Annual Depreciable} = \frac{\text{Original Cost} - \text{Estimated scrap value}}{\text{Estimated Live in year}}$$

**Example:** A firm purchases a machine for Rs. 2,25,000 on April 1,2013. The expected life of this machine is 5 years. After 5 years the scrap of this machine would be realized at Rs. 25.000. Under straight line method, the amount of depreciation can be calculated as under:

$$\text{Annual Depreciable} = \frac{2,25,000\text{-}25,000}{5} = 40,000$$

Hence 40,000 will be charged every year as depreciation on this machine.

2. **Diminishing Balance Method :** Under this method, depreciation is charged as a fixed percentage on the book value of the asset every year. In first year the depreciation will be charged at the end of the year on the total cost the asset.

**Example:** A machine is purchased for Rs. 2,00,000 on April 1 2009. It is decided to charge depreciation on this machine @ 10% p.a. The amount of depreciation for first four years by using both the methods (Straight Line Method and Diminishing Balance Method) is shown as under:

| Year | Book Value | SLM Dep. @ 10% | Book Value | DM Dep. @ 10% |
|---|---|---|---|---|
| 2009-10 | 20,000 | 2,000 | 20,000 | 2,000 |
| 2010-11 | 18,000 (20,000 -2,000) | 2,000 | 18,000 (20,000 - 2,000) | 1,800 |
| 2011-12 | 16.000 (18,000 - 2.000) | 2,000 | 16,200 (18,000- 1,800) | 1,620 |
| 2012-13 | 14,000 (16,000 - 2,000) | 2,000 | 14,580 (16200- 1,620) | 1.458 |

Hence, in Straight Line Method amount of depreciation is same but in Diminishing Balance Method amount of depreciation goes on decreasing every year. Depreciation can be recorded by crediting it to the Assets Account.

**Illustration 1.** On January 1, 2013, a firm bought a machine for Rs. 90,000 and spend Rs. 6,000 on its installation, and Rs. 4,000 on its transportation. It was decided to charge depreciation @ 10% on Straight Line Method. Books are closed on December 31st each year. Show Machinery Account for the years 2013 to 2015.

**Solution:**

**Machinery Account**

| Date | Particulars | J.F. | Rs. | Date | Particulars | J.F. | Rs. |
|---|---|---|---|---|---|---|---|
| 2013 | | | | 2013 | | | |
| Jan. 1 | To Bank A/c | | 90,000 | Dec. 31 | By Depreciation A/c | | 10,000 |
| Jan. 1 | To Cash A/c | | 6,000 | Dec. 31 | By Balance c/d | | 90,000 |
| Jan. 1 | To Cash A/c | | 4,000 | | | | |
| | | | **1,00,000** | | | | **1,00,000** |
| 2014 | | | | 2014 | | | |
| Jan. 1 | To Balance b/d | | 90,000 | Dec. 31 | By Depreciation A/c | | 10,000 |
| | | | | Dec. 31 | By Balance c/d | | 80,000 |
| | | | **90,000** | | | | **90,000** |
| 2015 | | | | 2015 | | | |
| Jan. 1 | To Balance b/d | | 80,000 | Dec. 31 | By Depreciation A/c | | 10,000 |
| | | | | Dec. 31 | By Balance c/d | | 70,000 |
| | | | **80,000** | | | | **80,000** |

**Illustration 2.** On the basis of information given in Illustration 1, show Machinery Account for the years 2013 to 2015 if depreciation is charged @ 10% on Diminishing Balance Method.

**Solution:**

**Machinery Account**

| Date | Particulars | J.F | Rs. | Date | Particulars | J.F | Rs. |
|---|---|---|---|---|---|---|---|
| 2013 | | | | 2013 | | | |
| Jan. 1 | To Bank A/c | | 90,000 | Dec. 31 | By Depreciation A/c | | 10,000 |
| Jan. 1 | To Cash A/c | | 6,000 | Dec. 31 | By Balance c/d | | 90,000 |
| Jan. 1 | To Cash A/c | | 4,000 | | | | |
| | | | **1,00,000** | | | | **1,00,000** |
| 2014 | | | | 2014 | | | |
| Jan. 1 | To Balance b/d | | 90,000 | Dec. 31 | By Depreciation A/c | | 9,000 |
| | | | | Dec. 31 | By Balance c/d | | 81,000 |
| | | | **90,000** | | | | **90,000** |
| 2015 | | | | 2015 | | | |
| Jan. 1 | To Balance c/d | | 81,000 | Dec. 31 | By Depreciation A/c | | 8,100 |
| | | | | Dec. 31 | By Balance c/d | | 72,900 |
| | | | **81,000** | | | | **81,000** |

**Illustration 3 :** On April 1, 2013 Kannu bought machinery costing Rs.80,000. On July 1, 2015 machinery was sold for Rs.40,000. Prepare Machinery Account from April, 1 2013 till July 1. 2015 assuming depreciation was charged @10% per annum on March 31, every year on the basis of Original Cost Method.

**Solution:**

**Machinery Account**

| Date | Particulars | J.F. | Rs. | Date | Particulars | J.F. | Rs. |
|---|---|---|---|---|---|---|---|
| 2013 | | | | 2014 | | | |
| Apr. 1 | To Bank A/c | | 80,000 | Mar. 31 | By Depreciation A/c | | 8,000 |
| | | | | Mar. 31 | By Balance c/d | | 72,000 |
| | | | **80,000** | | | | **80,000** |
| 2014 | | | | 2015 | | | |
| Apr. 1 | To Balance b/d | | 72,000 | Mar. 31 | By Depreciation A/c | | 8,000 |
| | | | | Mar. 31 | By Balance c/d | | 64,000 |
| | | | **72,000** | | | | **72,000** |
| 2015 | | | | 2015 | | | |
| Apr. 1 | To Balance b/d | | 64,000 | July 1 | By Bank A/c | | 40,000 |
| | | | | July 1 | By Depreciation A/c | | 2,000 |
| | | | | July 1 | By Loss on sale of Machinery A/c | | 22,000 |
| | | | **64,000** | | | | **64,000** |

**Illustration 4 :** On the basis of information given in Illustration 3, prepare Machinery Account assuming depreciation was charged @ 15% per annum on reducing installment method.

| Date | Particulars | J.F | Rs. | Date | Particulars | Rs. |
|---|---|---|---|---|---|---|
| 2013 | | | | 2014 | | |
| April1 | To BankA/c | | 80,000 | Mar. 31 | ByDepreciationA/C | 12,000 |
| | | | | Mar. 31 | ByBalanceC/d | 68,000 |
| 2014 | | | 80,000 | | | 80,000 |
| April1 | ToBalance b/d | | | 2015 | | |
| | | | 68,000 | Mar. 31 | ByDepreciationA/c | 10,200 |
| 2015 | | | | Mar. 31 | ByBalancec/d | 57,800 |
| April1 | ToBalance b/d | | 68,000 | | | 68,000 |
| | | | | 2015 | | |
| | ToBalance b/d | | 57,800 | Jul.1 | By BankA/c | 40,000 |
| | | | | Jul.1 | ByDepreciationA/ cBy Loss on Sale | 2168 |
| | | | | Jul.1 | ofMachinery | 15,632 |
| | | | 57,800 | | | 57,800 |

There is another method of charging for Depreciation. In this method, provision for Depreciation Account is opened and depreciationis charge din this account instead of Asset Account.

In this method the balance of Asset Account remains same through out its useful life. Provision for depreciation is shown in the liabilities side of the Balance Sheet.

**Provisions**

Provisionis a liability which can be measured only byusing substantial degree of estimation. Aprovision should be recognised when:

a) Enterprise has a present obligation as a result of a past event

b) Itisprobablethatanoutflowofresourcesembodyingeconomicbenefitswillberequiredtosettlethe obligation

c) Reliable estimate can be made of the amount of the obligation

**Examples of Provisions:** Provisions for Depreciation on assets, Provision for Repairs and Renewals of assets. Provision for Taxation. Provision for Discount on Debtors and Provision for Bad and Doubtful Debts.

**Reserves**

- Reserves are the amount set aside out of profits. It is an appropriation of profits and not a charge on the profits.
- The amount of profit retained is used in the business when difficult time comes. Since reserves are neither expenses nor losses, so these are not charged to Profit & Loss Account rather these are debited to Profit & Loss Appropriation Account which is prepared after Profit and Loss Account.
- Reserves are also known as 'Plough Back of Profits'.

**Examples of Reserves:-**

i) Profit on sale of fixed assets.

ii) Profit on revaluation of assets and liabilities.

iii) Securities premium earned on issue of share or debentures.

iv) Profit on the purchase of running business.

v) Profit earned on forfeiture of shares.

vi) Profit on redemption of debentures.

vii) Profit prior to the incorporation of a company.

- Reserves are created to strengthening the financial positions of the business enterprise.
- Examples are General Reserves, Divided Equalization Reserves etc.
- If the amount of reserve is invested outside the business, it is called 'Reserve Fund'.
- Creation of reserve does not reduce the net profit but reduces only the divisible profits.

## DETERMINATION OF MANAGERIAL REMUNERATION

Managerial persons implies Managing Director, Whole-time Director, Part-time Director and managers who shall be paid remuneration subject to and in accordance with the provision of Section 197 of the Companies Act, 2013. Managerial remuneration in simple words is the remuneration paid to managerial personals.

### Remuneration allowed to Managerial personnel

According to Section 197 of the Companies Act, 2013, the total managerial remuneration payable by a public company, to its directors, including managing director and whole-time director, and its manager in respect of any financial year shall not exceed 11% of the net profits of that company for that financial year except that the remuneration of the directors shall not be deducted from the gross profits. However, the company in general meeting may, authorise the payment of remuneration exceeding 11% of the net profits of the company, subject to the provisions of Schedule V of the Act.

Provided further that, except with the approval of the company in general meeting by a special resolution-

(i) the remuneration payable to any one managing director; or whole-time director or manager shall not exceed 5% of the net profits of the company and if there is more than one such director remuneration shall not exceed 10% of the net profits to all such directors and manager taken together;

(ii) the remuneration payable to directors who are neither managing directors nor whole-time directors shall not exceed,—

a) 1% of the net profits of the company, if there is a managing or whole-time director or manager;

b) 3% of the net profits in any other case.

Further, where the company has defaulted in payment of dues to any bank or public financial institution or non-convertible debenture holders or any other secured creditor, the prior approval of the bank or public financial institution concerned or the non-convertible debenture holders or other secured creditor, as the case may be, shall be obtained by the company before obtaining the approval in the general meeting.

To summaries the above the total managerial remuneration payable by a public company, to its directors, managing director and whole-time director and its manager in respect of any financial year is:

| Condition | Maximum Remuneration in any financial year |
|---|---|
| Company with one Managing director/whole time director/manager | 5% of the net profits of the company |
| Company with more than one Managing director/ whole time director/manager | 10% of the net profits of the company |
| Overall Limit on Managerial Remuneration | 11% of the net profits of the company |
| Remuneration payable to directors who are neither managing directors nor whole-time directors | |
| For directors who are neither managing director or whole-time directors | 1% of the net profits of the company if there is a managing director/whole time director |
| If there is a director who is neither a Managing director/whole time director | 3% of the net profits of the company if there is no managing director/whole time director |

**Illustration**

From the following particulars of ABC LTD., calculate the maximum remuneration payable to the managing director and other part-time directors of the company:

| Net Profit before provision for income tax and managerial remuneration, but | INR |
|---|---|
| After depreciation and provision for repairs | 86,84,100 |
| Depreciation provided in books | 32,00,000 |
| Repairs for machinery provided for during the year | 2,50,000 |
| Actual Expenditure incurred on repairs during the year | 1,50,000 |

**Solution:**

| | |
|---|---|
| Net Profit | 86,84,100 |
| Add: Excess provision made for repairs of machinery i.e., (2,50,000-1,50,000) | 1,00,000 |
| Net Profit for the purpose of calculating managerial remuneration | 87,84,100 |
| Maximum Remuneration payable under Section 197 | |
| Managing Directors @ 5% on 87,84,100 = | 4,39,205 |
| Part-time Directors @ 1% on 87,84,100 = | 87,841 |
| Total Managerial Remuneration | 5,27,046 |

**Remuneration payable by a company when the company has inadequate profits/no profits:**

In case a company has inadequate profits/no profits in any financial year, no amount shall be payable by way of remuneration except if these provisions are followed.

| **Where the effective capital is** | **Limit of yearly remuneration payable shall not exceed (in Rupees) in case of a managerial person** | **Limit of yearly remuneration payable shall not exceed (in rupees) in case of other director** |
|---|---|---|
| Negative or less than 5 crores | 60 Lakhs | 12 lakh |
| 5 crores and above but less than 100 crores | 84 Lakhs | 17 lakh |
| 100 crores and above but less than 250 crores | 120 Lakhs | 24 lakh |
| 250 crores and above | 120 lakhs plus 0.01% of the effective capital in excess of Rs. 250 crores: | 24 Lakhs plus 0.01% of the effective capital in excess of Rs.250 crores |

Provided that the remuneration in excess of above limits may be paid if the resolution passed by the shareholders is a special resolution.

**Meaning of Effective Capital as per Explanation I in section IV of Part II of Schedule V of Companies Act, 2013:**

"Effective Capital" means the aggregate of the paid-up share capital( excluding share application money or advances against shares); amount, if any for the time being standing to the credit of share premium account; reserves and surplus (excluding revaluation reserve); long-term loans and deposits repayable after one year (excluding working capital loans, overdrafts, interest due on loans unless funded, bank guarantee, etc., and other

short-term arrangements) as reduced by the aggregate of any investments (except in case of investment by an investment company whose principal business is acquisition of shares, stock, debentures or other securities), accumulated losses and preliminary expenses not written off.

**Illustration on Managerial Remuneration**

Ms. Jyoti is the Managing Director of Wise (India) Ltd., incorporated under the Companies Act, 2013. Board of Directors of the company presents the following financial data extracted from the company's financial statements as at 31st Of March 2019.

| Particulars | INR (In Crores) |
|---|---|
| Authorised Equity Share Capital | 60 |
| Paid up Equity Share Capital | 10 |
| Debenture Redemption Reserve | 10 |
| Securities Premium Account | 20 |
| Profit and Loss (loss) | (10) |
| Revaluation Reserve | 20 |

Based on the provisions of the Companies Act, 2013 decide the maximum remuneration payable to Ms. Jyoti for the financial year 2018-19.

**Solution:**

Due to losses in the financial year 2018-19, Ms. Jyoti can be paid remuneration on the basis of "effective capital" Computation of effective capital :

| Particulars | INR (In Crores) |
|---|---|
| Paid up Equity Share Capital | 10 |
| Debenture Redemption Reserve (not specifically excluded from definition of "effective capital") | 10 |
| Securities Premium Account | 20 |
| Profit and Loss (loss) | (10) |
| Revaluation Reserve (specifically excluded from definition of "effective capital") | |
| Effective Capital | 30 |

As company's effective capital is between 5 to 100 Crores, Ms. Jyoti can be paid an annual remuneration of 84 lacs i.e. monthly of 7 lacs.

If company passes a special resolution, remuneration more than this can be paid to Ms. Jyoti.

## Manner of Determination of Managerial Remuneration

The remuneration payable to such directors of a company shall be determined either by the articles of the company, or by a resolution or, if the articles so require, by a special resolution, passed by the company in general meeting.

**Remuneration Includes:**

The remuneration payable to a director determined aforesaid shall be inclusive of the remuneration payable to him for the services rendered by him in any other capacity provided that any remuneration for services rendered by any such director in other capacity shall not be so included if—

(a) the services rendered are of a professional nature; and

(b) in the opinion of the Nomination and Remuneration Committee, if the company is covered under sub-section (1) of section 178, or the Board of Directors in other cases, the director possesses the requisite qualification for the practice of the profession.

### Maximum amount of Sitting Fees

A company may pay a sitting fee to a director for attending meetings of the Board or committees thereof, such sum as may be decided by the Board of directors thereof which shall not exceed one lakh rupees per meeting of the Board or committee thereof:

Further, for Independent Directors and Women Directors, the sitting fee shall not be less than the sitting fee payable to other directors.

### Method of Payment of Managerial remuneration

A director or manager may be paid remuneration either by way of a monthly payment or at a specified percentage of the net profits of the company or partly by one way and partly by the other.

### Remuneration not allowed to Independent Directors

An Independent Director shall not be entitled to any stock option and may receive remuneration by way of sitting fees provided under sub-section (5), reimbursement of expenses for participation in the Board and other meetings and profit related commission as may be approved by the members.

### Recovery of Remuneration received by director in contravention of section 197 of the Companies Act, 2013

If any director draws or receives, directly or indirectly, by way of remuneration any such sums in excess of the limit prescribed by this section or without approval required under this section, he shall refund such sums to the company, within two years or such lesser period as may be allowed by the company, and until such sum is refunded, hold it in trust for the company.

The auditor of the company shall, in his report under section 143, make a statement as to whether the remuneration paid by the company to its directors is in accordance with the provisions of this section is in excess of the limit laid down under this section and give such other details as may be prescribed.

### Fine in case of contravention of provisions of section 197

If any person makes any default in complying with the provisions of this section, he shall be liable to a penalty of one lakh rupees and where any default has been made by a company, the company shall be liable to a penalty of five lakh rupees.

## CORPORATE SOCIAL RESPONSIBILITY SPEND

Every company having net worth of Rupees 500 crore or more, or turnover of rupees 1,000 crore or more or a net profit of rupees 5 crore or more during the immediately preceding financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.

Provided that where a company is not required to appoint an independent director under sub-section (4)

of section 149, it shall have in its Corporate Social Responsibility Committee two or more directors.

### Role of Board of Directors

The role of the Board of Directors is explained below

- After considering the recommendations made by the CSR Committee, approve the CSR policy for the Company.
- The Board must ensure only those activities must be undertaken which are mentioned in the policy
- The Board of Directors shall make sure that the company spends in every financial year, minimum 2% of the average net profits made during the 3 immediately preceding financial years or where the company has not completed the period of three financial years since its incorporation, during such immediately preceding financial years.

- The Board's Report shall disclose –
  - » CSR Committee's composition
  - » the contents of CSR Policy
  - » the company fails to spend such amount, the Board shall, in its report made under clause (o) of sub-section (3) of section 134, specify the reasons for not spending the amount 8[and, unless the unspent amount relates to any ongoing project referred to in sub-section (6), transfer such unspent amount to a Fund specified in Schedule VII, within a period of six months of the expiry of the financial year. Further, if the company spends an amount in excess of the requirements provided under this sub-section, such company may set off such excess amount against the requirement to spend under this sub-section for such number of succeeding financial years and in such manner, as may be prescribed.
  - » Any amount remaining unspent under section135(5), pursuant to any ongoing project, fulfilling such conditions as may be prescribed, undertaken by a company in persuance of its Corporate Social Responsibility Policy, shall be transferred by the company within a period of thirty days from the end of the financial year to a special account to be opened by the company in that behalf for that financial year in any scheduled bank to be called the Unspent Corporate Social Responsibility Account, and such amount shall be spent by the company in pursuance of its obligation towards the Corporate Social Responsibility Policy within a period of three financial years from the date of such transfer, failing which, the company shall transfer the same to a Fund specified in Schedule VII, within a period of thirty days from the date of completion of the third financial year.
- Where the amount to be spent by a company under section 135 (5) does not exceed fifty lakh rupees, the requirement under sub-section (1) for constitution of the Corporate Social Responsibility Committee shall not be applicable and the functions of such Committee provided under this section shall, in such cases, be discharged by the Board of Directors of such company.

## CSR Expenditure

(1) The board shall ensure that the administrative overheads shall not exceed five percent of total CSR expenditure of the company for the financial year.

(2) Any surplus arising out of the CSR activities shall not form part of the business profit of a company and shall be ploughed back into the same project or shall be transferred to the Unspent CSR Account and spent in pursuance of CSR policy and annual action plan of the company or transfer such surplus amount to a Fund specified in Schedule VII, within a period of six months of the expiry of the financial year.

(3) Where a company spends an amount in excess of requirement provided under sub-section (5) of section 135 , such excess amount may be set off against the requirement to spend under sub-section (5) of section 135 up to immediate succeeding three financial years subject to the conditions that –

(i) the excess amount available for set off shall not include the surplus arising out of the CSR activities, if any, in pursuance of sub-rule (2) of this rule.

(ii) the Board of the company shall pass a resolution to that effect.

(4) The CSR amount may be spent by a company for creation or acquisition of a capital asset, which shall be held by -

(a) a company established under section 8 of the Act, or a Registered Public Trust or Registered Society, having charitable objects and CSR Registration Number under sub-rule (2) of rule 4; or

(b) beneficiaries of the said CSR project, in the form of self-help groups, collectives, entities; or

(c) a public authority:

However, any capital asset created by a company prior to the commencement of the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021, shall within a period of one hundred and eighty days from such commencement comply with the requirement of this rule, which may be extended by a further period of not more than ninety days with the approval of the Board based on reasonable justification.]

## CSR Reporting

**(1) Directors Report:**

The Company shall annex with its Board Report an annual report on CSR containing particulars specified in Annexure I (for F.Y. Commenced Prior To 1st day of April, 2020) or Annexure II (w.e.f. F.Y. Commencing on or after 1st day of April, 2020), as applicable.

**(2) In case of a Foreign Company:**

The Balance sheet filed u/s 381(1) (b) of the Companies Act, 2013 shall contain 'an annual report on CSR containing particulars specified in Annexure I (for F.Y. Commenced prior to 1st day of April, 2020) or Annexure II (w.e.f. F.Y. Commencing on or after 1st day of April, 2020), as applicable.

**(3) Impact Assessment for big CSR projects**

(a) Every company having average CSR obligation of ten crore rupees or more in pursuance of subsection 5) of section 135 of the Act, in the three immediately preceding financial years, shall undertake impact assessment, through an independent agency, of their CSR projects having outlays of one crore rupees or more, and which have been completed not less than one year before undertaking the impact study.

(b) The impact assessment reports shall be placed before the Board and shall be annexed to the annual report on CSR.

(c) A Company undertaking impact assessment may book the expenditure towards Corporate Social Responsibility for that financial year, which shall not exceed five percent of the total CSR expenditure for that financial year or fifty lakh rupees, whichever is less.

**Illustration:**

From the following data available for XYZ Ltd. (unlisted company) as at 31-3-2017 :

*In INR Crores*

| | |
|---|---|
| Paid-up share capital | 200 |
| Revaluation Reserve | 200 |
| Surplus i.e. balance in statement of P&L | 150 |

Is CSR applicable to the company on the basis of the net worth criteria ?

**Solution:**

According to section 2(57) of the Companies Act 2013, revaluation reserve is not to be considered for calculating the net worth.

Therefore, net worth is 350 crores [200 crores (paid-up capital) plus 150 crores (surplus)]. Since net worth is less than 500 crores, CSR obligations under section 135 are not attracted based on net worth criteria.

## RELATED PARTY DISCLOSURE

As per section 2(76) of Companies Act, 2013 the term Related party with reference to a company means –

1. A director or his relative
2. A key managerial personnel or his relative
3. A firm, in which a director, manager or his relative is a partner
4. A private company in which a director or manager is a member or director
5. A public company in which a director or manager is a director and holds along with his relative more than 2% of his paid up share capital
6. Anybody corporate whose board of directors, managing director or manager is accustomed to act In accordance with the advice, directions or instructions of a director or manager.

1. any person on whose advice, directions or instructions a director or manager is accustomed to act:

   Provided that nothing in sub-clauses (vi) and (vii) shall apply to the advice, directions or instructions given in a professional capacity;

2. Any body corporate which is—

   (a) a holding, subsidiary or an associate company of such company;

   (b) a subsidiary of a holding company to which it is also a subsidiary; or

   (c) an investing company or the venturer of the company;";

3. such other person as may be prescribed;

   According to section 188 of the Companies Act, 2013, the following transactions are deemed to be related party transaction between a company and its related party-

   a) sale, purchase or supply of any goods or materials;

   b) selling or otherwise disposing of, or buying, property of any kind;

   c) leasing of property of any kind;

   d) availing or rendering of any services;

   e) appointment of any agent for purchase or sale of goods, materials, services or property;

   f) such related party's appointment to any office or place of profit in the company, its subsidiary company or associate company; and

   g) underwriting the subscription of any securities or derivatives thereof, of the company:

Provided that no contract or arrangement, in the case of a company having a paid-up share capital of not less than such amount, or transactions not exceeding such sums, as may be prescribed, shall be entered into except with the prior approval of the company by a resolution.

Further, no member of the company shall vote on such resolution, to approve any contract or arrangement which may be entered into by the company, if such member is a related party. Also that nothing contained in the second proviso shall apply to a company in which ninety per cent. or more members, in number, are relatives of promoters or are related parties

Provided also that nothing in this sub-section shall apply to any transactions entered into by the company in its ordinary course of business other than transactions which are not on an arm's length basis.

Provided also that the requirement of passing the resolution under first proviso shall not be applicable for transactions entered into between a holding company and its wholly owned subsidiary whose accounts are consolidated with such holding company and placed before the shareholders at the general meeting for approval.

## Fine for Contravention

Any director or any other employee of a company, who had entered into or authorised the contract or arrangement in violation of the provisions of section 188 shall, –

(i) In case of listed company, be liable to a penalty of twenty-five lakh rupees and

(ii) In case of any other company, be [liable to a penalty of five lakh rupees

## Related party disclosure according to AS 18

According to Accounting Standard (AS) 18: Related party Disclosure, the objective of the Standard is to establish requirements for disclosure of:

(a) related party relationships; and

(b) transactions between a reporting enterprise and its related parties.

For the purpose of this Standard, Related party means parties are considered to be related if at any time during the reporting period one party has the ability to control the other party or exercise significant influence over the other party in making financial and/or operating decisions. Related party transaction means a transfer of resources or obligations between related parties, regardless of whether or not a price is charged.

This Standard should be applied in reporting related party relationships and transactions between a reporting enterprise and its related parties. The requirements of this Standard apply to the financial statements of each reporting enterprise as also to consolidated financial statements presented by a holding company.

Related party disclosure requirements as laid down in this Standard do not apply in circumstances where providing such disclosures would conflict with the reporting enterprise's duties of confidentiality as specifically required in terms of a statute or by any regulator or similar competent authority.

## SEGMENT REPORTING (AS 17)

The objective of this Standard is to establish principles for reporting financial information, about the different types of products and services an enterprise produces and the different geographical areas in which it operates. Such information helps users of financial statements:

(a) better understand the performance of the enterprise;

(b) better assess the risks and returns of the enterprise; and

(c) make more informed judgements about the enterprise as a whole.

### Scope

1. This Standard should be applied in presenting general purpose financial statements.
2. The requirements of this Standard are also applicable in case of consolidated financial statements.
3. An enterprise should comply with the requirements of this Standard fully and not selectively.
4. If a single financial report contains both consolidated financial statements and the separate financial statements of the parent, segment information need be presented only on the basis of the consolidated financial statements. In the context of reporting of segment information in consolidated financial statements, the references in this Standard to any financial statement items should construed to be the relevant item as appearing in the consolidated financial statements.

**Definitions**

1. **Business segment** is a distinguishable component of an enterprise that is engaged in providing an individual product or service or a group of related products or services and that is subject to risks and returns that are different from those of other business segments.

   Factors that should be considered in determining whether products or services are related include:

   (a) the nature of the products or services;

   (b) the nature of the production processes;

   (c) the type or class of customers for the products or services;

   (d) the methods used to distribute the products or provide the services; and

   (e) if applicable, the nature of the regulatory environment, for example, banking, insurance, or public utilities.

2. **A geographical segment** is a distinguishable component of an enterprise that is engaged in providing products or services within a particular economic environment and that is subject to risks and returns that are different from those of components operating in other economic environments. Factors that should be considered in identifying geographical segments include:

   (a) similarity of economic and political conditions;

   (b) relationships between operations in different geographical areas;

   (c) proximity of operations;

(d) special risks associated with operations in a particular area;

(e) exchange control regulations; and

(f) the underlying currency risks.

**3.** **A reportable segment** is a business segment or a geographical segment identified on the basis of foregoing definitions for which segment information is required to be disclosed by this Standard.

A business segment or geographical segment should be identified as a reportable segment if:

(a) its revenue from sales to external customers and from transactions with other segments is 10 percent or more of the total revenue, external and internal, of all segments; or

(b) its segment result, whether profit or loss, is 10 per cent or more of - (i) the combined result of all segments in profit, or (ii) the combined result of all segments in loss, whichever is greater in absolute amount; or

(c) its segment assets are 10 per cent or more of the total assets of all segments.

Segment information should be prepared in conformity with the accounting policies adopted for preparing and presenting the financial statements of the enterprise as a whole.

4. Enterprise revenue is revenue from sales to external customers as reported in the statement of profit and loss.

5. Segment revenue is the aggregate of

(a) the portion of enterprise revenue that is directly attributable to a segment,

(b) the relevant portion of enterprise revenue that can be allocated on a reasonable basis to a segment, and

(c) revenue from transactions with other segments of the enterprise.

6. Segment expense is the aggregate of

(a) the expense resulting from the operating activities of a segment that is directly attributable to the segment, and

(b) the relevant portion of enterprise expense that can be allocated on a reasonable basis to the segment, including expense relating to transactions with other segments of the enterprise.

Note: However, SEGMENT REVENUE/EXPENSE does not include

(a) Extraordinary items as defined in AS-5

(b) Interest or dividend ( including earned/incurred on loans to other segment) unless the operations of the segment are primarily of a financial nature

(c) Gains on sales of investments or on extinguishments of debt (Capital gain/loss) unless the operations of the segment are primarily of a financial nature.

(d) General administration expenses, head office expenses and other expenses that arise at the enterprise level and relate to the enterprise as a whole.

7. Segment Assets are those operating assets that are employed by a segment in its operating activities and that either are directly attributable the segment or can be allocated to the segment on a reasonable basis.

8. Segment liabilities are those operating liabilities that result from operating activities and that either are directly attributable the segment or can be allocated to the segment on a reasonable basis.

(If the segment result of a segment includes interest expense, its segment liabilities include the related interest-bearing liabilities and vice versa.)

(Segment liabilities do not include income tax liabilities and vice versa.)

Similarly, if depreciation segment expenses then related assets comes under segment assets.

## AUDIT QUERY

Audit query is an inquiry from an auditor also known as findings.

An accounting audit is the process of examining a company's entire financial situation, with an emphasis on ensuring compliance with relevant reporting standards, and promoting adequate cash-handling policies and internal controls. In most countries, regular audits by outside firms are required for publicly traded corporations. In contrast, small businesses are typically not subject to as rigorous a set of reporting standards and controls. Therefore, are often not subject to mandatory audits. Learning how to perform a basic internal accounting audit on your own small business can provide you with a comprehensive understanding of your company's financial strengths and weaknesses.

Audit queries are questions asked by an auditor during an investigation. These may be used to gather information to come to a conclusion in the audit.

The following parameters are looked during audit queries:

1. Any questions related to a company which is being audited either by an internal or external auditor.
2. The final touch of the accounts.
3. It is the matter being investigated while examining financial report of a company.
4. Audit queries are questions asked by an auditor during an investigation. These may be used to gather information to come to a conclusion in the audit.
5. An audit query is a explanation that is required by the audit team on certain points that they may have identified during an audit e.g., invoice accrual prepayment, etc.

### LESSON ROUND-UP

- Financial Statements represent a formal record of the financial activities of an entity.
- Financial statements are reports prepared and issued by company management to give investors and creditors additional information about their company's performance and financial standings.
- The four general purpose financial statements include: Income Statement, Balance Sheet, Statement of Stockholders Equity, Statement of Cash flow.
- Financial statements are prepared by transferring the account balances on the adjusted trial balance to a set of financial statement templates.
- Both public and private companies issue at least 4 financial statements to attract new investors and raise funding for expansions.
- Financial statements that are issued for time periods smaller than one year are called interim statements.
- The annual financial statement form is prepared once a year and cover a 12-month period of financial performance.
- The listed entity shall submit a compliance certificate to the exchange duly signed by both that is by the compliance officer of the listed entity and the authorized representative of the share transfer agent, wherever applicable, within one month of the end of each half of the financial year.
- Depreciation may be defined as the gradual reduction in the value of an asset due to wear and tear as in the case of physical assets like building, machinery, etc., or by mere passing of time as in the case of lease, patent and copyright.
- If depreciation is not provided, the value of assets shown in Balance Sheet will not present the trueand fair value of assets.

- Two methods to calculate depreciation: straight line method and written down value method.
- Provisions is to be made in respect of a liability which is certain to be incurred, but its accurate amount is not known.
- Reserves are the amount set aside out of profits. It is an appropriation of profits and not a charge on the profits.
- The managerial remuneration shall be payable to a person appointed within the meaning of section 196 of the Companies Act, 2013.
- In accordance with Section 135(5) of the Companies Act, 2013, the Board of each company covered under the CSR requirement needs to ensure that the company spends, in every fi year, at least 2% of its average net profi made during the three immediately preceding fi years in pursuance of CSR policy
- Segment reporting is the reporting of the operating segments of a company in the disclosures accompanying its financial statements.
- Audit queries are questions asked by an auditor during an investigation. These may be used to gather information to come to a conclusion in the audit.
- Interpreting the financial health of a corporation requires an understanding of its financial statements.

## TEST YOURSELF

1 Analysis and interpretation of financial statement refer to the treatment of the information contained in the income statement and balance sheet so as to afford full diagnosis of profitability and financial soundness of the business. Discuss.

2 How do the financial statement are read and interpretated. Discuss in detail.

3 XYZ Ltd. had a reportable segment in year 10-11, but for 11-12, that reportable segment does not meet the 10% threshold limit. Should XYZ Ltd. continue or drop the segment for reporting in 11-12?

4 Let us assume that a company has incurred lower amount on CSR activities in year one. It expects to cover up the short- spent amount in the subsequent years. Is the company required to create a provision toward such short-spent amount?

5 What do you mean by managerial remuneration? How much maximum remuneration is payable by a company to its managerial personnel?

6 Discuss in detail the Quarterly, Half-yearly and Annual Financial Statement pursuant to SEBI Listing Regulations 2015

7 What do you mean by Depreciation. Discuss with examples the methods of calculating depreciation.

8 Write short notes on:

a) Audit Query

b) Related Party

c) Segment Reporting

d) CSR

# Lesson 7

# Consolidation of Accounts as per Companies Act, 2013

***Key Concepts One Should Know***

- Holding company
- Subsidiary company
- Consolidated Financial statement
- Minority interest
- Goodwill
- Pre-acquisition profits

## *Learning Objectives*

**To understand the:**

- Holding Company and Subsidiary Company
- Legal requirements relating to presentation of accounts by a Holding Company.
- Requirement of schedule III
- Preparation of Consolidated balance sheet of a holding company and its subsidiaries
- Various steps involved in preparation of Consolidation Balance Sheet & Consolidated Profit & Loss Account.

## *Lesson Outline*

- Introduction
- Meaning of Holding and Subsidiary Company
- Holding Vs Subsidiary Company
- Types of Subsidiaries
- Legal Requirements for a Holding Company
- Consolidated Financial Statements
- Minority Interest
- Consolidated Profit & Loss A/c
- Goodwill
- Pre-Acquisition Profits/Reserves
- Revaluation of Assets
- Bonus Shares Issued By Subsidiary Company
- LESSON ROUND-UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

### HOLDING COMPANY

As per Section 2(46) of the Companies Act, 2013 "holding company", in relation to one or more other companies, means a company of which such companies are subsidiary companies;

### SUBSIDIARY COMPANY

As per Section 2(87) of the Companies Act, 2013 "subsidiary company" or "subsidiary", in relation to any other company (that is to say the holding company), means a company in which the holding company–

(i) controls the composition of the Board of Directors; or

(ii) exercises or controls more than one-half of the total share capital either at its own or together with one or more of its subsidiary companies.

Provided that such class or classes of holding companies as may be prescribed shall not have layers of subsidiaries beyond such numbers as may be prescribed.

Explanation – For the purposes of this clause–

(a) a company shall be deemed to be a subsidiary company of the holding company even if the control referred to in sub-clause (i) or sub-clause (ii) is of another subsidiary company of the holding company;

(b) the composition of a company's Board of Directors shall be deemed to be controlled by another company if that other company by exercise of some power exercisable by it at its discretion can appoint or remove all or a majority of the directors;

(c) the expression "company" includes anybody corporate;

(d) "layer" in relation to a holding company means its subsidiary or subsidiaries;

### COMPANY INCLUDES BODY CORPORATE

- As per Sec 2(87) of the Companies Act, 2013 Company include a 'Body Corporate'.
- As per Sec 2(11) of the Companies Act, 2013 Body Corporate includes a 'Company incorporate out of India'.

Thus, an Indian company in which more than 50% shares are held by a foreign body corporate will be a 'Subsidiary Company'.

Similarly, any Indian body corporate can be 'holding company' even if that body corporate is not registered as 'company' under Companies Act.

An Indian company can be holding/subsidiary of a foreign body corporate even if it is not registered as a Company.

## SHARE-HOLDING OF HOLDING COMPANY BY SUBSIDIARY COMPANY

A Holding Company can and does hold shares of subsidiary, but a subsidiary can't hold shares in its holding company. Share allotment made to subsidiary is void.

This restriction applies even if shares are held by nominee of subsidiary Company and not by the subsidiary company itself.

However there are certain cases, subsidiary can be member of its holding Company:-

(a) When subsidiary is a legal representative of deceased member of holding Company.

(b) When subsidiary is concerned in shares as trustee.

(c) Investment held before the Company became subsidiary can continue, but in that case, subsidiary has no voting right in holding Company.

### Associate company

Associate Company, in relation to another company, means a company in which that other company has a significant influence, but which is not a subsidiary company of the company having such influence and includes a joint venture company. The purpose of significant influence has been clarified in the explanation as control of at least twenty per cent of total share capital, or of business decisions under an agreement. In the case of joint ventures it is always by way an agreement significant influence is used but not necessarily by control over share capital. The meaning of significant influence is in line with AS18.

### Wholly Owned Subsidiary Company

A company in which all the shares with voting rights (i.e. 100%) are owned by the holding company, it is said to be a wholly owned subsidiary company.

### Partly Owned Subsidiary Company

A company in which only the majority of shares (more than 50%) are owned by the holding company, it is said to be a party owned subsidiary.

### Minority Shareholder

Small Shareholder: A shareholder who is holding shares of nominal value of INR 20,000 or such other sum as may be prescribed.

Minority Shareholder: Equity holder of a firm who does not have the voting control of the firm, by virtue of his or her below fifty percent ownership of the firm's equity capital

## LEGAL REQUIREMENTS FOR A HOLDING COMPANY

Section 129 of the Companies Act, 2013 stipulates that the balance sheet of a holding company has to be accompanied by the below-mentioned documents of relating to each of its subsidiaries:

1. A copy of the Balance Sheet of the subsidiary
2. A copy of the P&LA/c of the subsidiary company
3. A copy of the report of its Board of Directors
4. A copy of the report of its auditors
5. A statement containing the following particulars:
   (i) The nature and extent of holding companies interest in the subsidiary at the end of the last financial year
   (ii) The net aggregate amount of profits or losses in the subsidiary so far as it concerns the members of the holding company and is not dealt within the holding company's accounts.
6. If the financial year of the holding company and its subsidiary company coincide with each other subsidiary company's balance sheet and other documents specified above with respect to the same financial year should be attached to the balance sheet of the holding company.

If the financial year of the subsidiary company does not coincide with the financial year of the holding company, a statement showing the following should be attached:

(i) Whether, and to what extent, there has been a change in the holding company's interest in the subsidiary company since the close of the financial year of the subsidiary company

(ii) Details of any materials changes which have occurred between the end of the financial year of the subsidiary company and the end of the financial year of the holding company in respect of:

(a) The subsidiary's fixed assets

(b) Its investments

(c) The moneys lent by it

(d) The moneys borrowed by it for any purpose other than that of meeting its current liabilities

(e) If for any reason, the board of directors of the holding company is unable to obtain information on profits (capital or revenue) a report in writing to the effect.

In a nutshell, if the financial years of both the subsidiary and holding companies do not coincide, the preceding year's balance sheet and other statements of the subsidiary company should be attached. The information attached to the balance sheet of a holding company in respect of its subsidiary companies could not be more than 6 months.

## CONSOLIDATED FINANCIAL STATEMENTS

Consolidated financial statements means the preparation and presentation of profit and loss account and balance sheet of a holding company and its subsidiaries in a single format. According to the companies and, there is not legal provision insisting a holding company to prepare and present 'Group Accounts' consolidated financial statements. Even though there is no statutory provision for a holding company to prepare consolidated financial statements, the ICAI has issued AS-21 on 'consolidated financial statements'. It is not mandatory. As per AS-21, holding company means a parent company which has one there subsidiaries. A 'group' is a 'parent' and all its subsidiaries. The main purpose of the preparation of consolidated statements is to reflect a true and fair view of the position and the profit or loss of the holding company 'group'. Further, by preparation of consolidated financial statements, the shareholders are in a position to get firsthand information on the company authentically.

The advantages of consolidation of financial statements are as follows:

1. **Facilitates easy comprehension:** Shareholders are in a position to get a clear insight about the financial position of the group (parent and all its subsidiaries)
2. **Assists in ascertaining intrinsic value of share:** For various accounting procedures, intrinsic value of shares serve as an essential tool. This can be attained on the basis of consolidated financial statements of companies.
3. **Proper assessment of return on investment:** Only consolidated financial statements can provide proper information on the total share of holding company in the revenue profit of its subsidiaries.
4. **Minority interest disclosure:** In the consolidated balance sheets, the item shown under the head 'Minority Interest' discloses the total amount payable to outside shareholders. This is liability payable to outsiders, i.e., general public. This factor is the main factor to be considered in the process of acquisition of company.
5. **Helps in the "evaluation" of holding company:** As consolidated financial statements reflect a true and fair view of the position of the holding company (parent) as a group, the investors may be able to evaluate the performance of the company. Thereby, it enhances the overall performance of the group.

The following are its limitations:

1. Varied information: All the subsidiary companies may not carry the same type of business. As their activities differ from each other, information combined together in a single format may result in confusion and alternatives.
2. Irrelevant concealment of facts: The data got from subsidiary companies may not be relevant in the combined form. Further, to arrive at common figures, some of the facts may be suppressed. In such a situation, a consolidated financial statement may not reflect a true and fair view of the position of the companies.

## Contents and Format of Consolidated Balance Sheet

Section 129 (Clause 3) of the Companies Act, 2013 mandated the companies having one or more subsidiaries, to prepare Consolidated Financial Statements. According to this section, where a company has one or more subsidiaries, it shall, in addition to separate financial statements will prepare a consolidated financial statement of the company and of all the subsidiaries in the same form and manner as that of its own.

It shall also attach along with its financial statements, a separate statement containing the salient features of the financial statement of its subsidiary or subsidiaries in the prescribed form.

Consolidated Financial Statements are intended to show the financial position of the group as a whole - by showing the economic resources controlled by them, by presenting the obligations of the group and the results the group achieves with its resources.

The Schedule III of the Companies Act, 2013, provides certain general instructions for the preparation of consolidated financial statements.

1. Accordingly, where a company is required to prepare Consolidated Financial Statements, i.e., consolidated balance sheet and consolidated statement of profit and loss, the company shall mutatis mutandis follow the requirements of Schedule III of the Companies Act, 2013, as applicable to a company in the preparation of balance sheet and statement of profit and loss. In addition, the consolidated financial statements shall disclose the information as per the requirements specified in the applicable Accounting Standards including the following:
   (i) Profit or loss attributable to "minority interest" and to owners of the parent in the statement of profit and loss shall be presented as allocation for the period.
   (ii) "Minority interests" in the balance sheet within equity shall be presented separately from the equity of the owners of the parent.

**Format**

**Consolidated Balance Sheet**
**Of**
**Holding Company and its Subsidiaries**
**as on .....**

| **Format of Consolidated Balance Sheet** | | | |
|---|---|---|---|
| **EQUITY AND LIABILITIES** | | **Amount** | **Amount** |
| SHAREHOLDER'S FUND | | | XX |
| a) Share Capital (Holding Company) | | XX | |
| b) Reserves & Surplus | | | |
| i) General Reserve (Holding Co.) | | XX | |
| ii) Capital Reserve (Holding Co.) | XX | | |
| Add: Capital Reserve from Acquisition | XX | XX | |
| iii) Surplus | | | |
| Surplus of Holding Co. | XX | | |
| Add: Share in revenue profits of Subsidiary Co. | XX | | |
| Less: Unrealized Profits | (XX) | XX | XX |

| | | | |
|---|---|---|---|
| **2. Non-current liabilities** | | | |
| a) Minority Interest | | XX | |
| b) Holding Co. | XX | | |
| Subsidiary Co. | XX | XX | XX |
| **3. Current liabilities** | | | |
| Holding Co. | XX | | |
| Subsidiary Co. | XX | | |
| Less: Inter Co. or mutual Owings | XX | | XX |
| **Total** | | | **XX** |
| ***ASSETS*** | | | |
| 1. Non-current assets | | | |
| a) Property, Plant and Equipment: | | | |
| i) Tangible assets | | | |
| Holding Co. | XX | | |
| Subsidiary Co. | XX | | XX |
| ii) Intangible assets: | | | |
| Goodwill or Cost of Control: | | | |
| Holding Co. | XX | | |
| Subsidiary Co. | XX | XX | |
| Goodwill resulting from acquisition | | XX | XX |
| b) Non-Current Investment | | | |
| Holding Co. (except investment in shares of subsidiary Co.) | | | XX |
| 2. Current assets | | | |
| Holding Co. | XX | | |
| Subsidiary Co. | XX | | |
| Less: Inter Company or Mutual Owings | XX | | XX |
| **Total** | | | **XX** |

**Illustration 1.**

Model : Cancellation of investment – Wholly owned subsidiary company

From the following Balance Sheet of H Ltd. (holding) and S Ltd. (subsidiary), prepare a consolidated balance sheet of H Ltd. and its subsidiary S Ltd.

| **Particulars** | **H Ltd Rs.** | **S Ltd Rs.** |
|---|---|---|
| Equity & Liabilities | 5,00,000 | 2,00,000 |
| Share capital : | 1,00,000 | 25,000 |
| Shares of Rs. 10 each Sundry Liabilities | | |
| **Total** | **6,00,000** | **2,25,000** |
| **Assets:** Sundry Assets Investment : | 400000 | 225000 |
| 20,000 shares of Rs.10 each of S Ltd | 200000 | |
| **Total** | **6,00,000** | **2,25,000** |

**Solution:**

**Notes**

1. The Balance Sheet reveals that H Ltd. owns the whole of issued share capital of S Ltd. (wholly owned subsidiary)
2. The balance sheet of H Ltd. reveals the investment in shares of S Ltd. the amount is equal to the nominal value of issued share capital of S. Ltd.
3. These two amounts represent the same transaction but different in nature. (the issued capital of S Ltd. and investment held by H Ltd.)
4. These two are the internal items of H Ltd. and S Ltd.
5. Hence, these should be eliminated in the preparation of consolidated balance sheet shown in the following:

**Consolidated Balance Sheet of**

**H Ltd. & S Ltd. as on .....**

| **I. EQUITIES AND LIABILITIES** | | **H Ltd. Amount (Rs.)** |
|---|---|---|
| 1. Shareholders' funds Share Capital | | |
| 50,000 shares of Rs. 10 each (H Ltd. Only) | | 5,00,000 |
| 2. Sundry Liabilities | | |
| H Ltd. | 1,00,000 | |
| S Ltd. | 25,000 | 1,25,000 |
| **Total** | | **6,25,000** |
| **II. ASSETS** | | |
| Sundry Assets | | |
| H Ltd. | 4,00,000 | |
| S Ltd. | 2,25,000 | 6,25,000 |
| **Total** | | **6,25,000** |

**Note:** The investment account on the assets side of H Ltd. is replaced by the total assets of S Ltd. on the assets side of consolidated balance sheet and its liabilities are shown on the liabilities side.

## Minority Interest

As per AS 21, 'Minority interest' is that part of the net results of operations and of the net assets of a subsidiary attributable to the interests which are not owned, directly or indirectly through subsidiary or subsidiaries, by the parent.

As per Ind AS 110, 'Non-controlling interest' is an equity in a subsidiary, not attributable, directly or indirectly to a parent.

The term 'Minority interest' or 'Non-controlling interest' is not defined under the Companies Act, 2013.

Calculation and presentation of the minority interest: This point may be explained as under:

<table>
<tr><td>Calculation</td><td>Minority interest will be calculated as under:
<table>
<tr><th>Particulars</th><th>(Rs.)</th></tr>
<tr><td>A. Paid up value of the equity shares (including bonus shares) held by the minority</td><td>*****</td></tr>
<tr><td>B. Paid up value of preference shares presently held by the minority</td><td>******</td></tr>
<tr><td>C. Share of minority in the capital profits/(loss) of the subsidiary</td><td>***/(***)</td></tr>
<tr><td>D. Share of minority in the revenue profits/(loss) of the subsidiary</td><td>***/(***)</td></tr>
<tr><td>E. Share of minority in the revenue reserve of the subsidiary</td><td>******</td></tr>
<tr><td>F. Share of minority in the preference dividend of the subsidiary (on cumulative preference shares whether declared or not and on non-cumulative preference shares when declared)</td><td>******</td></tr>
<tr><td>G. Share of minority in the equity dividend declared by the subsidiary</td><td>****</td></tr>
<tr><td>Minority Interest (A+B+C+D+E+F)</td><td>*****</td></tr>
</table></td></tr>
<tr><td>Presentation of minority interest in the consolidated Balance sheet</td><td>‘Minority Interest’ should be presented as a separate item after the head ‘Shareholders’ fund’ but before the head ‘Share application money pending allotment’ on the ‘Equity and Liabilities’ side of the Balance sheet.</td></tr>
</table>

**Illustration 2**

Model : Minority interest

From the following, prepare consolidated balance sheet of H Ltd. and its subsidiary S Ltd.

| **Particulars** | **Rs.** | **Rs.** |
|---|---|---|
| **Equities & Liabilities** | | |
| **Share capital :** | | |
| Shares of Rs.10 each | 5,00,000 | 3,00,000 |
| Other Liabilities | 1,40,000 | 20,000 |
| Total | 640000 | 320000 |
| **Assets:** | | |
| Sundry Assets | 400000 | 320000 |
| Investment in Shares of S Ltd. 24000 shares of Rs.10 each | 240000 | |
| **Total** | **6,40,000** | **3,20,000** |

**Notes:**

1. This partly owned subsidiary company H Ltd. owns to the extent:

   Issued capital of S Ltd. Rs.3,00,000

   Owned as investment in shares of S Ltd. Rs.2,40,000

   ∴ proportionate share $\frac{\text{Rs.2,40,000}}{\text{Rs.3,00,000}}$ x 100 = 80%

2. Outside shareholders share = (100-80)% = 20%

   ∴ value of minority interest = 20% of Rs. 3,00,000

   = Rs.60,000

   This amount may be shown in either of the following two ways:

   (i) As a separate item under the head 'Minority Interest'

   (ii) Along with share capital of holding company

3. As in this problem, no items relating to capital reserve profit and loss; revenue reserve profit and loss or P&L A/c balance is given – Minority interest is computed straight away in Notes 1 and 2.

**Solution:**

**Consolidated Balance Sheet of**
**H Ltd. & S Ltd.**
**as on ……**

| Particulars | Amount (Rs.) | Amount (Rs.) |
|---|---|---|
| **I. EQUITIES AND LIABILITIES** | | |
| 1. Shareholders' funds | | |
| a) Share Capital -50,000 shares of Rs. 10 each (H Ltd. only) | | 5,00,000 |
| 2. Non-current liabilities | | |
| Minority Interest | | 60,000 |
| 3. Other Liabilities | | |
| H Ltd. | 1,40,000 | |
| S Ltd. | 20,000 | 1,60,000 |
| **Total** | | **7,20,000** |
| **II. ASSETS** | | |
| 1. Sundry Assets | | |
| H Ltd. | 4,00,000 | |
| S Ltd. | 3,20,000 | 7,20,000 |
| **Total** | | **7,20,000** |

## Consolidated Profit & Loss Account

While preparing the Consolidated Profit and Loss Account of the holding company and its subsidiary, the items appearing in the Profit and Loss Account of the holding and subsidiary companies have to be aggregated. But in doing so, the following adjustments have to be made:

(i) Transfer of goods between the holding company and the subsidiary company should be eliminated both from the purchases and sales appearing in the Consolidated Profit and Loss Account.

(ii) Stock Reserve for unrealised profit in respect of inter-company transactions should be created by debiting Consolidated Profit and Loss Account and crediting Stock Reserve Account.

(iii) The share of profits of the subsidiary company arising before the date of acquisition of shares by the holding company that belongs to the holding company will be debited to the Consolidated Profit and Loss Account and credited to Capital Reserve or Goodwill Account as the case may be. In case of loss the entry will be just reversed.

(iv) The share of profits or losses belonging to the minority shareholders will be respectively credited or debited to Minority Interest Account.

(v) Dividends received from the subsidiary company by the holding company should be eliminated from both the sides of the Consolidated Profit and Loss Account.

(vi) Care should be taken to see that both the companies pass entries for interest accrued and outstanding on debentures of the subsidiary company held by the holding company. The debenture interest should be eliminated from both the sides of the Consolidated Profit and Loss Account to the extent to which it relates to the debentures held by the holding company.

(vii) If the subsidiary company has passed entries for proposed dividend and the holding company has taken credit for its shares of the dividends, the holding company's share should be eliminated from both the sides of the Consolidated Profit and Loss Statement. The necessary changes should also be made on both the sides of the Consolidated Balance Sheet. However, if the holding company has not passed entries for proposed dividends of the subsidiary company, the debit in respect of the proposed dividend should be reduced by the holding company's share in such proposed dividend and obviously, the liability in respect of proposed dividend in the Consolidated Balance Sheet should also be reduced.

(viii) If there are profits and the dividends on cumulative preference shares are in arrears, the arrears of dividends on preference shares held by the Minority shareholders should be debited to the Consolidated Profit and Loss Account and credited to Minority Interest Account.

(ix) If fixed assets of the subsidiary company are revalued at the time of acquisition of shares by the holding company without any alteration in book-values, the excess or short depreciation should be adjusted by debiting or crediting the Consolidated Profit and Loss Account and crediting or debiting the respective Asset Account.

(x) The minority interest will consist of its proportion of total profits after adjustment of excess or short depreciation due to over or under valuation of fixed assets, but before adjusting the proportionate unrealised profit on stock.

It is important to note here that the consolidated Profit and Loss Statement has got no concern with the Consolidated Balance Sheet. It is prepared in addition to the Consolidated Balance Sheet to serve the purpose of showing the total profits earned by the group of companies for a particular period

**(1) PROFIT AND LOSS ACCOUNT**

| **Particulars** | | **Note No.** | **Figures for the Current Reporting period** | **Figures for the Previous Reporting period** |
|---|---|---|---|---|
| I | Revenue from operations | | | |
| II | Other Income | | | |
| ***III*** | ***Total Revenue (I + II)*** | | | |
| *IV* | *Expenses:* | | | |
| | Cost of materials consumed | | | |
| | Purchases of Stock-in-Trade | | | |
| | Changes in inventories of finished goods Employee benefits expense | | | |
| | Finance costs | | | |
| | Depreciation and amortization expense | | | |
| | Other expenses | | | |
| **Total expense** | | | | |

| | | | | |
|---|---|---|---|---|
| V | Profit before exceptional and extraordinary items and tax (III-IV) | | | |
| VI | Exceptional items | | | |
| VII | Profit before extraordinary items and tax (V-VI) | | | |
| VIII | Extraordinary items | | | |
| IX | Profit before tax (VII-VIII) | | | |
| X | Tax expense: Current tax Deferred tax | | | |
| XI | Profit (Loss) for the period from continuing operations | | | |
| XII | Profit / (Loss) from discontinuing operations (before tax) | | | |
| XIII | Tax expense of discontinuing operations | | | |
| XIV | Profit/(Loss) from discontinuing operations (after tax) (XII-XIII) | | | |
| XV | Earning per equity share: | | | |
| | Basic | | | |
| | Diluted | | | |

In Consolidated Financial Statements, the following shall be disclosed by way of additional information:

| **Name of the entity in the** | **Net Assets, *i.e.*, total assets minus total liabilities** | | **Share in profit or loss** | |
|---|---|---|---|---|
| | **As % of consolidated net assets** | **Amt** | **As % of consolidated profit or loss** | **Amt** |
| **1** | **2** | **3** | **4** | **5** |
| Parent Subsidiaries Indian<br>1.<br>2.<br>3.<br>Foreign<br>1.<br>2.<br>3.<br>Minority Interests in all subsidiaries Associates | | | | |
| (Investment as per the equity method)<br>Indian<br>1.<br>2.<br>3.<br>Foreign<br>1.<br>2.<br>3. | | | | |

| | | | | |
|---|---|---|---|---|
| Joint Ventures (as per proportionate consolidation/ investment as per the equity method)<br>Indian<br>1.<br>2.<br>3.<br>Foreign<br>1.<br>2.<br>3.<br>**TOTAL** | | | | |

3. All subsidiaries, associates and joint ventures (whether Indian or foreign) will be covered under consolidated financial statements.

4. An entity shall also disclose the list of subsidiaries or associates or joint ventures which have not been consolidated in the consolidated financial statements along with the reasons of not consolidating.

## Goodwill

**Calculation and presentation of goodwill/capital reserve on consolidation**: This point may be dealt with as under:

| | | |
|---|---|---|
| **Meaning** | Goodwill on consolidation or capital reserve on consolidation is equal to the difference between (a) the net cost of investment of the holding company in the equity and preference shares of the subsidiary company and, (b) the share of the holding company in the net assets of the subsidiary company. If the net cost of investment of holding company in the equity and preference shares of the subsidiary company is more than the share of the holding company in the net assets of the subsidiary company, the difference between the two is 'Goodwill on consolidation'. If the net cost of investment of holding company in the equity and preference shares of the subsidiary is less than the share of the holding company in the net assets of the subsidiary, the difference between the two is 'Capital Reserve on consolidation'. However, if both are equal, there is neither any 'Goodwill on consolidation' nor any 'Capital Reserve on consolidation'. | |
| **Calculation** | Particulars | (Rs.) |
| | A. Net cost of investment | |
| | (i) Amount actually paid for equity shares and preference shares of subsidiary | ****** |
| | (ii) Less: dividend received out of pre-acquisition profit of the subsidiary (whether equity or preference dividend) | (*****) |
| | (iii) Less: Share of holding company in preference dividend on cumulative pref. shares whether declared or not and on non-cumulative pref. shares when declared out of pre-acquisition profit of the subsidiary | (******) |

| | | |
|---|---|---|
| | (iv) Less: Share of holding company in declared equity dividend of the subsidiary out of pre-acquisition profit of the subsidiary | (******) |
| | Total net cost of investment (I+ ii+ iii+ iv) | ****** |
| | B. Share of holding company in the net assets of the subsidiary company | |
| | (i) Paid up value of equity shares (including bonus shares) presently held by the holding company | ****** |
| | (ii) Paid up value of preference shares presently held by the holding company | ***** |
| | (iii) Share of holding company in the capital profit of the subsidiary company | ***** |
| | Total share of holding company in the net assets of the subsidiary company (i+ ii+ iii) | ****** |
| | C. Goodwill on consolidation (if A exceeds B) or Capital reserve on consolidation (if B exceeds A) | ******* |
| **Presentation** | Goodwill on consolidation is shown under the sub-sub-head "intangible Assets" under the sub-head "Fixed assets" under the head 'Non-current assets' on the assets side of the CBS. 'Capital Reserve on consolidation' is shown under the sub-head 'Reserves and Surplus 'under the head 'Shareholders' funds' on the 'Equity and Liabilities' side of the CBS. | |

**Illustration 3.**

**Model: Goodwill**

From the following balance sheets of H Ltd. and its subsidiary S Ltd. as on 31 December 2017, prepare consolidated balance sheet.

| **Particulars** | **Rs.** | **Rs.** |
|---|---|---|
| **Equities & Liabilities** | | |
| **Share Capital:** | 5,00,000 | 2,00,000 |
| Shares of Rs. 50 each Creditors | 1,00,000 | 20,000 |
| Reserves | -- | 10,000 |
| Profit & Loss A/c | 50,000 | 30,000 |
| **Total** | **6,50,000** | **2,60,000** |
| **Assets** | | |
| **Sundry Assets:** | 350000 | 260000 |
| Investment in the shares of S Ltd 4,000 shares (at cost) | 300000 | |
| **Total** | **6,50,000** | **2,60,000** |

H Ltd. purchase shares in S Ltd. on the balance sheet date.

**Solution**

Computation of Goodwill:

| | | Rs. |
|---|---|---|
| **Step 1:** | Cost price of shares in S Ltd. (Investment) Give: | 3,00,000 |
| **Step 2:** | Less: Face value of shares: | 2,00,000 |
| | | 1,00,000 |
| **Step 3:** | Less: Share in Reserves: | 10,000 |
| | | 90,000 |
| **Step 4:** | Less: Share in Profit (P&L A/c): | 30,000 |
| | ∴ Goodwill: | 60,000 |

**Consolidated Balance Sheet of**

**H Ltd. &S Ltd.**

**as on 31.12.2017**

| I. EQUITIES AND LIABILITIES | | Amount (Rs.) |
|---|---|---|
| 1. Shareholders' funds | | |
| a. Share Capital | | |
| 50,000 shares of Rs. 10 each (H Ltd. only) | | 5,00,000 |
| b. Reserve & surplus | | 50,000 |
| 2. Other Liabilities | | |
| H Ltd. | 1,00,000 | |
| S Ltd. | 20,000 | 1,20,000 |
| **Total** | | **6,70,000** |
| II. ASSETS | | |
| 1. Sundry Assets | | |
| H Ltd. | 3,50,000 | |
| S Ltd. | 2,60,000 | 6,10,000 |
| Goodwill | | 60,000 |
| **Total** | | **6,70,000** |

**Illustration 4.**

Model: Capital reserve

From the following balance sheets of H Ltd. and its subsidiary S Ltd. as on 31st December 2017, prepare a consolidated balance sheet.

| **Liabilities** | **H Ltd. Rs.** | **S Ltd. Rs.** |
|---|---|---|
| Share Capital: | | |
| (Shares of Rs.100 each) | 6,00,000 | 4,00,000 |
| Creditors | 2,00,000 | 50,000 |
| Reserve | 40,000 | 20,000 |
| Profit & Loss A/c | 70,000 | 15,000 |
| **Total** | **9,10,000** | **4,85,000** |

| | | |
|---|---|---|
| Sundry Assets | 5,00,000 | 4,85,000 |
| Investment in 4,000 Shares of S. Ltd. (on 31st December 2010) | 4,10,000 | |
| **Total** | **9,10,000** | **4,85,000** |

Computation of Capital Reserve:

| | | | **Rs.** |
|---|---|---|---|
| Step 1: | Cost price of shares (on 31.12.17) | : | 4,10,000 |
| Step 2: | Less: Paid – up value of shares (face value) | : | 4,00,000 |
| | Difference | : | 10,000 |
| Step 3: | Less: (Proportionate) Shares in Reserve 100% | : | (20,000) |
| | | : | (10,000) |
| Step 4: | Less: 100% share in profit (P&L A/c) | | (15,000) |
| Step 5: | Capital Reserve | | (25,000) |

**Consolidated Balance Sheet of**
**H Ltd. and Its Subsidiary S Ltd.**
**As on 31.12.2017**

| **I. EQUITIES AND LIABILITIES** | | **Amount (Rs.)** |
|---|---|---|
| 1. Shareholders' funds | | |
| (a) Share Capital of H Ltd. | | 6,00,000 |
| (b) Reserve & surplus | | |
| Capital Reserve | | 25,000 |
| General Reserve | | 40,000 |
| P & L A/c | | 70,000 |
| 2. Other Liabilities | | |
| H Ltd. | 2,00,000 | |
| S Ltd. | 50,000 | 2,50,000 |
| **Total** | | **9,85,000** |
| **II. ASSETS** | | |
| 1. Sundry Assets | | |
| H Ltd. | 5,00,000 | |
| S Ltd. | 4,85,000 | 9,85,000 |
| **Total** | | **9,85,000** |

## Pre-acquisition and post-acquisition Profits/Reserves

For this purpose, the following terms should be clearly understood:

| Terms | Meaning |
|---|---|
| (i) Date of acquisition | Date of acquisition refers to the ***date on which the relationship*** of holding company/ parent** and subsidiary company comes into existence. |
| (ii) Pre-acquisition period | Pre-acquisition period refers to the period beginning with the ***date of beginning of the current accounting period*** and ***ending with the date immediately preceding*** the date of acquisition of majority *equity shares** by the holding company/parent**. |
| (iii) Post-acquisition period | Post-acquisition period refers to the period beginning with the ***date of acquisition of majority equity shares**** by the holding company/parent** and ending with the date on which the current accounting period ends. |

Pre-acquisition profits*** and reserves refer to the ***undistributed portion of profits and reserves*** earned and created up to the date immediately preceding the date of acquisition of majority equity shares* by the holding company/parent**.

Post-acquisition profits*** and reserves refer to the undistributed portion of profits and reserves ***earned*** and ***created*** on or after the date of acquisition of majority equity shares* by the holding company/parent**.

The share of holding company and minority interest is calculated as under:

Share of holding company/parent = (No. of equity shares held by the holding company/Total number of equity shares* in subsidiary company) x 100

Minority/Non-controlling interest = (No. of equity shares* held by minority/Total number of equity shares* in subsidiary company) x 100

*'Equity shares' may alternatively be termed as 'Equity interests' or 'Ordinary shares' also as per Indian Accounting Standards (Ind ASs)/International Financial Reporting Standards (IFRSs).

**The term 'Holding company' is used by the Companies Act, 2013 and the term 'Parent' is used by the AS 21/ Ind AS 110/IFRS 10. However, both the terms mean the same thing.

*** In the absence of any information to the contrary, the profits of a year are treated as accruing form day to day on a uniform basis.

**Summary of Treatment of pre-acquisition profits (or losses) and reserves and post-acquisition profits (or losses) and reserves in a summarized form**: After computation of these figures by means of analysis of profits of the subsidiary as above, treat the same as under:

| Item | Holding company's share | Minority |
|---|---|---|
| Pre-acquisition profits (or losses) and Reserves (capital profits) | Holding company's share will be added to (or in the case of losses deducted from) the paid-up value of shares presently held by the holding company in the subsidiary company so as to calculate the holding company's share in the net assets of the subsidiary company. | The Share of minority will be added to (or in the cases of losses deducted from) the paid-up value of shares presently held by the minority in the subsidiary company so as to calculate the Minority Interest. |
| Post-acquisition profits (or losses) and reserves (Revenue profits) | Holding company's share in the profit of the subsidiary will be added to (or in the case of losses deducted from) the profit and Loss A/c of the holding company. Holding company's share in the reserves shall be added to the reserves of the holding company. | The Minority share in the post-acquisition profits and reserves shall be added to (or in the case of losses deducted from) the paid-up value of shares held by the minority in the subsidiary company so as to calculate the Minority Interest. |

**Note**: It may be observed that whether the profit and surpluses and losses of subsidiary are pre-acquisition or post-acquisition matters only in the case of holding company because the treatment for holding company diff depending on whether these pre-or post. However, it does not make any difference for the minority interest at all because all the profit and reserves whether pre-or post are included in the minority interest.

**Illustration 5.**

Model: Pre-acquisition profit/reserves

From the following information, prepare a consolidated balance sheet

**Balance sheets**

**As on 31 December 2017**

| **Particulars** | **H Ltd. (Rs.)** | **S Ltd. (Rs.)** |
|---|---|---|
| I. Equities & Liabilities | | |
| Share Capital | 2,00,000 | 1,00,000 |
| Shares of Rs.10 each Reserves | 50,000 | 20,000 |
| Profit & Loss A/c | 20,000 | 10,000 |
| Creditors | 30,000 | 20,000 |
| **Total** | **3,00,000** | **1,50,000** |
| **II. Assets** | | |
| Sundry Assets | 220000 | 1,50,000 |
| Investments | 80000 | |
| 6,000 Shares of S Ltd | | |
| **Total** | **3,00,000** | **1,50,000** |

H Ld. Acquired its shares in S Ltd. on 1 January 2017 when reserves of S Ltd. stood at Rs.4,000 and its profit and loss account (Cr.) was Rs.5,000

**Solution**

Basic Calculations:

1. Calculation of H Ltd.'s share in capital profit and reserve:

Step 1: Ratio of Equity Acquired and Held by Minority Interests:

Total number of shares = Rs. $\frac{1,00,000}{10}$ = 10,000 Shares

Number of shares acquired by H Ltd. = 6,000 Shares

Number of shares held by minority interest by H Ltd. = 4,000 Shares

∴ Ratio of Shares Acquired and Held by Minority Interest

6,000: 4,000

or 6: 4 or 3: 2

| | **Rs.** |
|---|---|
| Step 2: Shares in Pre-acquisition profit: 3/5 x Rs. 5,000 = | 3,000 |
| Share in Pre-acquisition reserves: 3/5 x Rs. 4,000 = | 2,400 |
| Step 3: Total amount to be transferred to capital reserve or to be adjusted against goodwill | 5,400 |

2. Calculation of Goodwill

| | | Rs. |
|---|---|---|
| Step 1: | Investment in shares of S Ltd. | 80,000 |
| Step 2: | Less: Face Value of Shares Held (6,000 x Rs.10) | (60,000) |
| | | 20,000 |
| Step 3: | Less: Company's share of Pre-acquisition profit & reserve | (5,400) |
| | (Ref: Basic calculation 1 step 3) i.e. capital reserve: | 14,600 |

3. Calculation of H Ltd.'s Share in Revenue Profit & Reserves:

| | | |
|---|---|---|
| (i) | Balance in Reserve Account (Given): | 20,000 |
| | Less: Pre-acquisition Reserve (Given): | 4,000 |
| | ∴ Post-acquisition Reserve: | 16,000 |
| | of this, H Ltd.'s Share = $\frac{3}{5}$ x Rs.16,000 = | 9,600 |
| (ii) | Balance in P&L A/c (Given): | 10,000 |
| | Less: pre-acquisition profit (Given): | (5,000) |
| | ∴ Post-acquisition profit: | 5,000 |
| | Of this, H Ltd.'s share = $\frac{3}{5}$ x Rs.5,000 = | 3,000 |

4. Computation of Minority Interest:

| | | |
|---|---|---|
| (i) | Nominal value of equity shares held: | |
| | 4,000 shares (10,000 – H Ltd.'s acquisition 6,000) x Rs.10 | 40,000 |
| (ii) | Share: $\frac{2}{5}$ i.e. minority shareholder's share | |
| | Their share in reserve: $\frac{2}{5}$ x Rs.20,000 = | 8,000 |
| | Share in profit = $\frac{2}{5}$ x 10,000 = | 4,000 |
| | | 52,000 |

**Consolidated Balance Sheet of**
**H Ltd. and Its Subsidiary S Ltd.**
**As on 31 December 2017**

| **I.** | **EQUITIES AND LIABILITIES** | | **Amount (Rs.)** |
|---|---|---|---|
| 1. | Shareholders' funds | | |
| | (a) Share Capital: 20000 shares of Rs. 10 each | | 2,00,000 |
| | (b) Reserve & surplus | | |
| | General Reserve H Ltd. | 50,000 | |
| | Shares in S Ltd. | 9,600 | 59,600 |
| | P & L A/c of H Ltd. | 20,000 | 23000 |
| | Share in S Ltd. | 3,000 | 52,000 |
| 1. | Minority Interest | | |
| 2. | Other Liabilities | | |
| | H Ltd. | 30,000 | |
| | S Ltd. | 20,000 | 50,000 |
| **Total** | | | **3,84,600** |

| | | | |
|---|---|---|---|
| II. | **ASSETS** | | |
| | 1. Sundry Assets | | |
| | H Ltd. | 2,20,000 | |
| | S Ltd. | 1,50,000 | 3,70,000 |
| | Goodwill | | 14,600 |
| **Total** | | | **3,84,600** |

## Elimination of inter-company balances and amounts

These rules may be explained as under:

**(i) Elimination of the cost to the parent of its investment in subsidiary and the parent's portion of equity in subsidiary**: The terms 'Parent' and 'Holding company' are same and the terms 'Subsidiary' and 'Subsidiary company' are also same. The investment of holding company in subsidiary is presented under the sub-head 'Non-current investments' under the main head 'Non-current assets' on the Assets side of the holding company's Balance Sheet. The parent' portion of equity in subsidiary is shown under 'Share Capital' of the subsidiary's Balance sheet. Both are eliminated i.e. cancelled for preparing Consolidated Balance Sheet otherwise it will mean that the same company can make investment in the share capital of its own company which is completely illogical. Similarly, if the subsidiary company has investment in the holding company's equity (which is possible only before it became a subsidiary), the represented portion of the equity of holding company and the corresponding investment of the subsidiary company should also be eliminated.

**(ii) Elimination of unrealized profit on assets transferred between the holding company and subsidiary company**: If any current or non-current asset is sold by one company to another company within the group i.e. the current or non-current asset is sold by the holding company to the subsidiary company or by the subsidiary company to the holding company at a profit, there may be two situations as under:

*(a)* *The buying company has sold the whole of such asset bought at a profit from the selling company till the end of the accounting year*: In such a case, the question of elimination of the unrealized profit from the asset does not arise because there is no unsold asset as such with the buying company.

*(b)* *The buying company has not sold the entire asset bought at a profit from the selling company till the end of the accounting year*: In such a case, the unrealized profit on such unsold asset must be eliminated. The elimination should be done ***by debiting the Profit and Loss Account of the holding company and crediting the concerned asset by the amount of unrealized profit***.

*It must be noted that if the asset under consideration is the depreciable fixed asset (i.e. the item of property, plant and equipment), the amount of unrealized profit should be computed only after providing for depreciation.*

**Note**: It does not make any difference which company in the group is the buyer and which company in the group is the seller. Calculation of 'Minority interest' and 'Goodwill/Capital Reserve on consolidation' are not in any way affected by the elimination of unrealized profit.

**(iii) Elimination of unrealized loss on assets transferred between the holding company and subsidiary company:**

If the asset sold by one entity to another entity within the group at a loss is sold by the buying entity fully, there is no question of elimination of unrealized loss on the unsold asset. However, when such asset bought remains with the buyer entity within the group either wholly or partly, then the unrealized loss on such unsold asset may or may not be eliminated as per the situation discussed as under:

Unrealized losses resulting from intra group transactions should be eliminated only if cost can be recovered. It means that if the cost cannot be recovered by selling the asset, the unrealized loss should not be eliminated.

If the unrealized loss is to be eliminated, the same is eliminated by **debiting the concerned Asset A/c and crediting the Profit and Loss A/c of the holding company**.

**Note**: It does not make any difference which company in the group is the buyer and which company in the group is the seller. Calculation of 'Minority interest' and 'Goodwill/Capital Reserve on consolidation' are not in any way affected by the elimination of unrealized loss.

**(iv) Elimination of intra-group balances**: Intra group balances should also be eliminated. The following may be the examples of intra group balances:

(a) Loan advanced by one company ang taken by another company within the group;

(b) Debtors and creditors within the group;

(c) Bills receivable and bills payable within the group;

(c) Debentures shown on the Equity and Liabilities side of one company and investment in those debentures shown on the assets side of another company within the group;

(e) Prepaid expenses of one company and Income Received in Advance of another company within the group;

(f) Outstanding Expenses of one company and Accrued Income of another company within the group.

**(v) Adjustment of remittance-in-transit**: The holding company may be the debtor of the subsidiary company or the subsidiary company may be the debtor of the holding company within the group. The debtor company may send cash to the creditor company but the same may not be received by the creditor company by the end of the accounting year. In such a case, the debtor company must have debited the 'Creditors A/c' in its books at the time of sending cash. However, the creditor company did not credit the 'Debtors A/c' and did not debit its 'Cash/Bank A/c' because it did not receive the said cash by the end of the accounting year. Hence, in the CBS, the 'Debtors A/c' of the recipient company should be reduced and 'Cash/Bank A/c' should be increased by the amount of remittance-in-transit. What applies to debtors and creditors may apply to any other inter-company balances also.

**(vi) Treatment of debentures of Subsidiary Company held by holding company**: The debentures of subsidiary company will be added with the debentures of holding company. However, if some debentures of subsidiary company are held by the holding company, then the paid-up value of such debentures held will be eliminated from the aggregate of debentures of both the companies to be shown on the 'Equity and Liabilities" side of the consolidated balance sheet. Further, the cost of investment of holding company in such debentures will be eliminated from the aggregate of investment to be shown on the assets side of the consolidated balance sheet. The difference between the cost of investment of the holding company in such debentures and the paid-up value of such debentures of subsidiary company will be either profit or loss on debentures held which will be added to or deducted from the balance of profit and Loss Account of the holding company to find out the closing balance of consolidated profit and Loss account of the holding company to be taken to consolidated balance sheet. For this purpose, if the cost of investment in debentures is more than the paid-up value of debentures, the difference between the two is loss and in the reverse case, the difference between the two is profit.

**(vii) Treatment of debentures of holding company held by subsidiary company:** The paid-up value of debentures and cost of investment will be eliminated as above. The difference between the paid-up value of debentures and the cost of investment of subsidiary will be taken in the analysis of profits of subsidiary.

**Note**: The aforesaid intra group amounts are eliminated by deducting the intra group items from the aggregate amounts of the respective items on both the sides of the balance sheet.

**(viii) Elimination of mutual contingent liabilities**: Contingent liability in respect of bills drawn by holding company/subsidiary company upon subsidiary company/holding company and discounted is eliminated. For example. Suppose H Ltd. is the holding company and S Ltd. is the subsidiary company. H Ltd. may draw a bill on S Ltd and hence the bill is 'Bills receivable' for H Ltd. and is the Bills Payable for S Ltd. In such a case, if H Ltd. discounts the bills receivable with the third party, say, Bank, the contingent liability of H Ltd. and S Ltd. in respect of bills discounted should be added and from the total, the bills accepted by S Ltd. which have been discounted by H Ltd. should be deducted as a mutual contingent liability. The same process will be adopted if S Ltd. has drawn a bill upon H Ltd. and the said bills have been discounted by S Ltd. with the third party. Thus, for Notes to Accounts to the CBS,

**Contingent liabilities for CBS**=Total contingent liabilities-internal contingent liabilities (i.e. the contingent liabilities which exist only between the holding company and subsidiary company).

Thus, the formula for contingent liabilities for bills receivable may be written as under:

**Contingent liabilities for Bills receivable (for Notes to Account to CBS)** =Bills receivable drawn and discounted by holding company+ Bills receivable drawn and discounted by subsidiary company-Bills receivable drawn by holding company upon subsidiary company and discounted-Bills receivable drawn by subsidiary company upon holding company and discounted.

**Presentation of items in the CBS based on the elimination of inter-company amounts and balances**: In the CBS, some items appear on the ***aggregate basis (with or without elimination of the intra group amount)*** and some items appear on ***individual basis belonging to Holding Company only***.

The list of items appearing on aggregate basis and those appearing on individual basis may be given as under:

| **Items which appear on aggregate basis subject to elimination of intra group amount and unrealized profit** | **Items which appear on individual basis i.e. the items which belong to holding company only** |
|---|---|
| (i) Current liabilities | (i) Share Capital |
| (ii) Non-current liabilities | (ii) Reserves and surplus |
| (iii) Current assets | (iii) Dividend payable |
| (iv) Non-current assets: e.g. Tangible fixed assets, intangible fixed assets, capital work-in-progress, intangible assets under development, non-current investments, long term loans and advances | (i) Other non-current assets (like discount on Issue of shares, underwriting commission, unamortized borrowing costs etc.) |
| (v) *Contingent liabilities and commitments (shown in the form of a note outside the consolidated balance sheet) i.e. total contingent liabilities-internal contingent liabilities | |
| (vi) Proposed Dividend and Dividend Distribution tax thereon | |

**Revaluation of fixed assets of subsidiary and treatment thereof**: This point may be discussed as under:

| | |
|---|---|
| **(i) Computation of Profit or loss on revaluation and treatment thereof** | **Part I: Computation**: The computation of profit or loss on revaluation of fixed assets is done as under:<br><br>Revalued figure is compared with the carrying amount (i.e. the book value) as on the date of revaluation and the difference between the two figures is either profit or loss on revaluation of fixed assets which is as under:<br><br>(a) If the revalued figure as on the date of revaluation is more than the carrying amount on the date of revaluation, there is a profit on revaluation i.e. Profit on revaluation=Revalued figure on the date of revaluation-carrying amount on the date of revaluation<br><br>(b) If the revalued figure as on the date of Revaluation is less than the carrying amount as on the date of revaluation, there is a loss on revaluation i.e. Loss on revaluation=Carrying amount on the date of Revaluation-Revalued figure as on the date of revaluation.<br><br>**Part II: Treatment**: The treatment of profit or loss on revaluation of fixed assets may be explained as under: |

| | |
|---|---|
| | **(a)** **Pre-acquisition profit**: Profit on revaluation of fixed asset related to the period before the date of acquisition is pre-acquisition profit. This is treated as capital profit in the analysis of profits of subsidiary.<br>**(b)** **Post-acquisition profit**: Profit on revaluation of fixed assets related to the period after the date of acquisition is post-acquisition profit. However, ***it is capital profit and not revenue profit. Holding company's share in post-acquisition profit on revaluation of fixed asset should be shown separately in the CBS***. Minority's share therein will be added to the Minority interest.<br>**(c)** **Pre-acquisition loss**: Loss on revaluation of fixed assets related to the period before the date of acquisition is pre-acquisition loss. Such loss should be deducted from the capital profit in the analysis of profits of subsidiary.<br>**(d)** **Post-acquisition loss**: Loss on revaluation of fixed asset related to the period after the date of acquisition is post-acquisition loss and will be ***treated like revenue losses***. Holding company's share therein will be deducted from the balance of P&L A/c of Holding company in the computation of consolidated P&L A/c balance. Minority's share therein will be deducted from minority's interest. |
| **(ii) Computation of Depreciation in case of revaluation of items of PPE and treatment thereof** | **Part I: Computation**: The first point is whether we should consider the depreciation in case of revaluation i.e. shortage/deficiency of depreciation on increase in the value of fixed assets or excess/surplus of depreciation on decrease in the value of fixed assets. Normally, if the subsidiary company has revalued the assets in its books, it would have provided depreciation also on the revalued figure. Hence, no readjustment is required.<br>However, when the subsidiary company's balance sheet shows the asset at its original figure, then we will have to account for the shortage/deficiency of depreciation or excess/surplus depreciation for the period from the date of revaluation till the end of the accounting year. The computation of short or excess depreciation is done as under:<br>**(a)** **Shortage/deficiency of depreciation on increase in the value of fixed assets=** (Increase in the value of fixed assets*rate of depreciation*Period from date of revaluation till the end of accounting year)/12<br>**(b)** **Excess/surplus depreciation on decrease in revaluation of fixed asset=** (Decrease in the value of fixed asset*Rate of depreciation*Period from the date of revaluation of fixed asset till the end of the accounting year)/12<br>**Part II: Treatment**: The treatment of short or excess depreciation on revaluation of fixed asset may be explained as under:<br>**(a)** **Shortage/Deficiency of depreciation**: The portion of shortage/deficiency of depreciation which is attributable to the post-acquisition period is treated like any other revenue expense and hence is deducted from the post-acquisition profit i.e. it is shown as a negative figure in the column of revenue profit in the analysis of profits of subsidiary.<br>**(b)** **Excess/surplus depreciation**: The portion of excess/surplus depreciation which is attributable to the post-acquisition period is treated like any other revenue profit and hence is added to the post-acquisition profit i.e. it is shown as a positive figure in the analysis of profits of subsidiary.<br>**Note**: It must be very clear that either shortage/deficiency of depreciation or excess/surplus of depreciation, as the case may be, belongs to the post- acquisition period ***only if the date of revaluation is the date of acquisition***. Normally, the revaluation of fixed assets takes place on the date of acquisition. However, if the date of revaluation is before the date of acquisition then either shortage/deficiency of depreciation or excess/surplus of depreciation, as the case may be, belongs to both the pre-acquisition period and the post-acquisition period and should accordingly be included in the computation of pre-acquisition and post-acquisition profit. |

| | | |
|---|---|---|
| **(iii) Presentation of items of property, plant and equipment in the CBS** | In the consolidated balance sheet, the presentation will be as under: | |
| | In case of increase in the value of fixed asset | |
| | **Particulars** | **(Rs.)** |
| | Concerned fixed asset (at figure prior to revaluation) | ***** |
| | Add: increase in the value of fixed asset | ***** |
| | Less: shortage/deficiency of depreciation | (*****) |
| | Final figure in the CBS | ***** |
| | **In case of decrease in the value of fixed asset** | |
| | **Particulars** | **(Rs.)** |
| | Concerned fixed asset (at figure prior to revaluation) | **** |
| | Less: decrease in the value of fixed asset | (*****) |
| | Add: Excess/surplus depreciation | **** |
| | Final figure in the CBS | ***** |

**Illustration 6.**

Model: Revaluation of assets-profit

The following are the balance sheet of P Ltd., and its subsidiary Q Ltd., as at 31 March 2017:

| **I. Equity and Liabilities** | **P Ltd. Rs.** | **Q Ltd. Rs.** |
|---|---|---|
| Equity shares of Rs.100 Each | 16,00,000 | 4,00,000 |
| Profit & Loss A/c | 2,00,000 | 80,000 |
| External Liabilities | 30,00,000 | 19,20,000 |
| **Total** | 48,00,000 | 24,00,000 |

| **II. Assets** | **P Ltd. Rs.** | **Q Ltd. Rs.** |
|---|---|---|
| Equipment | 10,00,000 | 3,80,000 |
| Investment: | | |
| 3,600 equity shares in Q Ltd. on 1 April 2010 | 5,60,000 | --- |
| Other Assets | 32,40,000 | 20,20,000 |
| **Total** | **48,00,000** | **24,00,000** |

On 1 April 2017 P&L A/c Q of Ltd. showed a credit balance of Rs.32,000 and equipment of Q Ltd., was revalued by P Ltd., 20% above its book value of Rs.4,00,000 (but no such adjustment effected in the books of Q Ltd.) prepare the consolidated balance sheet as at 31 March 2017.

**Solution**

**Calculations:**

| | | |
|---|---|---|
| I: | Calculation of Pre-acquisition profits: | Rs. |
| | (i) Balance on 1 April 2017 | 32,000 |
| | (ii) Share of P Ltd i.e. 90% x Rs.32,000 | 28,800 |
| | (iii) Minority Interest [(i) – (ii)] | 3,200 |

| | | |
|---|---|---|
| II: | Revaluation of Equipment: | |
| | (i) Profit on revaluation (20% x Rs. 4,00,000) | 80,000 |
| | (ii) Share of P Ltd (i.e. 90/100 x 80,000) | 72,000 |
| | (iii) Minority share [(i) – (ii)] | 8,000 |
| III: | Calculation of Additional Depreciation: | |
| | (i) Book value on 1 April 2017 | 4,00,000 |
| | (ii) Less: Book value on 31 March 2018 | (3,80,000) |
| | (iii) Depreciation [(i) – (ii)] | 20,000 |
| | (iv) Rate of Depreciation = $\frac{20,000}{4,00,000}$ x 100 = 5% | |
| | (v) ∴ Additional Depreciation on Rs.80,000 | |
| | 5% = $\frac{5}{100}$ x Rs.80,000 | 4,000 |
| IV: | Calculation of Post-acquisition of profit: | |
| | (i) Balance on 31 March 2018 | 80,000 |
| | (ii) Less: Balance on 31 March 2017 | (32,000) |
| | | 48,000 |
| | (iii) Less: Additional Deprion (Ref: III) | (4,000) |
| | (iv) Less: Share of P. Ltd. x 44,000 | (39,600) |
| | (v) Minority Interest [(iii) – (iv)] | 4,400 |
| V: | Calculation of Cost of Control: | |
| | (i) Cost of Investment in share of Q Ltd. | 5,60,000 |
| | (ii) Less: Paid-up Capital Held | (3,60,000) |
| | | 2,00,000 |
| | (iii) Less: Capital Profit-Pre-acquisition | (28,800) |
| | | 1,71,200 |
| | (iv) Less: Revaluation of Equipment (Capital Profit) | (72,000) |
| | | 99,200 |
| VI: | Computation of Minority Interest: | |
| | (i) Paid-up value of shares held | 40,000 |
| | (ii) Add: Share of Pre-acquisition profit: | 3,200 |
| | [Ref: I (iii) i.e. $\frac{1}{10}$ x 32,000] | 43,200 |
| | (iii) Add: Share of Profit on Revaluation | 8,000 |
| | [Ref: II (iii) i.e., $\frac{1}{10}$ x Rs.80,000] | 51,200 |

| | | |
|---|---|---|
| (iii) | Add: Share of Post-acquisition profit | 4,400 |
| | [Ref: IV (v) i.e., $\frac{1}{10}$ x Rs.44,000] | 55,600 |

**Consolidated Balance Sheet of**
**P Ltd. and its Subsidiary Q Ltd.**
**as on 31 March 2017**

| | | | |
|---|---|---|---|
| **I.** | **EQUITIES AND LIABILITIES** | | **Amount (Rs.)** |
| 1. | Shareholders' funds | | |
| a. | Share Capital: | | |
| | 16000 shares of Rs. 100 each | | 16,00,000 |
| b. | Reserve & surplus | | |
| | General Reserve P Ltd. | 2,00,00 | |
| | P & L A/c | | |
| | Share in Q Ltd. | 39,600 | 2,39,600 |
| 2. | Minority Interest | | 59,600 |
| 3. | Other Liabilities | | |
| | P Ltd. | 30,00,000 | |
| | Q Ltd. | 19,20,000 | 49,20,000 |
| **Total** | | | **68,15,200** |
| II. | ASSETS | | |
| 1. | Fixed Assets | | |
| | P Ltd. | 10,00,000 | |
| | Q Ltd. | 4,80,000 | |
| | Depreciation 5% on 4,80,000 | 14,80,000 | |
| | Goodwill | 24,000 | 14,56,000 |
| 2. | other Assets | | 99,200 |
| | P Ltd. | 32,40,000 | |
| | Q Ltd. | 20,20,000 | 52,60,000 |
| **Total** | | | **68,15,200** |

## Bonus Shares Issued by Subsidiary Company

The issue of bonus shares by the subsidiary company may be discussed as under:

| Situation | Treatment |
|---|---|
| **(i) Accounting effect of bonus issue already given in the books of subsidiary** | If Accounting effect has already been given by subsidiary in its books, nothing will be done further. If the problem on hand only states that during the year, bonus shares have been issued and does not state anything as to whether the accounting entry for the said bonus issue has been passed or not, it is presumed that the accounting entry for the said bonus issue has been passed in the books. |

| | |
|---|---|
| **(ii) Accounting effect of bonus issue not given in the books of subsidiary** | In such a case, the following pieces of work will be done:<br>(a) The balance of profits and reserves out of which bonus shares have been issued should be reduced by passing the following entry:<br>General Reserve A/c/ P&L A/c Dr.<br>To Equity Share Capital A/c<br>**Note**: Normally, if nothing is mentioned in the problem as to whether general reserve has been used or P&L A/c has been used for issue of bonus shares, the first preference should go in favour of the use of general reserve and the second one in favour of the use P&L A/c.<br>(b) The paid-up value of bonus shares allotted to the minority after the date of acquisition should be added to the paid-up value of equity shares held by the minority.<br>The paid-up value of bonus shares allotted to the holding company after the date of acquisition must be added to the paid-up value of equity shares held by the holding company.<br>**Note**: As usual, no entry is passed in the books of the holding company (or for that in the books of any recipient company) for the receipt of bonus shares. |

**Illustration 7.**

Model: Bonus shares issued out of revenue profits

The summarized balance sheet of H Ltd. and S Ltd. as on 31 December 2017 are as follows:

| **Equity and Liabilities** | **H Ltd. Rs.** | **S Ltd. Rs.** |
|---|---|---|
| Share capital: | | |
| Share of Rs.10 each Reserves | 15,00,000 | 3,00,000 |
| Profit & Loss A/c | 2,40,000 | 90,000 |
| | 1,80,000 | 1,20,000 |
| **Total** | **19,20,000** | **5,10,000** |
| Assets | | |
| Sundry Assets | 15,00,000 | 5,10,000 |
| 24,000 shares in S Ltd. | 4,20,000 | |
| **Total** | **19,20,000** | **5,10,000** |

S Ltd. had reserves of Rs.90,000 when H Ltd. acquired the shares in S Ltd. but the P&L A/c balance of S Ltd. was fully earned after the purchase of shares.

S Ltd. decided to issue bonus shares out of the post-acquisition profit in the ratio of 2 shares for every S shares held.

Calculate the cost of control before the issue of bonus shares and after the issue of bonus shares.

**Solution**

| **I: Calculation of Cost of Control before the issue of Bonus Shares:** | | **Rs.** |
|---|---|---|
| **Step 1:** | Amount paid by H Ltd. in purchase of shares in S Ltd | 4,20,000 |
| **Step 2:** | Less: Face value of shares acquired 24,000 x Rs.10 | 2,40,000 |
| | | 1,80,000 |
| **Step 3:** | Less: H Ltd's share of capital profits 90,000 x $\frac{8}{10}$ $\left(or\ \frac{4}{5}\right)$ | 72,000 |
| **Step 4:** | Cost of Control/Goodwill | 1,08,000 |

| **II: Calculation of Cost of Control After the issue of Bonus Shares:** | | **Rs.** |
|---|---|---|
| **Step 1:** | Amount paid by H Ltd. for purchase of shares in S Ltd. | 4,20,000 |
| **Step 2:** | Less: Face value of shares required (24,000 x Rs.10) | 2,40,000 |
| | | 1,80,000 |
| **Step 3:** | Less: H Ltd's share of capital profits 90,000 x8/10 | 72,000 |
| | | **1,08,000** |
| **Step 4:** | Less: H Ltd's Share of Bonus $\left(3,00,000 \times \frac{8}{10} \times \frac{2}{5}\right)$ | 96,000 |
| **Step 5:** | Cost of control/goodwill | 12,000 |

## Dividend

**(i) Treatment of dividend received:** Such dividend received may be either final dividend for the previous year paid by subsidiary during the current year or interim dividend paid by subsidiary for the current year during the current year. This point may be explained as under:

| | |
|---|---|
| **(i) Nature of dividend received** | The dividend received from the subsidiary company will be either capital dividend or revenue dividend. |
| **(ii) Meaning of capital dividend and revenue dividend** | Capital dividend means the dividend which is received out of the pre-acquisition profits of the subsidiary. Revenue dividend means the dividend received out of post-acquisition profits of the subsidiary.<br>When information is given in the problem as to out of which profits dividend has been paid by subsidiary, the amount of capital dividend and revenue dividend may be easily determined. But, the problem may arise when such information is not given in the question. |
| **(iii)What to do if information as to out of which profits**<br>**dividend is paid is not given in the problem?** | In such a case, either of the following two assumptions may be made:<br>Assumption No. (i): Dividend has been paid out of current year's profit: If it is assumed that dividend has been paid out of current year's profits and the dividend paid by subsidiary is more than current year's profits, then the excess of dividend paid over current year's profits should be assumed to be paid out of earlier year's profits. Accordingly, depending on the date of acquisition, the dividend shall be assumed to be paid out of pre-acquisition profits and post-acquisition profits.<br>Assumption No. (ii): Dividend has been paid out of earlier year's profits: If dividend is assumed to be paid out of earlier year's profits and the date of acquisition is in the |

| | |
|---|---|
| | current year, then the entire dividend will be treated as first paid out of earlier year's profits and the balance amount of dividend, if any, which is in excess of earlier year's profit shall be assumed to be paid out of current year's profits. Accordingly, depending on the date of acquisition, the dividend shall be assumed to be paid out of pre-acquisition profits and post-acquisition profits. |
| **(iv) Treatment of capital dividend** | Capital dividend received by the holding company is deducted from its cost of investments in the equity shares of subsidiary company while computing goodwill/ capital reserve.<br>However, if capital dividend received by the holding company is already credited to its P&L A/c, the same will be rectified by the holding company by debiting its P&L A/c and crediting its 'Investments in equity shares in Subsidiary Company A/c'. Para 12 of AS 13 "Accounting for Investments" also requires, inter alia, that dividend on equity shares declared out of pre-acquisition profits is deducted from cost of investments.<br>**Note:** Capital dividend received by the minority requires no treatment. |
| **(v) Treatment of revenue dividend** | Revenue dividend received by the holding company is credited to its P&L A/c. Note: Revenue dividend received by the minority requires no treatment. |

**(ii) Treatment of dividend on preference shares**: This point may be dealt with under two situations as under:

| Situation | Treatment |
|---|---|
| **(a) Preference dividend on non-cumulative pref. shares proposed by subsidiary during the current year** | This will be totally ignored for the consolidation for the year of proposal of dividend and hence will not be deducted from the profit for the analysis of profits of subsidiary. Subsidiary company will show the same by way of the notes to accounts to the CBS titled 'Proposed dividends and Corporate Dividend tax thereon' view of paragraph 14 of revised AS 4 as under:<br>'Dividend proposed to be distributed to preference shareholders for the year…. Rs. …(Rs. ... per share)' Corporate dividend tax Rs……. |
| **(b) Pref. dividend on non-cumulative pref. shares declared by subsidiary during the current year** | This will be deducted from the profit of subsidiary in the year of declaration. Such dividend will be divided between the holding company and minority for the purpose of consolidation for the year of declaration. Holding company's share shall be divided between pre-acquisition and post-acquisition dividend and shall be dealt with by it accordingly. Minority share shall be added to the minority interest. |
| **(c)Preference dividend on cumulative pref. shares proposed by subsidiary during the current year** | **Case 1:** When some portion of cumulative preference shares is held by the minority: In such a case, para 27 of AS 21 will apply. Hence, the preference dividend will be deducted from the profit of subsidiary. The pref. dividend so deducted shall be divided between holding and minority. Holding company's share of such dividend will be divided between pre-and post- portion and will be dealt with accordingly. Minority's share of such dividend shall be added to the minority interest. The remaining balance of P&LA/c of the subsidiary shall be divided between the holding company and the minority. It may be carefully noted that the adjustment for the dividend on cumulative preference shares for the current year shall be made even if the subsidiary has a debit balance of P&L A/c in which case, the debit balance of P&L A/c in the books of subsidiary before such adjustment shall increase by the adjustment of such preference dividend and hence, the increased debit balance of P&L A/c of subsidiary shall be shared by both the holding company and minority.<br>In the year of declaration of such proposed dividend, such preference dividend is not again deducted from profit of subsidiary for consolidation in the year of declaration because it has already been deducted from profit of subsidiary in the previous year. |

| | |
|---|---|
| | **Case 2:** When no portion of cumulative preference shares is held by the minority i.e. all preference shares of subsidiary are held by holding company: It will be simply ignored for consolidation purpose in the year of proposal. In the year of declaration by subsidiary, such preference dividend shall be deducted from profit of subsidiary. Further, the said declared dividend shall be treated by holding as pre-acquisition or post-acquisition dividend, as the case may be, and dealt with accordingly. |
| **(d)Preference dividend on cumulative preference shares not proposed by subsidiary during the current year** | **Case1:** When some portion of cumulative preference shares is held by the minority: In such a case, para 27 of AS 21 will apply. Hence, the preference dividend will be deducted from the profit of subsidiary. The pref. dividend so deducted shall be divided between holding and minority. Holding company's share of such dividend will be divided between pre-and post-portion and will be dealt with accordingly. Minority's share of such dividend shall be added to the minority interest. The remaining balance of P&L A/c of the subsidiary shall be divided between the holding company and the minority. It may be carefully noted that the adjustment for the dividend on cumulative preference shares for the current year shall be made even if the subsidiary has a debit balance of P&L A/c in which case, the debit balance of P&L A/c in the books of subsidiary before such adjustment shall increase by the adjustment of the arrears of preference dividend and hence, the increased debit balance of P&L A/c of subsidiary shall be shared by both the holding company and minority.<br><br>In the year of payment of such arrears of dividend by subsidiary, it will not be deducted again from profit of subsidiary for consolidation purpose because it has already been deducted from the profit of subsidiary in the concerned previous year. Rather, in the year of payment, the same will be divided between holding and minority. Holding company's share shall be treated as pre- or post-acquisition dividend and shall be dealt with accordingly in its books. Minority will also deal with the receipt of dividend as capital income or revenue income as the case may be.<br><br>**Case 2:** When no portion of cumulative preference shares is held by the minority i.e. all preference shares of subsidiary are held by holding company: It will be simply ignored and will not be deducted from the profit of the subsidiary for consolidation purpose. Further, arrears of fixed cumulative dividend shall be disclosed in the notes to accounts in the CBS. In the year of payment of such arrears of dividend by subsidiary, it will be deducted from profit of subsidiary for consolidation purpose. Rather, in the year of payment, the same will be treated as pre-or post-acquisition dividend, as the case may be. |

**(iii) Treatment of Equity dividend**: This point may be dealt with under two situations as under:

| Situation | Treatment |
|---|---|
| **(a) Equity dividend proposed by subsidiary during the current year** | This will be ignored for the purpose of consolidation because this will not be adjusted by the subsidiary in the books of account for the year of proposal in view of para 14 of revised AS 4. Such proposed dividend is simply shown in the notes to accounts to the Balance sheet related to the year of proposal. This is adjusted by the subsidiary in the books in the year of declaration in which case, this will be divided between holding company and minority for the purpose of consolidation for the year of declaration. Accordingly, holding company shall divide its share of declared dividend between pre-acquisition dividend and post-acquisition dividend and shall treat accordingly. Minority's share of such declared dividend shall be added to minority interest. |
| **(b) Equity dividend not proposed by subsidiary during the current year** | It will be simply ignored for the consolidation. It will not be mentioned even in the notes to accounts to the balance sheet of the subsidiary. |

| | |
|---|---|
| **(c)Equity dividend declared** | The entry will be passed if the same has not already been passed. If nothing is mentioned whether the entry for declaration of equity dividend has been passed or not, it will be presumed that the entry has been passed. |

## Goodwill (Goodwill Appearing in the Balance Sheet of Subsidiary Company)

If, the goodwill is shown in the balance sheet of the subsidiary company. That means goodwill already exists.

**Accounting Treatment:**

**Approach I: Add:** Goodwill already appearing in the balance sheet of subsidiary company to the goodwill and/or cost of control in the consolidated balance sheet.

**Approach II: Add:** Only holding company's share to the cost of control/goodwill, from the goodwill of the subsidiary company.

**Illustration 8.**

Model: Dividends paid out of pre-acquisition profits and goodwill of subsidiary company.

From the following Balance Sheets of a holding company and its subsidiary on 31 March 2018, prepare consolidated balance sheet.

| **Particulars** | **H Ltd. Rs.** | **S Ltd. Rs.** |
|---|---|---|
| **Equities & Liabilities** | | |
| Share capital | 15,00,000 | 6,00,000 |
| Shares of Rs. 10 each | | |
| General reserve | 2,40,000 | 1,80,000 |
| P&L Account | 2,70,000 | 2,10,000 |
| Sundry Creditors | 1,50,000 | 1,20,000 |
| Outstanding expenses | 60,000 | 30,000 |
| **Total** | **22,20,000** | **11,40,000** |
| **Assets:** | | |
| Goodwill | 90,000 | 30,000 |
| Machinery | 9,00,000 | 4,50,000 |
| Stock | 2,40,000 | 1,50,000 |
| Debtors | 3,60,000 | 4,80,000 |
| Cash and Bank | 60,000 | 30,000 |
| Investments: | | |
| 48,000 shares in S Ltd | 5,70,000 | |
| **Total** | **22,20,000** | **11,40,000** |

When control was acquired S Ltd. had Rs.1,20,000 in general reserve and Rs.90,000 in profit and loss account. Immediately on purchase of shares, H Ltd. received Rs.48,000 as dividend from S Ltd. which was credited to profit and loss account. Debtors of H Ltd, include Rs.60,000 due from S Ltd. whereas creditors of S Ltd. include Rs.45,000 due to H Ltd., the difference being accounted for by a cheque-in-transfer.

**Solution**

**Step 1:** Determination of Holding-Minority Ratio:

| | | |
|---|---|---|
| (i) | H Ltd's investment in S Ltd: | 48,000 Shares |
| (ii) | Minority state in S Ltd.: (60,000 shares – 48,000 shares) | 12,000 shares |
| (iii) | ∴ Holding – Minority Ratio = 48,000:12,000 = 4:1 (i.e. H Ltd $\frac{4}{5}$ and S Ltd. $\frac{1}{5}$) | |

**Step 2:** Determination of H Ltd's share in capital profits and reserves

| | | Rs. | Rs. |
|---|---|---|---|
| (i) | Balance in Reserve (pre-acquisition) (Given in Additional Information ) | | 1,20,000 |
| (ii) | Add: Balance in P&L A/c (Pre-acquisition) (Given in Additional information) | 90,000 | |
| (iii) | Less: Dividends Paid: | | |
| | Shares Dividend | | |
| | 48,000 48,000 | | |
| | 60,000 $x$ | | |
| | $x = \frac{48,000 \times 60,000}{48,000}$ = Rs.60,000 | (60,000) | 30,000 |
| (iv) | Total Capital Profit = | | 1,50,000 |
| (v) | H Ltd's share = $\left(\frac{4}{5} \times Rs.1,50,000\right)$ | | 1,20,000 |
| (vi) | S Ltd's share (Minority) $\frac{1}{5}$ x Rs.1,50,000 = | | 30,000 |

**Step 3:** Determination of Current Year's Profit:

| | | |
|---|---|---|
| (i) | Balance of Profits as on 31 March 2018 (Ref Balance Sheet) | 2,10,000 |
| (ii) | Less: Pre-acquisition profits after deducting dividends paid [Ref: Step 2 (iii)] (Rs.90,000 – Rs.60,000) | 30,000 |
| (iii) | Profits During the year | 1,80,000 |
| (iv) | H Ltd's share $\left(\frac{4}{5} \times Rs.1,80,000\right)$ | 1,44,000 |
| (v) | S Ltd.'s share | 36,000 |

**Step 4:** Determination of share in general reserve:

| | | |
|---|---|---|
| (i) | Balance of Profits as on 31 March 2018 (shown in balance sheet) | 1,80,000 |
| (ii) | Less: Pre-acquisition reserve (Given in Additional information) | 1,20,000 |
| (iii) | Transfer to reserve in the year | 60,000 |

| | | | |
|---|---|---|---|
| (iv) | Share of H Ltd's $\left(\frac{4}{5} \times Rs.60,000\right)$ | | 48,000 |
| (v) | Share of S Ltd.'s $\left(\frac{1}{5} \times Rs.60,000\right)$ | | 12,000 |

**Step 5:** Determination of Goodwill/Capital Reserve:

| | | | |
|---|---|---|---|
| (i) | Cost of investment in share of S Ltd. (Shown in Balance Sheet) | | 5,70,000 |
| (ii) | Less: Paid-up value of shares held (48,000 shares x Rs.10) | | 4,80,000 |
| | | | 90,000 |
| (iii) | Less: Dividends paid out from pre-acquisition profit (Given) | | 42,000 |
| (iv) | Add: Goodwill: | | |
| | H Ltd. | 90,000 | |
| | S Ltd. | 30,000 | 1,20,000 |
| | | | 1,62,000 |
| (v) | Less: Capital profits [Ref: Step 2 (v)] | | (1,20,000) |
| (vi) | Goodwill – To be shown in consolidated balance sheet | | 42,000 |

**Step 6:** Ascertainment of Minority Interest:

| | | |
|---|---|---|
| (i) | Face value of Minority Shares Held (12,000 shares x Rs.10) | 1,20,000 |
| (ii) | Add: Minority share of General Reserve $\left(\frac{1}{5} \times Rs.1,80,000\right)$ | 36,000 |
| | | 1,56,000 |
| (iii) | Add: Minority Share in P&L $\left(\frac{1}{5} \times Rs.2,10,000\right)$ | 42,000 |
| | | 1,98,000 |

**Step 7:** Construction of Consolidated Balance sheet:

**Consolidated Balance Sheet of**
**H Ltd. and its subsidiary S Ltd.**
**As on 31.03.18**

| **I.** | **EQUITIES AND LIABILITIES** | | **Amount (Rs.)** |
|---|---|---|---|
| 1. | Shareholders' funds | | |
| (a) | Share Capital: 150000 shares of Rs. 10 each | | 15,00,000 |
| (b) | Reserve & surplus | | |
| | General Reserve H Ltd.: | 2,40,000 | |
| | Share in S Ltd. | 48,000 | 2,88,000 |
| | P & L A/c | 2,70,000 | |
| | H Ltd. | 1,44,000 | |
| | Share in Q Ltd. | 4,14,000 | |
| | Less: Dividend | 48,000 | 3,66,000 |

| | | | |
|---|---|---|---|
| 2. | Minority Interest | | 1,98,000 |
| 3. | Current Liabilities & Provisions | | |
| | H Ltd. | 1,50,000 | |
| | S Ltd. | 1,20,000 | |
| | | 2,70,000 | |
| | Less: Inter Company Debts | (45,000) | 2,25,000 |
| | Outstanding Expenses: | | |
| | H Ltd. | 60,000 | |
| | S Ltd. | 30,000 | 90,000 |
| **Total** | | | **26,67,000** |
| **(II)** | **ASSETS** | | |
| 1. | Fixed Assets | | |
| | Machinery | | |
| | H Ltd. | 9,00,000 | |
| | S Ltd. | 4,50,000 | 13,50,000 |
| | Goodwill | | 42,000 |
| 2. | Current Assets | | |
| | Stock: | | |
| | H Ltd. | 2,40,000 | |
| | S Ltd. | 1,50,000 | 3,90,000 |
| | Debtors: | | |
| | H Ltd. | 3,60,000 | |
| | S Ltd. | 4,80,000 | |
| | | 8,40,000 | |
| | Less: Inter Company Debts | 60,000 | 7,80,000 |
| | Cash & Bank Balance | | |
| | H Ltd. | 60,000 | |
| | S Ltd. | 30,000 | 90,000 |
| | Cheque-in-transit | | 15,000 |
| **Total** | | | **26,67,000** |

## LESSON ROUND-UP

Holding company: As per section 2(46) of the Companies Act, 2013 "A company shall be deemed to be the holding company of another, if, but only if, that another is its subsidiary.

Subsidiary company: As per section 2(87) of the Companies Act, 2013, a company is a subsidiary of another company, if, but only if:

1. The other company controls the composition of its board of directors Or
2. The other company
   (a) Holds more than half in nominal values of its equity shares capital Or
   (b) It is a subsidiary of any company which is that of other company's subsidiary consolidated P&L A/c and balance sheet mean a single P&L A/c and balance sheet of a holding company and all its subsidiaries (group).

Steps involved in the preparation of consolidated balance sheet and profit & loss A/c (Ref: Main text).

Various factors to be considered for the preparation of consolidated balance sheet of a holding company and its subsidiaries.

(i) Holding-minority ratio
(ii) Elimination of investment a/c
(iii) Minority interest
(iv) Cost of control/goodwill
(v) Pre-acquisition profit (capital profit)
(vi) Post-acquisition profit (revenue profit)
(vii) Revaluation of assets and liabilities
(viii) Depreciation
(ix) Bonus shares issued by subsidiary company
(x) Dividends from subsidiary company preference shares in subsidiary company
(xi) Preference shares in subsidiary company
(xii) Debentures in subsidiary company
(xiii) Mutual obligations
(xiv) Consignment liabilities
(xv) Unrealized profit in stock
(xvi) Post and pre-acquisition losses abnormal losses
(xvii) Preliminary expenses

## GLOSSARY

**Holding Company:** A company is said to be the holding company of another if that other company is its subsidiary.

**Subsidiary Company:** A company is said to be a subsidiary of another if that another company controls the composition of its board of directors (holding more than 50% of the nominal value of equity share capital).

**Minority Interest:** Holding of the general public (other than holding company) in a subsidiary company is termed as "minority interest".

**Goodwill:** The "excess" amount paid (more than face value or book value of shares) by the holding company to acquire 'controlling interest' in the subsidiary company.

**Consolidated Balance Sheet:** The balance sheet prepared by the holding company by incorporating all the assets and liabilities of its subsidiary company long with its own assets and liabilities.

## TEST YOURSELF

1. H Ltd. acquired 15,000 equity shares in S Ltd. on 1 April 2017. On 31 December 2017 the balance sheet of S Ltd., was as follows:

| **I. Equity and Liabilities** | | **Rs.** |
|---|---|---|
| Share capital: | | |
| 20,000 equity Share of Rs.100 each | | 20,00,000 |
| General Reserve | | 4,00,000 |
| On 1 January 2017 P&L A/c Rs. | | |
| Balance on | | |
| 1 Jan. 2017 | 1,00,000 | |
| Profit for 2017 | 4,00,000 | 5,00,000 |
| Sundry Creditors | | 3,00,000 |
| | | **32,00,000** |

| **II. Assets** | **Rs.** |
|---|---|
| Sundry Assets | 32,00,000 |
| | **32,00,000** |

Ascertain capital profits and revenue profits.

[Ans. Capital profits: Rs.6,00,000; Revenue profits: Rs.3,00,000]

2. Calculate minority interest from the balance sheet of Delhi Ltd. Balance sheet of Delhi Ltd. as on 31 December 2017.

| **I. Equity and Liabilities** | **Rs.** |
|---|---|
| Share capital: | |
| 42,000 share of Rs.100 each | 42,00,000 |
| General Reserve on 1st January 2017 | 18,00,000 |
| Sundry Creditors | 9,00,000 |
| P&L on 31 December 2017 | 6,00,000 |
| | 75,00,000 |

| **II. Assets** | **Rs.** |
|---|---|
| Sundry Assets: | 32,00,000 |
| Plant & Machinery | 21,00,000 |
| Other Assets | 4,50,000 |
| Investment (80% of sheets) | 19,50,000 |
| | **75,00,000** |

Mumbai Ltd. acquired 80% of the shares it Rs.19,50,000.

[**Ans:** Minority interest: Rs.13,20,000]

3. On 30 June 2017, two-third of the shares of S Ltd. (with a total capital of Rs.48,00,000) was acquired by H Ltd. the balance sheet of S Ltd. showed a debit balance of Rs.24,00,000 or 1 January 2017 and a credit balance of Rs14,40,000 on 31 December 2017. The investment by H Ltd. in shares of S Ltd. is Rs.36,00,000. Calculate the cost of control or capital reserve.

[**Ans.** Cost of control/goodwill: Rs.7,20,000]

4. S Ltd. has a capital of Rs.45,00,000 in shares of Rs.100 each. Out of this, H Ltd. purchased 75% shares of Rs.52,50,000. The profit of S Ltd. at the time of purchase of shares by H Ltd. were Rs.22,50,000. S Ltd. decided to make a bonus issue out of capital profits of one share of Rs.100 each fully paid for every three shares held. Calculate the cost of control after the issue of bonus shares.

[**Ans:** Cost of control/goodwill: Rs.1,87,500]

5. Prepare Consolidated Balance sheet of X Ltd. & Y Ltd.

**Balance Sheet of**
**X Ltd. and its Subsidiary Y Ltd.**
**As at 31 December 2017**

| **I. Equity and Liabilities** | | **X Rs.** | **Y Rs.** |
|---|---|---|---|
| Share Capital: | | | |
| 4,00,000 | | 320 | ---- |
| Shares of Rs. 80 | | | |
| 40,000 shares of Rs.80 each | | ---- | 320 |
| General Reserve | | 160 | ---- |
| Creditors | | 96 | 6.40 |
| P&L A/c | | 32 | 48 |
| | **Total** | **608** | **86.40** |
| **II. Assets** | | | |
| Land & Buildings | | 304 | ---- |
| Plant & Machinery | | 44.80 | 6.40 |
| Shares in Y Ltd. 36,000 shares of Rs.80 each stock | | 57.60 | ---- |
| Debtors | | 96 | 16 |
| Cash at Bank | | 64 | 22.40 |
| | **Total** | **41.60** | **41.60** |

[Ans.: Minority interest: Rs.8,00,000; Capital reserve Rs.14,40,000; Balance sheet total: Rs.6,36,80,000]

# Lesson 8 Corporate Financial Reporting

***Key Concepts One Should Know***

- Auditor's Report
- Director's Report
- EVA
- MVA
- SVA

## *Learning Objectives*

**To understand the:**

- Purpose of auditors report, its coverage as per the requirements of the Companies Act and other before issues.
- Qualification in the auditor's report and corporate financial practices related thereof
- Purpose of director's report, its coverage as per the requirements of the Companies Act and other related issues.
- Corporate financial practices in respect of director's response in their report, to auditors qualification
- Objective and importance of corporate governance and contents of corporate governance report.
- Management discussion and analysis report, its contents and significance.

## *Lesson Outline*

- Concept of Corporate Financial Reporting
- Various Requirements of Corporate Reporting
- Auditor's Report & Director's Report
- Disclosure on Notes to Accounts
- Value Added Statements and its Advantages
- Extracts of Value-Added Statements
- Economic Value-Added (EVA) and its Advantages
- Market Value-Added and its advantages
- Shareholders' Value-Added and its Advantages
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

A company's annual report contains not only the financial statements, notes thereto and significant accounting policies followed in preparing them, but certain other financial reports as well. The most common and statutorily required reports are as under:

1. Auditor's report
2. Directors' report
3. Corporate governance report and within that or separately, management discussion, and analysis report.
4. Report on corporate social responsibility (CSR) activities.

The definition of Accounting suggests that "Accounting is Recording, classifying, summarizing, interpreting/ reporting and analyzing the financial transactions in a systematic manner". This information is studied by internal as well as external users. Its function is to provide quantitative information, primarily financial in name, about economic entities, that is intended to be useful in making economic decisions and related choice among alternative course of action. Financial reporting may be defined as communication of published financial statement and related information from a business enterprise to all users. It is the reporting of accounting information of an entity to a user or group of users. It contains booth qualitative and quantitative information.

The Financial report made to the management is generally known as internal reporting, while financial reporting made to the shareholder investors/management is known as external reporting. The internal reporting is a part of management information system, and is uses for MIS reporting for the purpose of analysis, and as an aid in decision-making process.

The management of a corporate is ultimately responsible for the generation of accounting information. The accountability of a company has two distinct aspects – legal and social. Under legal requirements a company has to supply certain information to the various users through annual reports and under the social obligation, a company has to provide additional information to various user groups

### Need for Corporate Reporting

In accounting, Corporate Reporting is a very important issue nowadays. Various statues have prescribed certain statements to be disclosed periodically by a corporate entity. The purpose of such mandate is to convey a true and fair view of the operating results and the financial position to the users of financial reports. Within a corporate context, financial reporting covers three types of accounting data sets. These include a balance sheet, a statement of profit and loss and a statement of cash flows.

### Disclosure of Significant Accounting Policies

As per AS-1 to ensure proper understanding of financial statements, it is necessary that all significant accounting policies adopted in the preparation and presentation of financial statements should be disclosed. Such disclosure should form part of the financial statements. It would be helpful to the reader of financial statements if they are all disclosed as such in one place instead of being scattered over several statements, schedules and notes.

In respect of reporting of accounting policies a company needs to follow following principles.

All significant accounting policies adopted in the preparation and presentation of financial statements should be disclosed.

The disclosure of the significant accounting policies as such should form part of the financial statements and the significant accounting policies should normally be disclosed in one place.

Any change in the accounting policies which has a material effect in the current period or which is reasonably expected to have a material effect in later periods should be disclosed. In the case of a change in accounting policies which has a material effect in the current period, the amount by which any item in the financial statements is affected by such change should also be disclosed to the extent ascertainable. Where such amount is not ascertainable, wholly or in part, the fact should be indicated.

If the fundamental accounting assumptions, viz., Going Concern, Consistency and Accrual are followed in financial statements, specific disclosure is not required. If a fundamental accounting assumption is not followed, the fact should be disclosed.

## Features of Corporate Financial Reporting

**Relevance:** Information is relevant when it influence the economic decisions of users by helping them to evaluate past, present, and future events to confirm/correct their past evaluations. The relevance of information is affected by its nature and materiality (which is always the threshold for relevance). Information overload, on the other hand, can obfuscate information, making it hard to sift the relevant nuggets and interpretation difficult.

**Reliability:** Information should be free from material errors and bias. The key aspects of reliability are faithful representation, priority of substance over form, neutrality, prudence, and completeness.

**Comparability:** Information should be presented in a consistent manner over time, and consistent between entities to enable users to make significant comparisons.

**Understandability:** Information should be readily understandable by users who are expected to have a reasonable knowledge of business, economies and accounting, and a willingness to study the information with reasonable diligence.

The process of producing useful information includes a number of decision points, which may constrain the amount of information provided. These include:

- **Timelines:** A delay in reporting may improve reliability at the cost of relevance.
- **Benefit vs. Cost:** Benefits derived from information should normally exceed the cost of providing it.
- **Balancing of Qualitative Characteristics:** To meet the objectives of financial statements and make them adequate for a particular environment, providers of information must achieve an appropriate balance among the qualitative characteristics. The aim is to achieve a balance among characteristics in order to meet the objective of financial statements.

## Recent trends in Corporate Financial Reporting

Investors, world over, are currently demanding more shareholder value than just high returns. Maximising shareholders value has always been the ultimate aim of every company. Investors are very keen in assessing the corporate financial performance that correlate with shareholders wealth, particularly the market price of a share. Traditional performance measures like return on investment, earnings per share have been used as the most important measure of shareholder value creation. But in the recent years, value based measures which measure performance in terms of change in value has received a lot of attention. There are several value based measures such as Cash Flow Return on Investment (CFROI), Shareholder Value-Added (SVA), Economic Value-Added (EVA), Market Value-Added (MVA) and Cash Value-Added (CVA) which are extensively used. Here we would be discussing about 'Value added statement' 'economic value-added' 'market value-added' and 'shareholder value-added' measures.

# WHY CORPORATE FINANCIAL REPORTING?

The objectives of financial reporting given by Financial Accounting Standard Board (FASB) are summarized as follows:

Financial reporting should provide information that is useful to investors and creditors and other users in making rational investment, credit and similar decisions.

The information should be useful to both, the present and potential investors.

1. Financial reporting should provide information about the economic resources of an enterprise, the claims to those resources (obligations of the enterprise to transfer resources to other entities and owners equity) and the effects of transactions event, and circumstances that change resources and claims to those resources.

2. Financial reporting should provide information about the enterprise's financial performance during a period. Investors and creditors often use information about the past to help in assessing the prospects of an enterprise.
3. Financial reporting should provide information about how management of an enterprise obtains and spends cash, its borrowing and repayment of borrowing, capital transactions including cash dividends and other distributions of enterprise resources to owners, and other factors that may affect an enterprise's liquidity or solvency.
4. Financial reporting should provide information about how management of an enterprise has discharged its stewardship responsibilities to owners (shareholders) for the use of enterprise resource entrusted to it.
5. Financial reporting should provide information that is useful to management and directors in making decisions in the interest of owners.

## AUDITOR'S REPORT

An Audit Report is a key deliverable for any organisation which shows the end results of the entire audit process. The users of financial statements like Investors, Lenders, Customers, and others base their decisions and plans on audit reports of any enterprise. An audit report is always critical to influencing the perceived value of any financial statement's audit.

The auditor should be careful in issuing the Audit Report as there is are a large number of people placing reliance on such report and taking decisions accordingly. The report should be issued by being unbiased and objective in discharging the functions.

### Requirements of the Companies Act, 2013

Section 143 of the Companies Act, 2013 deals with the Auditor's Report which should fulfil following requirements :

1. The auditor shall make a report to the members of the company on the accounts examined by him, and on every financial statement and on every other document, which is to be a part of or Annexed to the Balance Sheet or Profit and Loss Account.
2. The report shall state whether, in his opinion and to the best of his information and according to the explanations given to him the said accounts.
   (a) Give the information required by the Companies Act in the manner so required and ;
   (b) Give a true and fair view ;
      - In the case of the Balance Sheet, of the state of the company's affairs as at the end of its financial year;
      - In the case of the Profit and Loss Account of the profit or loss in that financial year; and
      - In the case of the cash flow statement, of the cash flows for that financial year.
3. The Auditor's Report shall also state :
   (a) Whether he has sought and obtained all the information and explanations which to the best of his knowledge and belief were necessary for the purposes of his audit and if not, the details thereof and the effect of such information on the financial statements.
   (b) Whether, in his opinion, proper books of account as required by law have been kept by the company, and proper returns adequate for the purpose for his audit have been received from branches not visited by him.
   (c) Whether the report on the accounts of any branch office audited by a person other than the company's auditor has been forwarded to him, and how he has dealt with the same in preparing the auditor's report.
   (d) Whether the company's Balance Sheet and Profit and Loss Account dealt with by the report are in agreement with the books of account and return.

(e) Whether, in his opinion, the financial statements comply with the accounting standards.

(f) The observations or comments of the auditor's on financial transaction or matter which have any adverse effect on the functioning of the company.

(g) Whether any director is disqualified from being appointed as director under Sub-Section (2) of Section 164.

(h) Any qualification, reservation or adverse remark relating to the maintenance of accounts and other matter connected therewith.

(i) Whether the company has adequate financial control with reference to financial statements in place and the operating effectiveness of such controls.

The clause mentioned above disqualifies a person from being appointed as a company director if such person is already a director of a public company which.

- Has not field the annual accounts and annual returns for any continuous three financial years; or
- Has failed to repay its deposit or interest thereon on due date or redeem its debentures on due date or pay dividend on due date and such failure continues for one year or more.

4. Where any of the matters referred to in above is answered in the negative, or with a disqualification, the auditor's report shall state the reasons thereof.

5. In the case of a Government company or any other company owned or controlled, directly or indirectly, by the Central Government, or by any State Government or Government, or partly by the Central Government and partly by one or more State Government, the Comptroller and Auditor-General of India shall appoint the auditor under sub-section (5) or sub-section (7) of section 139 and direct such auditor the manner in which the accounts of the company are required to be audited and" thereupon the auditor so appointed shall submit a copy of the audit report to the Comptroller and Auditor-General of India which, among other things, include the directions, if any, issued by the Comptroller and Auditor- General of India, the action taken thereon and its impact on the accounts and financial statement of the company.

6. The Comptroller and Auditor-General of India shall within sixty days from the date of receipt of the audit report have a right to,—

(a) conduct a supplementary audit of the financial statement of the company by such person or persons as he may authorise in this behalf; and for the purposes of such audit, require information or additional information to be furnished to any person or persons, so authorised, on such matters, by such person or persons, and in such form, as the Comptroller and Auditor-General of India may direct; and

(b) comment upon or supplement such audit report :

Provided that any comments given by the Comptroller and Auditor-General of India upon, or supplement to, the audit report shall be sent by the company to every person entitled to copies of audited financial statements under sub section (1) of section 136 and also be placed before the annual general meeting of the company at the same time and in the same manner as the audit report.

7. The Comptroller and Auditor General of India may, in case of any government company if he considers necessary, by an order, cause test audit to be conducted of the accounts of such company and the provisions of section 19A of the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service) Act, 1971, shall apply to the report of such test audit.

8. Where a company has a branch office, the accounts of that office shall be audited either by the auditor appointed for the company (herein referred to as the company's auditor) under this Act or by any other person qualified for appointment as an auditor of the company under this Act and appointed as such under section 139, or where the branch office is situated in a country outside India, the accounts of the branch office shall be audited either by the company's auditor or by an accountant or by any other person duly qualified to act as an auditor of the accounts of the branch office in accordance with the laws of that country and the duties and powers of the company's auditor with reference to the audit of the branch and the branch auditor, if any, shall be such as may be prescribed. Provided that the branch auditor shall prepare a report on the accounts of the branch examined by him and send it to the auditor of the company who shall deal with it in his report in such manner as he considers necessary.

9. Every auditor shall comply with the auditing standards.

10. The Central Government may prescribe the standards of auditing or any addendum thereto, as recommended by the Institute of Chartered Accountants of India, constituted under section 3 of the Chartered Accountants Act, 1949, in consultation with and after examination of the recommendations made by the National Financial Reporting Authority :

    Provided that until any auditing standards are notified, any standard or standards of auditing specified by the Institute of Chartered Accountants of India shall be deemed to be the auditing standards.

11. The Central Government may, in consultation with the National Financial Reporting Authority, by general or special order, direct, in respect of such class or description of companies, as may be specified in the order, that the auditor's report shall also include a statement on such matters as may be specified therein.

    Provided that until the National Financial Reporting Authority is constituted under section 132, the Central Government may hold consultation required under this sub- section with the Committee chaired by an officer of the rank of Joint Secretary or equivalent in the Ministry of corporate Affairs and the committee shall have the representatives from the Institute of Chartered Accountants of India and Industry Chambers and also special invitees from the National Advisory Committee on Accounting Standards and the office of the Comptroller and Auditor-General.

12. Notwithstanding anything contained in this section, if an auditor of a company in the course of the performance of his duties as auditor, has reason to believe that an offence of fraud involving such amount or amounts as may be prescribed, is being or has been committed in the company by its officers or employees, the auditor shall report the matter to the Central Government within such time and in such manner as may be prescribed:

    Provided that in case of a fraud involving lesser than the specified amount, the auditor shall report the matter to the audit committee constituted under section 177 or to the Board in other cases within such time and in such manner as may be prescribed:

    Provided further that the companies, whose auditors have reported frauds under this sub-section to the audit committee or the Board but not reported to the Central Government, shall disclose the details about such frauds in the Board's report in such manner as may be prescribed.

13. No duty to which an auditor of a company may be subject to shall be regarded as having been contravened by reason of his reporting the matter referred to in sub-section (12) if it is done in good faith.

14. The provisions of this section shall mutatis mutandis apply to –

    (a) the cost accountant conducting cost audit under section 148; or

    (b) the company secretary in practice conducting secretarial audit under section 204.

15. If any auditor, cost accountant or company secretary in practice do not comply with the provisions of sub-section (12), he shall be punishable with fine which shall not be less than one lakh rupees but which may extend to twenty-five lakh rupees.

16. The auditor shall make a statement as to whether the remuneration paid by the company to its directors is in accordance with the provisions of section 197, whether remuneration paid to any director is in excess of the limit laid down under this section and give such other details as may be prescribed.

17. On and from the commencement of the Companies (Amendment) Act,2017, any application made to the Central Government under the provisions of this section 197 [as it stood before such commencement], which is pending with that Government shall abate, and the company shall, within one year of such commencement, obtain the approval in accordance with the provisions of this section, as so amended.

## Boards' Report

Section 134 of Companies Act, 2013 mandates certain disclosures to be made in the Board's Report, additionally, a listed company is required to comply with disclosures requirement stated under the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015

(1) The financial statement, including consolidated financial statement, if any, shall be approved by the Board of Directors before they are signed on behalf of the Board by the chairperson of the company where he is authorised by the Board or by two directors out of which one shall be managing director, if any, and the Chief Executive Officer, the Chief Financial Officer and the company secretary of the company, wherever they are appointed, or in the case of One Person Company, only by one director, for submission to the auditor for his report thereon.

(2) The auditors' report shall be attached to every financial statement.

(3) There shall be attached to statements laid before a company in general meeting, a report by its Board of Directors, which shall include—

(a) the web address, if any, where annual return referred to in sub-section (3) of section 92 has been placed

(b) number of meetings of the Board;

(c) Directors' Responsibility Statement;

(ca) details in respect of frauds reported by auditors under sub-section (12) of section 143 other than those which are reportable to the Central Government;

(d) a statement on declaration given by independent directors under sub-section (6) of section 149;

(e) in case of a company covered under sub-section (1) of section 178, company's policy on directors' appointment and remuneration including criteria for determining qualifications, positive attributes, independence of a director and other matters provided under sub-section (3) of section 178;

(f) explanations or comments by the Board on every qualification, reservation or adverse remark or disclaimer made –

(i) by the auditor in his report; and

(ii) by the company secretary in practice in his secretarial audit report;

(g) particulars of loans, guarantees or investments under section 186;

(h) particulars of contracts or arrangements with related parties referred to in sub-section (1) of section 188 in the prescribed form;

(i) the state of the company's affairs;

(j) the amounts, if any, which it proposes to carry to any reserves;

(k) the amount, if any, which it recommends should be paid by way of dividend;

(l) material changes and commitments, if any, affecting the financial position of the company which have occurred between the end of the financial year of the company to which the financial statements relate and the date of the report;

(m) the conservation of energy, technology absorption, foreign exchange earnings and outgo, in such manner as may be prescribed;

(n) a statement indicating development and implementation of a risk management policy for the company including identification therein of elements of risk, if any, which in the opinion of the Board may threaten the existence of the company;

(o) the details about the policy developed and implemented by the company on corporate social responsibility initiatives taken during the year;

in case of a listed company and every other public company having such paid-up share capital as may be prescribed, a statement indicating the manner in which formal annual evaluation of the performance of the Board, its Committees and of individual directors has been made;

(p) such other matters as may be prescribed.

Provided that where disclosures referred to in this sub-section have been included in the financial statements, such disclosures shall be referred to instead of being repeated in the Board's report:

Provided further that where the policy referred to in clause (e) or clause (o) is made available on company's website, if any, it shall be sufficient compliance of the requirements under such clauses if the salient features of the policy and any change therein are specified in brief in the Board's report and the web-address is indicated therein at which the complete policy is available

(3A) The Central Government may prescribe an abridged Board's report, for the purpose of compliance with this section by One Person Company or small company

(4) The report of the Board of Directors to be attached to the financial statement under this section shall, in case of a One Person Company, mean a report containing explanations or comments by the Board on every qualification, reservation or adverse remark or disclaimer made by the auditor in his report.

(5) The Directors' Responsibility Statement shall state that –

(a) in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;

(b) the directors had selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company at the end of the financial year and of the profit and loss of the company for that period;

(c) the directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities;

(d) the directors had prepared the annual accounts on a going concern basis; and

(e) the directors, in the case of a listed company, had laid down internal financial controls to be followed by the company and that such internal financial controls are adequate and were operating effectively.

It may be noted that the term "internal financial controls" means the policies and procedures adopted by the company for ensuring the orderly and efficient conduct of its business, including adherence to company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information;

(f) the directors had devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

(6) The Board's report and any annexures thereto shall be signed by its chairperson of the company if he is authorised by the Board and where he is not so authorised, shall be signed by at least two directors, one of whom shall be a managing director, or by the director where there is one director.

(7) A signed copy of every financial statement, including consolidated financial statement, if any, shall be issued, circulated or published along with a copy each of—

(a) any notes annexed to or forming part of such financial statement;

(b) the auditor's report; and

(c) the Board's report.

(8) If a company contravenes the provisions of section 134 of the Companies Act, the company shall be punishable with fine which shall not be less than fifty thousand rupees but which may extend to twenty-five lakh rupees and every officer of the company who is in default shall be punishable with imprisonment for a term which may extend to three years or with fine which shall not be less than fifty thousand rupees but which may extend to five lakh rupees, or with both.

## COMPANIES (AUDITOR'S REPORT) ORDER, 2020

Ministry of Corporate Affairs 'MCA' notifies Companies (Auditor's Report) Order, 2020 (CARO 2020) which is applicable for audit of financial statements of eligible companies for the financial years commencing on or after the 1st April, 2020. **[CARO 2020 applicability extended to FY 2020-21 onward vide MCA order dated March 24th, 2020]**

The criteria of eligibility of companies on which the CARO, 2020 shall be applicable has not been changed and hence it shall be applicable to all those companies on which CARO, 2016 was applicable. Accordingly CARO 2020 will be applicable to all the companies including foreign companies except banking company, insurance company, section 8 company, OPC [section 2(62)], small company [section 2(85)], certain private limited co. This order stated that every report of the auditor under Section 143 of Companies Act, 2013 must contain the matters stated in 21 clauses as specified under paragraphs 3 and accord reasons for unfavorable or qualified answer as stated in paragraph 4 of CARO 2020.

CARO 2020 will not be applied with respect to auditor's report on Consolidated Financial Statements except clause (xxi) of paragraph 3. The order 2020 elaborated on all the matters which are to be included in the auditor's report. Wherein, the following details of the subject-matter are described:

- Whether the company is maintaining proper records showing full particulars such as:
  - i. The quantitative detail and situation of property, plant, and equipment,
  - ii. Physical verification of the property, plant, and equipment by the management at reasonable intervals,
  - iii. The details of the title deeds of the immovable properties held in the name of company,
  - iv. Revaluation of the property, plant, and equipment or intangible assets or both and if there is more than 10% of the change in the property, plant, and equipment or intangible assets,
- Details of proceedings against the company on the holding of any Benami property.
- Physical verifications of inventory by the management at reasonable intervals and proper treatment of any discrepancies of 10% or more found.
- Quarterly returns or statement filed by company having working capital limit more than 5 crore rupees with such banks or financial institution.
- Details of the investments made by the company(except companies dealing in loans), security or guarantee given by the company,
- Details of the payment pertaining to the undisputed statutory dues such as GST, provident Funds, Custom Duty, etc.
- Details of any default done by the company in making the repayment of the loan,
- Details of the funds raised by a company by the way of the Initial public offer,
- Details of fraud done by the company, and many more.
- The Auditor's Report Order 2020 of any company is supposed to state the reasons for unfavourable or qualified answers.

## Clause by Clause Comparison of the Reporting Companies (Auditor's Report) Order 2020 *vis a vis* Previous CARO 2016

| Clauses | **Companies (Auditor's Report) Order, 2016** | **Companies (Auditor's Report) Order, 2020** |
|---|---|---|
| | CARO 2016 contains Total 16 reporting clauses | CARO 20020 contains Total 21 reporting clauses |
| (i) | CARO 2016 required to report on all fixed assets | Reporting requirements on<br>• Property, Plant, Equipment and intangible assets only.<br>• Revaluation of Property, Plant, Equipment including rights of use assets or intangible assets<br>• Proceedings under the Benami Transactions (Prohibition) Act, 1988 and disclosure in financial statements. |

| | | |
|---|---|---|
| (ii) | Reporting requirement on physical verification of inventory at reasonable interval by management and material discrepancies noticed if any | Reporting requirements on<br>• Physical verification of inventory at reasonable interval by management and the Opinion of the auditor on the coverage and procedure of such verification<br>• The material discrepancies of 10% or more noticed if any<br>• Compliances if company was sanctioned working capital limits in excess of five crore rupees or more from banks or financial institutions. |
| (iii) | Reporting requirement of granting any loans or advances to companies, firms, Limited Liability Partnerships or any other parties. | Reporting requirements of investments in or providing of any guarantee or security or granting any loans or advances to companies, firms, Limited Liability Partnerships or any other parties. |
| (iv) | Reporting requirement on the compliances of provisions of section 185 and 186 of the companies Act, 2013 in respect of loans, investments, guarantees and security. | Reporting requirement on the compliances of provisions of section 185 and 186 of the companies Act, 2013 in respect of loans, investments, guarantees and security. **(No change)** |
| (v) | Reporting requirements of compliances with RBI directives and the provisions the Companies Act with respect to deposits. | Reporting of compliances with RBI directives and the provisions the Companies Act with respect to deposits or **deemed deposits.** |
| (vi) | Reporting requirements of Maintenance of Cost Record | Reporting requirements of Maintenance of Cost Record **(No Change)** |
| (vii) | Reporting requirement on statutory dues | Reporting requirement on statutory dues **(No Change)** |
| (viii) | Reporting requirements on default in repayment of loans or other borrowing | **Reporting requirements with respect to transactions not recorded in the books of account surrendered or disclosed as income in the income tax proceedings.** |
| (ix) | Reporting requirement on utilization of money raised by way of IPO or further public offer for the purposes for which money has been raised | Reporting requirements on:<br>• Default in repayment of loans or other borrowing or interest thereon<br>• Declared as will defaulter by bank / financial institution / other lender<br>• Utilization of term loan for the purposes for which term loan has been raised<br>• Fund raised on short term basis have been used for loan term purposes<br>• Funds taken by the company to meet obligation if its subsidiaries, associates or joint ventures<br>• Loans raised on the pledge of securities held in its subsidiaries, associates, joint ventures |
| (x) | Reporting requirement on Notice of fraud by / on the company by its officers or employees | Reporting requirement on:<br>• Utilization of money raised by way of IPO or further public offer for the purposes for which money has been raised<br>• Preferential allotment or private equity placement of shares or fully or partly convertible debentures and compliance of section 42 of Companies Act, 2013 |

| | | |
|---|---|---|
| (xi) | Reporting requirement on Managerial Remuneration | Reporting requirement on<br>• Notice of fraud by / on the company<br>• Report u/s 143(12) filed by the auditors in Form ADT-4<br>• Treatment by auditor of whistle-blower complaints received during the year **by the company** |
| (xii) | Reporting requirements on Net Owned Funds to Deposits in the ratio of 1:20 and maintaining of 10% unencumbered terms deposits as per Nidhi Rules 2014 | Reporting requirements on<br>• Net Owned Funds to Deposits of Nidhi Company in the ratio of 1:20 and maintaining of 10% unencumbered terms deposits as per Nidhi Rules 2014 and<br>• **for default in the payment of interest on deposits or repayments thereof for any period** |
| (xiii) | Reporting requirement on transaction with related parties | Reporting requirements on transaction with related parties **(No Change)** |
| (xiv) | Reporting requirement on preferential allotment or private equity placement of shares or fully or partly convertible debentures and compliance of section 42 of Companies Act, 2013 | Reporting requirements **on internal audit system** |
| (xv) | Reporting requirement on non- cash transaction with director or person connected with him | Reporting requirements on non-cash transaction with director or person connected with him **(No Change)** |
| (xvi) | Reporting requirement of registration u/s 45IA of the Reserve Bank of India Act, 1934 | Reporting requirement of:<br>• Registration u/s 45IA of the Reserve Bank of India Act, 1934<br>• NBFC activities without valid certificate of registration<br>• Fulfilling the criteria of Core Investment Company (CIC)<br>• Number of CICs which are part of group |
| (xvii) | – | Reporting on cash losses (clause added) |
| (xviii) | – | Reporting on resignation of the statutory auditors **(clause added)** |
| (xix) | – | Reporting on uncertainty of company capable of meeting its liabilities **(clause added)** |
| (xx) | – | Reporting requirements on transfer of unspent CSR amount to Fund specified in Schedule VII **(clause added)** |
| (xxi) | – | Reporting requirements on qualifications or adverse remarks by the auditors in the CARO reports of companies included in the consolidated financial statements **(clause added)** |

## CORPORATE GOVERNANCE

Corporate Governance is how a corporation is administered or controlled. It is a set of processes, customs, policies, laws and instructions affecting the way a corporation is directed, administered or controlled. The participants in the process include employees, suppliers, partners, customers, government, and professional organization regulators, and the communities in which the organization has presence. The main theme of corporate governance is to integrate sound management policies in the corporate framework in such a manner to bring economic efficiency in the organization in order to achieve twin goals of profit maximization and shareholder welfare.

### Definitions of Corporate Governance

"Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined." – *G20/OECD Principles of Corporate Governance*

"Corporate governance deals with laws, procedures, practices and implicit rules that determine a company's ability to take informed managerial decisions vis-à-vis its claimants - in particular, its shareholders, creditors, customers, the State and employees. There is a global consensus about the objective of 'good' corporate governance: maximising long-term shareholder value." – *Confederation of Indian Industry (CII) – Desirable Corporate Governance Code (1998)*

"Corporate Governance is the acceptance by management of the inalienable rights of shareholders as the true owners of the corporation and of their own role as trustees on behalf of the shareholders. It is about commitment to values, about ethical business conduct and about making a distinction between personal and corporate funds in the management of a company." – Report of *N.R. Narayana Murthy Committee on Corporate Governance constituted by SEBI (2003*)

"Corporate Governance is the application of best Management Practices, Compliance of Laws in true letter and spirit and adherence to ethical standards for effective management and distribution of wealth and discharge of social responsibility for sustainable development of all stakeholders." – *The Institute of Company Secretaries of India.*

### Objectives of Corporate Governance

The objectives of corporate governance include:

- To create social responsibility
- To create a transparent working system
- To create a management accountable for corporate functioning
- To protect and promote the interest of shareholders
- To develop an efficient organization culture
- To aid in achieving social and economic goals
- To improve social cohesion
- To minimise wastages, corruption etc.

### Need for Corporate governance

The significance of good corporate governance system has widened because of the increasing conflict between ownership and management disciplines, the non-compliance of financial reporting by auditors which inflicts heavy losses on investors and lack of fair and transparent culture in the company which has lowered the investor trust in the financial viability of the company and its ethical standards. Thus there arises a need to imbibe a good corporate governance system for the betterment of all the stakeholders. It is important for the following reasons:

1. Corporate governance lays down the foundation of a properly structured Board and strives to a healthy balance between management and ownership which is capable of taking independent decisions for creating long-term trust between the company and external stakeholders of the company.
2. It strengthens strategic thinking at the top management by taking independent directors on the board who bring intellectual experience to the company and unbiased approach to deal with matters related to companies welfare.
3. It instills transparent and fair practices in the board management which results in financial transparency and integrity of the audit reports.
4. It sets the benchmark for the company's management to comply with laws in true letter and spirit while adhering to ethical standards of the company for bringing out effective management solutions in order to discharge its responsibility for smooth functioning of the company.
5. It inculcates loyalty among investors as their interest is looked after in the best manner by a company who adopts good management practices.

## Corporate Governance under Companies Act, 2013

The Companies Act, 2013 has introduced various key provisions and mandatory disclosure requirements which have changed the corporate regime in such a way so as to run the corporate machinery in alignment with the globalised corporate world. The scope of corporate governance is no longer restricted to only listed public companies but it has also included unlisted public companies.

Some of the important areas of corporate governance introduced in Companies Act, 2013 has been introduction of:

### 1. Independent Director

Under the Companies Act, 2013 the strength of number of Independent directors for the prescribed companies under Section 149(4) read with Rule 4 of Companies (Appointment and Qualifications of Directors) Rules, 2014 is as follows:

| | |
|---|---|
| Listed Public Company | At least one third of total number of directors |
| Unlisted Public Companies having turnover of 100 crores rupees or more | At least 2 directors |
| Unlisted Public companies having paid up capital of 10 crores rupees or more | At least 2 directors |
| Unlisted Public Companies with aggregate outstanding loans, debentures, and deposits, exceeding Rs. 50 crore | At least 2 directors |

The terms and conditions of appointment of independent directors shall also be posted on the company's website.

### 2. Woman Director

Section 149(1) of the Companies Act, 2013 read with Rule 3 of Companies(Appointment and Qualifications of Directors) Rules,2014 prescribes the following classes of companies to have at least one woman director.

i. All listed companies

ii. Non-listed public companies having paid up share capital of Rs.100 crores or more or having turnover of Rs.300 crores or more

### 3. Audit Committees

Section 177 of the Companies Act, 2013 and Rules 6 and 7 of Companies (Meetings of Board and its Powers) Rules 2014 deals with Companies Act, 2013 has increased the ambit of companies to constitute audit committees. The Audit Committee shall consist of a minimum of 3 directors with independent directors forming a majority. The majority of members of Audit Committee including its Chairperson shall be persons with ability to read and understand, the financial statement. It shall be applicable to all the

listed public companies or non- listed public companies having paid up share capital of Rs.10 crores or more, Turnover of Rs.100 crores or more, aggregate outstanding loan of Rs. 50 crores or more.

**4. Composition of Nomination & Remuneration Committee & Stakeholder relationship Committee**

Section 178(1) of the Companies Act and Rule 6 of Companies (Meetings of Board and its Powers) Rules 2014 deals with appointment of Nomination and Remuneration committee. The duty of the Committee shall be to identify the persons who are qualified to become directors and who can be appointed in the senior management and carry out the evaluation of directors. It shall specify the policy and manner for effective evaluation of performance of Board, its committees and individual director. Provided that such policy shall be placed on the website of the company, if any, and the salient features of the policy and changes therein, if any, along with the web address of the policy, if any, shall be disclosed in the Board's report

Section 178(5) prescribed appointment of stakeholder relationship Committee to resolve grievances of security holders of company. It shall be applicable to all the listed public companies or non-listed public companies having paid up share capital of Rs.10 crores or more, Turnover of Rs.100 crores or more, aggregate outstanding loan of Rs. 50 crores or more

**5. Internal Audit**

Companies Act, 2013 read with Rule 13 Of Companies (Accounts) Rules, 2014, has mandated the internal audit for certain classes of companies under Section 138.

Companies Act, 2013 has mandated the internal audit for certain classes of companies under Section 138. These companies includes all the listed companies, all the non-listed companies having paid up share capital of Rs.50 crores or more, turnover of Rs.200 crores or more in the preceding financial year, outstanding loans or borrowings from the banks or public financial institutions of Rs.100 crores or more outstanding deposits of twenty five crore rupees or more at any point of time during the preceding financial year, every private company having turnover of two hundred crore rupees or more during the preceding financial year; or outstanding loans or borrowings from banks or public financial institutions exceeding one hundred crore rupees or more at any point of time during the preceding financial year:

**6. Serious Fraud Investigation Office (SFIO)**

Section 211 (1) of the Companies Act, 2013 states that the Central Government shall establish an office called the Serious Fraud Investigation office to investigate fraud relating to Company. SFIO can investigate into the affairs of the company on receipt of report of Registrar or inspector or on intimation of a special resolution passed by a company that its affairs are required to be investigated or in the public interest or on request from any Department of Central Government or State Government.

**7. Corporate Social Responsibility**

Section 135(1) of Companies Act, 2013 prescribes that every company having networth of Rs.500 crores or more, turnover of Rs.1000 crore or more, or net profit of Rs.5 crores or more during any the immediately preceding financial year shall constitute Corporate Social Responsibility Committee constituting of three or more directors with at least one independent director. Provided that where a company is not required to appoint an independent director under section 149(4) (i.e. Number of Independent Directors), it shall have in its Corporate Social Responsibility Committee two or more directors

The Board's report under sub-section (3) of section 134 shall disclose the composition of the Corporate Social Responsibility Committee.

## Corporate Governance Report

As per SEBI circular dated 16th July 2019, the formats for Compliance Report on Corporate Governance as per Annexure I, II and III to this circular are being prescribed:-

Annex - I - on quarterly basis;

Annex - II - at the end of a financial year

Annex - III – at the end of six months from the close of financial year

Annex IV- on a half yearly basis (w.e.f. first half year of F.Y. 21-22)

The SEBI (Listing Obligation and Disclosure Requirement) Regulation, 2015 under Regulation 34(3) and 53(f) provides for disclosure to be made in the Annual Report (Schedule V of SEBI (LODR) Regulations 2015)

According to Schedule V of SEBI (LODR) Regulations 2015 the following disclosures shall be made in the section on the corporate governance of the annual report:

(1) A brief statement on listed entity's philosophy on code of governance.

(2) Board of directors:

(a) composition and category of directors (e.g. promoter, executive, non-executive, independent non-executive, nominee director - institution represented and whether as lender or as equity investor);

(b) attendance of each director at the meeting of the board of directors and the last annual general meeting;

(c) number of other board of directors or committees in which a directors is a member or chairperson126[, and with eff from the Annual Report for the year ended 31st March 2019, including separately the names of the listed entities where the person is a director and the category of directorship];

(d) number of meetings of the board of directors held and dates on which held;

(e) disclosure of relationships between directors inter-se;

(f) number of shares and convertible instruments held by non- executive directors;

(g) web link where details of familiarisation programmes imparted to independent directors is disclosed.

(h) A chart or a matrix setting out the skills/expertise/competence of the board of directors specifying the following:

(i) With effect from the financial year ending March 31, 2019, the list of core skills/expertise/ competencies identified by the board of directors as required in the context of its business(es) and sector(s) for it to function effectively and those actually available with the board; and

(ii) With effect from the financial year ended March 31, 2020, the names of directors who have such skills / expertise / competence

(i) confirmation that in the opinion of the board, the independent directors fulfill the conditions specified in these regulations and are independent of the management.

(j) detailed reasons for the resignation of an independent director who resigns before the expiry of his tenure along with a confirmation by such director that there are no other material reasons other than those provided.]

(3) Audit committee:

(a) brief description of terms of reference;

(b) composition, name of members and chairperson;

(c) meetings and attendance during the year.

(4) Nomination and Remuneration Committee:

(a) brief description of terms of reference;

(b) composition, name of members and chairperson;

(c) meeting and attendance during the year;

(d) performance evaluation criteria for independent directors.

(5) Remuneration of Directors:

(a) all pecuniary relationship or transactions of the non-executive directors vis-à-vis the listed entity shall be disclosed in the annual report;

(b) criteria of making payments to non-executive directors. alternatively, this may be disseminated on the listed entity's website and reference drawn thereto in the annual report;

(c) disclosures with respect to remuneration: in addition to disclosures required under the Companies Act, 2013, the following disclosures shall be made:

(i) all elements of remuneration package of individual directors summarized under major groups, such as salary, benefits, bonuses, stock options, pension etc;

(ii) details of fixed component and performance linked incentives, along with the performance criteria;

(iii) service contracts, notice period, severance fees;

(iv) stock option details, if any and whether issued at a discount as well as the period over which accrued and over which exercisable.

(6) Stakeholders' grievance committee:

(a) name of non-executive director heading the committee;

(b) name and designation of compliance officer;

(c) number of shareholders' complaints received so far;

(d) number not solved to the satisfaction of shareholders;

(e) number of pending complaints.

(7) General body meetings:

(a) location and time, where last three annual general meetings held;

(b) whether any special resolutions passed in the previous three annual general meetings;

(c) whether any special resolution passed last year through postal ballot – details of voting pattern;

(d) person who conducted the postal ballot exercise;

(e) whether any special resolution is proposed to be conducted through postal ballot;

(f) procedure for postal ballot.

(8) Means of communication:

(a) quarterly results;

(b) newspapers wherein results normally published;

(c) any website, where displayed;

(d) whether it also displays official news releases; and

(e) presentations made to institutional investors or to the analysts.

(9) General shareholder information:

(a) annual general meeting - date, time and venue;

(b) financial year;

(c) dividend payment date;

(d) the name and address of each stock exchange(s) at which the listed entity's securities are listed and a confirmation about payment of annual listing fee to each of such stock exchange(s);

(e) stock code;

(f) market price data- high, low during each month in last financial year;

(g) performance in comparison to broad-based indices such as BSE sensex, CRISIL Index etc;

(h) in case the securities are suspended from trading, the directors report shall explain the reason thereof;

(i) registrar to an issue and share transfer agents;

(j) share transfer system;

(k) distribution of shareholding;

(l) dematerialization of shares and liquidity;

(m) outstanding global depository receipts or american depository receipts or warrants or any convertible instruments, conversion date and likely impact on equity;

(n) commodity price risk or foreign exchange risk and hedging activities;

(o) plant locations;

(p) address for correspondence.

(q) list of all credit ratings obtained by the entity along with any revisions thereto during the relevant financial year, for all debt instruments of such entity or any fixed deposit programme or any scheme or proposal of the listed entity involving mobilization of funds, whether in India or abroad.

(10) Other Disclosures:

(a) disclosures on materially significant related party transactions that may have potential conflict with the interests of listed entity at large;

(b) details of non-compliance by the listed entity, penalties, strictures imposed on the listed entity by stock exchange(s) or the board or any statutory authority, on any matter related to capital markets, during the last three years;

(c) details of establishment of vigil mechanism, whistle blower policy, and affirmation that no personnel has been denied access to the audit committee;

(d) details of compliance with mandatory requirements and adoption of the non-mandatory requirements;

(e) web link where policy for determining 'material' subsidiaries is disclosed;

(f) web link where policy on dealing with related party transactions;

(g) disclosure of commodity price risks and commodity hedging activities.

(h) Details of utilization of funds raised through preferential allotment or qualified institutions placement as specified under Regulation 32 (7A).

(i) a certificate from a company secretary in practice that none of the directors on the board of the company have been debarred or disqualified from being appointed or continuing as directors of companies by the Board/Ministry of Corporate Affairs or any such statutory authority.

(j) where the board had not accepted any recommendation of any committee of the board which is mandatorily required, in the relevant financial year, the same to be disclosed along with reasons thereof:

Provided that the clause shall only apply where recommendation of / submission by the committee is required for the approval of the Board of Directors and shall not apply where prior approval of the relevant committee is required for undertaking any transaction under these Regulations.

(k) total fees for all services paid by the listed entity and its subsidiaries, on a consolidated basis, to the statutory auditor and all entities in the network firm/network entity of which the statutory auditor is a part.]

(l) disclosures in relation to the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:

a. number of complaints filed during the financial year

b. number of complaints disposed of during the financial year

c. number of complaints pending as on end of the financial year.]

(11) Non-compliance of any requirement of corporate governance report of sub-paras (2) to (10) above, with reasons thereof shall be disclosed.

(12) The corporate governance report shall also disclose the extent to which the discretionary requirements as specified in Part E of Schedule II have been adopted.

(13) The disclosures of the compliance with corporate governance requirements specified in regulation 17 to 27 and clauses (b) to (i) of sub-regulation (2) of regulation 46 shall be made in the section on corporate governance of the annual report.

## VALUE ADDED STATEMENT

### Introduction

Financial reporting has traditionally been concerned with the income statement, balance sheet and cash flow statement. Over the years, there have been initiatives to expand the financial reporting package. Accounting Standard Steering Committee (ASSC) of Britain suggested the inclusion of a value-added statement (VAS) along with conventional annual corporate reports in 1975.

The Value Added Statement is divided into two parts: The first part shows how Value Added is arrived at the end and the second part shows the application of such Value Added.

Value added can be defined as the value created by the activities of a firm and its employees, that is, sales minus the cost of bought in goods and services. The value-added statement (VAS) reports on the calculation of value-added and its allocation among the stakeholders in the company.

The value-added statement (VAS) is a voluntary disclosure and adds little information to that contained in the income statement. During the last two decades various theories have been used to explain voluntary and social disclosures. The fact that the VAS has attained such widespread publication despite being a relatively marginal disclosure, gives an early indication that the VAS is not a neutral corporate social disclosure, but that it could be used to benefit those publishing it. VAS is used to alter perceptions about the company and in this way to manage stakeholder expectations.

### Definition and Background of Value-Added and the Value-Added Statement (VAS)

The concept of value-added was initially used in 1790 in the first North American Census of Production (Gillchrist 1970). Trenche Cox, a treasury official, whose techniques have since been adopted by most industrial nations in the calculation of Gross National Product (GNP), was responsible for realizing that value-added would avoid double counting.

Value added has also been defined in the economic literature by Ruggles and Ruggles:

> The value-added by a firm, i.e., the value created by the activities of the firm and its employees, can be measured by the difference between the market value of the goods that have been turned out by the firm and the cost of those goods and materials purchased from other producers. This measure will exclude the contribution made by other producers to the total value of the firm's production, so that it is essentially equal to the market value created by this firm. (Ruggles and Ruggles, 1956)

The VAS is therefore based on an economic definition of value-added and calculates value-added in accordance with the calculation of GNP.

Suojanen (1954) suggests that the value-added concept for income assessment help the management satisfy the various interest groups by providing more information that was not possible from the income statement and balance sheet. This makes him one of the first writers to use the value-added concept in terms of accounting for the results of an enterprise.

In general words, "Value-added can be defined as wealth generated by the entity through the collective efforts of capital providers, management and employees".

## Distribution of Gross Value Addition

As per the concept of value added statement, gross value-added is distributed to employees in the form of salaries and wages, to government in the form of taxes and duties, to financer in the form of interest, to shareholders in the form of dividend the and remaining balance in business in the form of retained earning including depreciation.

## Value-Added Statement

A simplified financial statement that shows how much wealth has been created by a company. A value-added statement calculates total output by adding sales, changes in stock, and other incomes, then subtracting depreciation, interest, taxation, dividends, and the amounts paid to suppliers and employees.

Such value-added can be taken to represent in monetary terms the net output of an enterprise. This is the difference between the total value of its output and the value of the inputs of materials and services obtained from other enterprises. The value-added is seen to be due to the combined effect of capital, management and employees, and the statement shows how the value-added has been distributed among each of these factors.

## Advantages of Value-Added Statement –

It is an alternative performance measure to profit and therefore helps in the comparison of the performance of the company. Value added is superior performance measure because it pays attention on inputs which are under the control of the management.

By employing various productivity measures like value-added per rupee of capital employed, value-added per rupee sales, value-added per employee, etc., it helps in judging the productivity of the company.

Resource allocation decisions are normally based on the concept of maximizing profit, but value-added statement provides a better alternative by focusing on other factors rather than just profit.

It also helps in devising the incentives schemes for the employees of the company in a better way.

It reflects a broader view of the company's objectives and responsibilities rather than merely focusing on the small aspects of the company

## Limitation of Value-Added Statement

There is a duality associated with the VAS in that it reports on the calculation of value-added and its application among the stakeholders in the company. Many inconsistencies are found in practice in both the calculation and presentation of value-added in the VAS. These inconsistencies make the statement confusing, non-comparable and unverifiable. The main areas of inconsistencies include, though not limited to, the following:

- The treatment of depreciation resulting in gross and net value-added;
- The treatment of taxes like pay-as-you-earn, fringe benefits and other benefits in the employees' share of value-added;
- The timing of recognition of value-added production or sales;
- The treatment of taxes such as VAT /GST and deferred tax; and
- The treatment of non-operating items.
- This has resulted in a company having more than one possible value-added figure and that the allocation of value-added between the various stakeholders can be presented in different ways.

## Difference between Value Added and Profit

Profit subtracts all the cost incurred in the process of generating revenues. The value added, on the other hand only subtracts the cost of bought-in goods and services. Profits are meant for shareholders whereas value added is meant for stakeholders who include shareholders also. Therefore, value added is a wider term.

## FORMAT OF VALUE ADDED STATEMENT

**ABC Company Ltd.**

**Value-Added Statement (Report or Vertical Form)**

**for the year ended 31st March .....**

| Particulars | Amount (Rs.) |
|---|---|
| **A. Generation of Value-Added:** | |
| Sales/Turnover (Including excise duties and sales tax excluding | |
| Returns, rebates & discounts, etc.) | xxx |
| ± Stock of semi-finished and finished goods | xxx |
| Production value | xxx |
| Add: Income from services | xxx |
| Less : Bought-in-goods and services purchased from outsiders | xxx |
| Gross Value-Added (GVA) | xxx |
| Less : Depreciation and deferred Revenue expenses | xxx |
| Net Value-Added (NVA) | xxx |
| **B. Application of Value-Added:** | |
| Receipt by Workers/Employees | xxx |
| Receipt by Providers of Loan Capital | xxx |
| Receipt by Government | xxx |
| Receipt by Owners | xxx |
| Net Value-Added (NVA) | xxx |

### Extracts of Value-Added Statement Infosys Annual Report 2011-12

**VALUE ADDED STATEMENT**

| | 2012 | % of VA | 2011 | % of VA | Growth (%) |
|---|---|---|---|---|---|
| Income | 33,734 | | 27,501 | | 22.7 |
| Less: Operating expenses excluding personnel costs | | | | | |
| Software development and business process management expenses | 2,634 | | 2,083 | | |
| Selling and marketing expenses | 397 | | 294 | | |
| General and administration expenses | 1,647 | | 1,304 | | |
| Value-Added from operations | 29,056 | | 23,820 | | 22.0 |
| Other income (including exceptional items) | 1,904 | | 1,211 | | |
| **Total Value-Added** | **30,960** | | **25,031** | | **23.7** |
| **Distribution of Value-Added** | | | | | |
| – Human resources | | | | | |
| Salaries and bonus | 18,340 | 59.2 | 14,856 | 59.4 | 23.5 |

| | | | | | |
|---|---|---|---|---|---|
| – Providers of capital | | | | | |
| Dividend(1) | 2,699 | 8.7 | 3,445 | 13.8 | (21.7) |
| Minority interest | – | – | – | – | – |
| Interest on debt | – | – | – | – | – |
| Taxes | | | | | |
| Corporate income taxes | 3,367 | 10.9 | 2,490 | 9.9 | 35.2 |
| Dividend tax(1) | 438 | 1.4 | 568 | 2.3 | (22.9) |
| Income retained in business | | | | | |
| Depreciation and amortization | 937 | 3.0 | 862 | 3.4 | 8.7 |
| Retained in business | 5,179 | 16.8 | 2,810 | 11.2 | 84.3 |
| **Total** | **30,960** | **100.0** | **25,031** | **100.0** | **23.7** |

Note : The figures above are based on IFRS financial statements and they were considered on accrual basis

## EXTRACTS OF VALUE ADDED STATEMENT OF BHARAT PETROLEUM CORPORATION LIMITED 2010-2011

*Rs. in Crores*

| | 2010-11 | 2009-10 |
|---|---|---|
| **HOW VALUE IS GENERATED** | | |
| Value of Production (Refinery) | 71,660 | 55,153 |
| Less : Direct Materials Consumed | (63,304) | (50,825) |
| Added Value | 8,356 | 4,328 |
| Marketing Operations | 3,180 | 5,453 |
| Value added by Manufacturing & Trading Operations | 11,536 | 9,781 |
| Add : Other Income and prior period items | 1,745 | 2,185 |
| Total Value Generated | 13,281 | 11,966 |

*Rs. in Crores*

| | 2010-11 | 2009-10 |
|---|---|---|
| **HOW VALUE IS DISTRIBUTED** | | |
| Operations & Service Costs | 5,162 | 5,509 |
| Employees' Benefits | | |
| Salaries, Wages & Bonus | 1,507 | 1,606 |
| Other Benefits | 1,296 | 535 |
| Providers of Capital | | |
| Interest on Borrowings | 1,101 | 1,011 |
| Dividend | 577 | 579 |

| | | |
|---|---|---|
| Income Tax | 866 | 828 |
| Re-Investment in Business | | |
| Depreciation | 1,655 | 1,242 |
| Deferred Tax | 148 | (303) |
| Retained Profit | 969 | 959 |
| **Total Value distributed** | **3,281** | **11,966** |

## ECONOMIC VALUE ADDED

A critical concept in evaluating the performance of any business is termed us economic value-added. In generic terms, value-added refers to the additional or incremental value created by an activity or a business venture.

Economic value-added is a refinement of this concept – it measures the economic rather than accounting profit created by a business after the cost of all resources including both debt and equity capital have been taken into account.

Economic Value-Added (EVA) is a financial measure what economists sometimes refer to as economic profit or economic rent. The difference between economic profit and accounting profit is essentially the cost of equity capital – an accountant does not subtract a cost of equity capital in the computation of profit, so in fact an accountant's measure of income or profit is in essence the residual return to that equity capital since all other costs have been deducted from the revenue stream. In contrast, an economist charges for all resources in his computation of profit – including an opportunity cost for the equity capital invested in the business – so an economist's definition and computation of the profit is net above the cost of all resources.

### How to Calculate Economic Value-Added (EVA)

Note that, as in the traditional computation of earnings, interest on debt capital is subtracted from operating earnings (earnings before interest and taxes (EBIT)) to obtain net income. Then, an opportunity cost on equity capital is subtracted to obtain EVA. The opportunity cost on equity capital is computed as the equity or net worth of the business times a rate of return that reflects the rate required by investors in the business. This required rate is in reality an opportunity cost measured by the rate of return that could be obtained on equity funds, if they were invested elsewhere. A positive EVA means the firm is generating a return to invest capital that exceeds the direct, i.e., interest and opportunity cost of that invested capital; a negative EVA means that the firm did not generate a sufficient return to cover the cost of its debt and equity capital.

The following tables gives a view how to calculate Economic Value-Added (EVA).

| | |
|---|---|
| Earnings before Interest and Taxes (EBIT) | xxx |
| Less : Interest | xxx |
| Net Income | xxx |
| Less : Cost of Equity Capital | xxx |
| Economic Value-Added (EVA) | xxx |

***Expressed as a formula:***

EVA = NOPAT-(WACC* Capital Employed)

Where NOPAT ="Net Operating Profit after Taxes"

WACC = Weighted Average Cost of Capital

Capital Employed /Invested Capital = Total Assets – Non interest-Bearing Current Liabilities

**Balance Sheet of ABC Limited**
**as on 31st March, 2012**

| | Rs. |
|---|---|
| **I. EQUITY AND LIABILITIES** | |
| 1. Shareholders' Funds | |
| **Equity** | 400000 |
| 2. Non-Current Liabilities | |
| Long-Term Debt | 600000 |
| 3. Current Liabilities | |
| (a) Account Payables | 20800 |
| (b) Bank Overdrafts | 48400 |
| **TOTAL** | **1069200** |
| **II. ASSETS** | |
| 1. Non-Current Assets | |
| (a) Fixed Assets | 1000,000 |
| 2. Current Assets | |
| (a) Inventories | |
| (i) Raw Material | 8640 |
| (ii) Finished Goods | 17136 |
| (b) Account Receivable | 42930 |
| (c) Cash | 494 |
| **TOTAL** | **1069200** |

**Statement of Profit of ABC Limited**

| | |
|---|---|
| Sales | 286200 |
| Less: Operating Expenses | 114840 |
| EBIT | 171360 |
| Less: Tax Expenses | 68544 |
| NOPAT | 102816 |

The average rate of return on similar types of companies is 20%, while risk-free return is 12.5%. Rate of return as charged by bank is 18%, and the tax rate is 40%.

Calculate Economic Value-Added.

**Solution**

**Step 1: Calculation of Capital Employed**

| | |
|---|---|
| Equity | 4,00,000 |
| Long-Term Debt | 6,00,000 |
| Bank Overdrafts | 48,400 |
| Total Capital Employed | 10,48,400 |

**Step 2: Calculation of Weighted Average Cost of Capital (WACC)**

| | Amount | Expected Return |
|---|---|---|
| Equity | 400000 | 80000 (400000 x 20%) |
| Long-Term Debt | 600000 | 45000 (600000 x 12.5% x 0.60) |
| Bank Overdrafts | 48400 | 5227.2 (48400 x 18% x 0.60) |
| **Total Capital Employed** | **1048400** | **130227.2** |

WACC = 130227.2/1048400

= 12.42%

**Step 3:**

Economic Value-Added = NOPAT - Weighted average cost of capital* Capital Employed

Rs.102816 – Rs.130227.2

Rs.27411.2

## What insight does EVA provide about financial performance of a business?

First, like any financial measure, the trend may be more valuable than the absolute value of EVA. Even if EVA is positive, a declining EVA suggests that financial performance is deteriorating over time, and if this trend continues EVA will become negative and financial performance unacceptable. A negative EVA indicates that the firm is not compensating its capital resources adequately, and corrective action should be considered if this negative EVA persists over time.

## Corrective Action to Improve EVA

First, operating performance with respect to operating profit margins or asset turnover ratios could be improved to generate more revenue without using more capital.

Second, the capital invested in the business might be reduced by selling under-utilized assets. This strategy will simultaneously improve operating performance through a higher asset turnover ratio, as well as a reduced capital charge against those earnings because of a reduced debt or equity capital investment.

Third, redeploy the capital invested to projects and activities that have higher operating performance than the current projects or investments are exhibiting.

And fourth, if the business is not highly leveraged, change the capital structure by substituting lower cost debt for higher cost equity. Although this last strategy will decrease net income because of the higher interest cost, it will improve the EVA of the business because the total cost of debt and equity is reduced, and EVA measures the value created after all costs of capital (debt and equity) have been taken into account.

## Advantages of EVA Analysis

In various cases, company pays bonuses to the employees on the basis of EVA generated. Since a higher EVA implies higher bonuses to the employees, it motivates the employees to work hard and generate higher revenue.

Using EVA, company can evaluate the projects independently, and hence can decide whether to execute the project or not.

It helps the company in monitoring the problem areas and taking corrective actions to resolve those problems.

Unlike accounting profit, such as EBIT, Net Income and EPS, EVA is based on the idea that a business must cover both the operating costs as well as the capital costs and hence it presents a better and true picture of the company to the owners, creditors, employees, shareholders and all other interested parties.

It also helps the owners of the company to identify the best person to run the company effectively and efficiently.

However, there are some disadvantages of EVA like it is difficult to compute, and also it does not take into account inflation into its calculation. Therefore, company should take into account above advantages and disadvantages before deciding whether to implement EVA or not.

## MARKET VALUE ADDED

Value based management and shareholder-value analysis is a well known concept. With the change of time newer related concepts such as MVA have gained importance.

Market value-added is the difference between the company's market and book value of shares. According to Stern Stewart, if the total market value of a company is more than the amount of capital invested in it, the company has managed to create shareholder value. If the market value is less than capital invested, the company has destroyed shareholder value.

**Market Value-Added = Company's total Market Value – Capital Invested**

With the simplifying assumption that market and book value of debt are equal, this is the same as Market Value-Added = Market Value of equity – Book value of equity.

Book value of equity refers to all equity equivalent items like reserves, retained earnings and provisions. In other words, in this context, all the items that are not debt (interest bearing or non-interest bearing) are classified as equity.

Market value-added (MVATM) is identical in meaning with the market-to-book ratio. The difference is only that MVA is an absolute measure and market-to-book ratio is a relative measure. If MVA is positive, it means that market–to– book ratio is less than one. According to Stewart's Market value-added tells us how much value the company has added to, or subtracted from, its shareholders investment. Successful companies add their MVA and thus increase the value of capital invested in the company. In unsuccessful companies decrease the value of the capital originally invested decreases.

Whether a company succeeds in creating MVA or not depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on the stock market with premium compared to the original capital. On the other hand, companies that have rate of return smaller than their cost of capital sell with discount compared to the original capital invested in company. Whether a company has positive or negative MVA depends on the rate of return compared to the cost of capital.

Market value-added can also be defined in relation to Economic Value-Added Measures (EVATM). EVA measures whether the operating profit is enough compared to the total cost of capital employed. Stewart defines EVA as the surplus of Net Operating Profit after Taxes (NOPAT) and after adjusting capital cost, where NOPAT = Profit after depreciation and taxes but before interest costs and Capital Cost = Weighted average cost of capital X capital employed or EVA = (ROI – WACC) x Capital employed.

He further defines the connection between EVA and MVA as: Market Value-Added = Present Value of All future EVA by increasing EVA, i.e., a company increases its market value-added or in other words increases the difference between company's value and the amount of capital invested in it.

The relationship of MVA with EVA has its implication on valuation. By rearranging the formula, market value of equity can be defined as:

Market value of equity = Book value of equity + Present value of all future EVA.

### Illustration

Company XYZ whose shareholders' equity amounts to Rs. 750,000. The company owns 5,000 preferred shares and 100,000 common shares outstanding.

The present market value for the common shares is 12.50 per share and 100 per share for the preferred shares.

**Solution:**

**Market Value of Common Shares =** 100,000 * 12.50 = Rs. 12,50,000

**Market Value of Preferred Shares =** 5,000 * 100 = Rs. 5,00,000

**Total Market Value of Shares =** 12,50,000 + 500,000 = Rs. 17,50,000

Using the figures obtained above:

Market Value Added = Rs. 17,50,000 – Rs. 750,000 = Rs. 10,00,000

## SHAREHOLDER VALUE ADDED (SVA)

Shareholder Value-Added (SVA) represents the economic profits generated by a business above and beyond the minimum return required by all providers of capital. "Value" is added when the overall net economic cash flow of the business exceeds the economic cost of all the capital employed to produce the operating profit. Therefore, SVA integrates financial statements of the business (profit and loss, balance sheet and cash flow) into one meaningful measure.

**Shareholder value added = Net operating profit after tax - Cost of capital**

The cost of capital is comprised of the company's weighted average cost of debt and equity, which include preferred stock.

The SVA approach is a methodology which recognizes that equity holders as well as debt financiers need to be compensated for bearing investment risk. The SVA methodology is a highly flexible approach to assist management in the decision-making process. Its applications include performance monitoring, capital budgeting, output pricing and market valuation of the entity.

## ADVANTAGES OF ADOPTING SVA

To create value, management must have an understanding of the variables that drive the value of the business. An organization cannot act directly on value. It has to act on factors it can influence, such as client satisfaction, cost, capital expenditures, the debt / equity mix and so forth. Through an understanding of these drivers of value, management is able to establish a consistent dialogue, both internally and with the shareholders, regarding what needs to be accomplished to create value. The benefits of moving towards SVA include:

Overall, the value-based performance measures will result in greater accountability for the investment of new capital, as well as for the use of existing investments.

Organization will have the opportunity to apply a meaningful private sector benchmark to evaluate performance.

Managers will be provided with an improved focus on maximizing shareholder value.

### Limitations of Adopting SVA

A limitation in the use of SVA as a performance measure is that, by nature, it is an aggregate measure. In order to analyze the underlying causes of any changes in calculated value between years, it is necessary to fully comprehend the value drivers and activities specific to a given firm.

There may be certain enterprises which are subject to any degree of price regulation. Hence, then it may not be possible for management to adjust output prices to achieve a commercial return in response to upward movements in input prices. Such a situation may result in SVA getting reduced even though there may have been no decrease in overall efficiency.

Similarly, a reduction in direct Government funding would result in a decrease in SVA.

Combined with the use of traditional accounting measures, a thorough knowledge of the value drivers of the business will assist in determining the underlying causes of fluctuations in the value-added measure.

Again, the use of SVA is not a substitute for detailed analysis of business drivers, rather it is an additional measurement tool with an economic foundation.

The cost of capital may be difficult to ascertain if a company is privately held, so restricting the use of this measurement to publicly held companies is advised.

## LESSON ROUND-UP

- Financial reporting includes not only financial statements but also other means of communicating information that relate to the information provided by the accounting system.
- The end product of accounting process should be such that it generates:
- information useful in investment and credit decisions,
- information useful in assessing cash flow prospects (amount, timing, and uncertainly), and
- information about enterprise resources, claims to those resources and changes therein.
- The Value-Added Statement (VAS) is a voluntary disclosure and adds little information to that contained in the income statement. It calculates total output by adding sales, changes in stock, and other incomes, then subtracting depreciation, interest, taxation, dividends, and the amounts paid to suppliers and employees.
- The Value Added Statement is divided into two parts : The first part shows how Value Added is arrived at the end and the second part shows the application of such Value Added.
- Economic value-added (EVA) measures the economic rather than accounting profit created by a business after the cost of all resources including both debt and equity capital have been taken into account.
- EVA = NOPAT-(WACC* Capital Employed)
- Where NOPAT = "Net Operating Profit after Taxes"
- WACC = Weighted Average Cost of Capital
- Capital Employed /Invested Capital = Total Assets – Non interest-Bearing Current Liabilities
- Market value-added (MVA) is the difference between the Company's market and book value of shares.
- Market Value-Added = Company's total Market Value – Capital Invested
- Shareholder Value-Added (SVA) represents the economic profits generated by a business above and beyond the minimum return required by all providers of capital.

## GLOSSARY

**Accounting:** Accounting is Recording, classifying, summarizing, interpreting/ reporting and analyzing the financial transactions in a systematic manner.

**Audit report:** An audit report is a written opinion of an auditor regarding an entity's financial statements.

**Corporate Governance:** Corporate Governance is how a corporation is administered or controlled. It is a set of processes, customs, policies, laws and instructions affecting the way a corporation is directed, administered or controlled.

**Value added:** Value added can be defined as the value created by the activities of a firm and its employees, that is, sales minus the cost of bought in goods and services.

**Value added statement:** The value-added statement (VAS) reports on the calculation of value-added and its allocation among the stakeholders in the company.

**Economic value added:** Economic Value-Added (EVA) is a financial measure what economists sometimes refer to as economic profit or economic rent.

**Market value added:** Market value-added is the difference between the company's market and book value of shares.

**Shareholder value added:** Shareholder value added integrates financial statements of the business (profit and loss, balance sheet and cash flow) into one meaningful measure.

## TEST YOURSELF

1. Discuss the concept of Corporate Financial Reporting and its requirements in India.
2. What are the objectives of corporate financial reporting?
3. What is Value-Added Statement (VAS)? State the merit and demerit of VAS.
4. What do you mean by Economic Value-Added? How is EVA related to valuation?
5. Discuss the Shareholder Value-Added (SVA), its benefits and drawbacks.
6. Write Short Notes on:
   (a) Market Value of Equity
   (b) Limitations of Value-Added Statement
7. What are the contents Corporate Governance report?
8. What is CARO? Explain in Detail.
9. State Salient Features of Corporate Financial Reporting.

# Lesson 9 Cash Flow Statement

***Key Concepts One Should Know***

- Cash equivalents
- Cash flow
- Fund flow
- Sources of cash
- Operating activities
- Investing activities
- Financing activities

## *Learning Objectives*

**To understand the:**

- Meaning of cash flow statement
- Difference between funds flow statement and cash flow statement
- Concept of funds in cash flow analysis
- Utility and limitations of cash flow analysis
- Effect of Accounting Standard (AS-3) on cash flow statement
- Operating activities, investing activities and financing activities
- Transactions effecting inflow and outflow of cash
- Method of preparation of cash flow statement;
- Objectives and uses of cash flow statement

## *Lesson Outline*

- Introduction to Cash Flow Statement
- Types of Cash Flows in Cash Flow Statement
- Adjustments in Cash Flow Statement
- Preparation of Cash Flow Statement
- Different Methods applied in Cash Flow Statement
- Utility & Limitations of Cash Flow Statement
- Funds Flow Statement Vs Cash Flow Statement
- LESSON ROUND UP
- TEST YOURSELF

## INTRODUCTION TO CASH FLOW STATEMENT

A statement of cash flow reports cash receipts and payments classified according to the entities' major activities - operating, investing and financing during the period.

When it is desired to explain to management the sources of cash and its uses during a particular period of time, a statement known as cash flow statement is prepared. A statement of cash flows reports the inflows (receipts) and outflows (payments) of cash and its equivalents of an organisation during a particular period. It provides important information that compliments Statement of Profit & Loss and balance sheet. This statement reports a net cash inflow or net cash outflow for each activity and for the overall business. It also reports from where cash has come and how it has been spent. It explains the causes for the changes in the cash balance. In substance, the cash flow statement summarises a myriad of specific cash transactions into a few categories for a business entity. The statement of cash flows reports the cash receipts, cash payments, and net changes in cash resulting from operating, investing and financing activities of an enterprise during a period in a format that reconciles the beginning and ending cash balances.

The cash flow statement should be prepared in line with the stipulations given in AS-3.

### Applicability of AS-3 Cash Flow Statements

The applicability of Cash flow statement has been defined under the Companies Act, 2013. As per the definition in the act, a financial statement includes the following:

i. Balance sheet

ii. Profit and loss account / Income and expenditure account

iii. Cash flow statement

iv. Statement of changes in equity

v. Explanatory notes

**As per AS 3:**

**For Companies** - As per the Companies Act, 2013, Cash Flow Statement is required to be prepared by every company except a one person, small and dormant company.

For non-companies - AS 3 is not mandatory for entities falling in Level IIand Level III.

### Meaning of certain terms used in the context of cash Flow Statement

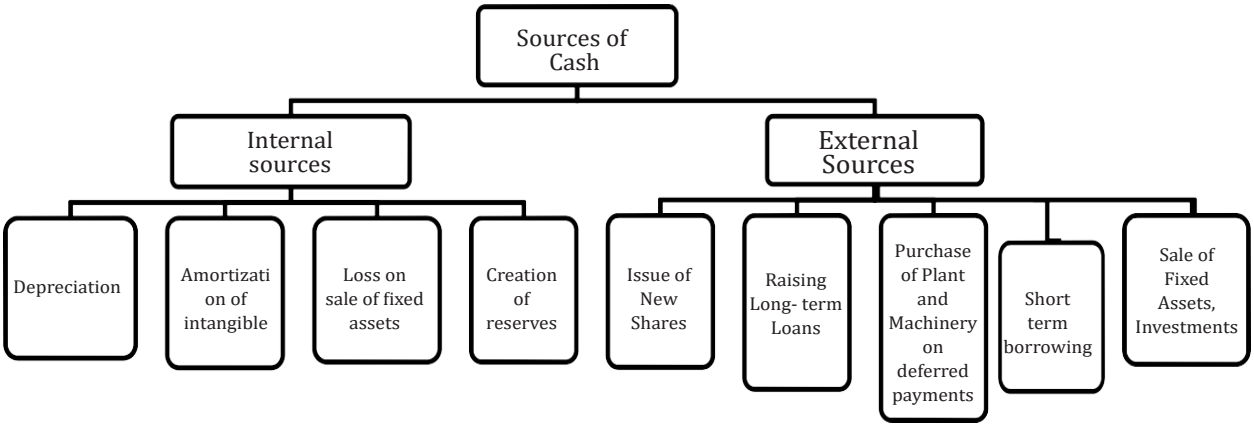
***Cash***: Cash comprises cash in hand and demand deposits with banks. Demand deposits mean those deposits which are repayable by bank on demand by the depositor.

***Cash equivalents***: Cash equivalents are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value. Cash equivalents are held for the purpose of meeting short term cash commitments rather than for investments or other purposes. Examples of cash equivalents are treasury bills, commercial paper etc. Investments in shares are excluded from cash equivalents unless they are in substance cash equivalents, for example preference shares of a company acquired shortly before their specified redemption date (provided there is only an insignificant risk of failure of the company to repay the amount at maturity).

***Cash flows***: Cash flows are inflows and outflows of cash and cash equivalents. It means the movement of cash into the organisation and movement of cash out of the organisation. The difference between the cash inflows and outflows is known as net cash flow which can be either net cash inflow or net cash outflow. Cash flows exclude movements between items that constitute cash or cash equivalents because these components are part of the cash management of an enterprise rather than part of its operating, investing and financing activities.

Cash management includes the investment of excess cash in cash equivalents.

## Sources of Cash




## Internal Sources

Cash from operations is the main internal source. The net profit shown by the Profit and Loss Account will have to be adjusted for non-cash items for finding out cash from operations. Some of these items are as follows:

i. **Depreciation:** Depreciation does not result in an outflow of cash. Therefore net profit will have to be increased by finding out the amount of depreciation or development rebate charged, in order to find out the real cash generated from operations.

ii. **Amortization of intangible assets:** Goodwill, preliminary expenses, etc. when written off against profits, reduce the net profits without affecting the cash balance. The amounts written off should, therefore, be added back to profits to find out the generation of each from operations.

iii. **Loss on sale of fixed assets:** It does not result in an outflow of cash, therefore should be added back to profits.

iv. **Gain from sale of fixed assets:** Since sale of fixed assets is taken as a separate source of cash, it should be deducted from the net profits.

v. **Creation of reserves:** If profit for the year has been arrived at after charging transfers to reserves. Such transfers should be added back to profits. The cash operations show a net loss, such net loss after making adjustments for non-cash items can be shown as an application of cash.

## External Sources

The external sources of cash are:

vi. **Issue of New Shares:** In case shares have been issued for cash, the net cash received (i.e., after deducting expenses on the issue of shares or discount on the issue of shares) will be taken as a source of cash.

vii. **Raising Long-term Loans:** Long-term loans, such as issue of debentures, loans from Industrial Finance Corporations, State Financial Corporation and IDBI are sources of cash. They should be shown separately.

viii. **Purchase of Plant and Machinery on deferred payments:** In case plant and machinery have been purchased on a deferred payment system, it should be shown as a separate source of cash.

ix. **Short-term Borrowings-cash credit from banks:** Short-term borrowings, etc., from bans increase available cash but they have to be shown separately under the above head.

x. **Sale of Fixed Assets, Investments, etc.:** It results in the generation of cash and therefore, is a source of cash.

Decrease in various current assets and increase in various current liabilities (as discussed further) may be taken as external sources of cash, if they are not adjusted while computing cash from operations.

## CLASSIFICATION OF CASH FLOWS STATEMENT

The cash flow statement during a period is classified into three main categories of cash inflows and cash outflows i.e. operating, investing and financing activities.

### (i) Cash Flows from Operating Activities

Operating activities are the principal revenue-producing activities of the enterprise and other activities that are not investing and financing activities. Operating activities include cash effects of those transactions and events that enter into the determination of net profit or loss.

A business's normal operations result in both cash receipts and cash payments. Cash receipts result from selling goods and providing services. The cost of goods sold and other operative expenses result in cash disbursements. The revenues and expenses reported in the income statement, however, do not coincide with the cash receipts and payments as we prepare the income statement on an accrual basis. The receipts and payments of cash for these revenues and expenses may occur in either an earlier or later period than the period we report the revenues and expenses.

Following are the examples of cash flows arising from financing activities:

(a) cash receipts from the sale of goods and the rendering of services;

(b) cash receipts from royalties, fees, commissions, and other revenues;

(c) cash payments to suppliers for goods and services;

(d) cash payments to and on behalf of employees;

(e) cash receipts and payments of an insurance enterprise for premiums and claims, annuities and other policy benefits;

(f) cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities; and

(g) cash receipts and payments relating to future contracts, forward contracts, option contracts, and swap contracts when the contracts are held for dealing or trading purposes.

### (ii) Cash Flows from Investing Activities

Investing activities are the acquisition and disposal of long term assets and other investments not included in cash equivalents. In other words, investing activities include transactions and events that involve the purchase and sale of long-term productive assets (e.g. land, building, plant and machinery etc.) not held for resale and other investments.

The following are examples of cash flows arising from investing activities:

(a) cash payments to acquire fixed assets (including intangibles). These payments include those relating to capitalised research and development costs and self-constructed fixed assets;

(b) cash receipts from disposal of fixed assets (including intangibles);

(c) cash payments to acquire shares, warrants, or debt instruments of other enterprises and interests in joint ventures (other than payments for those instruments considered to be cash equivalents and those held for dealing or trading purposes);

(d) cash receipts from disposal of shares, warrants, or debt instruments of other enterprises and interests in joint ventures (other than receipts from those instruments considered to be cash equivalents and those held for dealing or trading purposes);

(e) cash advances and loans made to third parties (other than advances and loans made by a financial enterprise);

(f) cash receipts from the repayment of advances and loans made to third parties (other than advances and loans of a financial enterprise);

(g) cash receipts and payments relating to future contracts, forward contracts, option contracts, and swap contracts except when the contracts are held for dealing or trading purposes, or the transactions are classified as financing activities.

### (iii) Cash Flows from Financing Activities

Financing activities are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise.

Following are the examples of cash flows arising from financing activities:

(a) cash proceeds from issuing shares or other similar instruments;

(b) cash proceeds from issuing debentures, loans notes, bonds and other short term borrowing.

(c) cash repayments of amounts borrowed i.e. redemption of debentures, bonds etc.

(d) cash payments to redeem preference shares.

(e) payment of dividend.

| Operating activities | Investing activities | Financing activities |
|---|---|---|
| Principal revenue producing activities and other activities that are not investing or financing activities | Acquisition and disposal of long-term assets and other investments not included in cash equivalents | Activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company)and borrowings |

## SPECIAL ITEMS

In addition to the general classification of three types of cash flows, Accounting Standard-3 provides for the treatment of the cash flows of certain special items as under:

### (a) Foreign Currency Cash Flows

Cash flows arising from transactions in a foreign currency should be recorded in an enterprise's reporting currency by applying to the foreign currency amount the exchange rate between the reporting currency and foreign currency at the date of cash flow. A rate that approximates actual rate may be used if the result is substantially the same as would arise if the rates at the date of cash flows were used. Unrealised gains and losses arising from changes in foreign exchange rates are not cash flows. However, the effect of exchange rate changes on cash and cash equivalents held or due in foreign currency is reported in the cash flow statement in order to reconcile cash and cash equivalents at the beginning and the end of the period. This amount is presented separately from cash flows from operating, investing and financing activities and includes the differences, if any, had those cash flows been reported at the end of period exchange rates.

| Reporting of foreign currency cash flows | |
|---|---|
| Cash flows arising from transactions in a foreign currency | Effects of changes in exchange rates on cash and cash equivalents held in a foreign currency |
| To be recorded in the reporting currency of the enterprise using the exchange rate on the date of cash flow | To be reported as a separate part of the reconciliation of the changes in cash and cash equivalents during the Period |

### (b) Extraordinary Items

The cash flows associated with extra-ordinary items such as bad debts recovered, claims from insurance companies, winning of a law suit or lottery etc. are disclosed separately as arising from operating, investing or financing activities as the case may be, in the cash flow statement.

### (c) Interest and Dividends

According to Accounting Standard-3 (Revised), the treatment of interest and dividends, received and paid, depends upon the nature of the enterprise, that is, financial enterprises and other enterprises.

(i) In the case of financial enterprises: Cash flows arising from interest paid and interest and dividends received, should be classified as cash flows from operating activities.

(ii) In the case of other enterprises:

- cash flows arising from interest paid should be classified as cash flows from financing activities.
- cash flows arising from interest and dividends received should be classified as cash flows from investing activities;
- dividends paid should be classified as cash flows from financing activities.

| **Non-Financial Enterprises** | | | |
|---|---|---|---|
| Interest paid | Interest received | Dividend Paid | Dividend received |
| Financing Activities | Investing Activities | Financing Activities | Investing Activities |
| **Financial Enterprises** | | | |
| Interest paid | Interest received | Dividend Paid | Dividend received |
| Operating Activities | Operating Activities | Financing Activities | Operating Activities |

In all cases, cash flows from interest and dividends received and paid should be disclosed separately. Also the total amount of interest paid during the period is disclosed in the cash flow statement whether it has been recognised as an expense in the Statement of Profit & Loss or capitalised in accordance with AS-10, Accounting for Fixed Assets.

### (d) Taxes on Income

Cash flows arising from taxes on income should be separately disclosed and should be classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities. Taxes on income arise on transactions that give rise to cash flows that are classified as operating, investing or financing activities in a cash flow statement. While tax expense may be readily identifiable with investing or financing activities, the related tax cash flows are often impracticable to identify and may arise in a different period from the cash flows of the underlying transactions. Therefore taxes paid are usually treated as cash flows from operating activities. However, in case it is possible to identify the tax cash flow with an individual transaction that gives rise to cash flows that are classified as investing or financing activities, it is appropriate to classify the tax cash flow as an investing or financing activity.

### (e) Acquisition and Disposals of Subsidiaries and other Business Units

The aggregate cash flows arising from acquisitions and from disposals of subsidiaries or other business units should be presented separately and classified as investing activities.

### (f) Non-cash Transactions

Investing and financing transactions that do not require the use of cash or cash equivalents should be excluded from a cash flow statement. Such transactions should be disclosed elsewhere in the financial statements in a way that provides all the relevant information about these investing and financing activities. The exclusion of non-cash transactions from the cash flow statement is consistent with the objective of a cash flow statement as these do not involve cash flows in the current period. Following are examples of noncash transactions:

(i) the acquisition of assets by assuming directly related liabilities.

(ii) the acquisition of an enterprise by means of issue of shares.

(iii) conversion of debt into equity.

## PREPARATION OF A CASH FLOW STATEMENT

The following basic informations is required for the preparation of a cash flow statement:

(i) **Comparative Balance Sheets:** Balance sheets at the beginning and at the end of the accounting period indicate the amount of changes that have taken place in assets, liabilities and capital.

(ii) **Statement of Profit & Loss:** The Statement of Profit & Loss of the current period enables to determine the amount of cash provided by or used in operations during the accounting period after making adjustments for non-cash, current assets and current liabilities.

(iii) **Additional data:** In additions to the above statements additional data are collected to determine how cash has been provided or used e.g. sale or purchase of assets for cash.

**The following procedure may be used for the preparation of a cash flow statement:**

(a) **Calculation of net increase (decrease) in cash and cash equivalents accounts**.

The difference between cash and cash equivalents for the period may be computed by comparing these accounts given in the comparative balance sheets. The results will be cash receipts and payments during the period responsible for the increase or decrease in cash and cash equivalent items.

(b) **Calculation of the net cash provided (used) by operating activities**.

It is by the analysis of Statement of Profit & Loss, comparative balance sheet and selected additional information.

(c) **Calculation of the net cash provided (used) by investing and financing activities**.

All other changes in the balance sheet item must be analysed taking into account the additional information and effect on cash may be grouped under the investing and financing activities.

(d) **Preparation of a cash flow statement.**

It may be prepared by classifying all cash inflows and outflows in terms of operating, investing and financing activities. The net cash flow provided by (used) in each of the three activities may be highlighted.

(e) Ensure that the aggregate of net cash flows from operating, investing and financing activities is equal to net increase (decrease) in cash and cash equivalents.

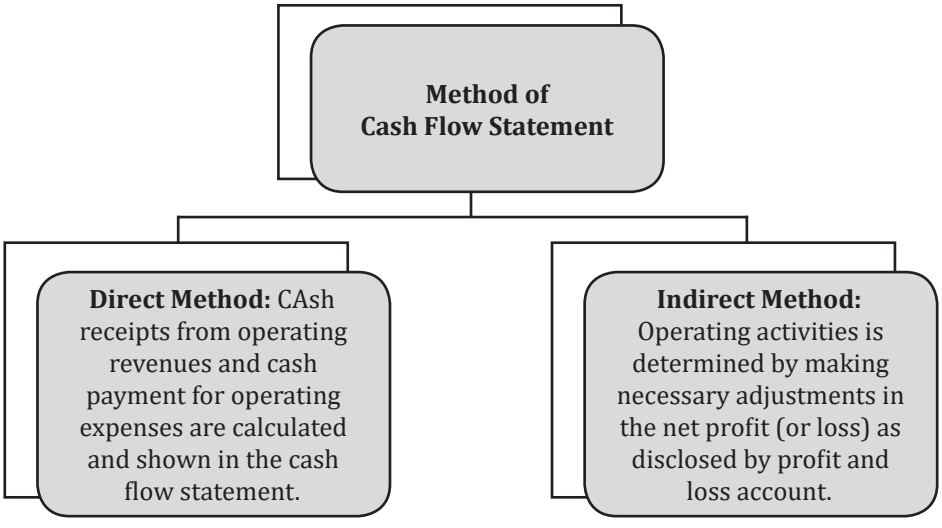
(f) Report any significant investing/financing transactions that did not involve cash or cash equivalents in a separate schedule to the cash flow statement.

## REPORTING OF CASH FLOWS FROM OPERATING ACTIVITIES

Net profit/loss as reported in the Statement of Profit & Loss is different from the net cash flow from operating activities as the financial statements are generally prepared on accrual basis of accounting under which the net income will not indicate the net cash provided by or net loss will not indicate the net cash used in operating activities. In order to calculate the net cash flows in operating activities, it is necessary to replace revenues and expenses with actual receipts and payments in cash. This is done by eliminating the non-cash revenues and/ non-cash expenses from given earned revenues and incurred expenses. There are two methods of converting net profit into net cash flows from operating activities:

(i) Direct method, and

(ii) Indirect method.



## 1. Direct Method

Under direct method, cash receipts from operating revenues and cash payments for operating expenses are arranged and presented in the cash flow statement. The difference between cash receipts and cash payments is the net cash flow from operating activities. It is in effect a cash basis Statement of Profit & Loss. In this case each cash transaction is analysed separately and the total cash receipts and payments for the period is determined. The summarised data for revenue and expenses can be obtained from the financial statements and additional information. We may convert accrual basis of revenue and expenses to equivalent cash receipts and payments. Make sure that a uniform procedure is adopted for converting accrual base items to cash base items.

The following are some examples of usual cash receipts and cash payments resulting from operating activities:

(i) Cash sales of goods and services;

(i) Cash collected from debtors (customers);

(ii) Cash receipts of interest or dividends;

(iii) Cash receipts of royalties, fees, commission and other revenues;

(iv) Cash payments to suppliers (creditors);

(v) Cash payments for various operating expenses i.e. rent, rates, power etc.

(vi) Cash payments for wages and salaries to employees;

(vii) Cash payments for income tax etc.

Under direct method, information about major classes of gross cash receipts and gross cash payments may be obtained either:

(a) from the accounting records of the enterprise; or

(b) by adjusting sales, cost of sales and other items in the statement of profit and loss for:

- Changes during the period in inventories and operating receivables and payables;
- Other non-cash items, and
- Other items for which the cash effects are investing or financing cash flows.

Some of the items to be shown in the cash flow statement are illustrated below:

***Collections from Customers:*** If a business has only cash sales, the amount of sales revenue in the income statement is the amount of cash collected from the customers. However, when the business has credit sales we have to adjust the amount of sales revenue for changes in debtors and bills receivable. The opening balance of debtors or bills receivable represents uncollected amount from a previous period and it is presumed that cash has been collected during the current accounting period. The closing balance of debtors or bills receivable represents uncollected amount in the current accounting period. Therefore in order to calculate the cash received from debtors, the opening balance (debtors/bills receivable) should be added to the amount of credit sales and closing balance should be subtracted therefrom.

Alternatively, Cash Collected from Debtors can also be calculated as given below:

Cash Collected from Debtors = Credit Sales + Decrease in Accounts Receivable or - Increase in Accounts Receivable.

***Payment to Suppliers:*** The analysis of cash payments to suppliers begins with cost of goods sold from the Statement of Profit & Loss. The amount of purchases is calculated by adding closing stock and subtracting opening stock form the cost of goods sold. The cash payment made to suppliers is calculated by making adjustments for change in sundry creditors/bills payable.

Purchases = Cost of Goods Sold + Closing Stock - Opening Stock

OR

Purchases = Cost of Goods Sold + Increase in Stock or - Decrease in Stock

Cash Paid to Suppliers = Purchases + Opening Balance of Creditors (Bills Payable) - Closing Balance of Creditors (Bills Payable).

OR

Cash Paid to Suppliers = Purchases + Decrease in Accounts Payable or - Increase in Accounts Payable.

***Payment to Employees:***

Cash Paid for Wages and Salaries = Wages and Salaries Expenses + Opening Balance of Outstanding Wages and Salaries - Closing Balance of Outstanding Wages and Salaries.

OR

Cash Paid for Wages and Salaries = Wages and Salaries Expenses + Decrease in Wages and Salaries Payable or - Increase in Wages and Salaries Payable.

***Rent Received:*** The analysis of rent received is similar to cash collected from customers.

Rent Received = Rent Revenue + Opening Balance of Rent Receivable - Closing Balance of Rent Receivable.

OR

Rent Received = Rent Revenue + Decrease in Rent Receivable or - Increase in Rent Receivable.

***Interest Paid:*** The analysis of interest paid is similar to the analysis of payments to employees.

Interest Paid = Interest Expenses + Opening Balance of Outstanding Interest - Closing Balance of Outstanding Interest.

OR

Interest Paid = Interest Expenses + Decrease in Interest Payable, or - Increase in Interest Payable.

A similar treatment is applied for various other income and expenses to find out the cash inflows or outflows.

***Insurance:*** Different procedure is adopted for insurance expense because insurance is usually purchased (and recorded as an asset) before it becomes an expense. The treatment is as follows:

Cash Paid for Insurance = Insurance Expenses + Closing Balance of Unexpired Insurance - Opening Balance of Unexpired Insurance.

OR

Cash Paid for Insurance = Insurance Expenses + Increase in Unexpired Insurance or - Decrease in Unexpired Insurance.

A similar treatment is applied for other prepaid expenses also.

In direct method of calculating cash flow from operations, the following points should be noted:

(i) The necessary adjustments should be made for bad debts, sales returns, purchases returns, discount allowed, discount received etc. while calculating the amount received from the customers or paid to suppliers, as the case may be.

(ii) Items like depreciation, amortisation of intangible assets (such as goodwill, patent, trade mark etc.) or of debenture discount, preliminary expenses, premium on redemption of debentures and preference shares are ignored from the cash flow statement since the method analyses and includes only cash transactions and therefore, non-cash items are omitted from a statement of cash flows.

(iii) No adjustment is made for loss or gain on the sale of fixed assets and investments since operating cash receipts and payments are reported directly on the cash flow statement.

## 2. Indirect Method

In this method the net profit (loss) is used as the base to calculate net cash provided by or used in operating activities. Non-cash and non-operating charges in the Statement of Profit & Loss are added back to the net profit while non-cash and non-operating credits are deducted to calculate operating profit before working capital changes. It is a partial conversion of accrual basis profit to cash basis profit. Then necessary adjustments are made for increase/decrease in current assets and current liabilities to obtain net cash from operating activities.

**A summary of adjustments required to convert the net profit to net cash flow from operating activities through indirect method is as follows:**

**A. Net profit before tax and extraordinary item**

**B. Adjustments for non-cash and non-operating items:**

*Add*: Amount written off in respect of depreciation, goodwill, preliminary expenses, underwriting commission etc.

*Add/Less*: Other non-operating items

**C. Adjustment for gains and losses on sale of fixed assets and investments:**

*Add*: Loss on sale of fixed assets/investments Less: Profit on sale of fixed assets/investments

**D. Adjustments for changes in current assets (except cash and cash equivalents) and current liabilities (except bank overdraft)**

*Add*: Decrease in accounts of current assets e.g. debtors, bill receivable, stock, prepaid expenses etc.

Less: Increase in accounts of current assets.

*Add*: Increase in accounts of current liabilities; e.g., creditors, bills payable, outstanding expenses, etc.

*Less*: Decrease in accounts of current liabilities.

**E. Cash generated from operations**

*Less*: Income tax paid.

**F. Adjustments for extra-ordinary items if any**

**G. Net cash from (used in) operating activities**

The computation of net cash inflow or cash outflow from operating activities by the indirect method takes a path that is very different from the computation by the direct method. However, the two methods arrive at the same amount of net cash flow from operations.

**The logic behind the treatment of various items are explained as follows:**

***Adjustment for Depreciation and other Non-cash and Non-operating items***

Depreciation, depletion and amortisation of expenses (amortisation of goodwill, preliminary expenses, premium on redemption of debentures, underwriting commission, etc.) do not affect cash and thus should be added back to the net profit in the cash flow statement. When depreciation is provided it has no effect on cash. However, depreciation is deducted from revenues for the computation of income. Therefore, in going from net profit to cash flow from operations, we add depreciation back to net profit. Likewise, all expenses with no cash effects are added back to net profit in the cash flow statement. In the same manner, revenues that do not provide cash are substracted from net profit.

***Adjustment for Gains and Losses on Sale of Fixed Assets/Investments***

When fixed assets or investments are sold, there may be either profit or loss on sale. Such profit or loss affects the amount of net profit. For instance, when fixed assets, with a book value of ₹ 75,000 was sold for ₹ 90,000 the actual inflow of cash is ₹ 90,000 which would be reflected in the cash flow statement including a profit of ₹ 15,000. But this profit on sale of fixed asset has already increased the net profit indicating an inflow of cash from operating activities. In order to avoid this duplication, this profit of ₹ 15,000 must be deducted from the net profit. Moreover sale of fixed assets is an investing activity and therefore effect of this profit on sale must be removed from cash flow from operations. Likewise, a loss on sale of fixed assets or investment also require an adjustment to the net profit in the cash flow from operations. This loss is added back to the net profit to compute cash flow from operations.

### *Changes in Current Assets and Liabilities*

Most current assets and current liabilities result from operating activities. Sundry debtors and bills receivable result from sales, inventory generates revenues and prepaid expenses are used in operations. On the liabilities side sundry creditors and bills payable are ordinarily incurred to buy inventory and outstanding liabilities relate to salaries, utilities and other expenses. Changes in these current assets and liabilities are reported as adjustments to net profit on the cash flows statement. The following rules apply:

(a) An increase in current assets other than cash is deducted from net profit to calculate cash flow from operations: For example, when sundry debtors (net) increase during the year, this means that revenues on accrual basis are higher than revenues on cash basis since goods sold on credit are treated as revenues on accrual basis. In other words, the business operations in the period covered resulted in more revenues but not all these revenues resulted in corresponding increase in cash. Some of the revenues resulted in an increase in debtors only. In order to convert the net profit to net cash provided by operating activities the increase in debtors must be deducted from the reported net profit. However, a decrease in current assets has opposite effect and has to be added back to net profit to determine cash provided for the period.

(b) An increase in current liability is added to net profit to arrive at the cash from operation. For example when, sundry creditors increase during the period covered, it means that expenses on accrual basis are more than they are on cash basis because expenses are incurred for which no payment has been made. So this increase must be added to net profit. H owever, a decrease in a current liability is subtracted from net profit since more cash has been paid than the expenses recorded on accrual basis.

## FORMAT OF CASH FLOW STATEMENT

Accounting Standard-3 (Revised) has not provided any specific format for the preparation of cash flow statements, but a general idea can be had from the illustration appearing thereof. There seems to be flexibility in the presentation of cash flow statements. However, a widely accepted format under direct method and indirect method is given below:

**Cash Flow Statement (Direct Method)**

***A. Cash flows from operating activities***

Cash receipts from customers

Cash paid to suppliers and employees

Cash generated from operations

Income taxes paid

Cash flow before extraordinary item

Proceeds from earthquake disaster settlement

*Net Cash from Operating Activities*

***B. Cash flows from investing activities***

Purchase of fixed assets

Proceeds from sale of equipment

Interest received

Dividend received

*Net Cash from Investing Activities*

***C. Cash flows from financing activities***

Proceeds from issuance of share capital

Proceeds from long-term borrowings

Repayments of long-term borrowings

Interest paid

Dividend paid

*Net Cash from Financing Activities*

Net Increase (Decrease) in Cash and Cash Equivalents (A + B + C)

Cash and Cash Equivalents at Beginning of Period

Cash and Cash Equivalents at End of Period

**Cash Flow Statement (Indirect Method)**

***A. Cash flows from operating activities***

**Net profit before tax and extraordinary items Adjustments for:**

Depreciation Foreign exchange Investments

Gain or loss on sale of fixed assets

Interest/dividend

Operating profit before working capital changes.

**Adjustments for:**

Trade & other receivables Inventories

Trade payables

Cash generation from operations

Interest paid

Direct taxes

Cash before extraordinary items

Deferred revenue

*Net Cash from Operating Activities.*

***B. Cash flows from investing activities***

Purchase of fixed assets

Sale of fixed assets

Sale of investments

Purchase of investments

Interest received

Dividend received

Loans to subsidiaries

*Net Cash from Investing Activities*

**C. Cash flows from financing activities**

Proceeds from issue of share capital

Proceeds from long term borrowings

Repayment to finance/lease liabilities

Dividend paid

*Net Cash from Financing Activities*

Net Increase (Decrease) in Cash and Cash Equivalents (A + B + C)

Cash and Cash Equivalents at the Beginning of the Period

Cash and Cash Equivalents at the End of the Period

***Alternatively the Cash Flows from Operating Activities (Indirect Method) may be summarised as below:***

Net profit before tax and extra-ordinary items

***Adjustments for non-cash and non-operating items***

(+) Depreciation

(+) Amortization of intangible assets, preliminary expenses, debenture discount and the like.

(+) or (-) Other non-cash and non-operating items included in net profit

***Adjustments for gains and losses on sale of fixed assets and investments***

(-) Gains on sale of fixed assets and investments

(+) Loss on sale of fixed assets and investments

***Adjustments for changes in current assets and current liabilities***

(-) Increases in current assets

(+) Decreases in current assets

(+) Increases in current liabilities

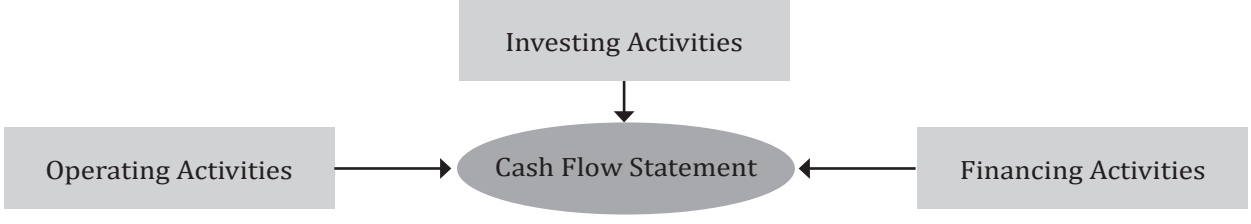
(-) Decreases in current liabilities

(-) Income-tax paid

(-) Extraordinary items

Net Cash Flows from Operating activities

**We can summarize the all activities while preparing the cash flow as under:**




## Illustration 1.

From the following balances calculate cash from operations :

| **Profit made during the year** | **31st December** | |
|---|---|---|
| | **2016** | **2017** |
| Bills receivable | 5,000 | 4700 |
| Debtors | 1000 | 1250 |
| Bills payable | 2000 | 2500 |

| | | |
|---|---|---|
| Creditors | 800 | 600 |
| Outstanding Expenses | 100 | 120 |
| Prepaid Expenses | 80 | 70 |
| Accrued Income | 60 | 75 |
| Income received in advanced | 80 | 25 |
| Profit made during the year | – | 7,000 |

**Cash Flow Statement Solution**

**Calculation of cash from Operating Activities**

| | | | |
|---|---|---|---|
| | **Profit made during the year** | | 7,000 |
| Add : | Decrease in current assets and increases in current liabilities : | | |
| | Decrease in bills receivable (C.A.) | 300 | |
| | Increase in bills payable (C.L.) | 500 | |
| | Increase in outstanding expenses (C.L.) | 20 | |
| | Decrease in prepaid expenses (C.A.) | 10 | 830 |
| | | | 7,830 |
| Less : | Increase in current assets and decrease in current liabilities : | | |
| | Increase in debtors (C.A.) | 250 | |
| | Decrease in creditors (C.L.) | 200 | |
| | Increase in accrued income (C.A.) | 15 | |
| | Decrease in income received in advance (C.L.) | 55 | 520 |
| | Cash from Operating Activities | | 7,310 |

[C.A. = Current Asset, C.L. = Current Liability]

**Illustration 2.**

Given below are the balance sheets of Veer & Sons.

| **I. Equity and Liabilities** | **01 Jan 2015 Rs.** | **31 Dec. 2015 Rs.** |
|---|---|---|
| Creditors Mrs. A's Loan | 4,000 | 4,400 |
| Loans and Bank | 2,500 | -- 5,000 |
| Capital | 4,000 | 15,300 |
| | 12,500 | |
| | **23,000** | **24,700** |

| **II. Assets** | | |
|---|---|---|
| Cash | 1,000 | 700 |
| Debtors | 3,000 | 5,000 |
| Stock | 3,500 | 2,500 |
| Machinery | 8,000 | 5,500 |
| Land | 4,000 | 5,000 |
| Building | 3,500 | 6,000 |
| | **23,000** | **24,700** |

During the year a machine costing Rs.1000 (accumulated depreciation Rs. 300) is sold for Rs. 500. The provisions for depreciation against machinery as on 01 January 2015 was Rs. 2500 and on 31 December 2015 Rs. 4000. Net profit for the year amounts to Rs. 4500.

You are required to prepare a Cash Flow Statement.

**Solution**

**Cash Flow Statement**

**For the year ending 31-12-2015**

**(i) Cash flow from operating activities**

| | | |
|---|---|---|
| Profit made during the year | | 4500 |
| Add : Depreciation on machinery | 1800 | |
| Loss on sales of machinery* | 200 | |
| Decrease in stock | 1000 | |
| Increase in creditors | 400 | 3400 |
| | | 7900 |
| Less : Increase in debtors | | (-) 2000 |
| Cash inflows from operating activities | | 5900 |
| **Cash flow from investing activities** | | |
| Sale of machinery* | 500 | |
| Purchase of land (5,000 – 4,000) | (-) 1000 | |
| Purchase of building (6,000 – 3,500) | (-) 2500 | (-) 3000 |
| Net cash outflow from investing activities | | |
| **Cash flow from financing activities :** | | |
| Loan from Bank | 1000 | |

| | | |
|---|---|---|
| Mrs. A's loan repaid | (-) 2500 | |
| Drawings | (-) 1700 | |
| Net cash outflow from financial activities | | (-) 3200 |
| Net decrease in cash and cash equivalents | | (-) 300 |
| Cash and cash equivalents on Jan 1, 2015 | | 1000 |
| Cash and cash equivalents on Dec 31, 2015 | | 700 |

***Working Notes:**

**Machinery Account (At Cost)**

| Particulars | Amount | Particulars | Amount |
|---|---|---|---|
| To Balance b/d | 10500 | By Bank | 500 |
| | | By Loss on sale of Machinery | 200 |
| | | By Provision for Depreciation | 300 |
| | | By Balance c/d | 9500 |
| | **10500** | | **10500** |

**Depreciation Account**

| Particulars | Amount | Particulars | Amount |
|---|---|---|---|
| To Machinery | 300 | By Balance b/d | 2500 |
| To Balance c/d | 4000 | By P & L A/c (balancing figure) | 1800 |
| | **4300** | | **4300** |

**Illustration 3.**

Following is the Balance Sheet of ABC Co. Ltd., on at 01st January, 2015 and 31st December 2015.

*(Amount In Rs.)*

| | 01-01-2015 | 31-12-2015 |
|---|---|---|
| **I. Equity and Liabilities :** | | |
| Equity share capital | 30,000 | 35000 |
| Share premium | -- | 3000 |
| General Reserve | 4500 | 6500 |
| Profit and Loss | 3000 | 8080 |
| 6% Debentures | -- | 7000 |
| Sundry creditors | 8500 | 9070 |
| Provision for taxation | 2250 | 4050 |
| Proposed Divided | 3000 | 3500 |
| | **51250** | **76200** |

| | 01-01-2015 | 31-12-2015 |
|---|---|---|
| **II. Assets :** | | |
| Land and building | 23,000 | 39000 |
| Plant and machinery | 8540 | 14000 |
| Furniture | 550 | 650 |
| Stock | 8240 | 9570 |
| Sundry debtors | 7500 | 8550 |
| Bank balance | 3420 | 4430 |
| | **51250** | **76200** |

**Additional Information :**

Depreciation written off during the year

| | |
|---|---|
| Land and building | 6000 |
| Plant and machinery | 5000 |
| Furniture | 120 |

You are required to prepare a cash flow statement

**Solution :**

**Note** : The following accounts have been prepared to determine the relevant information.

**Land and Building Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance b/d | 23000 | By Depreciation | 6000 |
| To Bank (purchase) | 22000 | By Balance c/d | 39000 |
| | **45000** | | **45000** |

**Plant and Machinery Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance b/d | 8540 | By Depreciation | 5000 |
| To Bank (purchase) | 10460 | By Balance c/d | 14000 |
| | **19000** | | **19000** |

**Furniture Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance b/d | 550 | By Depreciation | 120 |
| To Bank (purchase) | 220 | By Balance c/d | 650 |
| | **770** | | **770** |

## Provision for Taxation Account

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Bank (tax paid) | 2250 | By Balance b/d | 2250 |
| To Balance c/d | 4050 | By P & LA/c | 4050 |
| | **6300** | | **6300** |

## Cash Flow Statement for the year ended 31-12-2015

**(i) Cash Flow from Operating Activities**

| | | Rs. | Rs. |
|---|---|---|---|
| | Profit during the year (8080-3000) | 5080 | |
| Add : | **Depreciation on :** | | |
| | Land and building | 6000 | |
| | Plant and machinery | 5000 | |
| | Furniture | 120 | |
| | General reserve (6,500 - 4,500) | 2000 | |
| | Taxation provision | 4050 | |
| | Proposed dividend | 3500 | |
| | Increase in creditors (9070 – 8500) | 570 | |
| | | 26320 | |
| Less : | Increase in stock (9570 – 8240) | (-) 1330 | |
| | Increase in debtors (8550 – 7500) | (-) 1050 | |
| | | 23940 | |
| Less : | Income tax paid | (-) 2250 | |
| | Cash inflow from operating activities | | **21690** |
| **(ii) Cash Flow from Investing Activities** | | | |
| Less : | Purchase of land and building | (-)22000 | |
| | Purchase of plant and machinery | (-)10460 | |
| | Purchase of furniture | (-) 220 | |
| | Cash outflow from investing activities | | **(-)32680** |
| **(iii) Cash Flow from Financing Activities** | | | |
| Add : | Issue of equity shares | 5000 | |
| | Share premium | 3000 | |
| | Issue of debentures | 7000 | |
| | | 15000 | |
| Less : | Payment of dividend | (-) 3000 | |
| | Cash inflow from financing activities | | **12000** |
| | **Net increase in cash** | | **1010** |
| Add : | Cash balance in the beginning | | 3420 |
| | Cash balance at the end | | 4430 |

### Illustration 4.

The following Balance Sheets are given :

| **I. Equity and Liabilities** | **2014 (Rs.)** | **2015 (Rs.)** |
|---|---|---|
| Equity Share Capital | 30000 | 40,000 |
| Redeemable Pref. Capital | 15000 | 10,000 |
| General Reserve | 4000 | 7000 |
| Profit and Loss Account | 3000 | 4800 |
| Proposed Dividend | 4200 | 5000 |
| Creditors | 5500 | 8300 |
| Bills Payable | 2000 | 1600 |
| Provision for Taxation | 4000 | 5000 |
| | **67700** | **81700** |

| **II. Assets** | | |
|---|---|---|
| Goodwill | 11500 | 9000 |
| Land and Building | 20000 | 17000 |
| Plant | 8000 | 20000 |
| Debtors | 16000 | 20000 |
| Stock | 7700 | 10900 |
| Bills Receivable | 2000 | 3000 |
| Cash in Hand | 1500 | 1000 |
| Cash at Bank | 1000 | 800 |
| | **67700** | **81700** |

It is also given that :

(a) Depreciation of Rs. 2000 on land and building and Rs.1000 on plant has been charged in 2015.

(b) Interim dividend of Rs. 2000 has been paid in 2015.

(c) Income tax Rs.3500 has been paid during 2015.

Prepare Cash Flow Statement for the year 2015.

**Solution :**

**Cash Flow Statement for the year 2015**

| (i) | **Cash from Operating Activities** | **Amt (Rs.)** | **Amt (Rs.)** |
|---|---|---|---|
| **Add :** | Profit during the year (4800 – 3000) | 1800 | |
| | Depreciation on plant | 1000 | |
| | Depreciation on building | 2000 | |
| | Goodwill written off (11500 – 9000) | 2500 | |
| | Proposed dividend | 5000 | |
| | Interim dividend | 2000 | |
| | General reserve (7000 – 4000) | 3000 | |
| | Provision for taxation (3500 + 5000 – 4000) | 4500 | |
| | Increase in creditors (C.L.) (8300 – 5500) | 2800 | |
| | | 24600 | |
| **Less:** | Decrease in bills payable (C.L.) (1600 – 2000) | (-) 400 | |
| | Increase in debtors (C.A.) (16000 – 20000) | (-) 4000 | |
| | Increase in stock (C.A.) (7700 – 10900) | (-) 3200 | |
| | Increase in bills receivable (C.A.) (2000 – 3000) | (-) 1000 | |
| | | 16000 | |
| | Income tax paid | 3500 | 12500 |
| | Cash inflow from operating activities | | |
| **(ii)** | **Cash from Investing Activities** | | |
| | Purchase of plant (8000 – 20000 – 1000) | (-) 13000 | |
| | Sale of building (8500 – 17000 – 2000) | 1000 | (-) 12000 |
| | Cash outflow from investing activities | | |
| **(iii)** | **Cash from Financing Activities** | | |
| | Issue of share capital (40000 – 30000) | 10000 | |
| | Redemption of pref. shares (10000 – 15000) | (-) 5000 | |
| | Dividend paid | (-) 4200 | |
| | Interim dividend paid | (-) 2000 | |
| | Cash outflow from financing activities | | (-) 1200 |
| | **Net decrease in cash** | | **(-) 700** |
| | Cash balance in the beginning | | |
| | (1500 + 1000) | | 2500 |
| | Cash balance at the end (1000 + 800) | | 1800 |

**Illustration 5.**

From the following condensed comparative Balance Sheets of Hotel Hills Ltd., and additional information, prepare a Cash Flow Statement for the year 2015.

| **I. Equity and Liabilities** | **2014 Rs.** | **2015 Rs.** |
|---|---|---|
| Share Capital | 7000 | 8000 |
| Share Premium | 900 | 1100 |
| Retained earnings | 2382 | 3082 |
| 7% Mortgage loan | -- | 2000 |
| Creditors | 690 | 600 |
| Outstanding salaries | 200 | 140 |
| Provision for taxation | 100 | 140 |
| | **11272** | **15062** |

| **II. Assets** | | |
|---|---|---|
| Plant & Machinery | 6200 | 6600 |
| Accumulation Dep. on plant and mach | (3700) | (2620) |
| Building | 9500 | 11600 |
| Accumulation dep. on buil. | (4300) | (4500) |
| Land | 1000 | 1200 |
| Stock | 1022 | 962 |
| Debtors | 860 | 760 |
| Prepaid expenses | 72 | 80 |
| Cash | 618 | 980 |
| | **11272** | **15062** |

**Additional information :**

1. Plant costing Rs. 1600 (accumulated depreciation Rs. 1480) was sold during the year for Rs. 120.
2. Building was acquired during the year at a cost of Rs. 2100. In addition to cash payment of Rs. 100 a 7% mortgage loan was raised for the balance.
3. Dividend of Rs. 800 was paid during the year.
4. A sum of Rs. 1390 was transferred to provision for taxation account in 2015.

**Solution :**

**Cash Flow Statement for the year 2015**

| (i) Cash flow from operating activities : | | Amount (Rs.) |
|---|---|---|
| Net profit during the year (before divided payment and provision for tax) | | 2890 |
| Add : Depreciation – Building (4500 – 3000) | 200 | |
| Plant (6600 – 6200) | 400 | |
| Decrease in stock (C.A.) (1022 – 962) | 60 | |
| Decrease in debtors (C.A.) (860 – 760) | 100 | |
| | 760 | |
| Less : Decrease in creditors (600 – 690) | (-) 90 | |
| Decrease in outstanding salaries (140 – 200) | (-) 60 | |
| Increase in prepaid expenses (72 – 80) | (-) 8 | |
| Income tax paid (– 1390 – 100 + 140) | (-) 1350 | |
| Net cash inflow from operating activities | | (-) 748 |
| (ii) Cash flow from investing activities : | | 2142 |
| Purchase of Building | (-) 100 | |
| Purchase of plant and machinery | (-) 2000 | |
| Purchase of land | (-) 200 | |
| Sale of plant | 120 | (-) 2180 |
| Net cash outflow from investing activities<br>(iii) Cash flow from financing activities :<br>Issue of shares | 1000 | |
| Share premium | 200 | |
| Dividend paid | (-) 800 | |
| Net cash inflow from financing activities | | 400 |
| Net Increase in cash | | 362 |
| Cash in the beginning | | 618 |
| Cash at the end of 2015 | | 980 |

**Working Notes :**

**Retained Earnings Account**

| **Particulars** | **Amt** | **Particulars** | **Amt** |
|---|---|---|---|
| To Dividend paid | 800 | By Balance b/d | 2382 |
| To Balance c/d | 3082 | By Profit during the year (B.F.) | 1500 |
| | **3882** | | **3882** |

**Plant and Machinery Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance b/d | 6200 | By Sale of plant | 120 |
| To Bank-Purchase(B.F.) | 2000 | By Dep. on plant sold | 1480 |
| | | By Balanced c/d | 6600 |
| | **8200** | | **8200** |

**Accumulated Depreciation on Plant & Mach. Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Plant (Dep.) | 1480 | By Balance b/d | 3700 |
| To Balance c/d | 2620 | By P & L A/c (Dep.) | 400 |
| | **4100** | | **4100** |

**Building Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance b/d | 9500 | By Balance b/d | 11600 |
| To Bank (purchase) To Mortgage | 100 | | |
| Loan (Purchase) | 2000 | | |
| | **11600** | | **11600** |

**Accumulated Depreciation on Building Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Balance c/d | 4500 | By Balance b/d | 4300 |
| | | By P & L A/c (Dep.) | 200 |
| | **4500** | | **4500** |

**Provision for Taxation Account**

| Particulars | Amt | Particulars | Amt |
|---|---|---|---|
| To Income tax paid (B.F.) | 1350 | By Balance b/d By P & L A/c | 100 |
| To Balance c/d | 140 | (provision during the year) | 1390 |
| | **1490** | | **1490** |

## Fund Flow Statement

Fund flow statement also referred to as statement of "source and application of funds" presents the movement of funds and helps to understand the changes in the structure of assets, liabilities and equity capital. The analysis of financial statements helps to the management by providing additional information in a meaningful manner. The information required for the preparation of funds flow statement is drawn from the basic financial statements such as the Balance Sheet and statement of profit and loss .The most commonly accepted form of fund flow is the one prepared on working capital basis. Flow of funds includes both "inflow" and "outflow".

The term "flow of funds" means "Transfer of economic values from one assets to another and one liability to another." Flow of fund takes place whenever there is change in working capital. This change may be either inflow or outflow of funds.

## Difference between Cash Flow Analysis and Funds Flow Analysis

Following are the points of difference between a cash flow analysis and a funds flow analysis:

1. A cash flow analysis is concerned only with the change in the cash position, while a fund flow analysis is concerned with change in working capital position, between two balance sheet dates. Cash is only one of the constituents of working capital besides several other constituents, such as inventories, accounts receivable and prepaid expenses.
2. A cash flow statement is merely a record of cash receipts and disbursements. No doubt it is valuable in its own way but it fails to bring to light many important changes involving the disposition of resources. While studying the short-term solvency of a business one is interested not only in cash balance but also in the assets which can be easily converted into cash.
3. Cash flow analysis is more useful to the management as a tool of financial analysis in short-periods as compared to funds flow analysis, It has rightly been said that shorter the period covered by the analysis, greater is the importance of cash flow analysis. For example, if one can find out whether the business can meet its obligations maturing after 10 years from now, a good estimate can be made about the firm's capacity to meet its long-term obligations, if changes in working capital position on account of operations are observed. However, if the firm's capacity to meet a liability, maturing after one month, is to be seen, the realistic approach would be to consider the projected change in the cash position rather than an expected change in the working capital position.
4. Cash is part of working capital and therefore, an improvement in cash position results in an improvement in the funds position, but the reverse is not true. In other words 'inflow of cash' results in 'inflow of funds' but inflow of funds may not necessarily results in 'inflow of cash.' Thus, sound funds position does not necessarily means sound cash position, but a sound cash position generally means a sound funds position.
5. Another distinction between a cash flow analysis and a funds flow analysis can be made on the basis of the techniques of their preparation. An increase in a current liability or decrease in a current asset results in a decrease in working capital and vice versa; while an increase in a current liability or decrease in a current asset (other than cash) will result in an increase in cash and vice versa.

## UTILITY OF CASH FLOW ANALYSIS

A cash flow statement is useful for short-term planning. A business enterprise needs sufficient cash to meet its various obligations in the near future such as payment for purchase of fixed assets, payment of debts maturing in the near future, expenses of the business, etc. A historical analysis of the different sources and applications of cash will enable the management to make a reliable cash flow projections for the immediate future. It may then plan out for investment of surplus to meet the deficit, if any. Thus, a cash flow analysis is an important financial tool for the management. Its chief advantages are as follows:

1. **Helps in efficient cash management:** Cash flow analysis helps in evaluating financial policies and cash position. Cash is the basis for all operations; hence a projected cash flow statement will enable the management to plan and coordinate the financial operations properly. The management can know how much cash is needed, from which source it will be derived, how much can be generated internally and how much could be obtained from outside.
2. **Helps in internal financial management:** Cash flow analysis provides information about funds which will be available from operations. This will help the management in determining policies regarding internal financial management, e.g., possibility of repayment of long-term debts, dividend policies and planning the replacement of plant and machinery.
3. **Discloses the movements of cash:** Cash flow statement discloses the complete story of cash movement. The increase or decrease in cash, and the reasons therefore can be known. It discloses the reasons for low cash balance in spite of heavy operating profits or for heavy cash balance in spite of low profits. However, comparison of original forecast with the actual results highlights the trends of movements of cash which may otherwise go undetected.
4. **Discloses success or failure of cash planning:** The extent of success or failure of cash planning can be known by comparing the projected cash flow statement with the actual cash flow statement so that necessary remedial measures can be taken.

5. **Evaluate management decisions:** The statement of cash flows reports the companies' investing and financing activities and thus gives the investors and creditors about cash flow information for evaluating managers' decisions.
6. **Show the relationship of net income to changes in the business cash:** Usually cash and net income move together. High levels of income tend to lead to increase in cash and vice-versa. However, a company's cash balance can decrease when its net income is high, and cash can increase when income is low. The users want to know the difference between the net profit and net cash provided by operations. The net profit shows the progress of the business during the year while cash flow relates more to the liquidity of the business. The users can assess the reliability of net profit with the help of cash flow statement.
7. **Efficiency in cash management:** Cash flow analysis helps in evaluating financial policies and cash position. It facilitates the management to plan and co-ordinate the financial operations properly. The management can estimate how much funds are needed, from which source they will be derived, how much can be generated internally and how much should be arranged from outside.

## LIMITATIONS OF CASH FLOW ANALYSIS

Cash flow analysis is a useful tool of financial analysis. However, it has its own limitations. These limitations are as under:

1. Cash flow statement cannot be equated with the income statement. An income statement takes into account both cash as well as non-cash items; therefore, net cash does not necessarily mean net income of the business.
2. The cash balance as disclosed by the cash flow statement may not represent the real liquid position of the business since it can be easily influenced by postponing purchases and other payments.
3. Cash flow statement cannot replace the income statement or the funds flow statement. Each of them has a separate function to perform.

In spite of these limitations it can be said that cash flow statement is a useful supplementary instrument. It discloses the volume as well as the speed at which the cash flows in the different segments of the business. This helps the management in knowing the amount of capital tied up in a particular segment of the business. The technique of cash flow analysis, when used in conjunction with ratio analysis, serves as a barometer in measuring the profitability and financial position of the business.

### LESSON ROUND-UP

- Cash Flow Statement is in statement of changes in cash position from the beginning and till end of the accounting period.
- As per the Companies Act, 2013, Cash Flow Statement is required to be prepared by every company except a one person, small and dormant company.
- Cash comprises cash on hand and demand deposits with banks.
- Cash equivalents are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.
- Accounting Standard (AS) -3 on Cash Flow Statement issued by ICAI is mandatory, AS-3 requires that cash flow statement should report cash flow during the period classified by operating activities, investing activities and financing activities.
- Cash flow means cash inflow and cash outflow.
- Cash inflow means source of cash, and it increases the total cash available at the disposal of the firm.
- Cash outflow means use of cash which decreases the total cash available at the disposal of the firm.
- Net cash flow is the difference between cash inflow and cash outflow.
- Operating activities are the principal revenue activities of the enterprise. These pertain to cash generated by sales and all the operating expenses and are most often the biggest source of cash fl
- Investing activities pertain to the acquisitions and disposal of long-term assets, such as plant, machinery, land and building and other investments.
- Financing activities are those that result in changes in the size and composition of the owner's capital and borrowings of the enterprise.

## TEST YOURSELF

1. What is a cash flow statement? State its uses and limitations.
2. Which are the various sources and uses of cash flows from operating activities?
3. Distinguish between cash flow statement and funds flow statement.
4. What do you mean by cash from operating activities? How is this calculated?
5. Discuss briefly the major classification of cash flows as per AS-3 (Revised).
6. From the following Balance Sheets of Roop Ltd., prepare a cash flow statement.

| **I. Equity and Liabilities** | **2014 Rs.** | **2015 Rs.** |
|---|---|---|
| Equity Share Capital | 15000 | 2,0000 |
| 12% Preference share capital | 7500 | 5000 |
| General Reserve | 2000 | 3500 |
| P & L A/c | 1500 | 2400 |
| Creditors | 3750 | 4950 |
| | **29750** | **35850** |
| **II. Assets** | | |
| Goodwill Building Plant Debtors Stock | 3600 | 2000 |
| Cash | 8000 | 6000 |
| | 4000 | 10000 |
| | 11900 | 15450 |
| | 1000 | 1500 |
| | 1250 | 900 |
| | **29750** | **35850** |

Depreciation charged on plant was Rs. 1000 and on building Rs. 6000.

[Ans. Cash from operations Rs. 8150; Net decrease in cash Rs. 350.

Purchase of plant Rs. 7000; purchase of building Rs. 4000]

7. Calculate Cash Flow from Operating Activity

**Balance Sheet**

**As on 1st January, 2017**

| **I. Equity and Liabilities** | **Rs.** |
|---|---|
| Equity | 50,000 |
| Capital | 10,000 |
| General Reserve | 5,000 |
| Profit & Loss Balance Debentures | 20,000 |
| Sundry Creditors | 20,000 |
| Proposed Dividend | 5,000 |
| | **1,10,000** |

| | |
|---|---|
| **II. Assets** | |
| Fixed Assets | 40,000 |
| Investments | 10,000 |
| Sundry Debtors | 20,000 |
| Stock | 20,000 |
| Cash | 15000 |
| Goodwill | 5000 |
| | **1,10,000** |

8. Calculate Cash Flow from Operating Activity

**Balance Sheet**

**As on 1st December, 2017**

| **I. Equity and Liabilities** | **Rs.** |
|---|---|
| Equity | 65,000 |
| Capital General Reserve | 15,000 |
| Profit & Loss | 15,000 |
| Balance Debentures | 20,000 |
| Sundry Creditors | 20,000 |
| Proposed Dividend | 6000 |
| | **141500** |

| **II. Assets** | **Rs.** |
|---|---|
| Fixed Assets | 50,000 |
| Less : Dep. | 45,000 |
| Investment | 5,000 |
| Sundry | 10,000 |
| Debtors | 30,000 |
| Stock | 25,000 |
| Cash | 315,00 |
| | **141500** |

[Ans. Cash from operations Rs. 16500; Net increase in cash Rs. 16500]

9. The Balance Sheets of a Prem Limited Company at 31.3.2016 and 31.3.2017 were as follows :

| | **31.3.2016** | **31.3.2017** |
|---|---|---|
| **I. Equity and Liabilities** | **Rs.** | **Rs.** |
| Equity Share Capital | 4500 | 6500 |
| General Reserve | 500 | 750 |
| Profit and Loss Account | 1000 | 1500 |

| | | |
|---|---|---|
| Debentures | 1000 | 2000 |
| Sundry | 870 | 1100 |
| Creditors | 7870 | 11850 |
| Assets | Rs. | Rs. |
| Fixed Assets | 4600 | 8300 |
| Stock | 1100 | 1300 |
| Debtors | 1870 | 1950 |
| Cash | 200 | 2500 |
| Preliminary Expenses | 100 | 50 |
| | **7870** | **11850** |

**Additional information :**

Depreciation on fixed assets for the year 2016-17 was Rs. 1170. Prepare a Cash Flow Statement [Ans. Cash from operations Rs. 1850; Net increase in cash Rs. 50]

10. Balance sheet of XYZ is as follows:

| **I. Equity and Liabilities** | **2016 Rs.** | **2017 Rs.** |
|---|---|---|
| Share | 7000 | 7400 |
| Capital Debentures | 1200 | 600 |
| Sundry | 1036 | 1184 |
| Creditors | 70 | 80 |
| Provision for doubtful debts P & L A/c | 1004 | 1056 |
| | **10310** | **10320** |
| **II. Assets** | | |
| Cash | 900 | 780 |
| Sundry Debtors | 1490 | 1770 |
| Stock Land Goodwill | 4920 | 4270 |
| | 2000 | 3000 |
| | 1000 | 500 |
| | **10310** | **10320** |

Additional Information :

(i) Dividend totaling Rs. 350 was paid.

(ii) Land was purchased for Rs. 1000 and amount provided for the amortization of goodwill totaled Rs. 500.

(iii) Debentures of Rs. 600 were redeemed. Prepare a Cash flow statement.

[Ans. Cash from operations Rs. 1430; Net Decrease in cash Rs. 120] [Hint : Provision for doubtful debts has been added back to profit to calculate cash from operations]

11. he following are the balance sheets of Yes Ltd., as on 31st December 2016 and 2017

| **I. Equity and Liabilities** | **2016** | **2017** |
|---|---|---|
| | **Rs.** | **Rs.** |
| Equity Share Capital | 7,0000 | 80000 |
| General | 45000 | 60000 |
| Reserve | 17300 | 2330 |
| Profit and Loss | 70000 | 90000 |
| Account | 115000 | 140000 |
| Trade Creditors | 8000 | 9200 |
| Bank overdrafts | 19700 | 37000 |
| Creditors for expenses Provision for taxation Proposed dividends | 15000 | 15000 |
| | **360000** | **454500** |
| **II. Assets** | | |
| Fixed | 50000 | 60000 |
| Assets | 10000 | 8000 |
| Additions | 60000 | 68000 |
| Depreciation | 20000 | 32000 |
| Investments | 40000 | 36000 |
| Debtors | 12000 | -- |
| Stock | 130000 | 218500 |
| | 178000 | 200000 |
| | **360000** | **454500** |

The profit for the year 2017 as per profit and loss account after providing for depreciation amounted to Rs. 70,000whichwas further adjustedas follows:

| | **Rs.** | **Rs.** |
|---|---|---|
| Profit and Loss balance b/d | | 17300 |
| Profit after depreciation but before tax during the year 2017 | | 70000 |
| Add : Profit on sale of investments | | 2000 |
| | | 89300 |
| Less : Provision for taxation | 36000 | |
| Transfer to reserve | 15000 | |
| Proposed dividend | 15000 | 66000 |
| | | **23300** |

You are informed that :

(i) The sales and purchases of the year 2017 amounted to Rs. 8000 and Rs. 6500 respectively.

(ii) In arriving at the profit from sales referred to already, the cost of sales and administrative and selling expenses were deducted.

Prepare Cash Flow Statement for the year 2017

[Ans. Net cash outflow from operating activities Rs. 26000; Net decrease in cash (bank over draft Rs. 25000) ]

12. The Balance Sheet of Smartkart Ltd, as at March 31st 2016 and 2017 are given follows :

| **I. Equity and Liabilities** | **2016** | **2017** |
|---|---|---|
| | **Rs.** | **Rs.** |
| Accumulated | 2000 | 2150 |
| Depreciation | 720 | 900 |
| Creditors | 600 | 600 |
| TaxesPayable | 1400 | 2600 |
| Bills payable | 3500 | 3500 |
| Debentures | 5000 | 6000 |
| Equity capital | 2640 | 2090 |
| Profit and LossAccount | | |
| | **15860** | **17840** |
| **II. Assets** | | |
| Cash | 600 | 800 |
| Debtors | 700 | 1200 |
| Prepaid | 360 | 240 |
| Rent Stock | 3200 | 2800 |
| Investments | 4000 | 4000 |
| Fixed Assets | 7000 | 8800 |
| | **15860** | **17840** |

**Additional information**

1. Purchased a new fixed asset costing Rs. 2500; paid Rs. 1300 cash and given short-term bills payable for the remainder.
2. Net loss for the year ending 31-3-2017 was Rs. 150.
3. One fully depreciated asset of an original cost of Rs. 700 and no salvage value was abandoned.

[Ans. Cash inflow from operating activities Rs. 900 ; Net increase in cash Rs. 200] [Hint. Tax paid Rs. 600, Dividend paid Rs. 400 [i.e. 2640 – 150-2090]

# Lesson 10 Accounting Standards (AS)

***Key Concepts One Should Know***

- Accounting Standards
- Standard setting process
- Ind AS
- IFRS
- IGAAP

## *Learning Objectives*

**To understand the:**

- Meaning and applicability of Accounting Standards
- Role, advantages and limitations of Accounting Standards
- Standards setting process
- Overview of Accounting Standards in India
- Convergence of Indian Accounting Standards with International Financial Reporting Standards as global Standards

## *Lesson Outline*

- Application of Accounting Standards
- Standards Setting Process
- Advantages and Limitations of Accounting Standards
- Enterprises to which the Accounting Standards Apply
- List of Accounting Standards
- Need for Convergence with Global Standards
- International Accounting Standard Board (IASB)
- Differences between IFRS and IGAAP
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## 1. MEANING OF ACCOUNTING STANDARDS

The expression 'Accounting Standards' is made up of two words- 'Accounting' and 'Standards'. Let us, therefore, first understand the meaning of these two words. We have already understood the meaning of accounting. The term 'Standard' means 'a generally accepted model or an ideal'. The expression 'Accounting Standards', therefore, means generally accepted models or ideals for accounting.

> Accounting standards may be defined as the written policy documents issued by an expert Accounting Body or Government or other regulatory bodies covering the aspects of recognition, measurement, presentation and disclosure of the transactions and other events in the financial statements.

Let us analyze the definition of accounting standards as under:

a) *Accounting standards are the written policy documents*: The word 'Policy' means a course of action adopted as advantageous or expedient. These are written documents which are advantageous to be adopted by the enterprises in reflecting the effect of the transactions and other events.

b) *Accounting standards are issued by the expert Accounting body, Government or other regulatory bodies*: In India, the expert accounting body to issue the accounting standards is the Institute of Chartered Accountants of India (ICAI). Government also issues the accounting standards. For example, the Central Government issues the accounting standards to be adopted by the companies under the Companies Act, 2013 in the preparation and presentation of their financial statements. Similarly, the regulatory bodies like Insurance and Regulatory Development Authority of India (IRDA) and Reserve Bank of India (RBI) also issue accounting standards.

c) *Accounting Standards deal with the recognition, measurement, presentation and disclosure of transactions and other events*: This point may be explained as under:

   (i) *Recognition of transactions and other events*: Recognition is the process of incorporating an item in the Balance Sheet and statement of Profit and Loss. It involves the depiction of an item in words and by a monetary amount and inclusion of that amount in the totals of the Balance Sheet and Statement of Profit and Loss. The Accounting standards tell us which items to recognize in the Balance sheet and which ones in the Statement of Profit and Loss.

   (ii) *Measurement of the transactions and other events*: Accounting standards also provide guidance as to what monetary amount should be allocated to the transaction and events i.e. these help in the measurement or quantification of the items of transactions and events. For example, Accounting Standard (AS) 10 'Property, Plant and Equipment' provides that for the initial recognition of an item of PPE, the costs of the items to be considered are (a) Purchase price less trade discount and rebates; (b) Non-refundable purchase taxes; (c) Import duties; (d)Directly attributable cost to bring the asset in the location and condition for operation as intended by the management.

   (iii) *Presentation of transactions and other events*: Accounting Standards also deal with the manner of presentation of transactions and other events in the Balance Sheet and Statement of Profit and Loss. For Example, paragraphs 8 to 17 of Accounting Standard 3 'Cash Flow Statements' deal with the manner of presentation of operating activities, investing and financing activities in the cash flow statement.

   (iv) *Disclosure of transactions and other events*: Accounting standards also deal with the manner of disclosure of transactions and other events. For example, paragraph 37 of the AS 10 provides that in the financial statements, gross and net carrying amounts of the items of PPE at the beginning and end of an accounting period showing additions, disposals, acquisitions and other movements should be disclosed.

It may be noted that almost all the Accounting Standards deal with recognition, measurement, presentation and disclosure of transactions and other events.

## 2. APPLICABILITY OF ACCOUNTING STANDARDS

### Which enterprises are the Accounting Standards applicable to?

As per paragraph 3.3. of the 'Preface to the Statements of Accounting Standards' in the 'Compendium of Accounting Standards (Accounting Standards as on July 1, 2019)' issued by the Institute of Chartered Accountants of India (ICAI), accounting standards are intended to apply to enterprises (whether organized in corporate, co-operative or other forms) engaged in commercial, industrial or business activities irrespective of whether it is profit oriented or it is established for charitable or religious purposes. However, the Accounting Standards will not apply to the enterprises which carry on only those activities which are not of commercial, industrial or business nature (e.g. an activity of collecting donations and giving them to flood affected people). Exclusion of an enterprise from the applicability of Accounting Standards would be permissible only if no part of the activity of such enterprise is commercial, industrial or business in nature. Even if a very small proportion of the activities of an enterprise is considered to be commercial, industrial or business in nature, the Accounting Standards would apply to all its activities including those which are not commercial, industrial or business in nature.

Thus, it may be stated that the Accounting Standards apply to:

(a) Sole proprietorship concerns/individuals

(b) Partnership firms

(c) Societies

(d) Trusts

(e) Hindu Undivided families

(f) Association of Persons (AOP)

(g) Body of individuals (BOI)

(h) Co-operative societies

(i) Companies and LLPs

### Which types of financial statements or reports are the Accounting Standards applicable to?

As per paragraph 3.3 of the 'Preface to the Statements of Accounting Standards' in the 'Compendium of Accounting Standards (Accounting Standards as on July 1, 2019)' issued by the Institute of Chartered Accountants of India (ICAI), Accounting Standards apply to the general-purpose financial Statements and other financial reporting which are subject to attest functions of the members of the ICAI. As per paragraph 3.4 of the said preface, the term 'General purpose Financial Statements' includes 'Balance Sheet', 'Statement of Profit and Loss', 'A Cash Flow Statement' (where applicable), and Statements and explanatory notes which form part thereof issued for the use of various stakeholders, government and their agencies and the public at large.

## STANDARDS SETTING PROCESS

Paragraph 5 of the 'Preface to the Statements of Accounting Standards' in the 'Compendium of Accounting Standards (Accounting Standards as on July 1, 2019)' issued by the Institute of Chartered Accountants of India (ICAI) provides for the procedure of issuing Accounting Standards in India which may be explained as under:

**Step 1:** ***Determination of the broad areas*****:** The Accounting Standards Board (ASB) of ICAI determines the broad areas in which the accounting standards need to be formulated and the priority in regard to the selection thereof.

**Step 2:** ***Assistance to the ASB by the study group*****:** In the preparation of the accounting standards, the ASB will be assisted by the study groups constituted to consider the specific subjects. In the formulation of the study group, the provision is made for wide participation by the members of the ICAI and others.

**Step 3**: ***Preparation of the preliminary draft of Accounting Standard by the Study group*****:** The draft of the proposed accounting standard will normally include the following:

(a) Objective of the standards;

(b) Scope of the standard;

(c) Definition of the terms used in the standard;

(d) Recognition and measurement principles wherever applicable; and

(e) Presentation and disclosure requirements.

**Step 4:** ***Consideration of the preliminary draft by the ASB*****:** The ASB will consider the preliminary draft prepared by the Study group and if any revision of the standard is required on the basis of the deliberations, the ASB will make the same or will refer the same to the study group.

**Step 5:** ***Circulation of the draft of Accounting Standard by the ASB to the members of ICAI and specified bodies*****:** The ASB will circulate the draft of the standard to the members of the ICAI and to the specified bodies such as MCA, CAG, CBDT, ICAI, ICSI, ASSOCHAM, CII, FICCI, RBI, SEBI, SCOPE, IBA and any other body considered relevant by the ASB keeping in view the nature of the standard.

**Step 6:** ***Meeting of the ASB with the representatives of the specified bodies to finalize the exposure draft*****:** The ASB will hold a meeting with the representatives of the specified bodies to ascertain their view and on the basis of the comments received and the views of the representatives of the specified bodies, the ASB will finalize the exposure draft of the proposed accounting standard.

**Step 7:** ***Issue of exposure draft for comments by the members of the ICAI and the public and specified bodies*****:** The exposure draft [ED] of the proposed standard will be issued for the comments by the members of the ICAI and the public. The ED will be specifically sent to the specified bodies as listed above and the stock exchanges and the other interest groups as considered appropriate.

**Step 8:** ***Submission of the final draft by the ASB to the Council of the ICAI*****:** After taking into consideration the comments received, the ASB will finalize the draft of the standard and the same will be submitted to the council of the ICAI.

**Step 9:** ***Consideration of the draft by the council of the ICAI and issue of the Standard by the ICAI*****:** The council of the ICAI will consider the draft of the proposed standard and if found necessary, it will revise the same in consultation with the ASB and then the standard will be issued by the ICAI.

## ACCOUNTING STANDARD AND AUDITORS

It is the duty of the auditors that while discharging their function, they ensure that the Accounting Standards issued and made mandatory by the Central Government are compiled with. Section 143(3)(e) of the Companies Act, 2013 requires the auditor to report whether in his opinion, the financial statements comply with the Accounting Standards referred in section 133 of the Companies Act, 2013.

## ACCOUNTING STANDARD AND BOARD'S REPORT

Section 134(5)(a) of the Companies Act, 2013 states that Directors Responsibility Statement should include that in the preparation of the annual accounts, the applicable Accounting Standards had been followed along with proper explanations relating to material departure.

## BENEFITS AND LIMITATIONS

### Advantages of Accounting Standards

**General:** The accounting standards seek to describe the accounting principles, valuation techniques and the methods of applying these accounting principles in the preparation and presentation of the financial statements

so that they represent a true and fair view of the financial position and financial performance of the enterprise. The ostensible purpose of the standards setting bodies is to promote the dissemination of the timely and useful financial information to the users.

The various advantages of Accounting Standards may be enumerated as under:

(i) ***Improvement of credibility and reliability of financial statements*:** The accounting standards create an environment of confidence among the users of accounting information by providing a uniform structure of uniform guidelines which provide credibility and reliability to the accounting information. In this way, the financial statements present a true and fair view of the financial position and financial performance of an entity.

(ii) ***Comparability of financial Statements made easy*:** The value of the accounting information is enhanced if the same may be compared in the same line of business activity. But, the comparability is possible only if the same accounting standards are used in the preparation of the financial statements of the different enterprises in the same industry. It is a positive step to protect the interests of the users of the accounting information.

(iii) ***Benefits to the accountants and auditors*:** The accounting standards provide a basis for the uniform accounting principles. Due to this reason, there is a less possibility of frauds being committed by the accountant. There is more transparency in the accounting information. Since the accounting profession follows the accounting standards without any exception, they are helpful not only to the accounting entity but also to the accountants and the auditors. Any type of misinformation can lead to a strict action against the accountants and the auditors.

(iv) ***Additional disclosures*:** There are certain areas where the important information is not required to be disclosed by the law. The accounting standards require the disclosure of such matters such as the method of depreciation and the change in the method of depreciation which help the users of the financial statements to take important financial decision.

(v) ***Evaluation of the managerial ability*:** Accounting standards are useful in measuring the efficiency of the management regarding profitability, liquidity, solvency and other general areas of progress of the enterprise. In the absence of Accounting Standards, it would be difficult to evaluate the managerial efficiency because there is no basis to compare the financial statements of one enterprise with those of another. Each enterprise would evolve its own rules and standards to suit its own purpose and users would, therefore, not be able to get a true and fair view of the functioning of the enterprise.

(vi) ***Helpful to the Government*:** The Government officials would find the financial information useful for economic planning, market analysis and tax collection if the financial statements are based on the established accounting standards.

(vii) ***Reforms in accounting theory*:** The development of accounting standards has been very helpful in the reforms of accounting theory and practice regarding the measurement, treatment, presentation and disclosure of the financial items.

## Disadvantages of Accounting Standards

The disadvantages of Accounting Standards may be enumerated as under:

(i) ***Difficult choice*:** Alternative accounting treatments suggested by the accounting standards may each have arguments to recommend them. In such a case, it becomes difficult to choose one out of them for application by an enterprise.

(ii) ***Mechanical choice*:** There may be a trend towards rigidity and away from flexibility in applying the Accounting Standards. The reason is that we cannot go beyond the accounting Standards recommendations.

(iii) ***Not different from law*:** The accounting standards cannot override the statutes and have to be framed within the bounds of the prevailing statutes.

**Conclusion:** If viewed sincerely, the advantages of Accounting Standards outweigh their disadvantages much because the disadvantages have been enumerated only for name sake.

## How many Accounting Standards?

The Institute of Chartered Accountants of India has, so far, issued 32 Accounting Standards. However, the Accounting Standard 8 "Accounting for Research and Development" was withdrawn subsequent to the issuance of Accounting Standard 26 "Intangible Assets" and the Accounting Standard 6 "Depreciation Accounting" was withdrawn subsequent to the issuance of revised Accounting Standard 10 "Property, Plant and Equipment" including the matters related to depreciation accounting for the old AS 10 "Accounting for Fixed Assets". The Accounting Standards 30, 31 and 32 related to "Financial Instruments" have been withdrawn by the ICAI in the year 2016. *Thus, effectively, there are only 27 Accounting Standards at present.*

The standards are developed by the Accounting Standards Board (ASB) of the Institute and are issued under the authority of its Council. The institute not being a legislative body can enforce compliance with its standards only by its members. Also, the standards cannot override laws and local regulations. The Accounting Standards are nevertheless made mandatory from the dates specified in respective standards and are generally applicable to all enterprises, subject to certain exception as stated below. The implication of mandatory status of an Accounting Standard depends on whether the statute governing the enterprise concerned requires compliance with that standard.

In assessing whether an Accounting Standard is applicable, one must find correct answer to the following three questions.

(a) Does it apply to the enterprise concerned? If yes, the next question is:

(b) Does it apply to the financial statement concerned? If yes, the next question is:

(c) Does it apply to the financial item concerned?

## List of 27 Accounting Standards as issued by ICAI

AS 1 Disclosure of Accounting Policies AS 2 (Revised) Valuation of Inventories AS 3 Cash Flow Statements

AS 4 (Revised) Contingencies and Events Occurring After Balance Sheet Date

AS 5 Net profit or Loss for the period, Prior Period Items and Changes in Accounting Policies

AS 7 Construction Contracts AS 9 Revenue Recognition

AS 10 (Revised) Property, Plant and Equipment

AS 11 The Effects of Changes in Foreign Exchange Rates

AS 12 Government Grants

AS 13 (Revised) Accounting for Investments

AS 14 (Revised) Accounting for Amalgamations AS 15 Employee Benefits

AS 16 Borrowing Costs AS 17 Segment Reporting

AS 18 Related Party Disclosures AS 19 Leases

AS 20 Earnings per Share

AS 21 (Revised) Consolidated Financial Statements

AS 22 Accounting for Taxes on Income

AS 23 Accounting for Investments in Associates AS 24 Discontinuing Operations

AS 25 Interim Financial Reporting AS 26 Intangible Assets

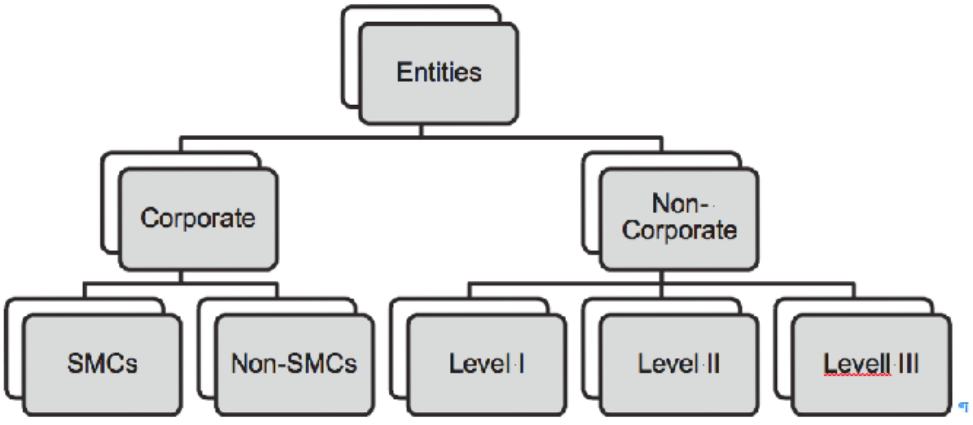
AS 27 Financial Reporting of Interests in Joint Ventures AS 28 Impairment of Assets

AS 29 (Revised) Provisions, Contingent Liabilities and Contingent Assets

## APPLICABILITY OF ACCOUNTING STANDARDS

For the purpose of applicability, entities are grouped as follows:

**Types of Entities**




Classification of Entities in detail:

**Corporate Entities**: For the purpose of applicability of AS, companies are categorised as follows:

***Small and Medium Companies (SMCs)***: SMCs are companies that satisfy the following conditions:

a) Equity and debt securities of the company are not listed or are not in the process of listing on any stock exchange, whether in India or outside India

b) Company is not a bank or financial institution or insurance company

c) Company's turnover (excluding other income) does not exceed Rs. 50 crores in the immediately preceding accounting year

d) Company does not have borrowing (including public deposits) exceeding Rs. 10 crores at any time during the immediately preceding accounting year and

e) Company is not a holding company or subsidiary of a non-SMC.

*Partial Exemption:*

Certain relaxations are provided with respect to following AS: AS 17- Segment Reporting

AS 15- Employee Benefits

AS 19- Leases

AS 20- Earnings Per Share (EPS)

AS 29- Provisions, contingent liabilities and contingent assets

*Full Exemption*

AS 3- Cash Flow Statements, shall not apply to SMCs if it is a One Person Company (OPC), dormant company and Small company.

***Non-SMCs:*** All the accounting standards are applicable to Non-SMCs.

**Non-Corporate Entities**: Non-corporate entities are entities other than companies (as defined in the Companies Act, 2013). This expression includes:

a. Cooperative society and charitable entity if they carry on any commercial, industrial or business activities (even if a very small portion), in such cases AS will apply to its entire activity (whether charitable or otherwise)

b. Partnership firms and sole proprietary concerns

c. Societies registered under Societies registration Act, Hindu Undivided Family (HUF) and Association of Person (AOP).

Non-corporate entities are not under any obligatory requirement to follow accounting standards, but if such entities are required to get its financial statements attested, it will be duty of member of ICAI (CA in practice) to examine whether Accounting Standards (ASs) have been complied with. So indirectly, non-corporate entities are also required to follow accounting standards on the basis of level in which it falls.

Levels of non-corporate entities are discussed below:

| Level | Conditions | Accounting Standards applicable |
|---|---|---|
| Level I | • Entities whose equity or debt instruments are listed or are in process of listing on any stock exchange (in or outside India)<br>• Banks (including co-operative banks), financial institutions or entities carrying on Insurance business<br>• All commercial, industrial or business reporting entities having:<br>⇨ Borrowings > 10 crores (at any time during immediately preceding accounting year)<br>⇨ Turnover > 50 crores (during preceding accounting year)<br>• Holding or subsidiary entities of any of theabove. | All the accounting standards are applicable to Level I entities. However, AS 21, 23 and 27 will apply based on regulatory requirement. |
| Level II | • Other than Level I entities if they fall under the following limit.<br>• All commercial, industrial or business reporting entities having:<br>⇨ Borrowings > 1 crores (at any time during immediately preceding accounting year)<br>⇨ Turnover > 10 crores (during preceding accounting year)<br>• Holding or subsidiary entities of any of the above. | Fully applicable AS<br>All accounting standards are applicable to Level II entities except AS 21, 23, 25, 27 and those discussed below. |
| | | AS applicable but certain relaxations regarding disclosure requirement<br>AS 19 - Leases<br>AS 20 - Earning Per Share<br>AS 29 – Provisions, contingent liabilities and contingent assets. |
| | | Accounting standards not applicable<br>AS 3 - Cash Flow Statement<br>AS 17 – Segment Reporting |
| Level III | • All non-corporate entities other than Level I and Level II. | In addition to partial and full exemption as given in Level II, full exemption with respect to these two are also available:<br>AS 18 – Related Party Disclosures<br>AS 24 – Discontinuing Operations |

## Requirement to follow Accounting Standards

Corporate entities are required to follow accounting standards while preparing their financial statements as per Section 129 of the Companies Act, 2013 and as discussed above, non-corporate entities are also required to comply Accounting standards if they want to get their accounts attested by a practicing Chartered Accountant.

Entities shall comply with AS 25 only if they are required (or they voluntarily opt) to prepare and present an interim financial report.

**Conflict between Act and Accounting Standards**

In case there is any conflict between provisions of any applicable Act and Accounting Standard (AS), the provisions of the Act shall prevail to that extent.

## Applicability of Accounting Standards for Companies

At present, there are two sets of Accounting Standards under Companies Act as under:

1. Accounting Standards (ASs) as notified by the Companies (Accounting Standards) Rules, 2006. These are from AS-1 to AS-5, AS-7 and AS-9 to AS-29, as amended by notification dated 30th March, 2016.
2. Indian Accounting Standards (Ind AS) as notified by the Companies (Indian Accounting Standards) Rules, 2015. These are from Ind AS-1 to Ind AS-41 and Ind AS-101 to Ind AS-116 as amended by Companies (Ind AS) Amendment Rules, 2016 dated 30th March, 2016.

The Central Government in exercise of powers under section 211(3C) of the Companies Act, 1956 notified the Companies (Accounting Standards) Rules, 2006 in the Official Gazette w.e.f. accounting period commencing on or after 7-12-2006 (now deemed to be Accounting Standard as specified under section 133 of the Companies Act, 2013).

- The rules provide that Accounting Standards 1 to 5 & 7 and 9 to 29 recommended by the Institute of Chartered Accountants of India shall be the "Accounting Standards" (referred to as the "Notified Accounting Standards") for the purposes of section 129(1) and section 143(3)(e) of the Companies Act, 2013.
- The notified accounting standards, for the most part, are a verbatim reproduction of the Accounting Standards as issued by the Institute of Chartered Accountants of India.
- All the 30 Accounting Standards Interpretations issued by Institute of Chartered Accountants of India have been incorporated at the relevant places by way of explanation except Accounting Standards Interpretations 11, 12, 27 and 29.
- The notified Accounting Standards are mandatory for all companies and their auditors except as exempted/ relaxed for SMCs.
- Exemptions/relaxations to Small and Medium Companies (SMCs) have been given.

## Applicability of Ind AS to specified companies

Indian Accounting Standards (Ind AS) are another set of accounting standards notified by the Ministry of Corporate Affairs, Government of India which are converged with International Financial Reporting Standards (IFRS). These accounting standards are formulated by Accounting Standards Board of Institute of Chartered Accountants of India (ICAI).

The Ind ASs are named and numbered in the same way as the corresponding IFRS. The Ministry of Corporate Affairs (MCA) has notified 41 Ind ASs as Companies (Indian Accounting Standards) Rules, 2015 as amended by Companies (Indian Accounting Standards) Amendments Rules, 2016. Ind AS are discussed in detail in Lesson 12: Adoption, Convergence and Interpretation of International Financial Reporting Standards (IFRS) and Accounting Standards in India.

## Accounting Standards in brief

### AS 01. Disclosure of Accounting Policies

Accounting policies are the specific accounting principles and the methods of applying those principles adopted by an enterprise in the preparation and presentation of financial statements.

All significant accounting policies should be disclosed. Such disclosure form part of financial statements.

All disclosures should be made at one place.

Specific disclosure for the adoption of fundamental accounting assumptions is not required.

Disclosure of accounting policies cannot remedy a wrong or inappropriate treatment of the item in the accounts.

### AS 02. Valuation of Inventories

A primary issue in accounting for inventories is the determination of the value at which inventories are carried in the financial statements until the related revenues are recognized. This Standard deals with the determination of such value, including the ascertainment of cost of inventories and any write-down thereof to net realizable value.

Inventories should be valued at the lower of cost and net realizable value. The cost of inventories should comprise- All costs of purchase

(a) Costs of conversion

(b) Other costs incurred in bringing the inventories to their present location and condition

### AS 03. Cash Flow Statements

The Standard deals with the provision of information about the historical changes in cash and cash equivalents of an enterprise by means of a cash flow statement which classifies cash flows during the period from operating, investing and financing activities.

An enterprise should prepare a cash flow statement and should present it for each period for which financial statements are presented.

Cash Flows are inflows and outflows of cash and cash equivalents.

Cash Flow Statement represents the cash flows during the specified period by operating, investing and financing activities.

### AS 04. Contingencies and Events Occurring After the Balance Sheet Date

This Standard deals with the treatment in financial statements of:

(a) contingencies, and

(b) events occurring after the balance sheet date.

A contingency is a condition or situation, the ultimate outcome of which, gain or loss, will be known or determined only on the occurrence, or non-occurrence, of one or more uncertain future events.

Events occurring after the balance sheet date are those significant events, both favourable and unfavourable, that occur between the balance sheet date and the date on which the financial statements are approved by the Board of Directors in the case of a company, and, by the corresponding approving authority in the case of any other entity.

### AS 05. Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies

The objective of this Standard is to prescribe the classification and disclosure of certain items in the statement of profit and loss so that all enterprises prepare and present such a statement on a uniform basis. This enhances the comparability of the financial statements of an enterprise over time and with the financial statements of other enterprises. Accordingly, this Standard requires the classification and disclosure of extraordinary and prior period items, and the disclosure of certain items within profit or loss from ordinary activities. It also specifies the accounting treatment for changes in accounting estimates and the disclosures to be made in the financial statements regarding changes in accounting policies.

This Standard should be applied by an enterprise in presenting profit or loss from ordinary activities, extraordinary items and prior period items in the statement of profit and loss, in accounting for changes in accounting estimates, and in disclosure of changes in accounting policies.

### AS 07. Construction Contracts

The objective of this Standard is to prescribe the accounting treatment of revenue and costs associated with construction contracts. Because of the nature of the activity undertaken in construction contracts, the date at which the contract activity is entered into and the date when the activity is completed usually fall into different accounting periods. Therefore, the primary issue in accounting for construction contracts is the allocation of contract revenue and contract costs to the accounting periods in which construction work is performed. This Standard uses the recognition criteria established in the Framework for the Preparation and Presentation of

Financial Statements to determine when contract revenue and contract costs should be recognised as revenue and expenses in the statement of profit and loss. It also provides practical guidance on the application of these criteria.

This Standard should be applied in accounting for construction contracts in the financial statements of contractors.

A construction contract is a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose or use.

### AS 09. Revenue Recognition

This Standard deals with the bases for recognition of revenue in the statement of profit and loss of an enterprise. The Standard is concerned with the recognition of revenue arising in the course of the ordinary activities of the enterprise from:

- the sale of goods,
- the rendering of services, and
- the use by others of enterprise resources yielding interest, royalties and dividends.

Revenue is the gross inflow of cash, receivables or other consideration arising in the course of the ordinary activities of an enterprise from the sale of goods, from the rendering of services, and from the use by others of enterprise resources yielding interest, royalties and dividends. Revenue is measured by the charges made to customers or clients for goods supplied and services rendered to them and by the charges and rewards arising from the use of resources by them. In an agency relationship, the revenue is the amount of commission and not the gross inflow of cash, receivables or other consideration.

### AS 10. Property, Plant and Equipment

Property, plant and equipment are tangible items that are held for use in the production or supply of goods or services, for rental to other or for administrative services. The objective of this AS is to prescribe the accounting treatment for property, plant and equipment. The principal issues in accounting for property, plant and equipment are the recognition of the assets, determination of their carrying amounts and depreciation charges and recognition of impairment losses in relation to them. Under this AS, property, plant and equipment are initially recognized at cost, subsequently measured by using either cost model or revaluation model and depreciated so that its depreciable amount is allocated on a systematic basis over its useful life.

### AS 11. The Effects of Changes in Foreign Exchange Rates

An enterprise may carry on activities involving foreign exchange in two ways. It may have transactions in foreign currencies or it may have foreign operations. In order to include foreign currency transactions and foreign operations in the financial statements of an enterprise, transactions must be expressed in the enterprise's reporting currency and the financial statements of foreign operations must be translated into the enterprise's reporting currency.

This Standard should be applied: (a) in accounting for transactions in foreign currencies; and (b) in translating the financial statements of foreign operations.

### AS 12. Accounting for Government Grants

This Standard deals with accounting for government grants. Government grants are sometimes called by other names such as subsidies, cash incentives, duty drawbacks, etc.

Government grants are assistance by government in cash or kind to an enterprise for past or future compliance with certain conditions. They exclude those forms of government assistance which cannot reasonably have a value placed upon them and transactions with government which cannot be distinguished from the normal trading transactions of the enterprise.

The receipt of government grants by an enterprise is significant for preparation of the financial statements for two reasons. Firstly, if a government grant has been received, an appropriate method of accounting therefor is necessary. Secondly, it is desirable to give an indication of the extent to which the enterprise has benefited from such grant during the reporting period. This facilitates comparison of an enterprise's financial statements with those of prior periods and with those of other enterprises.

### AS 13. Accounting for Investments

This Standard deals with accounting for investments in the financial statements of enterprises and related disclosure requirements.

Investments are assets held by an enterprise for earning income by way of dividends, interest, and rentals, for capital appreciation, or for other benefits to the investing enterprise. Assets held as stock-in-trade are not 'investments'.

Enterprises hold investments for diverse reasons. For some enterprises, investment activity is a significant element of operations, and assessment of the performance of the enterprise may largely, or solely, depend on the reported results of this activity.

An enterprise should disclose current investments and long term investments distinctly in its financial statements. Further classification of current and long-term investments should be as specified in the statute governing the enterprise. In the absence of a statutory requirement, such further classification should disclose, where applicable, investments in: (a) Government or Trust securities (b) Shares, debentures or bonds (c) Investment properties (d) Others—specifying nature.

### AS 14. Accounting for Amalgamations

This standard deals with accounting for amalgamations and the treatment of any resultant goodwill or reserves. This standard is directed principally to companies although some of its requirements also apply to financial statements of other enterprises.

According to this Standard, amalgamation means an amalgamation pursuant to the provisions of the Companies Act, 1956 or any other statute which may be applicable to companies.

An amalgamation may be either – (a) an amalgamation in the nature of merger, or (b) an amalgamation in the nature of purchase.

### AS 15. Employee Benefits

The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an enterprise to recognise:

(a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and

(b) an expense when the enterprise consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.

Employee benefits are all forms of consideration given by an enterprise in exchange for service rendered by employees.

### AS 16. Borrowing Costs

The objective of this Standard is to prescribe the accounting treatment for borrowing costs.

Borrowing costs are interest and other costs incurred by an enterprise in connection with the borrowing of funds. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalised as part of the cost of that asset. The amount of borrowing costs eligible for capitalisation should be determined in accordance with this Standard. Other borrowing costs should be recognised as an expense in the period in which they are incurred.

The financial statements should disclose: (a) the accounting policy adopted for borrowing costs; and (b) the amount of borrowing costs capitalised during the period.

### AS 17. Segment Reporting

The objective of this Standard is to establish principles for reporting financial information, about the different types of products and services an enterprise produces and the different geographical areas in which it operates. Such information helps users of financial statements:

(a) better understand the performance of the enterprise;

(b) better assess the risks and returns of the enterprise; and

(c) make more informed judgements about the enterprise as a whole.

If a single financial report contains both consolidated financial statements and the separate financial statements of the parent, segment information need be presented only on the basis of the consolidated financial statements.

In the context of reporting of segment information in consolidated financial statements, the references in this Standard to any financial statement items should construed to be the relevant item as appearing in the consolidated financial statements.

### AS 18. Related Party Disclosures

The objective of this Standard is to establish requirements for disclosure of:

(a) related party relationships; and

(b) transactions between a reporting enterprise and its related parties.

This Standard should be applied in reporting related party relationships and transactions between a reporting enterprise and its related parties. The requirements of this Standard apply to the financial statements of each reporting enterprise as also to consolidated financial statements presented by a holding company.

### AS 19. Leases

The objective of this Standard is to prescribe, for lessees and lessors, the appropriate accounting policies and

disclosures in relation to finance leases and operating leases.

This Standard should be applied in accounting for all leases other than:

(a) lease agreements to explore for or use natural resources, such as oil, gas, timber, metals and other mineral rights;

(b) licensing agreements for items such as motion picture films, video recordings, plays, manuscripts, patents and copyrights; and

(c) lease agreements to use lands

### AS 20 Earnings per Share

The objective of this Standard is to prescribe principles for the determination and presentation of earnings per share which will improve comparison of performance among different enterprises for the same period and among different accounting periods for the same enterprise. The focus of this Standard is on the denominator of the earnings per share calculation. Even though earnings per share data has limitations because of different accounting policies used for determining 'earnings', a consistently determined denominator enhances the quality of financial reporting.

This Standard should be applied by all companies. However, a Small and Medium Sized Company, as defined in the Notification may not disclose diluted earnings per share (both including and excluding extraordinary items).

In consolidated financial statements, the information required by this Statement should be presented on the basis of consolidated information.

### AS 21. Consolidated Financial Statements

The objective of this Standard is to lay down principles and procedures for preparation and presentation of consolidated financial statements. Consolidated financial statements are presented by a parent (also known as holding enterprise) to provide financial information about the economic activities of its group. These statements are intended to present financial information about a parent and its subsidiary (ies) as a single economic entity to show the economic resources controlled by the group, the obligations of the group and results the group achieves with its resources.

This Standard should be applied in the preparation and presentation of consolidated financial statements for a group of enterprises under the control of a parent.

This Standard should also be applied in accounting for investments in subsidiaries in the separate financial statements of a parent.

### AS 22. Accounting for Taxes on Income

The objective of this Standard is to prescribe accounting treatment for taxes on income. Taxes on income is one of the significant items in the statement of profit and loss of an enterprise. In accordance with the matching concept, taxes on income are accrued in the same period as the revenue and expenses to which they relate. Matching of such taxes against revenue for a period poses special problems arising from the fact that in a

number of cases, taxable income may be significantly different from the accounting income. This divergence between taxable income and accounting income arises due to two main reasons. Firstly, there are differences between items of revenue and expenses as appearing in the statement of profit and loss and the items which are considered as revenue, expenses or deductions for tax purposes. Secondly, there are differences between the amount in respect of a particular item of revenue or expense as recognised in the statement of profit and loss.

This Standard should be applied in accounting for taxes on income. This includes the determination of the amount of the expense or saving related to taxes on income in respect of an accounting period and the disclosure of such an amount in the financial statements.

### AS 23. Accounting for Investments in Associates in Consolidated Financial Statements

The objective of this Standard is to set out principles and procedures for recognising, in the consolidated financial statements, the effects of the investments in associates on the financial position and operating results of a group.

This Standard should be applied in accounting for investments in associates in the preparation and presentation of consolidated financial statements by an investor.

### AS 24. Discontinuing Operations

The objective of this Standard is to establish principles for reporting information about discontinuing operations, thereby enhancing the ability of users of financial statements to make projections of an enterprise's cash flows, earnings-generating capacity, and financial position by segregating information about discontinuing operations from information about continuing operations.

This Standard applies to all discontinuing operations of an enterprise.

The requirements related to cash flow statement contained in this Standard are applicable where an enterprise prepares and presents a cash flow statement.

### AS 25. Interim Financial Reporting

The objective of this Standard is to prescribe the minimum content of an interim financial report and to prescribe the principles for recognition and measurement in a complete or condensed financial statements for an interim period. Timely and reliable interim financial reporting improves the ability of investors, creditors, and others to understand an enterprise's capacity to generate earnings and cash flows, its financial condition and liquidity.

This Standard does not mandate which enterprises should be required to present interim financial reports, how frequently, or how soon after the end of an interim period. If an enterprise is required or elects to prepare and present an interim financial report, it should comply with this Standard.

### AS 26. Intangible Assets

The objective of this Standard is to prescribe the accounting treatment for intangible assets that are not dealt with specifically in another Accounting Standard. This Standard requires an enterprise to recognise an intangible asset if, and only if, certain criteria are met. The Standard also specifies how to measure the carrying amount of intangible assets and requires certain disclosures about intangible assets.

This Standard should be applied by all enterprises in accounting for intangible assets, except: (a) intangible assets that are covered by another Accounting Standard; (b) financial assets1; (c) mineral rights and expenditure on the exploration for, or development and extraction of, minerals, oil, natural gas and similar non-regenerative resources; and (d) intangible assets arising in insurance enterprises from contracts with policyholders.

An intangible asset should be recognised if, and only if: (a) it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise; and (b) the cost of the asset can be measured reliably.

An enterprise should assess the probability of future economic benefits using reasonable and supportable assumptions that represent best estimate of the set of economic conditions that will exist over the useful life of the asset.

### AS 27. Financial Reporting of Interests in Joint Ventures

The objective of this Standard is to set out principles and procedures for accounting for interests in joint ventures and reporting of joint venture assets, liabilities, income and expenses in the financial statements of venturers and investors.

This Standard should be applied in accounting for interests in joint ventures and the reporting of joint venture assets, liabilities, income and expenses in the financial statements of venturers and investors, regardless of the structures or forms under which the joint venture activities take place.

### AS 28. Impairment of Assets

The objective of this Standard is to prescribe the procedures that an enterprise applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and this Standard requires the enterprise to recognise an impairment loss. This Standard also specifies when an enterprise should reverse an impairment loss and it prescribes certain disclosures for impaired assets.

This Standard should be applied in accounting for the impairment of all assets, other than: (a) inventories (see AS 2, Valuation of Inventories); (b) assets arising from construction contracts (see AS 7, Construction Contracts); (c) financial assets, including investments that are included in the scope of AS 13, Accounting for Investments; and deferred tax assets (see AS 22, Accounting for Taxes on Income).

### AS 29. Provisions, Contingent Liabilities and Contingent Assets

The objective of this Standard is to ensure that appropriate recognition criteria and measurement bases are applied to provisions and contingent liabilities and that sufficient information is disclosed in the notes to the financial statements to enable users to understand their nature, timing and amount. The objective of this Standard is also to lay down appropriate accounting for contingent assets.

This Standard should be applied in accounting for provisions and contingent liabilities and in dealing with contingent assets, except: (a) those resulting from financial instruments1 that are carried at fair value; (b) those resulting from executory contracts, except where the contract is onerous; (c) those arising in insurance enterprises from contracts with policyholders; and (d) those covered by another Accounting Standard.

## NEED FOR CONVERGENCE WITH GLOBAL STANDARDS

The last decade has witnessed a sea change in the global economic scenario. The emergence of transnational corporations in search of money, not only for fuelling growth, but to sustain ongoing activities has necessitated raising of capital from all parts of the world, cutting across frontiers.

Each country has its own set of rules and regulations for accounting and financial reporting. Therefore, when an enterprise decides to raise capital from the markets other than the country in which it is located, the rules and regulations of that other country apply, and this, in turn, will require that the enterprise is in a position to understand the differences between the rules governing financial reporting in the foreign country as compared to its own country of origin. Therefore, translation and re-instatements are of utmost importance in a world that is rapidly globalizing in all ways. In themselves also, the Accounting Standards and principle need to be robust so that the larger society develops degree of confidence in the financial statements, which are put forward by organizations.

International analysts and investors would like to compare financial statements based on similar Accounting Standards, and this has led to the growing support for an internationally accepted set of Accounting Standards for cross-border filings. The harmonization of financial reporting around the world will help to raise confidence of investors generally in the information they are using to make their decisions and assess their risks.

Also a strong need was felt by legislation to bring about uniformity, rationalization, comparability, transparency and adaptability in financial statements. Having a multiplicity of Accounting Standards around the world is against the public interest. If accounting for the same events and information produces different reported numbers, depending on the system of standards that are being used, it is self-evident that accounting will be increasingly discredited in the eyes of those using the numbers. It creates confusion, encourages error and facilitates fraud. The cure for these ills is to have a single set of global standards, of the highest quality, set in the interest of public. Global Standards facilitate cross-border flow of money, global listing in different bourses and comparability of financial statements.

The convergence of financial reporting and Accounting Standards is a valuable process that contributes to the free flow of global investment and achieves substantial benefits for all capital market stakeholders. It

improves the ability of investors to compare investments on a global basis and thus lowers their risk of errors of judgment. It facilitates accounting and reporting for companies with global operations and eliminates some costly requirements reinstatement of financial statements. It has the potential to create a new standard of accountability and greater transparency, which are values of great significance to all market participants, including regulators. It reduces operational challenges for accounting firms and focuses their value and expertise around an increasingly unified set of standards. It creates an unprecedented opportunity for standard setters and other stakeholders to improve the reporting model. For the companies with joint listings in both domestic and foreign country, the convergence is very much significant.

## INTERNATIONAL ACCOUNTING STANDARD BOARD (IASB)

With a view of achieving these objectives, the London-based group namely the International Accounting Standards Committee (IASC), responsible for developing International Accounting Standards, was established in June, 1973. It is presently known as International Accounting Standards Board (IASB). The IASC comprises the professional accountancy bodies of over 75 countries (including the Institute of Chartered Accountants of India). Primarily, the IASC was established, in the public interest, to formulate and publish, International Accounting Standards to be followed in the presentation of audited financial statements. International Accounting Standards were issued to promote acceptance and observance of International Accounting Standards worldwide. The members of IASC have undertaken a responsibility to support the standards promulgated by IASC and to propagate those standards in their respective countries.

Between 1973 and 2001, the International Accounting Standards Committee (IASC) released International Accounting Standards. Between 1997 and 1999, the IASC restructured their organization, which resulted in the formation of International Accounting Standards Board (IASB). These changes came into effect on 1st April, 2001. Subsequently, IASB issued statements about current and future standards: IASB publishes its Standards in a series of pronouncements called International Financial Reporting Standards (IFRS). However, IASB has not rejected the standards issued by the IASC. Those pronouncements continue to be designated as "International Accounting Standards" (IAS). The IASB approved IASB Resolution on IASC Standards at their meeting in April, 2001, in which it confirmed the status of all IASC Standards and SIC Interpretations in would come into effect on 1st April, 2001.

### International Financial Reporting Standards (IFRS) as Global Standards

The term IFRS comprises IFRS issued by IASB, IAS issued by International Accounting Standards Committee (IASC), and Interpretations issued by the Standard Interpretations Committee (SIC) and the International Financial Reporting Interpretations Committee (IFRIC) of the IASB.

International Financial Reporting Standards (IFRSs) are considered a "principles-based" set of standards. In fact, they establish broad rules rather than dictating specific treatments.

Every major nation is moving towards adopting IFRS to some extent. Large number of authorities requires public companies to use IFRS for stock-exchange listing purposes, and in addition, banks, insurance companies and stock exchanges may use them for their statutorily required reports. So over the next few years, thousands of companies will adopt the international standards. This requirement will affect about 7,000 enterprises, including their subsidiaries, equity investors and joint venture partners. The increased use of IFRS is not limited to public-company listing requirements or statutory reporting. Many lenders and regulatory and government bodies are looking to IFRS to fulfil local financial reporting obligations related to financing or licensing.

International Financial Reporting Standards comprise –

- 16-International Financial Reporting Standards (IFRS) – standards issued after 2001 by IASB.
- 24-International Accounting Standards (IAS) – standards issued before 2001 by IASC which are still valid.
- 12-Interpretations issued by International Financial Reporting Interpretations Committee (IFRIC) after 2001.
- 4–interpretations issued by Standing Interpretations Committee (SIC) before 2001.

However, in practice IFRS is interchangeably used to denote individual Accounting Standards issued by IASB as well as International accounting principles collectively.

Following are some of the advantages of IFRS:

- It would facilitate increased comparability of financial information among companies operating in different countries.
- The financial reporting process would become more transparent.
- The standardization of accounting methodology provides creditors and investors with the ability to analyze businesses around the world using the same financial methods.
- It would also permit international capital to flow more freely.
- It would give investors a better understanding to the financial statements and assess the investment
- opportunities in other countries.
- It would also benefit the accounting professionals as they will be able to sell their services in the different parts of the world.

All these benefits of IFRS have prompted many countries to pursue convergence of national Accounting Standards with IFRS. India has also decided to facilitate the convergence of the Indian Accounting Standards with IFRS and in this direction all existing Accounting Standards are being revised and converged with corresponding IAS/ IFRS. Convergence of entire world towards IFRS would benefit the corporate sector, investors, regulators and facilitate economic growth as a whole.

## Convergence with IFRS in India

Increasingly, Indian accountants and businessmen feel the need for convergence with IFRS. Capital markets provide an important explanation for this change. Some Indian companies are already listed on overseas stock exchanges and many more will list in the future. Internationally acceptable Accounting Standards are becoming the language of communication for Indian companies.

Also, the recent stream of overseas acquisitions by Indian companies makes a compelling case for adoption of high quality standards to convince foreign enterprises about the financial standing, as also the disclosure and governance standards of Indian acquirers. Convergence with IFRS would require several changes in Indian laws and decision processes.

In India, the Institute of Chartered Accountants of India (ICAI) is on the way towards convergence of its Standards with Global Standards. Divergences have been minimized to the maximum possible extent in the areas wherein full convergence is difficult. Recognizing the growing need of full convergence of Indian Accounting Standards with IFRSs, ICAI constituted a Task Force to examine various issues involved. Full convergence involves adoption of IFRSs in the same form as that issued by the IASB. While formulating the Accounting Standards, ICAI recognizes the legal and other conditions prevailing in India and makes deviations from the corresponding IFRSs.

**WHY IFRS?**

The IFRSs are important because of their following features:

a. Single set of Accounting Standards would enable internationally to standardize and assure better quality on a global screen.

b. It would also permit international capital to flow more freely, enabling companies to develop consistent global practices on accounting problems.

c. It would be beneficial to the regulators too, as the complexity associated with needing to understand various reporting regimes would be reduced.

d. For investors, it gives a better understanding to the financial statements and assess the investment opportunities other than their Home Country.

e. It also benefits the accounting professionals in a way that they will be able to sell their services in the different parts of world.

## Indian GAAP (IGAAP)

Indian GAAP is a set of accounting standards that are specifically designed for the Indian context. GAAP stands for Generally Accepted Accounting Principles. Most Indian companies follow Indian GAAP while preparing their accounting records. When a company follows IFRS, it needs to provide a disclosure in the form of a note that it is complying with the IFRS. But for Indian GAAP, the disclosure of the statement isn't mandatory. When a company is said to follow the Indian GAAP, it's assumed that they're complying with the Indian GAAP to portray the true and fair view of their financial affairs.

## DIFFERENCES (IFRS VS IGAAP)

| | IFRS | IGAAP |
|---|---|---|
| First time adoption | Full retrospective application of IFRS to P&L Account and Balance Sheet.<br>Reconciliation of P&L Account and Balance Sheet with respect of last year's reported numbers under previous GAAP. | No needs to prepare reconciliation on first time adoption. |
| Components of Financial Statements | Comprises of Balance Sheet, Profit and Loss A/c. Cash Flow Statement, changes in equity and accounting policy and notes to Accounts. | Comprises of Balance Sheet, Profit and Loss A/c. Cash Flow Statement (if applicable), and Notes to Accounts |
| Balance Sheet | No particular format, a current/non current presentation of assets and liabilities is used. | As per Format Prescribed in Schedule III for Companies, adherence to Banking Regulation for Banks, etc. |
| Income Statement | No particular format prescribed (IAS-1). | As per Format Prescribed in Schedule III (AS-1). |
| Cash Flow Statements | Mandatory for all entities (IAS-7). | Level 3 entities are exempted (AS-3). |
| Dividends | Liability to be recognized in the period when dividend is declared. (IAS-10). | Recognized as an appropriation against the profit, and recorded as liability at BS date even if declared subsequent to reporting period but before the approval of Financial statements (AS-4). |
| Cost of major repairs and overhaul expenditure on fixed assets | Recognized in carrying amount of the assets (IAS-16). | Expensed off. Only expenses which increases the FEB are to be capitalized. (AS-10). |
| Re-evaluation | Re-evaluation (if done) to be updated periodically so that carrying amount does not differ from fair value at the end period. Re-evaluation to be done for entire class of assets (IAS-16). | No specific requirement for re-evaluation. Re-evaluation can be done on systematic basis like for one location leaving aside the assets of other location. (AS-10). |
| Change in the method of depreciation | Considered as a change in accounting estimate. To Be applied prospectively. (IAS-16 and IAS 8). | Considered as change in accounting policy, retrospective computation and excess or deficit is adjusted in same period. Required to be disclosed (AS- 6). |

| | | |
|---|---|---|
| Earnings Per Share | Disclosure to be made in only consolidated financials of the parent Co. (IAS-33). | Disclosure of EPS in both consolidated and separate financials (AS-20) . |
| Component Accounting | Required each major part of No such requirement (AS-10). PPE with a cost that is significant in relation to total cost, should be depreciated separately (IAS-16). | No such requirement (AS-10). |
| Intangible Assets | Intangible assets can have indefinite useful life and hence such assets are tested for impairment and not amortized. | There is no concept of indefinite useful life. Assets have definite life (usually 10 years). |
| Reporting Currency | Requires the measurement of profit using the functional currency. Entities may, however, present financial statements in a different currency (IAS- 21). | Schedule III to the Companies Act, 2013 specifies Indian Rupees as the reporting currency (AS-11). |
| Key Management Personnel (KMP) | Includes Executive as well as non executive directors (IAS-24). | Excludes non-executive directors (AS- 18). |
| Compensation to KMP | Disclosure to be made for total compensation such as short term employee benefits and post employment benefits. | AS-18 does not require the break-up of compensation cost. |
| Fringe Benefits Tax | Included as part of related expense (fringe benefit) which gives rise to incurrence of the tax. | Disclosed as a separate item after profit before tax on the face of the income statement. |
| Uniform Accounting Policies | Prepared using uniform accounting policies across all entities in a group. (IAS-27) | Policies may differ due to impracticability. (AS-21) |
| Disclosure of extra ordinary items | Prohibits such disclosure (IAS-1). No such term in IFRS | Disclosure to be made in notes (AS- 5) |

## LIST OF 39 IFRS

- IFRS 1-First time Adoption of International Financial Reporting Standards
- IFRS 2-Share Based Payments
- IFRS 3-Business Combinations
- IFRS 4-Insurance Contracts
- IFRS 5-Non-current Assets Held for Sale and Discontinued operations
- IFRS 6-Exploration for and Evaluation of Mineral Resources
- IFRS 7-Financial Instruments: Disclosures
- IFRS 8-Operating Segments

- IFRS 9-Financial Instruments
- IFRS 10-Consolidated Financial Statements
- IFRS 11-Joint Arrangements
- IFRS 12-Disclosure of Interests in other Entities
- IFRS 13-Fair Value Measurement
- IFRS 14-Regulatory Deferral Accounts
- IFRS 15-Revenue from Contracts with Customers
- IFRS 16-Leases
- IAS-1-Presentation of Financial Statements
- IAS-2- Inventories
- IAS-7- Statement of Cash Flows
- IAS-8- Accounting Policies, Change in Accounting estimates and Errors
- IAS-10- Events after balance sheet date
- IAS-12- Income Taxes
- IAS-16-Property, Plant and Equipments
- IAS-19- Employee Benefits
- IAs-20-Accounting for Govt. Grant and Disclosure of Govt. Assistance
- IAS-21- The Effect of Changes in Forex Rates
- IAS-23-BorrowingCosts
- IAS-24- Related Party Disclosures
- IAS-26- Accounting and reporting by retirement benefit plans
- IAS-27- Separate Financial Statements
- IAS-28- Investment in Associates and Joint Ventures
- IAS-29- Financial Reporting in Hyper inflationary Conditions
- IAS-32- Financial Instruments- Presentation
- IAS-33- Earnings Per Share
- IAS-34- Interim Financial Reporting
- IAS-36- Impairment of Assets
- IAS-37- Provisions, Contingent Liabilities and Contingent Assets
- IAS-38- Intangible Assets
- IAS-40-Investment Property
- IAS-41-Agriculture

## LESSON ROUND-UP

- Accounting Standards (ASs) are written policy documents issued by expert accounting body or by government or other regulatory body covering the aspects of recognition, measurement, presentation and disclosure of accounting transactions in the financial statements.
- The objective of general-purpose financial reporting is to provide financial information that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.
- Two important characteristics of financial information relate to relevance and reliability
- Convergence of national Accounting Standards with International Financial Reporting Standards (IFRS) has gained worldwide momentum in recent years to ensure uniformity and transparency in reporting standards.
- India has started applying its Indian Accounting Standards (Ind AS) converged with IFRS in a phased manner beginning from April 1, 2016.

## GLOSSARY

**Accounting standards**

Accounting standards may be defined as the written policy documents issued by an expert Accounting Body or Government or other regulatory bodies covering the aspects of recognition, measurement, presentation and disclosure of the transactions and other events in the financial statements.

**Indian Accounting Standards (Ind AS)**

Indian Accounting Standards (Ind AS) are another set of accounting standards notified by the Ministry of Corporate Affairs, Government of India which are converged with International Financial Reporting Standards (IFRS).

**International Financial Reporting Standards (IFRSs)**

International Financial Reporting Standards (IFRSs) are considered a "principles-based" set of standards. In fact, they establish broad rules rather than dictating specific treatments.

**IGAAP**

Indian GAAP is a set of accounting standards that are specifically designed for the Indian context. GAAP stands for Generally Accepted Accounting Principles.

## TEST YOURSELF

1. What is the need for Standards?
2. What is the process followed for setting Standards?
3. What are the advantages & limitations of Accounting Standards?
4. What is the need for convergence with IFRS?
5. What are the differences between IFRS, IGAAP & Ind AS?

Lesson 11

# National and International Accounting Authorities

***Key Concepts One Should Know***

- IFRS Foundation
- IFRS Advisory Council
- International Public Sector Accounting Standards Board (IPSASB)
- Financial Accounting Standards Board (FASB)

## *Learning Objectives*

**To understand the:**

- Different Accounting bodies (National and International)
- Formation and History of Different Accounting bodies
- Roles and Responsibilities of Accounting Bodies

## *Lesson Outline*

- The Institute of Chartered Accountants of India
- The Institute of Cost Accountants of India
- IFRS Foundation/International Accounting Standards Board (IASB)
- International Public Sector Accounting Standards Board (IPSASB)
- Financial Reporting Council (FRC) (UK)
- European Financial Reporting Advisory Group (EFRAG)
- Financial Accounting Standards Board (FASB)
- American Institute of Certified Public Accountants (AICPA)
- Australian Accounting Standards Board (AASB)
- Chartered Accountants Australia and New Zealand
- Financial Reporting & Assurance Standards Canada
- Chartered Professional Accountants Canada (CPA Canada)
- Accounting Standards Board of Japan (ASBJ)
- External Reporting Board (XRB) New Zealand
- LESSON ROUND UP
- TEST YOURSELF

## THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

The Institute of Chartered Accountants of India (ICAI) is a statutory body established by an Act of Parliament, viz., the Chartered Accountants Act, 1949 (Act No.XXXVIII of 1949) for regulating the profession of Chartered Accountancy in India. The Institute functions under the administrative control of the Ministry of Corporate Affairs, Government of India. The ICAI is the second largest professional body of Chartered Accountants in the world, with a strong tradition of service to the Indian economy in public interest.

The affairs of the ICAI are managed by a Council in accordance with the provisions of the Chartered Accountants Act, 1949 and the Chartered Accountants Regulations, 1988.

The objectives of ICAI are as under:-

- To regulate the profession of Accountancy
- To educate the students and its members and conduct examination of Chartered Accountancy Course
- To conduct continuing Professional Education of Members
- To conduct Post Qualification Courses
- To formulate Accounting Standards
- To prescribe Standard Auditing Procedures
- To lay down Ethical Standards
- To monitor Quality through Peer Review
- To ensuring Standards of performance of Members
- To exercise Disciplinary Jurisdiction
- To conduct Financial Reporting Review
- To provide input on Policy matters to Government

## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

The Institute of Cost Accountants of India (erstwhile The Institute of Cost and Works Accountants of India) was first established in 1944 as a registered company under the Companies Act with the object of promoting, regulating and developing the profession of Cost Accountancy.

On 28th May, 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act, 1959 as a statutory professional body for the regulation of the profession of Cost and Management Accountancy.

It has since been continuously contributing to the growth of the industrial and economic climate of the country.

The Institute of Cost Accountants of India is the only recognized statutory professional organization and licensing body in India specializing exclusively in Cost and Management Accountancy.

A Cost Accountant is a person who offers to perform or perform services involving the costing or pricing of goods and services or the preparation, verification or certification of cost accounting and related statements

The objectives of the Institute may be stated as under:

- To develop the Cost and Management Accountancy function as a powerful tool of management control in all spheres of economic activities.
- To promote and develop the adoption of scientific methods in cost and management accountancy.
- To develop the professional body of members and equip them fully to discharge their functions and fulfill the objectives of the Institute in the context of the developing economy.
- To keep abreast of the latest developments in the cost and management accounting principles and practices, to incorporate such changes as are essential for sustained vitality of the industry and other economic activities.

- To exercise supervision on the entrants to the profession and to ensure strict adherence to the best ethical standards by the profession.
- To organize seminars and conferences on subjects of professional interest in different parts of the country for cross-fertilization of ideas for professional growth.
- To carry out research and publication activities covering various economic spheres and the publishing of books and booklets for spreading information of professional interest to members in industrial, education and commercial units in India and abroad.

## IFRS FOUNDATION

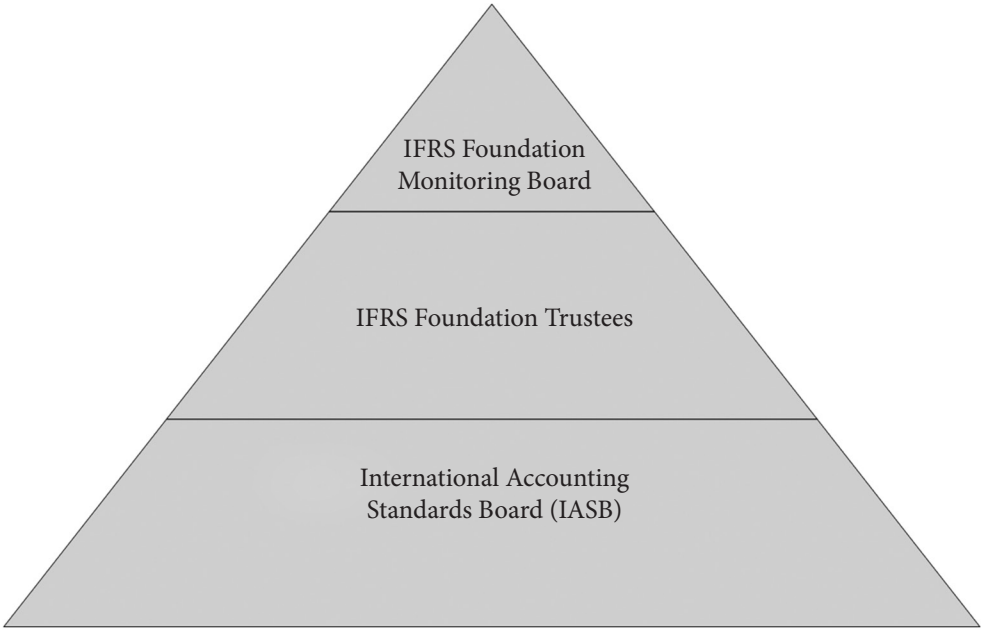
The International Financial Reporting Standards (IFRS) Foundation is a not-for-profit international organization responsible for developing a single set of high-quality global accounting standards, known as IFRS Standards.

The mission of the foundation is to develop standards that bring transparency, accountability and efficiency to financial markets around the world. Their work serves the public interest by fostering trust, growth and long-term financial stability in the global economy.

International organizations responsible for the well-being of the global economy support their work, including the G20, the Financial Stability Board and the World Bank.

IFRS Standards are now adhered to in more than 140 jurisdictions, with many others permitting their use.

### The IFRS Foundation's three-tier structure




The IFRS Foundation has a three-tier governance structure, based on an independent standard-setting Board of experts (International Accounting Standards Board), governed and overseen by Trustees from around the world (IFRS Foundation Trustees) who in turn are accountable to a monitoring board of public authorities (IFRS Foundation Monitoring Board).

The IFRS Advisory Council provides advice and counsel to the Trustees and the Board, whilst the Board also consults extensively with a range of other standing advisory bodies and consultative groups.

### Trustees of the IFRS Foundation (Trustees)

The Trustees are responsible for the governance and oversight of the International Accounting Standards Board (Board).

The Trustees are not involved in any technical matters relating to IFRS Standards. This responsibility rests solely with the Board. The Trustees are accountable to the Monitoring Board, a body of publicly accountable market authorities.

Trustees are appointed for a renewable term of three years. Each Trustee is expected to have an understanding of, and be sensitive to, international issues relevant to the success of an international organization responsible for the development of high quality global accounting standards for use in the world's capital markets and by other users.

The Trustees' responsibilities include but are not limited to the following:

- appointing members of the Board, the IFRS Interpretations Committee and the IFRS Advisory Council;
- establishing and amending the operating procedures, consultative arrangements and due process for the Board, the Interpretations Committee and the Advisory Council;
- reviewing annually the strategy of the Board and assessing its effectiveness; and
- ensuring the financing of the IFRS Foundation and annually its budget approving.

In exercising their governance responsibilities, the Trustees may reconsider or amend the Board's due process or recommend, for example, improvements to the Board's outreach activities. In addition, the constitution requires the Trustees to undertake a formal, public review of the structure of the IFRS Foundation, its governance arrangements and its effectiveness in fulfilling the organization's objectives every five years.

The Trustees are accountable to a Monitoring Board of public authorities. Their reports to the Monitoring Board are available on the Trustees' meeting pages.

## IFRS Advisory Council (Advisory Council)

The Advisory Council is the formal advisory body to the Trustees of the IFRS Foundation and the International Accounting Standards Board (Board). It consists of a wide range of representatives, comprising individuals and organisations with an interest in international financial reporting.

The focus of the Advisory Council is to provide strategic support and advice to the IFRS Foundation, and it meets in London at least twice a year for a period of two days.

## Advisory Council members

51 organisations from across the world are represented on the Advisory Council, with 50 individual members. Three additional organisations are official observers. Members of the Advisory Council are appointed by the Trustees.

Members include investors, financial analysts and other users of financial statements, as well as preparers, academics, auditors, regulators, professional accounting bodies and standard-setters.

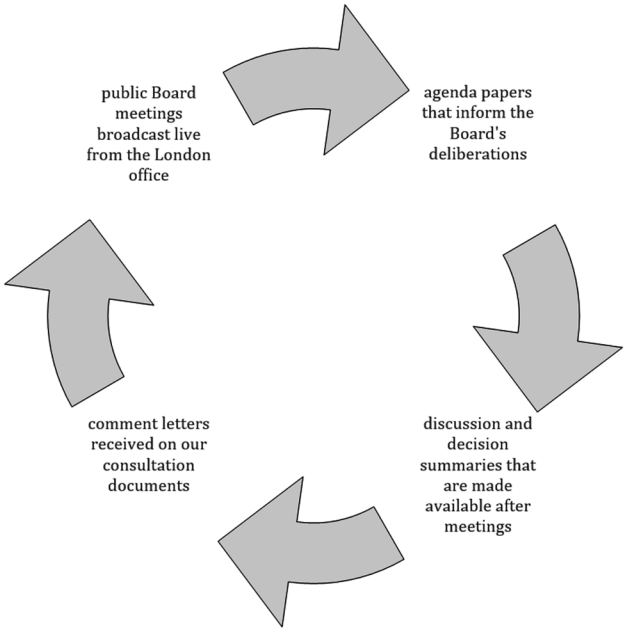
## How are IFRS Standards set?

IFRS Standards are set by the International Accounting Standards Board (Board) and are used primarily by publicly accountable companies—those listed on a stock exchange and by financial institutions, such as banks. Authoritative interpretations of the Standards, which provide further guidance on how to apply them, are developed by the IFRS Interpretations Committee and called IFRIC Interpretations.

Standards set by the Board's predecessor body, the International Accounting Standards Committee, are called IAS Standards. These Standards have the same status as the IFRS Standards. Authoritative interpretations of those Standards, developed by the Standing Interpretations Committee, are called SIC Interpretations.

A thorough, transparent and participatory due process is followed when an IFRS Standard or an IFRIC Interpretation is issued. This helps companies better implement the Standards.

The standard-setting procedure is as follows:




## INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS BOARD (IPSASB)

The IPSASB develops accounting standards and guidance for use by public sector entities. The structures and processes that support the operations of the IPSASB are facilitated by the International Federation of Accountants (IFAC).

The IPSASB's Strategic Objective is: Strengthening Public Financial Management (PFM) globally through increasing adoption of accrual-based International Public Sector Accounting Standards (IPSAS).

Delivered through two main areas of activity, both of which have a public interest focus:

- Developing and maintaining IPSAS and other high-quality financial reporting guidance for the public sector; and;
- Raising awareness of IPSAS and the benefits of accrual adoption.

The IPSASB follows an open and transparent due process to ensure that IPSAS are developed in the public interest. This process provides the opportunity for all those interested in public sector financial reporting, including those directly affected by the Standards, to make their views known to the IPSASB, and ensures that all views are considered in the standard-setting development process.

Following the report of the IPSASB Governance Review Group in 2015, the Public Interest Committee (PIC) was established. The PIC's remit is to provide assurance that the IPSASB's standard-setting activities are in the public interest by providing recommendations on:

- The terms of reference of the IPSASB;
- The arrangements for nomination and appointment of IPSAB members; and
- The procedures and processes for formulation of the IPSASB's strategy and work plan; and development of IPSAS.

The PIC is currently comprised of individuals from the International Monetary Fund, International Organisation of Supreme Audit Institutions, Organisation for Economic Co-operation and Development, and the World Bank Group.

### Objective of IPSASB

The IPSASB's objective is to serve the public interest by developing high-quality accounting standards and other material for use by public sector entities around the world in the preparation of general purpose financial reports.

This is intended to enhance the quality and transparency of public sector financial reporting by providing better information for public sector financial management, accountability and decision making. In pursuit of this objective, the IPSASB supports the convergence of international and national public sector accounting standards and the convergence of accounting and statistical bases of financial reporting where appropriate; and also promotes the acceptance of its standards and other publications.

In fulfilling the above objective, the IPSASB develops and issues, under its own authority, the following:

- International Public Sector Accounting Standards (IPSASs) as the authoritative standards to be applied in the preparation of general purpose financial reports (GPFRs) of public sector entities.
- Other non-authoritative material such as the following:
    - The Conceptual Framework establishes the concepts that are to be applied in developing IPSASs.
    - Recommended Practice Guidelines (RPGs) applicable to the preparation and presentation of GPFRs to provide guidance that represents good practice that public sector entities are encouraged to follow.
    - Studies to provide advice on financial reporting issues in the public sector. They are based on study of the best practices and most effective methods for dealing with the issues being addressed.
    - Other papers and research reports to provide information that contributes to the body of knowledge about public sector financial reporting issues and developments. They are aimed at providing new information or fresh insights and generally result from research activities such as: literature searches, questionnaire surveys, interviews, experiments, case studies and analysis.

## FINANCIAL REPORTING COUNCIL (FRC) (UK)

The Financial Reporting Council (FRC) is an independent regulator in the UK and Ireland, responsible for regulating auditors, accountants and actuaries, and setting the UK's Corporate Governance and Stewardship Codes. The FRC seeks to promote transparency and integrity in business by aiming its work at investors and others who rely on company reports, audits and high-quality risk management.

The FRC is a company limited by guarantee, partly funded by government and partly by the industry; its Board of Directors is appointed by the Secretary of State for Business, Innovation and Skills. The FRS and its subsidiaries play crucial roles in the oversight and development of corporate governance standards in the UK and the Republic of Ireland, such as the UK Corporate Governance Code and standards for the accounting industry.

The FRC Board is responsible for the overall governance and strategy of the FRC and ultimately approves all codes and standards issued by the FRC. The chair and deputy chair are appointed by the Secretary of State for Business, Innovation and Skills. Other Board members are appointed by the Board. The Board is supported by three governance committees (Audit Committee, Nominations Committee and Remuneration Committee) and by two business committees (Codes & Standards Committee and Conduct Committee). The Codes & Standards Committee is supported by three Councils which advise on Corporate Reporting, Audit & Assurance and Actuarial matters. The CRR Committee, AQR Committee and the Case Management Committee support the Conduct Committee and have specific responsibilities as set out in the FRC's monitoring, review and disciplinary procedures. The Financial Reporting Review Panel and the disciplinary Tribunal Panel are maintained pursuant to the Conduct Committee Operating procedures and the FRC's Disciplinary Schemes.

## EUROPEAN FINANCIAL REPORTING ADVISORY GROUP (EFRAG)

The European Financial Reporting Advisory Group (EFRAG) is a private association established in 2001 with the encouragement of the European Commission to serve the public interest. Its Member Organizations are European stakeholders and National Organizations have knowledge and interest in the development of IFRS Standards and how they contribute to the efficiency of capital markets.

EFRAG's mission is to serve the European public interest by developing and promoting European views in the field of financial reporting and ensuring these views are properly considered in the IASB's standard-setting process and in related international debates. EFRAG ultimately provides advice to the European Commission on whether newly issued or revised IFRS Standards meet the criteria in the IAS Regulation for endorsement for use in the EU, including whether endorsement would be conducive to the European public good.

EFRAG seeks input from all stakeholders, and obtains evidence about specific European circumstances throughout the standard-setting process and in providing its endorsement advice. Its legitimacy is built on transparency, governance, due process (which may include field tests, impact analyses and outreaches), public accountability and thought leadership. This enables EFRAG to speak convincingly, clearly and consistently, and be recognized as the European Voice in financial reporting.

EFRAG is operating in a fast-evolving environment. It is attentive to the need to adapt its activities and its governance to meet new opportunities and challenges in corporate reporting.

### Role of the EFRAG General Assembly

- Alongside fulfilling the legal requirements under the Belgian law for international associations and deciding over the statutes, internal rules and membership of EFRAG, the EFRAG General Assembly is in charge of:
- Approving the financial statements and the budget of next year;
- Appointing the President, Vice-President and members of the Board. The President of the Board is nominated by the European Commission after having heard the Council of the European Union and the European Parliament;
- Appointing the members of the European Lab Steering Group;
- Exercising general oversight over the Board, whilst respecting the Board's exclusive responsibility for the positions taken on all financial reporting matters and over the European Lab Steering Group.

## FINANCIAL ACCOUNTING STANDARDS BOARD (FASB)

Established in 1973, the Financial Accounting Standards Board (FASB) is the independent, private- sector, not-for-profit organization based in Norwalk, Connecticut, that establishes financial accounting and reporting standards for public and private companies and not-for-profit organizations that follow Generally Accepted Accounting Principles (GAAP).

The FASB is recognized by the U.S. Securities and Exchange Commission as the designated accounting standard setter for public companies. FASB standards are recognized as authoritative by many other organizations, including state Boards of Accountancy and the American Institute of CPAs (AICPA). The FASB develops and issues financial accounting standards through a transparent and inclusive process intended to promote financial reporting that provides useful information to investors and others who use financial reports.

The Financial Accounting Foundation (FAF) supports and oversees the FASB. Established in 1972, the FAF is the independent, private-sector, not-for- profit organization based in Norwalk, Connecticut, responsible for the oversight, administration, financing, and appointment of the FASB and the Governmental Accounting Standards Board (GASB).

### FASB MISSION

The collective mission of the FASB, the GASB, and the FAF is to establish and improve financial accounting and reporting standards to provide useful information to investors and other users of financial reports and educate stakeholders on how to most effectively understand and implement those standards.

The FASB, the GASB, the FAF Trustees, and the FAF management contribute to the collective mission according to each one's specific role:

- The FASB and the GASB are charged with setting the highest-quality standards through a process that is robust, comprehensive, and inclusive.
- The FAF management is responsible for providing strategic counsel and services that support the work of the standard-setting Boards.
- The FAF Trustees are responsible for providing oversight and promoting an independent and effective standard-setting process.

## AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS (AICPA)

The American Institute of CPAs is the world's largest member association representing the accounting profession, with more than 428,000 members, and a history of serving the public interest since 1887. AICPA members represent many areas of practice, including business and industry, public practice, government, education and consulting.

The AICPA sets ethical standards for the profession and U.S. auditing standards for private companies, nonprofit organizations, federal, state and local governments. It develops and grades the Uniform CPA Examination, and offers specialty credentials for CPAs who concentrate on personal financial planning; forensic accounting; business valuation; and information management and technology assurance. Through a joint venture with the Chartered Institute of Management Accountants, it has established the Chartered Global Management Accountant designation, which sets a new standard for global recognition of management accounting.

## AUSTRALIAN ACCOUNTING STANDARDS BOARD (AASB)

The AASB is an Australian Government agency under the Australian Securities and Investments Commission Act 2001. Under that Act, the statutory functions of the AASB are:

- to develop a conceptual framework for the purpose of evaluating proposed standards;
- to formulate accounting standards under section 334 of the Corporations Act 2001;
- to formulate accounting standards for other purposes;
- to participate in and contribute to the development of a single set of accounting standards for worldwide use; and
- to advance and promote the main objects of Part 12 of the ASIC Act, which include reducing the cost of capital, enabling Australian entities to compete effectively overseas and maintaining investor confidence in the Australian economy.

### AASB Vision

- to contribute to stakeholder confidence in the Australian economy, including its capital markets, and in external reporting.

**AASB Mission**

- to develop, issue and maintain principles-based Australian accounting and external reporting standards and guidance that meet user needs and enhance external reporting consistency and quality.
- To contribute to the development of a single set of accounting and external reporting standards for world-wide use.

The AASB develops and maintains financial reporting standards applicable to entities in the private and public sectors of the Australian economy. Also, the AASB contributes to the development of global financial reporting standards and facilitates the participation of the Australian community in global standard-setting. The AASB's functions and its powers are set out in the Australian Securities and Investments Commission Act 2001.The Australian Securities and Investments Commission's (ASIC's) role is to enforce and regulate company and financial services' laws to protect Australian consumers, investors and creditors. The AASB uses a conceptual framework to develop and evaluate accounting standards.

The AASB makes Australian Accounting Standards, including Interpretations, to be applied by:

(a) entities required by the Corporations Act 2001 to prepare financial reports;

(b) governments in preparing financial statements for the whole of government and the General Government Sector (GGS); and

(c) entities in the private or public for-profit or not-for-profit sectors that are reporting entities or that prepare general purpose financial statements.

## AASB Board

The AASB normally has 12 members (including the Chair). A secretariat provides it with high quality technical and administrative support. Members of the AASB are appointed on a part-time basis (except the Chair who is full-time) for terms of either two or three years. Members are appointed on merit, have a good technical knowledge of accounting and come from a variety of backgrounds to encompass `users' as well as `preparers' of financial reports. As well as technical expertise, members will usually have experience in business or government, a broad policy perspective, and a full understanding of the practical business or government environments in which accounting standards are applied. Members will also bring a keen public interest perspective to the Board. Appointments will aim to balance public and private sector expertise and also take gender considerations into account. The position involves a significant time commitment. The AASB typically holds 7-8 two-day meetings a year, plus occasional meetings on a needs basis. The majority of meetings are held in Melbourne.

## CHARTERED ACCOUNTANTS AUSTRALIA AND NEW ZEALAND (CA ANZ)

The Institute of Chartered Accountants in Australia was the professional accounting body representing Chartered Accountants in Australia. It had over 61,000 members and some 12,000 students. It was one of three major legally recognized Professional Accountancy bodies in Australia. The others are CPA Australia and Institute of Public Accountants. It is a founding member of the Global Accounting Alliance (GAA). Members of the Institute are part of the international accounting coalition of the world's premier accounting bodies, the GAA. Chartered Accountants audit 100 per cent of the Top ASX-listed companies in Australia.

On December 31, 2014, The Institute of Chartered Accountants in Australia and the New Zealand Institute of Chartered Accountants (NZICA) amalgamated to become one body—Chartered Accountants Australia and New Zealand (CA ANZ). CA ANZ has members in both Australia and New Zealand and its vision is to empower members to become leaders and shapers of finance and business in Australia and New Zealand. CA ANZ's key strategic objectives are to support its members and the profession to maintain their relevance and skills at a global level.

## FINANCIAL REPORTING & ASSURANCE STANDARDS CANADA (FRAS CANADA)

- Canada's financial reporting and assurance standards boards and oversight councils comprise the Accounting Standards Oversight Council, Accounting Standards Board, Public Sector Accounting Board, Auditing and Assurance Standards Oversight Council, and Auditing and Assurance Standards Board.
    - o The boards establish and maintain standards on accounting and auditing to serve the public interest.
    - o The oversight councils appoint board members and oversee and provide input into the boards' activities, ensuring that the process for setting Standards functions as it should.
- Members of the boards and oversight councils are mainly volunteers and represent a wide range of individuals with various backgrounds from both the private and public sectors, such as financial statement preparers and users, auditors, academics and regulators.
    - o The diverse makeup of the boards and oversight councils' volunteer members ensures that differing viewpoints are considered when developing standards.
    - o This enables the boards and oversight councils to serve the public interest through a process free of undue influence from specific professions, organizations and other groups.

## CHARTERED PROFESSIONAL ACCOUNTANTS CANADA (CPA CANADA)

CPA Canada is one of the largest national accounting organizations in the world. It represents and supports more than 210,000 members as the Canadian profession unites under a single designation, Chartered Professional Accountant (CPA).

In October 2014, the Certified General Accountants Association of Canada (CGA-Canada) joined Chartered Professional Accountants of Canada (CPA Canada) to complete the integration of the country's national accounting bodies. CPA Canada was established the previous year by the Canadian Institute of Chartered Accountants (CICA) and The Society of Management Accountants of Canada (CMA Canada).

CPA Canada is a progressive and forward-thinking organization whose members bring a convergence of shared values, diverse business skills and exceptional talents to the accounting field. Domestically, CPA Canada works cooperatively with the provincial and territorial CPA bodies who are charged with regulating the profession. Globally, it works together with the International Federation of Accountants and the Global Accounting Alliance to build a stronger accounting profession worldwide.

## ACCOUNTING STANDARDS BOARD OF JAPAN (ASBJ)

The Financial Accounting Standards Foundation (FASF) a private sector organization to include the Accounting Standards Board (ASB) was established to contribute to the sound development of financial practices in Japan and sound capital markets by making recommendations and contributions to the international accounting system by studying, researching, and developing generally accepted accounting standards, and by studying and researching disclosure system and various other practices pertinent to business finance systems.

To accomplish these objectives, the FASF will carry out the following activities:

(i) to study, research, and develop generally accepted accounting standards;

(ii) to study and research disclosure systems, as well as various other practices pertinent to business finance systems;

(iii) to make recommendations based on the results of activities mentioned in the preceding two items;

(v) On a broader level, to help develop and improve international accounting standards; and

(v) Other businesses necessary to discharge the objectives of the FASF.

## EXTERNAL REPORTING BOARD (XRB), NEW ZEALAND

The External Reporting Board (XRB) is an Independent Crown Entity established under the Financial Reporting Act 1993 and subject to the Crown Entities Act 2004.

The XRB came into existence on 1 July 2011 when amendments to the Financial Reporting Act 1993 came into force. The XRB was reconstituted from the Accounting Standards Review Board.

The functions of the XRB are prescribed by the Financial Reporting Act 1993 and comprise:

- developing and implementing an overall strategy for financial reporting standards and auditing and assurance standards (including developing and implementing tiers of financial reporting and assurance); preparing and issuing accounting standards;
- preparing and issuing auditing and assurance standards, including the professional and ethical standards that will govern the professional conduct of auditors; and liaising with national and international organizations that exercise functions that correspond with, or are similar to, those conferred on the XRB.

The Board is the governing body of the XRB and comprises nine members appointed by the Governor General on the recommendation of the responsible Minister.

The XRB Board has three core responsibilities:

- establishing and maintaining New Zealand's financial reporting strategy
- governance
- appointment and monitoring of the NZ Accounting Standards Board (NZASB) and the NZ Auditing and Assurance Standards Board (NZAuASB)

The Board is responsible for establishing the XRB's strategic plan and monitoring and reporting on its progress. It also approves the operating policies, procedures, authorities and delegations for the XRB.

The Board has established two standard setting boards, one that has responsibility for accounting standard setting (the New Zealand Accounting Standards Board) and the other with responsibility for auditing and assurance standard setting (the New Zealand Auditing and Assurance Standards Board). This structure is designed to not only ensure that the technical resources are available and that standard- setting is undertaken in accordance with best practice, but also to enhance functional equivalence with Australia.

## LESSON ROUND-UP

- The Institute of Chartered Accountants of India
- The Institute of Cost Accountants of India
- IFRS Foundation/International Accounting Standards Board (IASB)
- International Public Sector Accounting Standards Board( IPSASB)
- Financial Reporting Council (FRC) (UK)
- European Financial Reporting Advisory Group (EFRAG)
- Financial Accounting Standards Board (FASB)
- American Institute of Certified Public Accountants (AICPA)
- Australian Accounting Standards Board (AASB)
- Chartered Accountants Australia And New Zealand (CA ANZ)
- Financial Reporting & Assurance Standards Canada (FRASC)
- Chartered Professional Accountants Canada (CPA Canada)Accounting Standards Board of Japan (ASBJ)
- External Reporting Board (XRB), New Zealand

## TEST YOURSELF

1. The Institute of Chartered Accountants of India
2. The Institute of Cost Accountants of India
3. IFRS Foundation/International Accounting Standards Board (IASB)
4. International Public Sector Accounting Standards Board(IPSASB)
5. Financial Reporting Council (FRC) (UK)
6. European Financial Reporting Advisory Group (EFRAG)
7. Financial Accounting Standards Board (FASB)
8. American Institute of Certified Public Accountants(AICPA)
9. Australian Accounting Standards Board (AASB)
10. Chartered Accountants Australia and New Zealand
11. Financial Reporting & Assurance Standards Canada
12. Chartered Professional Accountants Canada (CPA Canada)Accounting Standards Board of Japan (ASBJ)
13. External Reporting Board (XRB),

# Lesson 12

# Adoption, Convergence and Interpretation of International Financial Reporting Standards (IFRS) and Accounting Standards in India

***Key Concepts One Should Know***

- Qualifying Net worth
- Ind AS
- IFRS
- Indian GAAP

## *Learning Objectives*

**To understand the:**

- Importance of relevance and reliability characteristics of financial information
- Need for quality, understandable and enforceable global accounting standards
- Roadmap for convergence of Indian Accounting Standards with IFRS
- Major difference between Indian GAAP, IFRS and converged Indian Accounting Standards (Ind AS)

## *Lesson Outline*

- Calculation of Qualifying Net Worth of Companies
- Details of Ind AS
- Comparison of Indian GAAP, IFRS and Ind AS
- Comparison of Ind AS with IFRS
- LESSON ROUND UP
- TEST YOURSELF

## INTRODUCTION

According to International Accounting Standard Board (IASB) conceptual framework, the objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to their entities. Consequently, the two important characteristics of financial information that emanates from the above objective relates to relevance and reliability. According to IASB Framework for the Preparation and Presentation of Financial Statement, information is deemed to be relevant when it influences the economic decisions of users by helping them evaluate past, present or future events or confirming or correcting, their past evaluations. Similarly to be reliable, information must represent faithfully the transactions and other events, it either purports to represent or could reasonably be expected to represent.

However, given the different social, regulatory and accounting structures across different countries, there is a lacuna in terms of absence of a single set of high quality, understandable and enforceable global accounting standards available to investors for comparison of financial statements of companies around the world. Consequently, convergence of varied accounting standards with international financial reporting standards (IFRS) has gained worldwide momentum in recent years as it would increase uniformity and transparency in reporting standards.

India, being one of the important emerging countries has also committed to convergence of its Indian Accounting Standards (Indian GAAP) with IFRS in a phased manner. While the initial roadmap was to achieve convergence in three phases starting April 2011 and ending April 2014, it could not be implemented due to various reasons. In February 2011, the Ministry of Corporate Affairs (MCA) concluded the process of convergence of Indian Accounting Standards (Ind ASs) in consultation with the National Committee on Accounting Standards (NACAS) and the Institute of Chartered Accountants of India (ICAI) and notified 35 Ind ASs. Though the standards were notified, the date of their implementation was not.

The Ind AS are basically standards that have been harmonised with the IFRS to make reporting by Indian companies more globally accessible. Since Indian companies have a far wider global reach now as compared to earlier, the need to converge reporting standards with international standards was felt, which has led to the introduction of Ind AS.

In March 2014, the ICAI proposed a roadmap for the adoption of Ind ASs from the accounting year beginning on or after 1 April 2016, with previous year comparatives in Ind AS for the year 2015-16. In order to keep the tax issues at bay, the revised roadmap recommended Ind ASs to be implemented for the preparation of Consolidated Financial Statements only.

The Ministry of Corporate Affairs (MCA), in 2015, had notified the Companies (Indian Accounting Standards (IND AS) Rules 2015, which stipulated the adoption and applicability of Ind AS in a phased manner beginning from the Accounting period 2016-17. The MCA has since issued four Amendment Rules, one each in year 2016, 2017, 2018 and 2019 to amend the 2015 rules.

### Applicability of Indian Accounting Standards

(a) The Government of India notified the Indian Accounting Standards (Ind ASs) in the Gazette of India on 16th February, 2015 which contained the application by Indian companies as per the roadmap given therein as under:

(b) For companies other than Banking companies, Non-banking Financial Companies (NBFCs) and Insurance companies:

  (i) *For the Accounting period beginning on or after 1st April, 2016*: The following companies were Adoption, Convergence and Interpretation of IFRS and Accounting Standards in India required to prepare their financial statements by adopting Indian Accounting Standards (Ind ASs):

    (a) Companies whose equity or debt securities are listed or are in the process of listing on any stock exchange either in India or out of India and having the net worth of Rs. 500 crore or more;

    (b) Unlisted companies having the net worth of Rs. 500 crore or more; and

(c) Holding companies, subsidiary companies, joint venture or associate companies of the companies mentioned at (a) or (b) above.

Comparatives for the above periods shall be for the period ending on 31st March, 2016 or thereafter.

(ii) *For the Accounting period ending on or after 1st April, 2017: The following companies were required* to prepare their financial statements by adopting Indian Accounting Standards (Ind ASs):

(a) Listed companies having net worth of less than Rs. 500 crores;

(b) Unlisted companies having net worth of Rs. 250 crore or more but less than Rs. 500 crores; and

(c) Holding, subsidiary, joint venture and associate companies of the companies mentioned at

(a) or (b) above.

Comparatives for the above periods shall be for the period ending on 31st March, 2017 or thereafter.

Once a company starts applying Indian Accounting Standards (Ind ASs) for the preparation of the financial statements based on the mandatory criteria specified above, it will have to prepare the financial statements in compliance with the Indian Accounting Standards (Ind ASs) for all the subsequent years even if the criterion later on does not apply to it. A company may voluntarily apply the Indian Accounting Standards (Ind ASs) for the preparation of the financial statements for the accounting period starting on or after 1st April, 2015. However, such a company cannot subsequently revert back to the preparation of financial statements by adopting the Accounting Standards specified under the Companies (Accounting Standards) Rules, 2006.

It may be noted that the net worth of the company will be considered based on the audited financial statements of the company concerned as at 31st March, 2014 or based on the first audited financial statements of the company concerned as at any date after 31st March, 2014.

Once the Indian Accounting standards (Ind ASs) are required to be applied in the preparation of the financial statements by a company, the same will apply to both the stand-alone financial statements and consolidated financial statements.

Companies whose securities are listed or are in the process of being listed on SME Exchanges will continue to apply the existing Accounting Standards specified under the Companies (Accounting Standards) Rules, 2006.

Companies which are not required to mandatorily follow Indian Accounting Standards (Ind ASs) are required to follow the existing Accounting Standards specified under the Companies (Accounting Standards) Rules, 2006 unless they voluntarily choose to apply Indian Accounting Standards (Ind ASs).

For Non-banking Financial Companies (NBFCs):

(i) For the Accounting period beginning on or after 1st April, 2018: The following NBFCs will be required to adopt Ind ASs:

(a) NBFCs having net worth of Rs. 500 crore or more; and

(b) Holding, subsidiary, joint venture and associate companies of the above companies.

The comparatives will be for the period ending on 31st March, 2018 or thereafter

(ii) For the Accounting period beginning on or after 1st April, 2019: The following NBFCs will be required to follow Ind ASs:

(a) Listed NBFCs having net worth of less than Rs. 500 crores;

(b) Unlisted NBFCS with net worth of Rs.250 crore or more but with net worth of less than Rs. 500 crores; and

(c) Holding, subsidiary, joint venture and associate companies of the above companies.

The comparatives will be for the period ending on 31st march, 2019 or thereafter.

**Note**: The net worth for the above purpose will be computed as per the audited financial statements for the year ended 31st March, 2016 or the first audited financial statements thereafter.

For the Scheduled commercial banks (excluding regional rural banks) and insurance companies

The following will be required to apply Indian Accounting Standards (Ind ASs) for preparing their financial statements for the period ending beginning on or after 1st April, 2018:

(a) Scheduled Commercial banks (excluding regional rural banks);

(b) All India term lending refinancing institutions (i.e. Exim Bank, NHB, NABARD, SIDBI);

(c) Insurers/insurance companies; and

(d) Holding, subsidiary, joint venture and associate companies of the above companies.

The comparatives will be given for the period ending on 31st March, 2018 or thereafter.

## Details of Ind AS

### 1. Ind AS 101 First-time Adoption of Indian Accounting Standards

The objective of this Indian Accounting Standard (Ind AS) is to ensure that an entity's first Ind-AS financial statements, and its interim financial reports for part of the period covered by those financial statements, contain high quality information that:

(a) is transparent for users and comparable over all periods presented;

(b) provides a suitable starting point for accounting in accordance with Ind-ASs; and

(c) can be generated at a cost that does not exceed the benefits.

An entity shall apply this Ind-AS in:

(a) its first Ind-AS financial statements, and

(b) each interim financial report, if any, that it presents in accordance with Ind AS 34 Interim Financial Reporting for part of the period covered by its first Ind-AS financial statements.

An entity's first Ind AS financial statements are the first annual financial statements in which the entity adopts Ind ASs according to the Ind ASs notified under the Companies Act, 2013 and makes an explicit and unreserved statement in those financial statements of compliance with Ind ASs.

### 2. Ind AS 102 Share-based Payment

The objective of this Standard is to specify the financial reporting by an entity when it undertakes a share-based payment transaction. In particular, it requires an entity to reflect in its profit or loss and financial position the effects of share-based payment transactions, including expenses associated with transactions in which share options are granted to employees.

An entity shall apply this Standard in accounting for all share-based payment transactions, whether or not the entity can identify specifically some or all of the goods or services received, including:

(a) equity-settled share-based payment transactions,

(b) cash-settled share-based payment transactions, and

(c) transactions in which the entity receives or acquires goods or services and the terms of the arrangement provide either the entity or the supplier of those goods or services with a choice of whether the entity settles the transaction in cash (or other assets) or by issuing equity instruments.

A share based payment arrangement is an agreement between the entity (or another group entity or any shareholder of any group entity) and another party (including an employee) that entitles the other party to receive:

(a) cash or other assets of the entity for amounts that are based on the price( or value) of equity instruments (including share or share options) of the entity or another group entity, or

(b) equity instruments(including shares or share options) of the entity or another group entity.

Provided that specified vetsing conditions, if any, are met.

A share-based payment transaction is a transaction in which the entity:

(a) receives goods or services from the supplier of those goods or services(including an employee) in a share based payment arrangement, or

(b) incurs an obligation to settle the transaction with the supplier in a share based payment arrangement when another group entity receives those goods or services.

### 3. Ind AS 103 Business Combinations

The objective of this Indian Accounting Standard is to improve the relevance, reliability and comparability of the information that a reporting entity provides in its financial statements about a business combination and its effects. To accomplish that, this Indian Accounting Standard establishes principles and requirements for how the acquirer:

(a) recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquiree;

(b) recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and

(c) determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination.

This Indian Accounting Standard applies to a transaction or other event that meets the definition of a business combination. This Indian Accounting Standard does not apply to:

(a) the formation of a joint venture.

(b) the acquisition of an asset or a group of assets that does not constitute a business. In such cases the acquirer shall identify and recognize the individual identifiable assets acquired (including those assets that meet the definition of, and recognition criteria for, intangible assets in Ind AS 38 Intangible Assets) and liabilities assumed. The cost of the group shall be allocated to the individual identifiable assets and liabilities on the basis of their relative fair values at the date of purchase. Such a transaction or event does not give rise to goodwill.

(c) Appendix C deals with accounting for combination of entities or businesses under common control.

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Transactions sometimes referred to as 'true mergers' or 'mergers of equals' are also referred to as business combinations as that term is used in this Ind AS.

### 4. Ind AS 104 Insurance Contracts

The objective of this Indian Accounting Standard is to specify the financial reporting for insurance contracts by any entity that issues such contracts (described in this Indian Accounting Standard as an insurer). In particular, this Indian Accounting Standard requires:

(a) limited improvements to accounting by insurers for insurance contracts.

(b) disclosure that identifies and explains the amounts in an insurer's financial statements arising from insurance contracts and helps users of those financial statements understand the amount, timing and uncertainty of future cash flows from insurance contracts.

An entity shall apply this Indian Accounting Standard to:

(a) Insurance contracts (including reinsurance contracts) that it issues, and reinsurance contracts that it holds.

(b) financial instruments that it issues with a discretionary participation feature. Ind AS 107 Financial Instruments: Disclosures requires disclosure about financial instruments, including financial instruments that contain such features.

An insurance contract is a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified future event(the insured event) adversely affects the policyholder.

### 5. Ind AS 105 Non-Current Assets Held for Sale and Discontinued Operations

The objective of this Indian Accounting Standard is to specify the accounting for assets held for sale, and the presentation and disclosure of discontinued operations. In particular, the Indian Accounting Standard requires:

(a) assets that meet the criteria to be classified as held for sale to be measured at the lower of carrying amount and fair value less costs to sell, and depreciation on such assets to cease; and

(b) assets that meet the criteria to be classified as held for sale to be presented separately in the balance sheet and the results of discontinued operations to be presented separately in the statement of profit and loss.

A discontinued operation is a component of an entity that either has been disposed of or is classified as held for sale and:

(a) represents a separate major line of business or geographical area of operations, or

(b) is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations, or

(c) is a subsidiary acquired exclusively with a view to sale.

## 6. Ind AS 106 Exploration for and Evaluation of Mineral Resources

The objective of this Indian Accounting Standard is to specify the financial reporting for the exploration for and evaluation of mineral resources. In particular, the Indian Accounting Standard requires:

a. limited improvements to existing accounting practices for exploration and evaluation expenditures.

b. entities that recognize exploration and evaluation assets to assess such assets for impairment in accordance with this Indian Accounting Standard and measure any impairment in accordance with Ind AS 36 Impairment of Assets.

c. disclosures that identify and explain the amounts in the entity's financial statements arising from the exploration for and evaluation of mineral resources and help users of those financial statements understand the amount, timing and certainty of future cash flows from any exploration and evaluation assets recognized.

Exploration for and evaluation of mineral resources is the search for mineral resources, including minerals, oil, natural gas and similar non-regenerative resources after the entity has obtained legal rights to explore in a specific area as well as the determination of the technical feasibility and commercial viability of extracting the mineral resources.

## 7. Ind AS 107 Financial Instruments: Disclosures

The objective of this Indian Accounting Standard is to require entities to provide disclosures in their financial statements that enable users to evaluate:

(a) the significance of financial instruments for the entity's financial position and performance; and

(b) the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the end of the reporting period, and how the entity manages those risks.

The principles in this Indian Accounting Standard complement the principles for recognizing, measuring and presenting financial assets and financial liabilities in Ind AS 39 Financial Instruments: Recognition and Measurement and Ind AS 32 Financial Instruments: Presentation.

## 8. Ind AS 108 Operating Segments

An entity shall disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates.

This Accounting Standard shall apply to companies to which Indian Accounting Standards (Ind AS) notified under the Companies Act apply.

If an entity that is not required to apply this Indian Accounting Standard chooses to disclose information about segments that does not comply with this Indian Accounting Standard, it shall not describe the information as segment information.

If a financial report contains both the consolidated financial statements of a parent that is within the scope of this Indian Accounting Standard as well as the parent's separate financial statements, segment information is required only in the consolidated financial statements.

An operating segment is a component of an entity:

(a) that engages in business activities for which it may earn revenues and incur expenses(including revenues and expenses relating to transactions with other components of the same entity),

(b) whose operating results are regularly reviewed by the chief operating decision-maker to make decisions about resources to be allocated to the segment and assess its performance, and

(c) for which discrete fianncial information is available.

### 9. Ind AS 109 Financial Instruments

The objective of this Standard is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows.

### 10. Ind AS 110 Consolidated Financial Statements

The objective of this Indian Accounting Standard (Ind AS) is to establish principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities.

Consolidated financial statements are the financial statements of a group in which the assets, liabilities, equity, expenses, income and cash flows of the parents and its subsidiaries are presented as those of a single economic entity.

### 11. Ind AS 111 Joint Arrangements

The objective of this Indian Accounting Standard (Ind AS) is to establish principles for financial reporting by entities that have an interest in arrangements that are controlled jointly (i.e. joint arrangements).

To meet the objective, this Ind AS defines joint control and requires an entity that is a party to a joint arrangement to determine the type of joint arrangement in which it is involved by assessing its rights and obligations and to account for those rights and obligations in accordance with that type of joint arrangement.

This Ind AS shall be applied by all entities that are a party to a joint arrangement.

A joint arrangement is an arrangement is an arrangement of which two or more parties have joint control. A joint arrangement has the following characteristics:

(a) The parties are bound by a contractual arrangement.

(b) The contractual arrangement gives two or more of those parties joint control of the arrangement.

A joint arrangement is either a joint operation or a joint venture.

### 12. Ind AS 112 Disclosure of Interests in Other Entities

The objective of this Indian Accounting Standard (Ind AS) is to require an entity to disclose information that enables users of its financial statements to evaluate:

(a) the nature of, and risks associated with, its interests in other entities; and

(b) the effects of those interests on its financial position, financial performance and cash flows.

Interest in another entity refers to contractual and non-contractual involvement that exposes an entity to variability of returns from the performance of the other entity. An interest in another entity can be evidenced by, but is not limited to, the holding of equity or debt instruments as well as other forms of involvement such as provision of funding, liquidity support, credit enhancement and guarantees. It includes other means by which the entity has control or joint control of, or significant influence over another entity. An entity does not necessarily have an interest in another entity solely because of a typical customer supplier relationship.

## 13. Ind AS 113 Fair Value Measurement

This Ind AS:

(a) defines fair value;

(b) sets out in a single Ind AS a framework for measuring fair value; and

(c) requires disclosures about fair value measurements.

Fair value is a market-based measurement, not an entity-specific measurement. For some assets and liabilities, observable market transactions or market information might be available. For other assets and liabilities, observable market transactions and market information might not be available. However, the objective of a fair value measurement in both cases is the same—to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability).

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between the market participants at the measurement date.

## 14. Ind AS 114, Regulatory Deferral Accounts

The objective of this Standard is to specify the financial reporting requirements for regulatory deferral account balances that arise when an entity provides goods or services to customers at a price or rate that is subject to rate regulation.

An entity is permitted to apply the requirements of this Standard in its first Ind AS financial statements if and only if it: (a) conducts rate-regulated activities; and (b) recognised amounts that qualify as regulatory deferral account balances in its financial statements in accordance with its previous GAAP.

A regulatory deferral account balance is a regulatory asset or a regulatory liability as defined in the Guidance Note on Accounting for Rate regulated activities. Rate regulated activities are the entity's activities that are subject to rate regulation.

## 15. Ind AS 115, Revenue from Contracts with Customers

The objective of this Standard is to establish the principles that an entity shall apply to report useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer.

A contract is an agreement between two or more parties that creates enforceable rights and obligations. Revenue is the income arising in the course of an entity's ordinary activities. Income is increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than the contributions from equity participants.

## 16. Ind AS 116, Leases

The objective of this Ind AS is to set out the principles for recognition, measurement, presentation of disclosure of leases so that the lessees and lessors provide the relevant information in a manner that faithfully represent those transactions. This information gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cash flows of an entity.

To apply this standard, an entity shall consider the terms and conditions of contracts and all relevant facts and circumstances. An entity shall apply this Standard consistently to contracts with similar characteristics and in similar circumstances.

A lease is a contract, or part of a contract that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration.

## 17. Ind AS 1 Presentation of Financial Statements

This Standard prescribes the basis for presentation of general purpose financial statements to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities. It sets out overall requirements for the presentation of financial statements, guidelines for their structure and minimum requirements for their contents.

An entity shall apply this Standard in preparing and presenting general purpose financial Statements in accordance with Ind AS.

General purpose financial statements are those financial statements that are intended to meet the needs of users who are not in a position to require an entity to prepare reports tailored to their particular information needs.

## 18. Ind AS 2 Inventories

The objective of this Standard is to prescribe the accounting treatment for inventories. A primary issue in accounting for inventories is the amount of cost to be recognized as an asset and carried forward until the related revenues are recognized. This Standard deals with the determination of cost and its subsequent recognition as an expense, including any write-down to net realizable value. It also deals with the cost formulas that are used to assign costs to inventories.

Inventories are assets:

(a) held for sale in the ordinary course of busness;

(b) in the process of production for such sale; or

(c) in the form of materials or supplies to eb consumed in the production process or in the rendering of services.

## 19. Ind AS 7 Statement of Cash Flows

Information about the cash flows of an entity is useful in providing users of financial statements with a basis to assess the ability of the entity to generate cash and cash equivalents and the needs of the entity to utilize those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an entity to generate cash and cash equivalents and the timing and certainty of their generation. The objective of this Standard is to require the provision of information about the historical changes in cash and cash equivalents of an entity by means of a statement of cash flows which classifies cash flows during the period from operating, investing and financing activities.

An entity shall prepare a statement of cash flows in accordance with the requirements of this Standard and shall present it as an integral part of its financial statements for each period for which financial statements are presented.

A statement showing cash flows is called a Statement of Cash Flows. Cash flows are the inflows and outflows of cash and cash equivalents. Cash comprises cash on hand and demand deposits. Cash equivalents are short term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

## 20. Ind AS 8 Accounting Policies, Changes in Accounting Estimates and Errors

The objective of this Standard is to prescribe the criteria for selecting and changing accounting policies, together with the accounting treatment and disclosure of changes in accounting policies, changes in accounting estimates and corrections of errors. The Standard is intended to enhance the relevance and reliability of an entity's financial statements, and the comparability of those financial statements over time and with the financial statements of other entities. Disclosure requirements for accounting policies, except those for changes in accounting policies, are set out in Ind AS 1 Presentation of Financial Statements.

This Standard shall be applied in selecting and applying accounting policies, and accounting for changes in accounting policies, changes in accounting estimates and corrections of prior period errors.

Accounting policies are the specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements. A change in an accounting estimate is the adjustment in the carrying amount of an asset or a liability, or the amount of the periodic consumption of an asset that results from the assessment of the present status of, and expected future benefits and obligations with the asset or liability. Changes in accounting estimates result from new estimates or new developments, and accordingly are not correction of errors.

## 21. Ind AS 10 Events after the Reporting Period

The objective of this Standard is to prescribe:

(a) When an entity should adjust its financial statements for events after the reporting period; and

(b) the disclosures that an entity should give about the date when the financial statements were approved for issue and about events after the reporting period.

The Standard also requires that an entity should not prepare its financial statements on a going concern basis if events after the reporting period indicate that the going concern assumption is not appropriate.

This Standard shall be applied in the accounting for, and disclosure of, events after the reporting period. Events after the reporting period are those events, favourbale and unfavourable, that occur between the end of the reporting period and that date when the financial statements are approved by the Board of directors in the case of a company and by the corresponding approving authority in the case of any other entity for issue.

## 22. Ind AS 12 Income Taxes

The objective of this Standard is to prescribe the accounting treatment for income tax. The principal issue in accounting for income tax is how to account for the current and future tax consequences of:

(a) the future recovery (settlement) of the carrying amount of assets (liabilities) that are recognized in an entity's balance sheet; and

(b) transactions and other events of the current period that are recognized in an entity's financial statements.

It is inherent in the recognition of an asset or liability that the reporting entity expects to recover or settle the carrying amount of that asset or liability. If it is probable that recovery or settlement of that carrying amount will make future tax payments larger (smaller) than they would be if such recovery or settlement were to have no tax consequences. This Standard requires an entity to recognize a deferred tax liability (deferred tax asset), with certain limited exceptions.

## 23. Ind AS 16 Property, Plant and Equipment

The objective of this Standard is to prescribe the accounting treatment for property, plant and equipment so that users of the financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment. The principal issues in accounting for property, plant and equipment are the recognition of the assets, the determination of their carrying amounts, and the depreciation charges and impairment losses to be recognized in relation to them.

This Standard shall be applied in accounting for property, plant and equipment except when another Standard requires or permits a different accounting treatment.

Property, plant and equipment are tangible items that:

(a) are held for use in the production or supply of goods or services, for rental to others or for administrative purposes; and

(b) are expected to be used during more than one period.

## 24. Ind AS 19 Employee Benefits

The objective of this Standard is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognize:

(a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and

(b) an expense when the entity consumes the economic benefit arising from the service provided by an employee in exchange for employee benefits.

Employee benefits are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

## 25. Ind AS 20 Accounting for Government Grants and Disclosure of Government Assistance

This Standard shall be applied in accounting for, and in the disclosure of, government grants and in the disclosure of other forms of government assistance.

This Standard does not deal with:

(a) the special problems arising in accounting for government grants in financial statements reflecting the effects of changing prices or in supplementary information of a similar nature.

(b) government assistance that is provided for an entity in the form of benefits that are available in determining taxable profit or tax loss, or are determined or limited on the basis of income tax liability. Examples of such benefits are income tax holidays, investment tax credits, accelerated depreciation.

(c) government participation in the ownership of the entity.

(d) government grants covered by Ind AS-41, Agriculture.

(e) Government assistance is action by government designed to provide an economic benefit specific to an entity or range of entities qualifying under certain criteria. Government assistance does not include benefits provided only indirectly through actions affecting general trading conditions, such as the provision of infrastructure in development areas or the imposition of trading constraints on the competitors. Government grants are assistance by government in the form of transfer of resources to an entity in return for past or future compliance with certain conditions relating to the operating activities of the entity. Government grants exclude those forms of government assistance which cannot reasonably have a value placed upon them and transactions with the government which cannot be distinguished from the trading transactions of the entity.

## 26. Ind AS 21 The Effects of Changes in Foreign Exchange Rates

An entity may carry on foreign activities in two ways. It may have transactions in foreign currencies or it may have foreign operations. In addition, an entity may present its financial statements in a foreign currency. The objective of this Standard is to prescribe how to include foreign currency transactions and foreign operations in the financial statements of an entity and how to translate financial statements into a presentation currency.

The principal issues are which exchange rate(s) to use and how to report the effects of changes in exchange rates in the financial statements.

## 27. Ind AS 23 Borrowing Costs

Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset form part of the cost of that asset. Other borrowing costs are recognized as an expense.

An entity shall apply this Standard in accounting for borrowing costs.

The Standard does not deal with the actual or imputed cost of equity, including preferred capital not classified as a liability.

An entity is not required to apply the Standard to borrowing costs directly attributable to the acquisition, construction or production of:

(a) a qualifying asset measured at a fair value, for example, a biological asset; or

(b) inventories that are manufactured, or otherwise produced, in large quantities on a repetitive basis.

## 28. Ind AS 24 Related Party Disclosures

The objective of this Standard is to ensure that an entity's financial statements contain the disclosures necessary to draw attention to the possibility that its financial position and profit or loss may have been affected by the existence of related parties and by transactions and outstanding balances, including commitments, with such parties.

This Standard shall be applied in:

(a) identifying related party relationships and transactions;

(b) identifying outstanding balances, including commitments, between an entity and its related parties;

(c) identifying the circumstances in which disclosure of the items in (a) and (b) is required; and

(d) determining the disclosures to be made about those items.

A related party is a person or entity that is related to the entity preparing its financial statements. A

relaed party transaction is a transfer of resources, services or obligations between a reporting entity and a related party regardless of whether the price is charged.

### 29. Ind AS 27 Separate Financial Statements

The objective of this Standard is to prescribe the accounting and disclosure requirements for investments in subsidiaries, joint ventures and associates when an entity prepares separate financial statements.

This Standard shall be applied in accounting for investments in subsidiaries, joint ventures and associates when an entity elects, or is required by law, to present separate financial statements.

This Standard does not mandate which entities produce separate financial statements. It applies when an entity prepares separate financial statements that comply with Indian Accounting Standards.

Separate financial statements are those presented by a parent (i.e. an investor with control of a subsidiary) or an investor with joint control of, or significant influence over, an investee, in which the investments are accounted for at cost or as per Ind AS 9 "Financial Instruments".

### 30. Ind AS 28 Investments in Associates and Joint Ventures

The objective of this Standard is to prescribe the accounting for investments in associates and to set out the requirements for the application of the equity method when accounting for investments in associates and joint ventures.

This Standard shall be applied by all entities that are investors with joint control of, or significant influence over, an investee.

An associate is an entity over which the investor has significant influence. A joint venture is a joint arrangement whereby the parties that have the joint control of the arrangement has rights to the net assets of the arrangement.

### 31. Ind AS 29 Financial Reporting in Hyperinflationary Economies

This Standard shall be applied to the financial statements, including the consolidated financial statements, of any entity whose functional currency is the currency of a hyperinflationary economy.

In a hyperinflationary economy, reporting of operating results and financial position in the local currency without restatement is not useful. Money loses purchasing power at such a rate that comparison of amounts from transactions and other events that have occurred at different times, even within the same accounting period, is misleading.

### 32. Ind AS 32 Financial Instruments: Presentation

The objective of this Standard is to establish principles for presenting financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities. It applies to the classification of financial instruments, from the perspective of the issuer, into financial assets, financial liabilities and equity instruments; the classification of related interest, dividends, losses and gains; and the circumstances in which financial assets and financial liabilities should be offset.

The principles in this Standard complement the principles for recognising and measuring financial assets and financial liabilities in Ind AS 39 Financial Instruments: Recognition and Measurement, and for disclosing information about them in Ind AS 107 Financial Instruments: Disclosures.

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or an equity instrument of another entity.

### 33. Ind AS 33 Earnings per Share

The objective of this Standard is to prescribe principles for the determination and presentation of earnings per share, so as to improve performance comparisons between different entities in the same reporting period and between different reporting periods for the same entity. Even though earnings per share data have limitations because of the different accounting policies that may be used form determining 'earnings', a consistently determined denominator enhances financial reporting. The focus of this Standard is on the denominator of the earnings per share calculation.

An entity shall calculate basic earnings per share amounts for profit or loss attributable to the ordinary

equity holders of the parent entity and, if presented, profit or loss from continuing operations attributable to those equity holders. Basic earnings per share shall be calculated by dividing profit or loss attributable to the ordinary equity holders of the parent entity by the weighted average number of ordinary shares outstanding during the period.

An entity shall calculate diluted earnings per share amounts for profit or loss attributable to the ordinary equity holders of the parent entity and, if presented, profit or loss from continuing operations attributable to those equity holders. For the purpose of calculating diluted earnings per share, an entity shall adjust profit or loss attributable to the ordinary equity holders of the parent entity and weighted average number of ordinary shares outstanding during the period, from the effects of all dilutive potential ordinary shares.

### 34. Ind AS 34 Interim Financial Reporting

The objective of this Standard is to prescribe the minimum content of an interim financial report and to prescribe the principles for recognition and measurement in complete or condensed financial statements for an interim period. Timely and reliable interim financial reporting improves the ability of investors, creditors, and others to understand an entity's capacity to generate earnings and cash flow and its financial condition and liquidity.

Interim financial report is a financial report containing either a complete set of financial statements or a set of condensed financial statements for an interim period. An interim period is a financial reporting period shorter than a full financial year.

### 35. Ind AS 36 Impairment of Assets

The objective of this Standard is to prescribe the procedures that an entity applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and the Standard requires the entity to recognize an impairment loss. The Standard also specifies when an entity should reverse an impairment loss and prescribes disclosures.

An impairment loss is the amount by which the carrying amount of an asset or a cash generating unit exceeds its recoverable amount. Carrying amount is the amount at which an asset is reocgnized after deducting any accumulated depreciation (amortization) and any accumulated impairment losses thereon. A cash generating unit is the smallest identifiable group of assets that generates cash flows that are largely independent of the cash inflows from other assets or group of assets.

### 36. Ind AS 37 Provisions, Contingent Liabilities and Contingent Assets

The objective of this Standard is to ensure that appropriate recognition criteria and measurement bases are applied to provisions, contingent liabilities and contingent assets and that sufficient information is disclosed in the notes to enable users to understand their nature, timing and amount.

A provision is a liability of uncertain timing or amount. A contingent liability is:

(a) a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the control of the entity; or

(b) a present obligation that arises from past events but is not reocgnized because:

  (i) it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or

  (ii) the amount of obligation cannot be measured with sufficient reliability.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the control of the entity.

### 37. Ind AS 38 Intangible Assets

The objective of this Standard is to prescribe the accounting treatment for intangible assets that are not dealt with specifically in another Standard. This Standard requires an entity to recognize an intangible

asset if, and only if, specified criteria are met. The Standard also specifies how to measure the carrying amount of intangible assets and requires specified disclosures about intangible assets

An intangible asset is an identifiable non-monetary asset without physical substance. Monetary assets are money held and assets to be received in fixed or determinable amount of money. An intangible asset to be identifiable should be distinguishable from goodwill. An asset is identifiable if it either:

(a) is separable i.e.is capable of being separated or dividend from the entity and sold, transferred, licensed, rented or exchanged either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; or

(b) arises from contractual or other legal rights, regardless of whether those rights are transferrable or separable form the entity or from other rights and obligations.

### 38. Ind AS 40 Investment Property

The objective of this Standard is to prescribe the accounting treatment for investment property and related disclosure requirements.

This Standard shall be applied in the recognition, measurement and disclosure of investment property.

Among other things, this Standard applies to the measurement in a lessee's financial statements of investment property interests held under a lease accounted for as a finance lease and to the measurement in a lessor's financial statements of investment property provided to a lessee under an operating lease. This Standard does not deal with matters covered in Ind AS 17 Leases, including:

(a) classification of leases as finance leases or operating leases;

(b) recognition of lease income from investment property (see also Ind AS 18 Revenue);

(c) measurement in a lessee's financial statements of property interests held under a lease accounted for as an operating lease;

(d) measurement in a lessor's financial statements of its net investment.

(e) accounting for sale and lease back transactions; and

(f) disclosure about finance leases and operating leases.

Investment property is a property (i.e. land or a building or part of a building or both) held (by the owner or a lessee as a right of use asset) to earn rentals, or for capital appreciation, or both rather than for:

(a) use in the production or supply of goods or serviced or for administrative purposes; or

(b) sale in the ordinary course of business.

### Ind AS 41 Agriculture

The objective of this Standard is to prescribe the accounting treatment and disclosures related to agricultural activity. This Standard shall be applied to account for the following when they relate to agricultural activity: (a) biological assets; (b) agricultural produce at the point of harvest; and (c) government grants covered by paragraphs 34 and 35.

Agricultural activity is the management by an entity of the biological transformation and harvest of biological assets for sale or for conversion into agricultural produce or into additional biological assets. Agricultural produce is the harvested produce of the entity's biological asset. A biological asset is a living animal or plant. Biological transformation comprises the processes of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset.

### Comparison of Indian GAAP, IFRS and Ind AS

The significant difference between the Indian GAAP (current Indian Accounting Standards) converged Indian Accounting Standards (Ind AS) and IFRS (International Financial Reporting Standards) are discussed in detail in the following pages.

## Comparison of Ind AS with Existing Indian GAAP

- Ind AS 1 prohibits presentation of any item as extraordinary item in the statement of profit and loss or in the notes as compared to existing AS 1 which allows for extraordinary items to be disclosed separately.
- Ind AS 1 requires disclosure of critical assumptions about the future and other sources of measurement uncertainty that can affect carrying amounts of assets and liabilities within next financial year. Existing AS 1 does not require any such disclosure.
- Ind AS 1 requires that classification of expenses be presented on the basis of nature of expenses.
- Ind AS 1 requires that in case of reclassification of items, nature, amount and reason for reclassification are disclosed in notes to financial statement. No such nature, amount and reason for reclassification are required to be disclosed under existing AS 1.
- Ind AS 1 requires that a statement of changes in equity is including reconciliation between opening and closing balance for each component of equity. Under existing AS 1, Statement of changes in equity is not required.

## Comparison of Ind AS with IFRS (International Accounting Standards)

- With regards to preparation of statement of profit and loss. International Accounting Standard IAS 1. Presentation of Financial Statement provides with an option to follow either the single statement approach or the two statements approach. While single statement approach allows for all items of income and expense to be recognized in the statement of profit and loss, two statements approach requires preparation of two statements, one displaying components of profit or loss (separate income statement) and the other beginning with profit or loss and displaying components of other comprehensive income. In comparison to IAS 1, Ind AS 1 allows only for the single statement approach.
- As against IAS 1, which requires separate statement of changes in equity, Ind AS 1 requires statement of changes in equity to be shown as a part of balance sheet.
- Ind AS 1 does not permit periodicity as against IAS 1 which allows for periodicity (for example, of 52 weeks for preparation of financial statements).
- IAS I allows classification of expenses based on either their nature or their function within the equity as compared to Ind AS 1 which requires only nature wise classification of expenses.

## Comparison of Ind AS with Existing Indian GAAP

- Ind AS 2 provides for reversal of the write-down of inventories to net realizable value limited to the amount of original write-down, and requires recognition and disclosure thereof in the financial statements. Existing AS 2 does not provide any specific guidance on the same.
- Existing AS 2 excludes from its scope inventories held by commodity broker traders (who measure their inventories at a fair value minus costs to sell), producers of agricultural and forest products, agricultural produce after harvest, and minerals and mineral products. In contrast, Ind AS 2 excludes from its scope only the measurement of such inventories. Further Ind AS 2 defines fair value and provides an explanation in respect of distinction between net realizable value and fair value.
- While Ind AS 2 provides explanation with regard to inventories of service providers, existing AS 2 does not contain such an explanation.

While Ind AS 2 requires only the use of consistent cost formulas for all inventories having a similar nature and use to the entity, existing AS 2 specifically requires that the formula used in determining the cost of an item of inventory should reflect the fairest possible approximation to the cost incurred in bringing the items of inventory to their present location and condition.

## STATEMENT OF CASH FLOWS

### Comparison of Ind AS 7 with AS 3

| S. No. | Bases of Comparison | Ind AS 7 "Statement of Cash Flows" | AS 3 "Cash Flow Statements" |
|---|---|---|---|
| (i) | Bank overdraft repayable on demand | Ind AS 7 specifically provides that the bank borrowings are generally classified as financing activities. However, bank overdraft repayable on demand is treated as part of cash and cash equivalents. | As 3 is silent on this aspect. |
| (ii) | Treatment of cash payments in specific cases | Ind AS 7 provides for the treatment of cash payments to manufacture or acquire assets held for rental to others and subsequently held for sale in the ordinary c0urse of business as cash flows from operating activities. Further, treatment of cash receipts from rent and subsequent sale of such assets as cash flow from operating activities is also provided. | AS 3 does not contain such requirements. |
| (iii) | New examples of cash flows arising from financing activities | Ind AS 7 includes the following new examples of cash flows arising from financing activities:<br>(a) Cash payments to owners to acquire or redeem the entity's shares;<br>(b) cash proceeds from mortgages;<br>(c) Cash payments by the lessee for the reduction of the outstanding liability relating to a finance lease. | AS 3 does not contain such examples. |
| (iv) | Adjustments of the profit or loss for the effects of undistributed profits of the associates and non-controlling interests | Ind AS 7 specifically requires the adjustment of the profit or loss for the effects of 'undistributed profits of associates and non-controlling interests' while determining the net cash flows from operating activities using the indirect method. | AS 3 does not contain such requirements. |
| (v) | Cash flows associated with extraordinary activities | Ind AS 7 does not contain this requirement. | AS 3 requires cash flows associated with extraordinary activities to be separately classified as arising from, operating, investing and financing activities. |
| (vi) | Investing activities | Ind AS 3 requires that only the expenditures results in a recognized asset in the balance sheet are eligible for classification as investing activities. | AS 3 does not contain such requirements. |

| | | | |
|---|---|---|---|
| (vii) | Disclosure of the amount of cash and cash equivalents in specific situations | Ind AS 7 requires and entity (except an investment entity) to disclose the amounts of cash and cash equivalents and other assets and liabilities in the subsidiaries or other businesses over which control is obtained or lost. It also requires to report the aggregate amount of cash paid or received as consideration for obtaining or losing control of such subsidiaries or other businesses in the Statement of Cash Flows, net of cash and cash equivalents acquired or disposed of as part of such transactions, events or changes in circumstances. | AS 3 does not contain such requirements. |
| (viii) | Cash flows arising from changes in ownership interest in subsidiaries | Ind AS 7 requires to classify cash flows arising from changes in ownership interest in subsidiaries that do not result in a loss of control as cash flows from financing activities. | AS 3 does not contain such requirements. |
| (ix) | Investments in subsidiaries associates and joint ventures (investees) | Ind AS 7 mentions the use of equity or cost method while accounting for an investment in an associate, joint venture or a subsidiary. It also specifically deals with the reporting of interest in an associate or a joint venture using equity method. | AS 3 does not contain such requirements. |
| (x) | Use of different terminology and translation of cash flows of a foreign subsidiary | Ind AS uses the term 'functional currency instead of 'reporting currency' (as in AS 3). It also deals with the translation of cash flows of a foreign subsidiary. | AS 3 uses the term 'reporting currency'. AS 3 does not deal with the translation of cash flows of a foreign subsidiary. |
| (xi) | Disclosures | Ind AS 7 requires more disclosures as compared to AS 3. | As 3 requires less disclosures as compared to Ind AS 7. |

## Comparison of Ind AS 7 with IAS

| S. No. | Bases of Comparison | IAS 7 | Ind AS 7 |
|---|---|---|---|
| (i) | Treatment of interest paid and interest and dividend received | IAS 7 gives an option to classify the interest paid and interest and dividend received as an item of operating cash flows. | Ind AS 7 does not provide such an option and requires these items to be classified as an item of financing activity and investing activity respectively. |
| (ii) | Treatment of dividend paid | IAS 7 gives an option to classify the dividend paid as an item of operating activity. | Ind AS 7 requires dividend paid to be classified as an item of financing activity only. |

## Accounting Policies Changes in Accounting Estimates and Errors

### Comparison of Ind AS with existing Indian GAAP

- Ind AS 8 requires rectification of prior period errors with retrospective effect subject to limited exceptions; whereas existing AS 5 requires the rectification of prior period items with prospective effect.

While existing AS 5 defines prior period items as incomes or expenses which arise in the current period as a result of errors or omissions in the preparation of financial statements of one or more prior periods, Ind AS 8 defines the term errors as arising from a failure to use or misuse reliable information that was available when the financial statements of the prior periods were approved for issuance and could reasonably be expected to obtained and taken into account in the preparation and presentation of those financial statements.

## Comparison of Ind AS with IFRS (International Accounting Standards)

**No significant differences**

## Income Taxes

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 22, based on income statement approach, recognizes tax consequences of differences between taxable income and accounting income. Ind AS 12, in contracts, is based on balance sheet approach and recognizes tax consequences of differences between the carrying amounts of assets and liabilities and their tax base.
- Existing AS 22 recognizes and carries forward deferred tax assets only to the extent where there is a reasonable certainty that sufficient future taxable income will be available against which such deferred tax assets can be utilized. Ind AS 12 recognizes deferred tax assets for all deductible temporary difference to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized.
- Under existing AS 22, deferred tax assets in case of unused tax losses and unabsorbed depreciation is recognized to the extent that there is virtual certainty supported by convincing evidence that sufficient future taxable income will be available against which such deferred tax assets can be realized. Under Ind AS 12, deferred tax assets in case of unused tax losses and unabsorbed depreciation are recognized only to the extent that the entity has sufficient taxable temporary differences, or there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses or unused tax credits can be utilized by the entity.

### Comparison of Ind AS with IFRS

No significant differences

## Property Plant and Equipment

### Comparison of Ind AS 16 with AS 10

| S. No. | Bases of comparison | Ind AS 16 | AS 10 |
|---|---|---|---|
| (i) | Property, plant and equipment retired from active use and held for sale | Ind AS 16 does not deal with the assets held for sale because the treatment of such assets is covered under Ind AS 105 "Non-current assets held for sale and Discontinued operations". | AS 10 deals with the accounting for items of fixed assets retired from active use and held for sale. |
| (ii) | Stripping costs in the production phase of a surface mine | Ind AS 16 provides guidance on measuring the stripping cost in the production phase of a surface mine. | AS 10 does not contain this guidance. |

### Comparison of Ind AS 16 with IAS 16

There is no major difference between the two.

## Leases

**Comparison of Ind AS 116 with AS 19**

| Bases of comparison | Ind AS 116 | AS 19 |
|---|---|---|
| (i) Coverage | Ind AS 116 deals with specific provisions related to leases of land and building. | AS 19 does not deal with all types of leases. |
| (ii) Residual value | Ind AS 116 does not define residual value | AS 19 defines residual value. |
| (iii) Inception of lease and commencement of lease | Ind AS 116 defines and distinguishes between inception of lease and commencement of lease. | AS 19 neither defines nor distinguishes between the two. |
| (iv) Recognition of finance lease | As per Ind AS 116, lessee should recognize finance lease as assets and liabilities at the commencement of lease. | As per AS 19, the lessee should recognize the finance lease at the inception of lease. |
| (v) Upward revision of unguaranteed residual value | Ind AS 116 permits the upward revision of unguaranteed residual value during the lease term. | AS 19 prohibits such upward revision. |
| (vi)Initial direct costs | Ind AS 116 provides that the initial direct costs incurred by the lessor in case of an operating lease should be included in the carrying amount of the leased asset and amortized as an expense over the lease term. | AS 19 provides that such costs should be charged off by the lessor or amortized over the lease term. |
| (vii) Sale and leaseback transactions n case of fi lease | Ind AS 116 also requires that the excess of sale proceeds over the carrying amount of the asset should be deferred and amortized but it does not specify the method of amortization. | AS 19 provides that the excess of sale proceeds over the carrying amount of the asset should be deferred and amortized over the lease term in proportion to depreciation of the leased asset. |
| (viii) Single lease accounting model for lessee | Ind AS 116 now has a single lease accounting model for the leassee by eliminating the difference between operating lease and finance lease i.e. the lessee has to reocgnise the lease liability with a corresponding 'right of use' asset. | As 19 prescribes for the lessee lease accounting depending on the type of lease i.e. operating lease and finance lease. |

### Comparison of Ind AS 116 with IFRS 16

| Bases of comparison | IFRS 16 | Ind AS 116 |
|---|---|---|
| (i) Presentation in Balance sheet | 'Right of use' assets may be presented either separately or within the same line item within which the corresponding owned asset would be presented. Similar option is available for presentation to lease liability. | 'Right of use' assets and lease liabilities may be presented either on the balance sheet or separately in the notes from other assets and other liabilities. |
| (ii) Presentation in income statement | The Income Statement recognition shall comprise of the amortization of the right of use asset and interest expense related to the lease liability. | Similar to IFRS. |

| | | |
|---|---|---|
| (iii) Presentation in the Statement of Cash Flows | Repayment of interest expense may be presented either as an operating activity or as a financing activity. | Repayment of interest expense will be presented only as a financing activity. |
| (iv) Exemption | Recognition and measurement exemption are available for low value leases. | Similar to IFRS. |
| (v) Variable lease payments | Reassessment of lease liability is required if the change in the lease payment occurs as a result of change in the index or rate. | Similar to IFRS. |

**Comparison between Ind AS 115 and AS 7 and AS 9**

| Bases of comparison | Ind AS 115 | AS 7 and AS 9 |
|---|---|---|
| (i) Framework of revenue recognition | Ind AS 115 gives a framework of revenue recognition within the standard. It specifies the core principle for revenue recognition which requires the revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. | AS 7 and AS 9 do not provide any such principle to fall upon in case of doubt. |
| (ii) Comprehensive guidance on recognition and measurement of multiple elements of contracts with a customer | Ind AS 115 provides comprehensive guidance on how to recognize and measure multiple elements of contracts with a customer. | AS 7 and AS 9 do not provide any such guidance on this aspect. |
| (iii) Coverage | Ind AS deals with all types of performance obligation contracts with customers. However, it does not deal with interest and dividend dealt with in the standard on financial instruments. | AS 7 deals only with the revenue from construction contracts which measures the revenue at the consideration received/ receivable. AS 9 deals with only the revenue from sale of goods, rendering of services and income form royalty, dividend and interests. |
| (iv) Measurement of revenue | Ind AS 115 measures the revenue at the transaction price i.e. the consideration to which the entity expects to be entitled in exchange for the transfer of the promised goods or services, excluding the amounts collected on behalf of third parties. | AS 9 provides for the measurement of revenue at the amount of charges made to the customers or clients for the goods transferred or services supplied or the rewards arising from the use of resources by others. AS 7 measures the revenue at the consideration received or receivable. |

| | | |
|---|---|---|
| (v) Recognition of revenue | Ind AS 115 provides that the revenue is recognized when the control is transferred to the customer. | AS 9 provides that revenue is recognized upon the transfer of significant riskas and rewards of ownership to the clients.<br>AS 7 provides that the revenue is recognized when the outcome fo a construction contract can eb reliably estimated. |
| (vi) Capitalization of costs | Ind AS 115 provides guidance on the recognition of costs to obtain and fulfil a contract as an asset. | AS 7 and 9 do not deal with capitalization of such costs. |
| (vii) Guidance on service concession arrangements | Ind AS 115 gives guidance on service concession arrangements and disclosures thereof. | ASs do not provide such guidance |
| (viii) Disclosure requirements | Ind AS 115 contains more disclosure requirements as compared to AS 7 and 9. | AS 7 and AS9 contain very less disclosure requirements as compared to Ind AS 115. |

### Comparison of Ind AS 115 with IFRS 15

IFRs 15 provides that all types of penalties which may be levied in the performance of a contract should be considered in the nature of variable consideration for recognizing revenue. Ind AS 115 provides that the penalties shall be dealt with as per the substance of the contract. Where the penalty is inherent in the determination of transaction price, it should form part of variable consideration, otherwise the same shall not be considered for determining the consideration and the consideration shall be treated as fixed.

## Employee Benefits

### Comparison of Ind AS with existing Indian GAAP

- While Ind AS 19 covers employee benefits arising from constructive obligations, existing AS 15 is silent on the same. Further under Ind AS 19 the term employee includes directors as against existing AS 15 where the term employee includes whole time directors.
- Ind AS 19 in its scope, covers situations of contractual agreement between a multi-employer plant and its participants that determines how the surplus in the plan will be distributed to the participants (or the deficit funded). Existing AS 15 is silent on the same.
- Existing AS 15 defines the limit for asset ceiling as present value of economic benefits available in the form of refunds from the plant or reductions in future contributions to the plan. Ind AS 19 defines the same as the total of (i) any cumulative unrecognized past service cost and (ii) the present value of economic benefits available in the form of refunds from the plan or reduction in future contributions to the plan.

### Comparison of Ind AS with IFRS

- While Ind AS 19 recognize actuarial gains and losses in other comprehensive income, both for post-employment defined benefit plans and other long-term employment benefit plants. IAS 19 permits various options for treatment of actuarial gains and losses for post-employment defined benefit plants.
- IAS 19 does not contain any guidance on detailed actuarial valuation of defined benefit obligations.
- For discounting post-employment benefit obligation, Ind AS 19 specifies use of reference rates as market yields on government bonds. IAS 19 on the other hand, requires use of yields on government bonds only when reference rates for high quality corporate bonds are not available.

## Accounting for Government Grants and Disclosure of Government Assistance

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 12 requires government grants of the nature of promoters contribution to be credited directly to capital reserve and treated as a part of shareholders funds. Ind AS 20 does not recognize government grants of such nature and accordingly recognize as income over the periods.
- Ind AS 20 value non-monetary grants at their fair value as against AS 12 which records it at nominal value.
- While under existing AS 12, grants related to assets (including non-monetary grants) can be presented as deferred income or by deducting the grant from the gross value of asset concerned in arriving at its book value, Ind AS 20 requires such grants to be presented as deferred income only.

### Comparison of Ind AS with IFRS

- Ind AS 20 measures non-monetary grants at their fair value, whereas IAS 20 gives an option to measure the same either at their fair value or at nominal value.
- While Ind AS 20 requires grants related to assets (including non-monetary grants) to be presented as deferred income only, IAS 20 gives an option to present the same as deferred income or by deducting the grant in arriving at the carrying amount of the asset.

## THE EFFECTS OF CHANGE IN FOREIGN EXCHANGE RATES

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 11 covers in its scope, forward exchange contracts and other similar financial instruments. Ind AS 21 excludes the same (as it gets treated in accordance with Ind AS 39 Financial Instruments: Recognition and Measurement).
- As against existing AS 11 which is based on reporting currency approach. Ind AS 21 is based on functional currency approach.
- While Ind AS 21 allows for presentation currency to be different from local currency, existing AS 11 does not allow it.
- Ind AS 21 allows recognizing of exchange differences arising on translation of certain long-term monetary items from foreign currency to functional currency directly in equity and transferring the same to profit or loss over the term of such items in an appropriate manner. Existing AS 11 permits such an option for items not related to acquisition of fixed assets up to 31st March 2011, where such items are related to acquisition of fixed assets, the foreign exchange differences can be recognized as part of the cost of the asset.

### Comparison of Ind AS with IFRS

Ind AS 21 allows recognizing of exchange differences arising on translation of certain long-term monetary items from foreign currency to functional currency directly in equity and transferring of the same to profit or loss over the term of such items in an appropriate manner. IAS 21 does not allow for such a treatment.

## Borrowing Costs

### Comparison of Ind AS with existing Indian GAAP

- As against AS 16. Ind AS 23 given an option to an entity to exclude from this standards, borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset measured at fair value. Further it also excludes application of this standard to borrowing costs directly attributable to the acquisition, construction or production of inventories that are manufactured, otherwise produced, in large quantities on a repetitive basis.

### Comparison of Ind AS with IFRS

No Significant Differences

## Related Party Disclosures

### Comparison of Ind AS with existing Indian GAAP

Under Ind AS 24, the scope and definition of relatives (or close members of the family) government enterprises, key management personnel (KMP) and joint ventures have been expanded. Further Ind AS 24 requires additional disclosures in case of government related enterprises and compensation of KMP under different categories.

#### Comparison of Ind AS with IFRS

While Ind AS 24 does not require disclosures which conflict with confidentiality requirements of statute/ regulations, IAS 24 do requires some minimum disclosures of such nature.

## Consolidated and Separate Financial Statements

### Comparison of Ind AS with existing Indian GAAP

- Under Ind AS 27 preparation of consolidated financial statements is mandatory for a parent as compared to existing AS 21 which does not mandate the same.
- Under existing AS 21 there is no guidance regarding accounting for investments in subsidiaries, jointly controlled entities and associates in preparing the separate financial statements Ind AS 27 contains guidance regarding the same.
- Unlike AS 21 which provides for exclusion of subsidiary from consolidation under circumstances where control is intended to be temporary or when subsidiary operates under serve long term restrictions. Ind AS 27 does not provide any such exemption from consolidation.
- AS 21 does not take into account potential equity shares of the investee held by investor for considering share ownership. Ind AS 27 takes into account existence and effect of potential voting rights that are currently exercisable or convertible while assessing the control of entity over the subsidiary.

### Comparison of Ind AS with IFRS

No Significant Differences

## Investment in Associates

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 23 includes in its scope, investments in associates held by venture capital organizations, mutual funds, unit trusts and similar entities including investment linked insurance funds Ind AS 28 excludes them from its scope as the same is included in Ind AS 39 (Financial Instruments : Recognition and Measurement)
- Existing AS 23 does not consider potential equity shares of the investee held by investor for determining significant influence. Ind AS 28 considers existence and effect of potential voting rights that are currently exercisable or convertible for assessing significant influence.
- While existing AS 23 requires application of the equity method only in case of subsidiary consolidation, Ind AS 28 requires application of equity method in financial statement, even if the entity does not have subsidiaries.
- While existing AS 23 specifies no maximum difference between the reporting date of the associate and that of the parent, as per Ind AS 28, length of difference in the reporting dates of the investor and the parent should not be more than three months unless it is impractical.
- While both existing AS 23 and Ind AS 28 require uniform accounting policies for the preparation of investor's financial statements for alike transactions and events in similar circumstances, existing AS 23 provides exemption to the same, if it is not possible to make adjustments to the accounting policies of the associates. However, the fact needs to be disclosed along with a brief description of the differences between the accounting policies

### Comparison of Ind AS with IFRS (International Accounting Standards)

Where the financial statements of an associate used in applying equity method are prepared as date from that of the investor, IAS 28 requires that this gap of the time on a different should not be more than three months. However, paragraph 25, Ind AS 28 also provides that this difference should not be more than three months, unless it is impractical. Similarly, paragraph 26 of Ind AS 28 requires use of uniform accounting policies, unless impractical which IAS 28 does not provide

## Financial Instruments Presentation

### Comparison of Ind AS with existing Indian GAAP

- Exiting AS 31 exempts contracts for contingent consideration in a business combination in case of acquirers. Ind AS 32 does not exempt the same.
- Ind AS 32 specifies that a financial asset and a financial liability shall be off set when an entity has a legally enforceable right to set off the recognized amounts and intends to either settle on a net basis, or realize the asset and settle the liability simultaneously. Existing AS 31 does not specify the same.
- Ind AS 32 defines and deals with puttable instruments. Existing AS 31 does not do so.
- Ind AS 32 requires that in some circumstances because of the differences between interest and dividends with respect to matters such as tax deductibility it is desirable to disclose them separately in the statement of profit and loss. Existing AS 31 does not specify the same.
- Ind AS 12 specifically requires that the related amount of income tax recognized directly in equity is included in the aggregate amount of current and deferred income tax credited or charged to equity that is disclosed under Ind AS 12 (Income Taxes). Existing AS 31 does not specify the same.
- As an exception to the definition of financial liability, Ind AS 32 considers the equity conversion option embedded in a convertible bond denominated in foreign currency to acquire a fixed number of entity's own equity instrument as an equity instrument if the exercise price is fixed in any currency.

### Comparison of Ind AS with IFRS

As an exception to the definition of financial liability in paragraph 11(b), (ii) Ind AS 32 considers the equity conversation option embedded in a convertible bond denominated in foreign currency to acquire a fixed number of entity's own equity instruments as an equity instrument, if the exercise price is fixed in any currency. This exception is not provided in IAS 32.

## Earnings Per Share

### Comparison of Ind AS with existing Indian GAAP

- Ind AS 33 specifically deals with options held by the entity on its share. Existing AS 20 does not deal with the same.
- In AS 33 requires presentation of basic and diluted EPS from continuing and discontinued operations separately. Existing AS 20 does not require the same.
- Existing AS 20 requires the presentation of EPS with and without extraordinary items. Ind AS 33 does not require the same as Ind AS 1 (Presentation of Financial Statements) prohibits the disclosure of items as extraordinary.

### Comparison of Ind AS with IFRS

Ins AS 33 requires EPS related information to be disclosed both in consolidated financial statement and as a separate financial statement; IAS 33 requires EPS related information to be presented only in consolidated financial statements.

## Interim Financial Reporting

### Comparison of Ind AS with existing INDIAN GAAP

- Under existing AS 25 if an entity is required or elects to prepare and present an interim financial report, it should comply with that Standard. Ind AS 34 requires such compliance only if the interim financial report is required to be prepared and presented in accordance with accounting standards.

- Existing AS 25 requires at a minimum condensed balance sheet, a condensed statement of profit and loss, a condensed cash flow statement and selected explanatory notes in the contents of an interim financial report, Ind AS 34, in addition, requires a condensed statement of changes in equity for the period in addition to above requirements.
- While existing AS 25 requires preparation of both consolidated and separate financial statements, complete or condensed, Ind AS 34 neither requires nor prohibits the inclusion of the parents' separate statements in the entity's interim report prepared on a consolidate basis.
- Ind AS 34 specifies that information, if significant, on both contingent liabilities and contingent assets is required to be furnished. Existing AS 25 requires furnishing of information on contingent liabilities only.

### Comparison of Ind AS with IFRS

- For preparation of statement of profit and loss. IAS 34 (Interim Financial Reporting) provides option either to follow single statement approach, two statement approach. Ind AS 34 allows for only single statement approach (on the line of Ind AS 1 Presentation of Financial Statements).
- While Ind AS 34 requires statement of changes in equity to be shown as a part of the balance sheet,
- IAS 34 requires preparation of a statement of changes in equity as a separate statement.

## Impairment of Assets

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 28 does not require goodwill to be tested for impairment annually unless there is an indication of impairment. Ind AS 36 requires goodwill and other intangible assets to be tested for impairment at last annually.
- Existing AS 28 allows for reversal of impairment losses on account of goodwill in a subsequent period if the loss was caused by a specific external event of an exceptional nature that is not expected to recur, and subsequent external events that would occur and reverse the effect of that event. Ind AS 36 prohibits reversal of impairment losses in a subsequent period.
- Existing AS 28 specifies bottom up or top-down approach for allocation of goodwill under which goodwill is tested for impairment by allocating its carrying amount to each CGU (cash generating unit) or the smallest CGU on a reasonable and consistent basis. Under Ind AS 36 there is no bottom-up or top- down approach for allocation of good will. Rather goodwill is allocated to CGUs that are expected to benefit from the synergies of the business combination from which it arose.

### Comparison of Ind AS with IFRS

No Significant Differences

## Provisions, Contingent Liabilities and Contingent Assets

### Comparison of Ind AS with existing Indian GAAP

- Under existing AS 29 provisions are not recognized on constructive obligations. However, provisions may be created on account of obligations arising out of normal business practices, custom and a desire to maintain good business relations or to act in an equitable manner. Ind AS 37 two requires creation of provisions in respect of constructive obligations.
- Ind AS 37 requires discounting of the amount of provisions in cash effect of the time value of money is material. The same is prohibited under AS 29.
- AS 29 does not require disclosure of contingent assets in the financial statements. Ind AS 37 requires disclosure of same, when the inflow of economic benefits is probable.

### Comparison of Ind AS with IFRS

No Significant Differences

## Intangible Assets

### Comparison of Ind AS with existing Indian GAAP

- Existing standard AS 26 allows for only the cost model as a part of accounting policy. Ind AS 38 permits revaluation model in addition to cost model.
- Under existing standard AS 26, useful life of an intangible asset is not always indefinite. It includes a rebuttable presumption that the useful life will not exceed ten years from the date the asset is available for use. Ind AS 38 recognizes that useful life may be finite or indefinite subject towards fulfillment of certain conditions.
- Under the existing standard AS 26, if an intangible asset is acquired in exchange of a non-monetary asset, its cost should be recognized with reference to the fair market value of the consideration given. Ind AS 38 requires such intangible asset to be recognized at the fair value of the asset given up unless (a) the exchange transaction lacks commercial substance, or (b) the fair value of neither the asset received nor the asset given is reliably measurable.
- Ind AS 38 requires that in case of deferment of payment beyond normal credit terms in case of an intangible asset. The difference between this amount and the total payments is to be recognized as interest expense over the period of credit unless it is capitalized as per Ind AS 23. Existing AS 26 is silent on this aspect.

### Comparison of Ind AS with IFRS

With regards to the acquisition of an intangible asset by way of a government grant, Ind AS 38 allows only the fair value for recognizing the intangible asset and grant in accordance with Ind AS 20. IAS 38 provides the option to an entity to recognize both asset and grant initially at a fair value, or at a nominal amount plus any expenditure that is directly attributable to preparing the asset for its intended use.

## Business Combinations

### Comparison of Ind AS with existing Indian GAAP

- Ind AS 103 is much wider in scope as it deals with business combinations compared to the existing AS 14 which defines only amalgamations.
- Existing AS 14 allows pooling of interest method as well as purchase method for amalgamation
- whereas Ind AS 103 allows for only acquisition method for each business combination.
- Existing AS 14 requires that acquired assets and liabilities are recognized at their existing book value or at the fair value under the purchase method. On the other hand Ind AS 103 requires the acquired identifi assets liabilities and non-controlling interest to be recognized at a fair value under acquisition method.
- Existing as 14 defines that the minority interest is the amount of equity attributable to minorities at the date on which investment in a subsidiary is made, and it is shown outside as shareholders equity. Ind AS 103 requires that for each business combination, the acquirer shall measure any non-controlling interest in the acquired at either a) a fair value, or b) the present ownership instruments' proportionate share in the recognized amount of the acquiree's identifiable net assets.
- Existing AS 14 requires amortization of goodwill arising on amalgamation in the nature of purchase. Whereas Ind AS 103 requires goodwill to be tested impairment on an annual basis in accordance with Ind AS 36.
- Ind AS 103 specifically provides guidance on accounting for reverse acquisitions. Existing AS 14 is silent on the same.
- Ind AS 103 requires bargain purchase gain arising on business combination to be recognized as other comprehensive income on the acquisition date and accumulation of the same in equity as capital reserve. Existing AS 14 treats the excess amount as capital reserve.

### Comparison of Ind AS with IFRS

- Ind AS 103 deals with business combinations of entities under common control. IFRS 103 excludes the same from its scope.

- IFRS 3 requires bargain purchase gain arising on business combination to be recognized as profit or loss. Ind AS 103 requires the same to be recognized as part of the other comprehensive income and accumulated in equity as capital reserve, unless there is no clear evidence for the underlying reason for classification of the business combination as a bargain purchase, in which, it shall be recognized directly in equity as capital reserve.

## Non-Current Assets Held for Sale and Discontinued Operations

### Comparison of Ind AS with existing Indian GAAP

- Ind AS 105 specifically deals with accounting for non-current assets held for sale. Under existing AS 24, same is not dealt with. Rather it falls under the ambit of existing AS 10 (Accounting for Fixed Assets)
- Under Ind AS 105 non-current assets held for sale are measured lower than the carrying amount, and fair value minus costs to sell. Existing AS 24 follows the principles set out in existing AS 10 which requires fixed assets retired from active uses and held for sale to be stated at the lower of their net book value and net realizable value.
- If under AS 24, classification of discontinuing operation happens at the occurrence of one of the following (a) the enterprise has entered into a binding sale agreement for substantially all of the assets attributable to the discontinuing operation ; or (b) the enterprise's Board of Directors or similar governing body has both (i) approved a detailed, formal plan for the discontinuance, and (ii) made an announcement of the plan. Under Ind AS 105, an operation is classified as discontinued when either it has been disposed of, or is classified as held for sale.

### Comparison of Ind AS with IFRS

No Significant Differences

## Financial Instruments: Disclosures

#### Comparison of Ind AS with existing Indian GAAP

- Existing AS 32 does not deal with contracts for contingent consideration in a business combination in case of acquirers Ind AS 107 deals with the same.
- Ind AS 107 requires specific disclosures in case of reclassification of a financial asset out of fair value through profit or loss category or out of available-for-sale category in accordance with Ind AS 39 AS 32 does not require the same.

### Comparison of Ind AS with IFRS

No Significant Differences

## Operating Segments

### Comparison of Ind AS with existing Indian GAAP

- Existing AS 17 requires an enterprise to identify segments based on business products and geographical areas with internal financial reporting system serving only as the starting point for identifying those items that can be directly attributed, or reasonably allocated, to segments. Ind AS 108, on the contrary identifies segments based on internal reports regularly reviewed by the entity's chief operating decision maker so as to make decisions about resources to be allocated to the segment and assess its performance.
- Under existing AS 17 segment information is prepared in conformity with the accounting policies adopted for preparing and presenting the financial statements. Ind AS 108 requires measurement basis for cash segment reported to be that used by the chief operating decision-maker for the purposes of making decisions about allocating resources to the segment and assessing its performance.
- Ind AS 108 specifically requires aggregation criteria for aggregation of two or more segments. AS 17 does not deal with the same.
- Existing AS 17 requires disclosures based on the classification of the segments as primary or secondary segments. Ind AS 108 requires disclosures of revenues from external customers

for each product and service, or each group of similar products and services. With respect to geographical areas, disclosure is required for revenues from external customers (i) attributed to the entity's country of domicile and (ii) attributed to all foreign countries in total from which the entity derives revenue.

## Comparison of Ind AS with IFRS

No Significant Differences

### LESSON ROUND-UP

- The objective of general purpose financial reporting is to provide financial information that is useful for existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.
- Two important characteristics of financial information relates to relevance and reliability
- Convergence of varied accounting standards with international financial reporting standards (IFRS) has gained worldwide momentum in recent years to ensure uniformity and transparency in reporting standards.
- India has committed to convergence of its Indian Accounting Standards (Ind AS) with IFRS in a phased manner beginning April 1, 2016.
- Ind As are basically Standards that have been harmonized with IFRS to make reporting by Indian companies more globally accessible.

### TEST YOURSELF

1. Put a cross (X) on only one of the four alternative choices given :

   1. Under Ind AS 1, presentation of any items of income or expense as extraordinary is –
      a) Separately disclosed
      b) Shown as a part of statement of profit and loss
      c) Prohibited
      d) None of the above
   2. Ind AS 115 requires revenue to be measured at–
      a) Net realizable value
      b) Fair value of consideration received/receivable
      c) Consideration received/receivable
      d) None of the above
   3. Ind AS 20 requires government grants of the nature of promoters contribution to be –
      a) Credited directly to capital reserve and treated as a part of shareholders funds
      b) Recognize as income over the periods
      c) Do not recognize any such grants
      d) None of the above
   4. Ind AS 34 requires the following in the contents of an interim financial report in addition to what was required under previous standard AS 25 condensed balance sheet, a condensed statement of profit and loss, a condensed cash flow statement –

a) A condensed balance sheet

b) A condensed statement of profit and loss

c) A condensed cash flow statement

d) A condensed statement of changes in equity

Answers : MCQ1 (C) : MCQ2 (B) : MCQ3 (C) : MCQ4 (D)

2. Discuss the importance of relevance and reliability characteristics of financial information and the need for uniformity and transparency in reporting standards.
3. Discuss the roadmap for implementation of Indian Accounting Standards (Ind AS) to achieve convergence with IFRS (International Financial Reporting Standards).

# Lesson 13 Overview of Cost

***Key Concepts One Should Know***

- Costing
- Cost Centres
- Cost Drivers
- Cost Accounting System
- Material Control
- Notional Expenses
- Cost Sheet

## *Learning Objectives*

**To understand the:**

- Meaning and purpose of cost and management accounting.
- Importance, relevance, objective & scope of cost accounting, management accounting
- Different elements of cost accounting for appropriate decision-making.
- Several methods and technique of cost accounting so to understand various information which can provided to management for decision-making.
- Meaning & importance of Material Cost, Labour Cost, Direct Expenses and Overheads.
- Meaning of Cost Sheet, and how It is useful for, calculating the cost of the product in a business.

## *Lesson Outline*

- Concept of Cost
- Costing, Cost Accounting and Cost Accountancy
- Importance & Relevance of Cost Accounting
- Objectives of Cost & Management Accounting
- Scope of Cost & Management Accounting
- Elements of Cost
- Material Cost
- Labour Cost
- Direct Expenses
- Overheads
- Cost Sheet
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## CONCEPTS OF COST

As a noun:- The Chartered Institute of Management Accountants (CIMA), London defines cost as "the amount of expenditure (actual or notional) incurred on or attributable to a specified thing or activity".

As a verb:- "To ascertain the cost of a specified thing or activity".

This activity of a firm may be the manufacture of a product or rendering of a service which involves expenditure under various heads, e.g. materials, labour and other expenses, etc. A manufacturing organization is interested in ascertaining the cost per unit of the product manufactured while an organization rendering services, like transport undertaking, canteen, electricity company and municipality, is interested in ascertaining the costs of the service it renders. In its simplest form, the cost per unit is arrived at by dividing the total expenditure incurred by the total units produced, or the quantum of service rendered. But this method is applicable if the manufacturer produces only one product. If the manufacturer produces more than one product, it becomes imperative to split up the total expenditure among the various products so that the cost of each product can be ascertained separately. Even if only one product is manufactured, it may be necessary to analyze the cost per unit of each item of expenditure that goes into the making of it. The problem becomes more complicated where a multiplicity of products are produced, and it becomes necessary to analyze the cost per unit of each product into various items of expenditures that make up the total cost.

The concept of cost consists of principles and rules governing the procedure of finding out the costs of goods/ services. It aims at ascertaining the total cost and also per unit cost. For instance, in transport companies the total cost for the period is ascertained and used to find out the cost per passenger/mile,i.e.,the cost of carrying one passenger for one mile. It provides for an analysis of expenditure in such a way that the management gets complete idea about even the smallest item of cost. It is necessary to specify the exact meaning of "cost". When the term is used specifically ,it is modified with such terms as prime cost, fixed cost, sunk cost, etc. Each description implies a certain characteristic which is helpful in analyzing the cost. It helps cost accounting in achieving its three basic objectives, namely, cost ascertainment, cost control and cost presentation.

A cost must always be studied in relation to its purpose and conditions. Different costs may be ascertained for different purposes and under different conditions. Work-in-progress is valued at factory cost, while stock of finished goods may be valued at cost of production. Even if the purpose of the study of cost is the same, different conditions may lead to variation in cost. The cost per unit of a product is sure to vary with an increase in the volume of output since the amount of fixed expenses to be borne by each unit of output decreases. It is also important to note here that there is no such thing as an exact cost or true cost because no figure of cost is true in all circumstances, and for all purposes. Most of the costing information is based on estimates. For example, the amount of overheads is generally estimated in advance; it is distributed over cost units, again on an estimated basis using different methods. Depreciation is one such item, the amount of which will vary in accordance with the method of depreciation being used. Thus, to arrive at an absolutely correct cost may be quite difficult, unless one waits for a long time unfortunately by which time the costing information may lose all its value.

## KEY DEFINITIONS

### Costing

Costing is defined as "the techniques and processes of ascertaining costs".

According to CIMA "An organisation costing system is the foundation of the internal financial information system for managers. It provides the information that management needs to plan and control the organisation's activities and to make decisions about the future"

These techniques consist of principles and rules which govern the procedure of ascertaining cost of products or services. The techniques to be followed for the analysis of expenses and the processes of different products or services differ from industry to industry. The main object of costing is the analysis of financial records, so as to sub divide expenditure and to allocate it carefully to selected cost centers, and hence to build up total cost for the departments, processes or jobsor contracts of the undertaking.

## Cost Accounting

Cost Accounting is defined as "the process of accounting for cost which begins with the recording of income and expenditure or the bases on which they are calculated and ends with the preparation of periodical statements and reports for ascertaining and controlling costs."

Cost accounting may be regarded as a specialized branch of accounting which involves classification, accumulation, assignment and control of costs. The costing terminology of C.I.M.A. London defines cost accounting as "The establishment of budgets, standard costs and actual costs of operations, processes, activities or products, and the analysis of variances, profitability or the social use of funds".

Wheldon defines cost accounting as "classifying, recording and appropriate allocation of expenditure for determination of costs of products or services and for the presentation of suitably arranged data for purposes of control and guidance of management". It is thus, a formal mechanism by means of which costs of products or services are ascertained and controlled. Cost accounting is different from costing in the sense that the former provides only the basis and information for ascertainment of costs. Once the information is made available, costing can be carried out arithmetically by means of memorandum statements or by the method of integral accounting.

## Cost Accountancy

Cost Accountancy has been defined as "the application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived there from for the purpose of managerial decision making".

## Cost Units

It is a unit of product, service or time (or combination of these ) in relation to which costs may be ascertainedor expressed.

We may for instance determine the cost per tonne of steel, per tonne kilometre of a transport service etc.

Cost units are usually the units of physical measurement like number, weight, area, volume, length time and value.

A few typical examples of cost units are given below:

| Industry or Product | Cost Unit Basis |
|---|---|
| Automobile | Number |
| Cement | Tonne/per bag etc. |
| Chemicals | Litre, gallon,kilogram,tonne etc. |
| Brick-making | 1000 bricks |
| Steel | Tonne |
| Transport | Passenger kilometer |
| Hospitals | Patient day |
| Electricity/Power | Kilowatt-hour(KwH) |

## Cost Centres

It is defined as a location, person or an item of equipment ( or group of these) for which cost may be ascertained and used for the purpose of Cost Control.

Cost Centres are of two types;

**Personal Cost Centre:** It consists of a person or group of persons e.g. Mr. X, doctor, accountant, engineer etc.

**Impersonal Cost Centres:** It consists of a location or an item of equipment ( or group of these) e.g. canteen, boiler house etc.

### Cost Centres in a manufacturing concern

Two main types are indicated as below:

**Production Cost Centre:** It is a cost centre where raw material is handled for conversion into finished product. Here both direct and indirect expenses are incurred. e.g. Machine shops, welding shops assembly shops etc.

**Service Cost Centres:** It is a cost centre which serves as an ancillary unit to a production cost centre. e.g. Power house, Plant maintenance centres,Payroll processing department,HRD etc.

### Cost Objects

Cost object is anything for which a separate measurement of cost is required. Cost object may be a product, a service, a project, a customer, a brand category, an activity, a department or a programme etc.

### Cost Drivers

A Cost driver is a factor or variable which effect level of cost. Generally it is an activity which is responsible for cost incurrence. Level of activity or volume of production is the example of a cost driver. An activity may be an event, task, or unit of work etc.

### Cost Control

It is a process to ensure that appropriate action is taken if costs exceed a pre-set allowance (as budgeted/ estimated) or actions to be taken if costs are expected to exceed the expected levels.

### Cost Reduction

It may be defined "as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitably for the use intended or diminution in the quality of the product.

Cost reduction implies the retention of the essential characteristics and quality of the product and thus it must be confined to permanent and genuine savings in the cost of manufacture, administration, distribution and selling brought about by elimination of wasteful and inessential elements from the design of the product and from the techniques carried out in connection therewith.

## IMPORTANCE & RELEVANCE OF COST ACCOUNTING

The limitations of financial accounting have made the management to realize the importance of cost accounting. Whatever may be the type of business, it involves expenditure on labour, materials and other items required for manufacturing and disposing of the product. The management has to avoid the possibility of waste at each stage. It has to ensure that no machine remains idle, efficient labour gets due incentive, by-products are properly utilized and costs are properly ascertained. Besides the management, the creditors and employees are also benefited in numerous ways by installation of a good costing system. Cost accounting increases the overall productivity of an

organization and serves as an important tool, in bringing prosperity to the nation. Thus, the importance of cost accounting can be discussed under the following headings:

**(a) Costing as an Aid to Management**

Cost accounting provides invaluable aid to management. It provides detailed costing information to the management to enable them to maintain effective control over stores and inventory, to increase efficiency of the organization and to check wastage and losses. It facilitates delegation of responsibility for important tasks and rating of employees. For all these, the management should be capable of using the information provided by cost accounts in a proper way. The various advantages derived by the management from a good system of costing are as follows:

1. ***Cost accounting helps in periods of trade depression and trade competition*:** In periods of trade depression, an organization cannot afford to have losses which pass unchecked. The management must know the areas where economies may be sought, waste eliminated and efficiency increased. The organization has to wage a war not only for its survival, but also for its continued growth. The management should know the actual cost of their products before embarking on any scheme of price reduction. Adequate system of costing facilitates all this.
2. ***Cost accounting aids price fixation*:** Although the law of supply and demand to a great extent determines the price of the article, cost to the producer does play an important role too. The producer can take necessary guidance from his costing records in case he is in a position to fix or change the price charged.
3. ***Cost accounting helps in making estimates***: Adequate costing records provide a reliable basis for making estimates and quoting tenders.
4. ***Cost accounting helps in channelizing production on right lines*** : Proper costing information makes it possible for the management to distinguish between profitable and non-profitable activities. Profits can be maximized by concentrating on profitable operations and eliminating non-profitable ones.
5. ***Cost accounting eliminates wastages*:** As cost accounting is concerned with detailed break-up of costs, it is possible to check various forms of wastages or losses.
6. ***Cost accounting makes comparisons possible*** : Proper maintenance of costing records provides various costing data for comparisons which in turn helps the management in formulation of future lines of action.

7. ***Cost accounting provides data for periodical Profit and Loss Account*:** Adequate costing records provide the management with such data as may be necessary for the preparation of Profit and Loss Account and balance sheet at such intervals as may be desired by the management.

8. ***Cost accounting helps in determining and enhancing efficiency* :** Losses due to wastage of materials, idle time spent by workers, poor supervision, etc., will be disclosed if the various operations involved in the production are studied carefully. Efficiency can be measured, costs controlled and various steps can be taken to increase the efficiency.

9. ***Cost accounting helps in inventory control***: Cost accounting furnishes control which management requires in respect of stock of materials, work-in-progress and finished goods

**(b) Costing as an Aid to Creditors**

Investors, banks and other money-lending institutions have to take in the success of the business concern and are, therefore, benefited immensely by the installation of an efficient system of costing. They can base their judgment about the profitability and future prospects of the enterprise on the costing records.

**(c) Costing as an Aid to Employees**

Employees too have a vital interest in their employer's enterprise in which they are employed. They are benefited in a number of ways by the installation of an efficient system of costing. They are benefited due to continuous employment and higher remuneration in the form of incentives, bonus plans, etc.

**(d) Costing as an Aid to National Economy**

An efficient system of costing brings prosperity to a business enterprise which in turn results in stepping up of the government's revenue. The overall economic development of a country takes place as a consequence increase in efficiency of production. Cost control, elimination of wastage and efficiency lead to the progress of industry and consequently of the country as a whole.

## OBJECTIVES OF COST & MANAGEMENT ACCOUNTING

The objectives of cost accounting are ascertainment of cost, fixation of selling price, proper recording and presentation of cost data to the management for measuring efficiency and workout cost control. The main aim is to know the methods by which expenditure on materials, wages and overhead are recorded, classified and allocated so that the cost of products and services may be accurately ascertained; these costs may be related to sales and profitability may be determined.

The basic objective of management accounting is to assist the management in proper planning, organizing, directing and controlling based on the data available through the Cost Accounting.

Following are the Main Objectives of Cost & Management Accounting:

1. To ascertain the cost per unit of different products manufactured by a business concern;
2. To provide a correct analysis of cost by finalizing process, operations and by different elements of cost;
3. To disclose sources of wastage of material, time or expense, or in the use of machinery, equipments and tools, and to prepare such reports as may be necessary to control such wastage;
4. To provide requisite data and serve as a guide for fixing prices of products manufactured, or services rendered;
5. To ascertain the profitability of each of the products and advise management as to how these profits can be maximized;
6. To exercise effective control on the stocks of raw materials, work-in-progress, consumable stores and finished goods in order to minimize the capital locked up in these areas;
7. To reveal sources of economy by installing and implementing a system of cost-control for materials, labour and overheads;

8. To advise the management about future expansion policies and proposed capital projects;
9. To present and interpret data for management planning, evaluation of performance and control;
10. To help in the preparation of budgets and implementation of budgetary control;
11. To organize an effective information system so that different levels of management may get the required information at the right time in right form for carrying out their individual responsibilities in an efficient manner;
12. To guide the management in the formulation and implementation of incentive bonus plans based on productivity and cost savings;
13. To supply useful data to the management for taking various financial decisions, such as introduction of new products, replacement of labour by machine etc.;
14. To help in introduction and, supervising biometric as, accounting or data processing through computers;
15. To organize the internal audit system to ensure effective working of different departments;
16. To organize cost-reduction programmes with the help of different departmental managers;
17. To provide specialized services of cost-audit in order to prevent the errors and frauds, and to facilitate prompt and reliable information to management; and
18. To work out profit or loss to the company by identifying with revenues the costs of those products or services whose sales have resulted into profits.

## SCOPE OF COST & MANAGEMENT ACCOUNTING

The scope of Cost and Management Accounting is very vast because it first ascertains the cost of products, and services rendered, and later on provides this information to the management for financial analysis and interpretation of the business operations.

Described below is the scope of Cost & Management Accounting:

1. **Cost Ascertainment:** Cost Accounting helps in the determination of the cost of a product, and how to control it thus it helps the company in making appropriate. It makes use of both past and present data for ascertainment of product cost. There is nospecific format for the preparation of cost accounting statements.
2. **Helpful to Internal Management of the Company:** It is used by the internal management of the company and usually the cost accountant prepares this to ascertain the cost of a particular product taking into account the cost of materials, labour and several overheads. No certain periodicity is needed for the preparation of these statements and they are needed as and when required by the management.
3. **Formation of Rules & Regulation:** This makes use of certain rules and regulations while computing the cost of different products in different industries.
4. **Proper matching of cost with revenue:** In cost accounting the manager prepares monthly or quarterlystatements which reflect the cost and income data identified with the sale of that period.
5. **Aids to Management Decision-making:** Decision-making is a process of choosing between two or more alternatives, offer deliberating on the outcome of various choices. A Cost Benefit Analysis also needs to be done. All this can be achieved through a good cost accounting system.

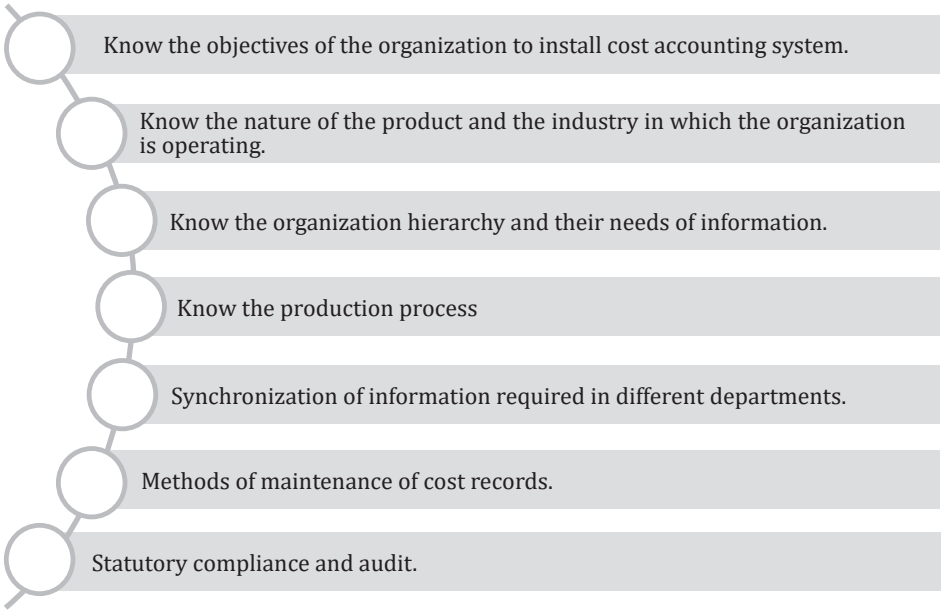
## Limitations of Cost Accounting

Like other branches of accounting, cost accounting is also having certain limitations. The limitations of cost accounting are as follows:

1. **Expensive:** It is expensive because analysis, allocation and absorption of overheads require considerable amount of additional work, and hence additional money.
2. **Requirement of Reconciliation:** The results shown by cost accounts differ from those shown by financial accounts. Thus preparation of reconciliation statements is necessary to verify their accuracy.
3. **Duplication Work:** it involves duplication of work as organization has to maintain two sets of accounts i.e. Financial Accounts and Cost Accounts.
4. **Inefficiency:** Costing system itself does not control costs but its usage does. Before installing a cost accounting system, knowledge of the following are desirable:

## Factors to be considered before Installation of a Cost Accounting System

Before installing a cost accounting system, knowledge of the following are desirable:



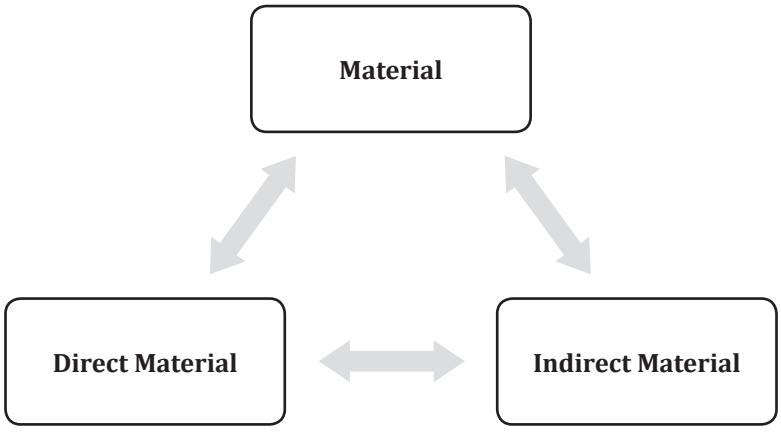
## ELEMENTS OF COST

The elements that constitute the cost of manufacturing are known as the elements of cost. Such elements of cost are divided into three categories. In a manufacturing concern raw materials are converted into a finished product with the help of labour and other service units.

There are three broad elements of costs:

**1. Material:**

The substance from which the product is made is known as material. It can be direct as well as indirect.




- **Direct material:** It refers to those materials which are a major part of the finished product and can be easily traceable to the units.

Direct materials include:

(i) All materials specifically purchased for a particular job/process.

(ii) All material acquired and later requisitioned from stores.

(iii) Components purchased or produced.

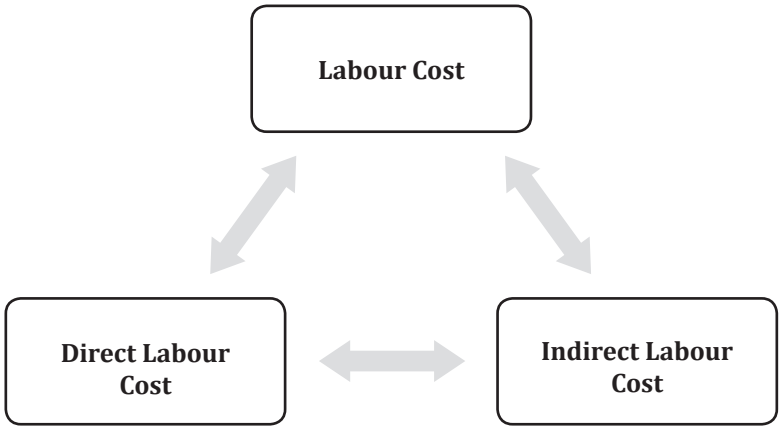
(iv) Primary packing materials.

(v) Material passing from one process to another.

- **Indirect material**: All material used for ancillary purposes in production and which can be conveniently assigned to specific physical units are termed as indirect materials. Examples,oil,grease,consumable stores, printing and stationary material,etc.

**2. Labour:**

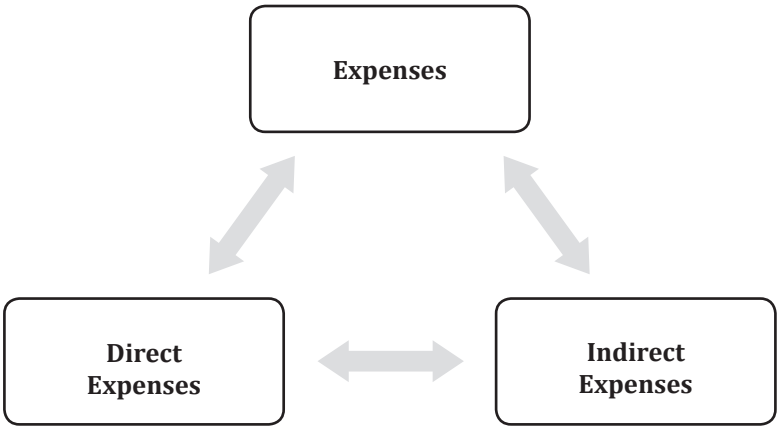
Labour cost can be classified into direct labour and indirect labour.




- **Direct labour**: It is defined as the wages paid to workers who are engaged in the production process and whose time can be conveniently and economically traceable to units of products. For example, wages paid to compositors in a printing press, to workers in the foundry in cast iron works,etc.
- **Indirect labour**: Labour employed for the purpose of carrying tasks incidental to goods or services provided is indirect labour. It cannot be practically traced to specific units of output. Examples, wages of store-keepers, foreman, time-keepers, supervisors, inspectors, etc.

**3 Expenses:**

Expenses may be direct or indirect.




- **Direct expenses**: These expenses are incurred on a specific cost unit and identifiable with the cost unit. Examples are cost of specifically out, design or drawings, hiring of a particular tool or equipment for a job, fees paid to consultants in connection with a job,etc.
- **Indirect expenses**: These are expenses which cannot be directly, conveniently and wholly allocated to cost centre or cost units. Examples are rent, rates and taxes, insurance ,power, lighting and heating, depreciation, etc.

**It is to be noted that the term overheads has a wider meaning than the term indirect expenses.**

Overheads include the cost of indirect material, indirect labour and indirect expenses.

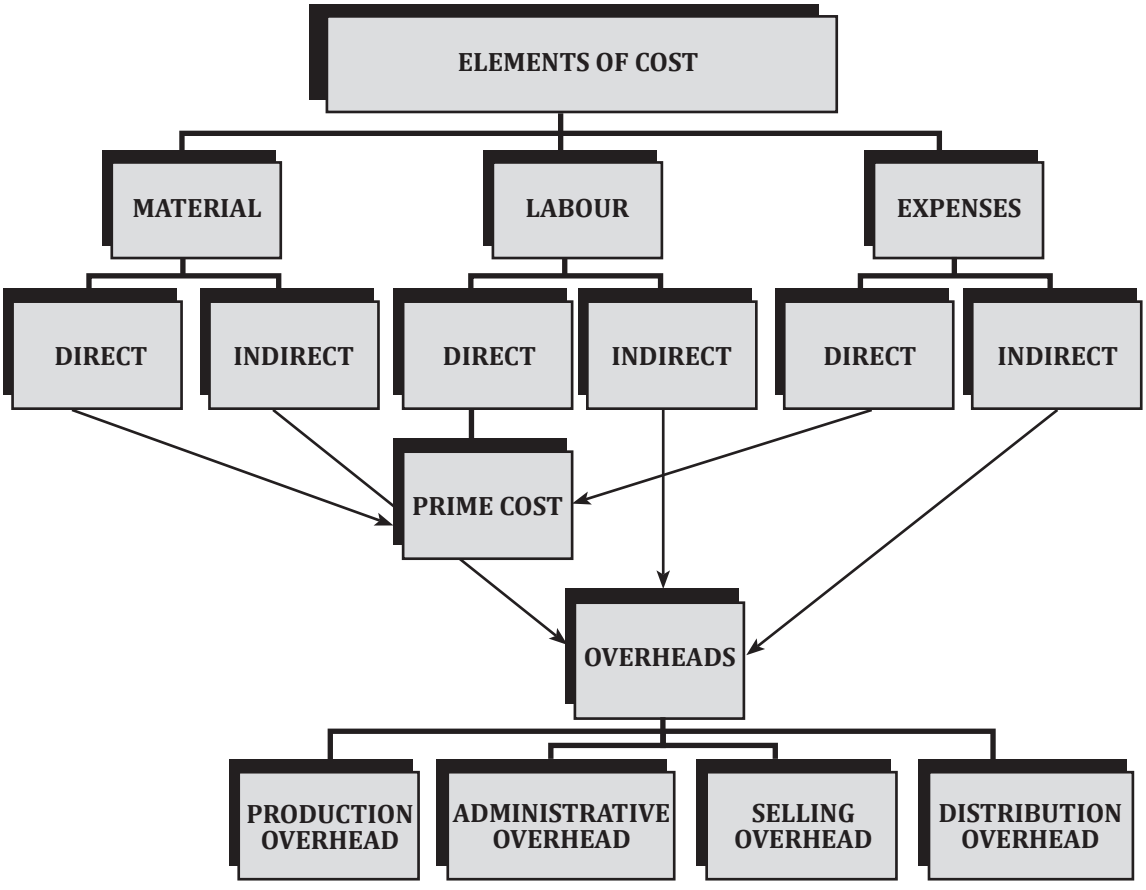
**Overheads may be classified as**

(a) Production or manufacturing overheads

(b) Administration overheads

(c) Selling overheads

(d) Distribution overheads.




## Material Cost

Material is a very important factor of production. It includes physical commodities used to manufacture the final end product. It is inventorial and does not get waste and exhausted with the passage of time, as labour is wasted with the passage of time, whether in use or not.

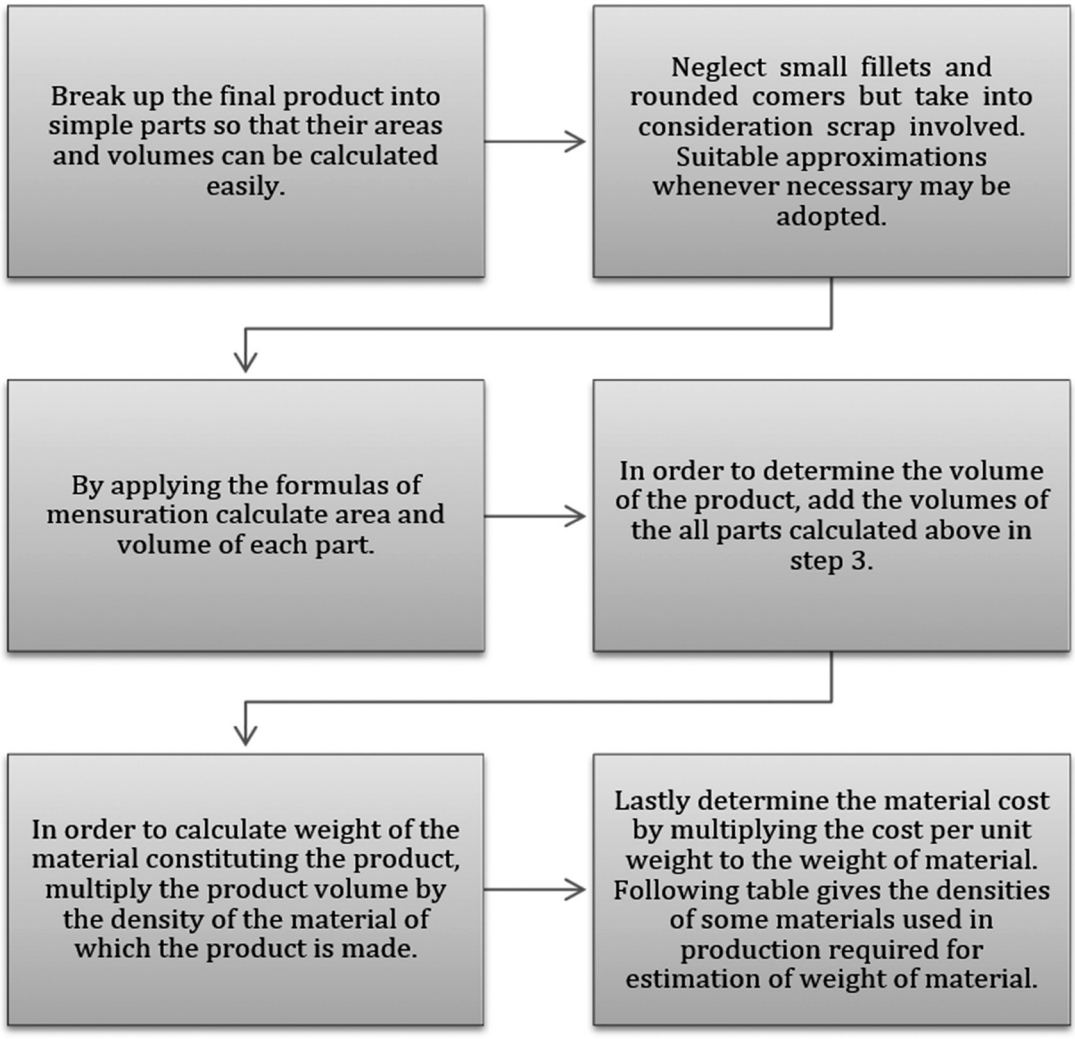
Material cost constitutes a major proportion of the total cost of the product. All products are made up of one or many materials. So the accurate determination of material cost may be direct material cost or indirect material cost.

Whenever a product/component is manufactured out of a material some portion of it goes as waste/scrap in the form of chips, risers, etc. In addition to this some components/parts may not meet the final specifications essentially needed, such as surface finish, dimensions and surface hardness, etc., and are therefore rejected in the final inspection process, thus leading to scrap.

Hence, the material cost chargeable to a component is that in the pre-manufacturing or rough state (i.e., raw material). It includes all scrap removed during manufacturing process. Mensuration is used to calculate area and volume of the component/parts or products.

**Procedure for Estimation of Material Cost:**

The procedure for estimation of material cost is as follows:



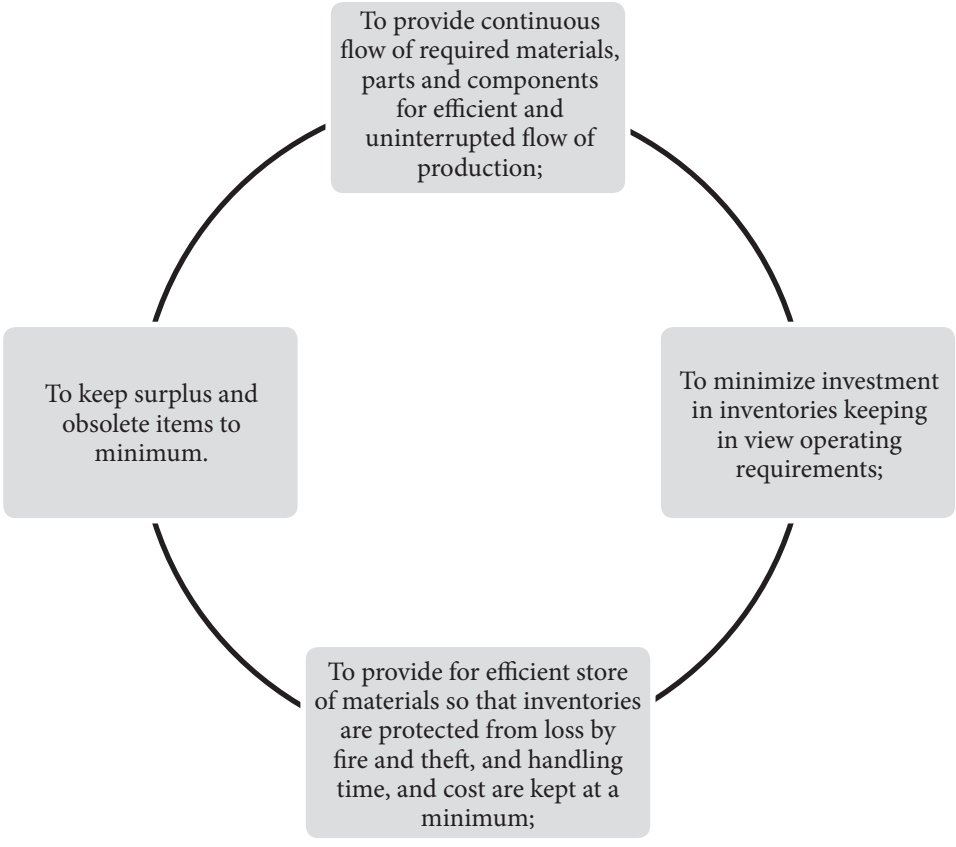

## Aspects of Material Control

There are two aspects of material control:

1. **Accounting aspect:** This aspect of material control is concerned with maintaining documentary evidence of movement of materials of every stage right from the time sales and production budgets are approved to the point when materials are purchased and actually used in production operation.
2. **Operational aspect:** This aspect of material control is concerned with the maintenance of material supplies at a level so as to ensure that material is available for use in production and production services as and when required by minimizing investment in materials.

## Objectives of Material Control

Scientific control of materials should serve the following purposes:




It might seem obvious that inventory control remains efficient as long as material level goes down. Materials should increase or decrease in amount and time as related to sales requirements and production schedules. Responsibility for control of materials is that of the top management, though decisions in this regard might well be based upon the combined judgment of the production manager, controller, the sales manager and the purchasing manager. This is desired in view of the financial considerations involved in the problem and also because of the need for coordinating the different kinds of materials and conflicting view points of different departments. For example, sales manager, purchasing executive and production manager usually favour, though for different reasons, the policy of carrying larger amount of stocks, whereas the financial manager will prefer to keep investment in material at the lowest possible level. However, in a large number of organizations material control is generally made the specific responsibility of purchasing department.

## Essentials of Material Control

1. There should be proper cooperation and coordination among the departments involved in purchasing, receiving and inspecting, storage, sales, production and accounting so that there may be no inadequate availability of materials which may disrupt production and lose sales.
2. Purchases of materials should be centralized.
3. There should be proper scheduling of materials.
4. A good method of classification and codification of materials should be followed.
5. There should be proper inspection of materials when they are collected by the receiving department.
6. Standard forms for requisitions, orders ,issue , transfer of material from one job to another, and transfer of material from the job to the stores should be used done with India extra care.

7. The storage of materials should be well planned to avoid loses.

8. A good method of issuing the materials to various job orders or processes should be followed so that there is delivery of right type of material.

9. Perpetual inventory system of material should be operated to facilitate regular checking and avoiding closing down factory for stock-taking.

10. A system of internal check should be introduced to ensure that all transactions involving materials are checked by fully authorized and independent persons.

11. Minimum, maximum and reordering levels for each type of material should be fixed to ensure that there is no shortage of materials.

12. Ordering quantity for each type of material should also be fixed to reduce the ordering cost and carrying cost of materials should also be kept undercheck.

13. Adequate records to control materials during production should be maintained to ensure that there is minimum possible wastage.

14. Information about availability of materials should be made continuously available to the management so that planning of production may be done properly.

## LABOUR COST

Labour cost is a second major element of cost specially in an organization where using more manual operators are involve. Proper control and accounting of labour cost is one of the most important problems of a business enterprise. It is the cost of human endeavour in the product and requires coordinated efforts for its control. The management objective of keeping labour cost as low as possible is achieved by balancing productivity with wages. Low wages do not necessarily mean low labour cost. Low labour cost is possible by giving substantial increase in wages against corresponding increase in productivity. The gain is reflected in labour cost as well as in over heads expense per unit, since overheads are distributed over larger volumes. Again, the productivity of labour is quite flexible. Given right type of motivation and incentive, It can reach amazing scale. It does not have any limitation like machines. Labour cost is a vital factor not only affecting the cost of production but also industrial relations of the organization. No organization can expect to attract and attain qualified and motivated employees unless it pays them fair remuneration. Employee remuneration therefore influences vitally the growth and profitability of the company. For employees remuneration is more than a means of satisfying their physical needs. Wages and salaries have significant influence on our distribution of income, consumption, savings, employment and prices. Thus employee remuneration is a very significant issue from the view point of employer's employees and the nation as whole.

### Classification of Labour Cost

The total labour cost can be classified as follows:

(a) Direct labour costs;

(b) Indirect labour costs.

**(a) Direct Labour Cost**

It refers to all labour expenditure altering the construction, composition ,conformation or condition of the product. The wages paid to skilled and unskilled workers for their task labour can be allocated specifically according to the particular product or the process as the case may be. In any manufacturing process or department, the workers employed generally belong to following of manufacturing two categories:

(i) Those who are directly engaged with the production ,or in the carrying out of an operation or process;

(ii) Those who are assisting in the process by supervision looking after maintenance transportation of materials, etc. category.

The workers coming under the first category belong to direct labour and the wages paid to them are called direct wages. In a factory, where production of a number of products is undertaken or in a jobbing

concern, workers are given job cards on which they note the time devoted to each job or product. These job cards are then analyzed jobwise so that the wages attributable to each job can be computed.

Direct labour cost is that portion of wages or salaries which can be identified with and charged to a single costing unit. It can be easily identified with and charged to a single costing unit as there is a direct relationship with the product/process. Direct labour cost can be easily calculated and is quite significant in amount.

**Example:** Labour engaged in making the bricks in a kin is a direct labour because labour charges paid for making 1,000 bricks can be conveniently allocated to the cost of 1,000 bricks.

**(b) Indirect Labour Costs**

It refers to labour expended that does not alter the construction, conformation, composition or condition of the product, but which contributes generally to such work and to the completion of the product and its progressive movement and handling it to the point of dispatch. In other words, labour employed for the purpose of carrying out tasks incidental to goods produced or services provided is regarded as an indirect labour.

Indirect labour costs are not easily identifiable with particular units. Indirect labour cost can be classified into two category. One expended in production departments and the other in service departments. (bulk of the labour cost in a production department will be direct). The classification enable control over surplus costs.

**Example** : Wages or salaries paid to foremen, supervisors, inspectors, clerks, storekeepers, managers, accountants, salesmen, directors, etc., are examples of indirect labour cost.

**Need for distinguishing between direct and indirect labour costs :**

This distinction has to be made:

(a) for calculating accurate labour cost and thus providing a basis for strict control;

(b) for facilitating calculation of labour efficiency;

(c) for proper allocation of overheads;

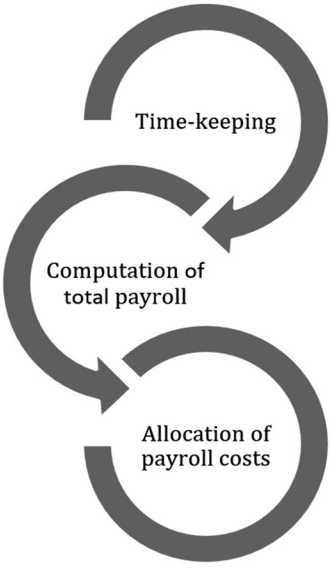
(d) for introduction of incentive schemes;

(e) for inter unit comparison; and

(f) for estimating total labour costs.

## Accounting and Control of Labour Cost

Accounting for labour by a manufacturer usually involves three activities:



These activities must be performed before the payroll is recorded in the accounting records. In a large organization, the control of labour cost involves the coordinated efforts of the following departments:–

**(a)** **Personnel department** – This department is responsible for the planning of manpower, recruitment, training, maintaining records of staff and workmen, reporting to chief inspector of factories and top management on the performance of the labour overtime, absenteeism, leave, etc.

**(b)** **Industrial engineering department**–This department prepares plans and specifications for each job, supervises production activities, undertakes time and motion studies, performs job analysis, etc.

**(c)** **Time-office**–This department is primarily responsible for the collection of data relating to attendance, time spent on jobs or process by the workmen, and providing information on attendance and leave to payroll department.

**(d)** **Payroll department**–This department is responsible for computing total and net earnings of each worker, preparation of payroll and maintenance of various records relating to payroll.

**(e)** **Cost department**–This department collects and classifies all cost data relating to labour utilization by departments, and allocates them to respective job or process as per available documents.

## Time Recording

Recording of time has two purposes - time-keeping and time-booking. It is necessary for both type of workers: direct and indirect. It is necessary even if the workers are paid on piece-basis. Time-keeping is necessary for the purpose of recording attendance and calculating wages. Time-booking means a record from the utilization point of view; the purpose is cost analysis and cost apportionment. Record-keeping is correct when time- keeping and time-booking tally.

## Time-Keeping

The purpose of time-keeping is to provide basic data for:

(i) payroll preparation;

(ii) finding out the labour cost for a job/product/service;

(iii) attendance records to meet statutory requirements;

(iv) determining productivity and controlling labour cost;

(v) calculating overhead cost of a job, product or service;

(vi) maintaining discipline in attendance;

(vii) distinguishing between normal and overtime, late attendance and early leaving; and

(viii) providing internal check against dummy workers.

The time-keeping office records the attendance of workers. Depending on the number of workers, a separate department may be established or it may form part of the personnel department.

Wages paid on the piece-rate basis also require that attendance be recorded for the following reasons:

(a) Records of attendance is necessary for statistical purposes.

(b) If overhead rates are based on labour rates, time recording is necessary.

(c) Output will decrease if attendance is unchecked. Labours pend may be more idle time, and may not follow the production schedules.

(d) If some workers are not punctual it is bonus to affect the morale of other workers..

(e) It is necessary to ensure that production hours judiciously utilized.

(f) It provides data for calculating bonus and overtime.

(g) Labour costs can be allocated on this basis.

(h) For calculating dearness allowance, it is necessary.

(i) For ascertaining payment under certain schemes of benefits, e.g., P.F., Pension, etc. it is essential.

(j) For calculating leave with pay, etc. again it is important.

### Time-Booking

The objectives of time-booking are:

(i) to apportion overheads against jobs;

(ii) to calculate the labour cost of jobs done;

(iii) to ascertain idle time for the purpose of control;

(iv) to find out that the time during which a worker is in the factory is properly utilised;

(v) to evaluate labour performance, to compare actual and budgeted time;

(vi) to determine over head rates of absorbing overhead expenses under the labour hour and machine hour methods;

(vii) to calculate wages and bonus provided the system of payment depends on the time taken.

## EXPENSES

Expenses may be defined as "the costs of services provided to an undertaking and the notional costs of the use of owned assets".

Expenses can be of two types- Direct and Indirect

### Direct Expenses

Direct expenses are defined as "costs, other than materials or wages, which are incurred for a specific product or salable service."

Direct expenses are those expenses which are directly chargeable to a job account. There are easily identifiable and attributable to the individual units or jobs. All expenses other than the direct material or direct labour which are incurred for a particular product or process are termed as direct expenses. Expenses which can be identified with a territory, a customer or product can be considered as direct expenses. Expenses in relation to a department may be direct, but are indirect in relation to the product.

There is no hard and fast rule regarding the classification of expenses into direct and indirect expenses. Direct expenses are specific charges directly attributable, while the indirect expenses are apportioned on suitable basis. Some items by nature are direct but treated as Indirect because the amounts chargeable are either of small or negligible value, it becomes a difficult and a costly affair to analyze them. Therefore, we treat them as indirect expenses, e.g., nuts, screws, thread, glue, etc. Nature of direct expenses is directly attributed to cost unit/cost center. It includes all direct cost except the direct material and direct labour.

Types of Direct Expenses are as under:

(i) Royalties, if it is charged as a rate per unit.

(ii) Hire charges of the plant if is used for a specific job.

(iii) Subcontract or outside work, if jobs are sent out for some kind of special processing.

(iv) Salesman's commission, if it is based on the value of unitssold.

(v) Freight if the goods are handled by an outside carrier whose charges can be related to individual units.

(vi) Travelling, hotel and other incidental expenses incurred on a particular contract.

(vii) Cost of making a design or a pattern for a specific job.

(viii) Cost of any special process not forming part of the normal manufacture like waterproofing for canvas cloth.

## Accounting Treatment of Direct Expenses

Direct expenses are chargeable expenses and are debited to Direct Expenses Account in financial books.

The term 'direct expenses' has been excluded from prime cost as per latest CIMA terminology, i.e., according to CIMA, prime cost is "the total cost of direct material and direct labour".

Accounts are prepared in columnar form so that the analysis can be made and the expenses can be related to the specific job/contract. In cost-accounting records, the direct expenses account is credited and the concerned account is debited. The cost department should verify from the accounts department that the expenses are properly booked. These expenses are not be mixed up with overheads.

## Control of Direct Expenses

Items under this head are few. They form a small part of the total cost. Such costs are controlled by fixing some standards. The actual should be compared with these standard. The causes of variations, if any, maybe ascertained, and necessary corrective action should be taken.

## Indirect Expenses

Indirect expenses are other than the direct ones. These refer to those expenses which cannot be directly, conveniently and wholly allocated to cost centres or cost units. E.g. factory rent & insurance, power, general repairs, etc. Nature of indirect expenses or costs are "those which are incurred for common or joint objectives, and therefore cannot be identified readily and specifically with a particular cost unit/cost centre.

A few examples of such expenses are as follows:

(i) Rent, rates and insurance of factory and office.

(ii) Depreciation, repairs and maintenance of plants, machinery, furniture, building, etc.

(iii) Power, fuel, lighting, heating of factory and office.

(iv) Advertising, legal charges, audit fees, bad debts, etc.

## Expenses excluded from costs

The following types of items are not included in cost of production or sales:

(a) Matters of pure finance including interest paid or received, dividend received on investments, rent received, profit or loss on sale of investments or company's property, transfer fees received, etc.

(b) Appropriation of profits including income-tax paid, dividends paid, transfer to sinking fund, general reserves, excessive depreciation, goodwill or other fictitious, assets written off, etc.

## Notional Expenses

Expenses that are usually incurred should be included in costs even if a particular firm is not required to pay for such expenses. Rent for own premises is an example. If a firm occupies its own buildings, it does not pay any rent for it, but for costing purposes, an appropriate amount of rent is be included in costs.

## Accounting Treatment of Indirect Expenses

Indirect expenses may or may not be allocated. For example, office administrative costs are indirect expenses, but they are rarely allocated to anything, unless it is corporate overhead and is being allocated to subsidiaries. These types of indirect expenses are charged to the expense in the period incurred. Indirect expenses that are factory overheads will be allocated to those units produced in the factory during the same period that the indirect expenses were incurred, and so will eventually be charged to expense when the products to which they were allocated are sold.

# OVERHEADS

Overheads may be defined as the cost of indirect material, indirect labour and such other expenses, including services, which cannot be conveniently charged direct to specific cost centres or cost units. It should be noted that

direct costs(materials, labour, etc.) are associated with individual jobs or products. Indirect expenses or overheads are not associated with individual jobs or products; they represent the cost of the facilities required for carrying on the operations.

CIMA, London defines overheads as "Expenditure on labour, materials or services which cannot be economically identified with a specific saleable cost unit".

In modern industrial undertakings, overheads are a very large proportion of the total cost and, therefore, good deal of attention has to be paid to them. It will be a big mistake to pay attention only to direct cost. The problem in respect of overheads arises from the facts that the amount of overheads has to be estimated and that too before the concerned period begins (since it is only continuous costing that is found useful) and the amount has to be distributed over the various cost units, again on an estimated basis.

## Collection of Overheads

When classification of overheads on some scientific and consistent basis is complete, they are regularly collected, i.e., estimated understanding order codes allotted to them. In order to collect overhead expenses the following are some of the primary documents used:-

(i) Stores requisitions

(ii) Job cards or tickets

Indirect materials originate in store requisitions. Each store requisitions note specifies the standing order number and the department for which the materials are drawn from stores. The departmentalization is done at the sources level. A material-issue analysis sheet is prepared from store requisitions. At the end of each month, the total of these items is charged or debited to Factory Overhead Control Account and credited to Stores Ledger Control Account.

Indirect labour is obtained in the first place from the time cards and payrolls. Wages paid to workers against each standing order number can be obtained from the time-tickets or job cards. From the time-tickets, the wages analysis sheet is prepared each month and at the end of the month, the total is debited to Factory Overhead Control Account and credited to the Wages Account.

Indirect expense can come from several sources, such as cash book, factory journals or vouchers. In the case of cash outlays, the entry may come from the cash book. Expenses such as depreciation and other adjustment items which do not result from cash outlays are taken from subsidiary records. At the end of the period, the total of factory overheads would be debited to Factory Overhead Control Account and credited to the Cost Ledger Control Account.

Some expenses done one such as power, lighting, heating, rent, etc. may not be solely applicable to factory overheads, but should be apportioned between factory expenses, selling expenses and administration expenses. Each item of overheads may be seen and proper estimate of the amount for the coming period may be prepared. Another more expeditious way is to analyze total overheads into fixed and variable expenses, then arrive at an estimate by adjusting the variable amount Rs. per the expected change in output and in the fixed amount by recruiting more people and giving more increments, etc.

## Classification of Overheads

Cost classification is the process of grouping costs according to their common characteristics and than establishing a series of special groups according to which costs have been classified. The process of classification of overheads involves:

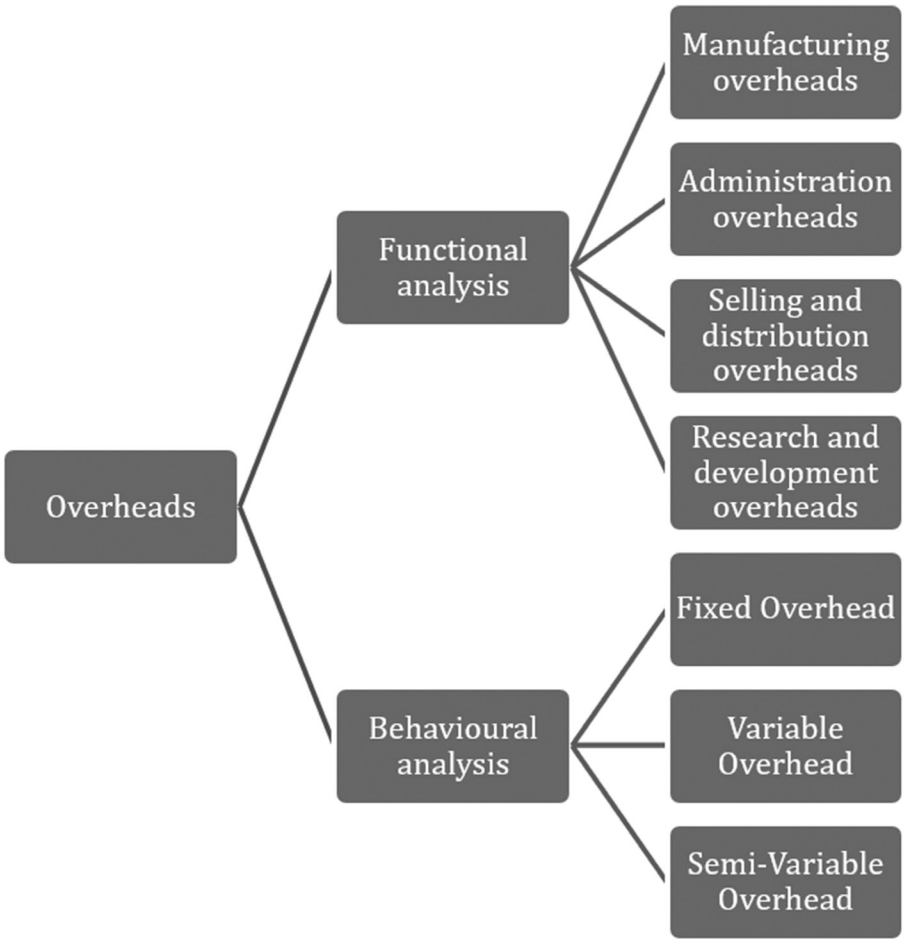
(a) the determination of the classes or groups in which the costs are subdivided; and

(b) the actual process of classification of the various items of expenses into one or another of the groups. The classification of overheads expenditure depends upon the type and size of a business and the nature of the product or service rendered.

Generally overheads are classified on the following basis:

(1) Functional analysis

(2) Behavioural analysis




## 1. Functional Analysis

Overheads can be divided into the following categories on functional basis:

**(a)** **Manufacturing or production or factory overheads:** Manufacturing overheads includes all indirect costs (indirect material, indirect labour and indirect expenses) incurred for operation of manufacturing or production division in a factory. It is also know as factory overheads, works overheads, factory cost or works cost, etc.

**(b)** **Administration overheads:** It is the sum of those costs of general management, secretarial, accounting and administrative services which cannot be directly related to production, marketing, research or development functions of the enterprise. Administration overheads include the cost of formulating the policy, directing the organization and controlling the operations of an undertaking which is not related directly to production, selling, distribution, research or development activity or function.

**(c)** **Selling and distribution overheads:** Selling overheads is the cost of seeking to create and stimulate demand and of securing orders. It comprises the cost of products to distributors for soliciting and recurring orders for the articles or commodities dealt in and of eff to fi and retain customers. Distribution overhead is the expenditure incurred in the process which begins with making the packed product

available for dispatch and ends with the making the reconditioned returned empty package, if any, available for reuse. It includes expenditure incurred in transporting articles to central or local storage. It also comprises expenditure incurred in moving articles to and from prospective customeras in the case of goods on sale or on return basis. In case of gas, electricity and water industries distribution means pipes, mains and services which may be regarded as equivalent to packing and transportation.

**(d) Research and development overheads:** Research overhead is incurred for a new product or a new process of manufacturing any product. The development overhead is incurred for putting research result on commercial basis

## 2. Behavioural Analysis

Under this overheads are classified, depending on their tendency to vary with the production/sales volume or activity levels. Some expenses vary directly with the rise and fall in the output, some remain constant inspite of change in the activity of the concern, whereas there are some other items which are constant only upto a certain level and then change their character to become a variable or vary with the volume of output though less proportionately.

Based on the behavior, the expenses may be classified into:

(a) Fixed Overhead

(b) Variable Overhead

(c) Semi-Variable Overhead

## COST SHEET

Cost Sheet is statement designed to show the output of a particular accounting period along with break-up of costs. The data incorporated in cost sheet are collected from various statements of accounts which have been written in cost accounts, either day to day or in regular records.

There is no fixed form for the preparation of cost sheet, but in order to make the cost sheet more useful, it is generally presented in columns form. The columns show the total cost, per unit for the current period, total cost & per unit cost for a preceding period and total and per unit cost for the budget period. Cost Sheet is a Memorandum Statement.

### Advantages of the cost sheet:

1. It discloses the total cost & the cost per unit of the units produced during a given period.
2. It enables a manufacturer to keep a close watch & control over the cost of production.
3. By providing a comparative study of the various elements of current cost with the past results & standard costs, it is possible to find out the causes of variations in costs & to eliminate the adverse factors & conditions which increase the total cost.
4. It acts as a guide to the manufacturer & helps him in formulating a definite useful production policy.
5. It helps in fixing up the selling price more accurately.
6. It helps businessmen to minimize the cost of production when there is a cut throat competition.
7. It helps businessmen to submit quotations with reasonable degree of accuracy against tenders for the supply of goods.

## Preparation of Cost Sheet

Cost sheet is one of the method of unit costing. The format of cost sheet is as under:-

**Cost Sheet for the Period** **Production** **Units**

| Particulars | Total Cost | Amount |
|---|---|---|
| Cost per Unit Amount | | |
| Opening Stock of Raw Material | | |
| Add: Purchase of Raw materials | | |
| Add: Purchase Expenses | | |
| Less: Closing stock of Raw Materials | | |
| Raw Materials Consumed Direct Wages (Labour) Direct Charges | | |
| **Prime cost (1)** | | |
| Add :- Factory Over Heads: | | |
| Factory Rent Factory Power Indirect Material Indirect | | |
| Wages Supervisor Salary | | |
| Drawing Office Salary | | |
| Factory Insurance | | |
| Factory Asset Depreciation | | |
| Works cost Incurred | | |
| Add: Opening Stock of WIP Less: Closing Stock of WIP | | |
| **Works cost (2)** | | |
| Add:- Administration Over Heads:- | | |
| Office Rent | | |
| Asset Depreciation General Charges Audit Fees | | |
| Bank Charges Counting house Salary Other Office Expenses | | |
| **Cost of Production (3)** | | |
| Add: Opening stock of Finished Goods | | |
| Less: Closing stock of Finished Goods | | |
| **Cost of Goods Sold** | | |
| Add:- Selling and Distribution OH:- Sales man Commission<br>Sales man salary Traveling Expenses Advertisement<br>Delivery man expenses Sales Tax | | |
| Bad Debts | | |
| **Cost of Sales (5)** | | |
| Profit (balancing figure) | | |
| Sales | | |

## LESSON ROUND-UP

- Cost is the amount of resource given in exchange for some goods or services.
- The Chartered Institute of Management Accountants, London defines cost as "the amount of expenditure (actual or notional) incurred on or attributable to a specified thing or activity".
- Cost is the amount of expenditure (actual or notional) incurred on, or attributable to a specified thing or activity.
- Cost accounting is the establishment of budgets, standard costs and actual costs of operations, processes, activities or products, and the analysis of variances, profitability or the social use of funds.
- Cost centre means, a production or service location, function, activity or item of equipment whose costs may be attributed to cost units.
- Cost unit is a unit of product or service in relation to which costs are ascertained.
- Cost accounting increases the overall productivity of an organization and serves as an important tool, in bringing prosperity to the nation.
- The objectives of cost accounting are ascertainment of cost, fixation of selling price, proper recording and presentation of cost data to the management for measuring efficiency and for cost control.
- The Scope of Cost and Management Accounting is very wide and broad because it first ascertains the cost of the product and services rendered, and later on provides this information to the management for financial analysis and interpretation of the business operation.
- There are three Elements of cost: Material, Labour, Expenses which are further divided into direct and indirect cost.
- Direct Material, Direct Labour and Direct Expenses when combined together are known as Prime Cost.
- Indirect Material, Labour and Expenses when combined together are termed as Overheads.
- Overheads are further classified under two heads: Based on Functional Analysis and Behavioural Analysis.
- Based on Functional Analysis Overheads are classified under four categories. Manufacturing OH, Administration OH, Selling & Distribution OH and Research & Development OH.
- Material cost constitutes a major proportion of the total cost of the product. All products are made up of one or many materials.
- The material cost chargeable to a component is the one which is in pre-manufacturing or rough state (i.e., raw material). It includes all scrap removed during manufacturing process.
- Labour is the cost of human endeavour in the product and requires coordinated efforts for its control.
- The management objective of keeping labour cost as low as possible is achieved by balancing productivity with wages.
- Low wages do not necessarily mean low labour cost.
- Expenses may be defined as "the costs of services provided to an undertaking and the notional costs of the use of owned assets".
- Direct expenses are those expenses which are directly chargeable to a job account.
- Overhead may be defined as the cost of indirect material, indirect labour and such other expenses, including services, as cannot be conveniently charged direct to specific cost centres or cost units.
- Direct costs (materials, labour, etc.) are associated with individual jobs or products.
- Indirect expenses or overheads are not associated with individual jobs or products; they represent the cost of the facilities required for carrying on the operations.
- Cost Sheet is the statement designed to show the output of the particular accounting period along with breakup of costs.

## GLOSSARY

**Cost Accounting**

It is defined as "the process of accounting for cost which begins with the recording of income and expenditure or the bases on which they are calculated and ends with the preparation of periodical statements and reports for ascertaining and controlling costs

**Direct material**

It refers to those materials which are a major part of the finished product and can be

easily traceable to the units

**Indirect material**

All material used for ancillary purposes in production and which can be conveniently assigned to specific physical units are termed as indirect materials

**Overhead**

Overhead is the the cost of indirect material, indirect labour and such other expenses, including services, which cannot be conveniently charged direct to specific cost centres or cost units.

**Cost Sheet**

Cost Sheet is statement designed to show the output of a particular accounting period along with break-up of costs.

## TEST YOURSELF

1. Distinguish between costing and cost accounting or do you think 'costing' and 'cost accounting' are the same.
2. Define costing and discuss the objectives of cost accounting. What methods of costing are used in cost accounting?
3. State the advantages that may be derived from a sound system of cost accounting.
4. What do you mean by elements of cost ? Discuss the various elements of cost.
5. "Management accounting is concerned with accounting information which is useful to management". Comment
6. It is contended that competition governs prices and that where production efficiency is good; there is no need for a proper system of costing. What arguments would you advance to elucidate this opinion?
7. Discuss the meaning & advantages of Cost Sheet. Explain with the help of specimen of cost sheet.
8. What do you mean by overhead? Explain the different types of overheads with examples.
9. Define indirect manufacturing costs under traditional cost accounting. List some examples of indirect manufacturing costs?
10. If we suppress a product line, do we change the total costs per unit in the remaining product lines, or do they stay the same? Give reasons.

# Lesson 14

# Cost Accounting Records & Cost Audit under Companies Act, 2013

***Key Concepts One Should Know***

- Cost Audit
- Cost Record
- Applicability of cost audit
- Maintenance of cost record
- Purpose of cost audit
- Forms used in Cost audit

## *Learning Objectives*

**To understand the:**

- Meaning of cost accounting records
- Purposes for which cost records are maintained
- Meaning of cost audit
- Various techniques used in cost audit and what is the applicability for cost audit etc.
- Nature, scope and utility of cost accounting records
- Cost audit based on different rules applicable

## *Regulatory Framework*

- Section 148 of Companies Act, 2013
- Companies (Cost Records and Audit) Rules, 2014

## *Lesson Outline*

- Introduction
- Rule 1: Short Title & Commencement
- Rule 2: Definitions
- Cost Record
- Rule 3: Application of Cost Record
- Rule 4:Applicability for Cost Audit
- Rule 5 : Maintenance of Cost Record
- Rule 6: Cost Audit
- Purpose of Cost Audit
- CRA-1: Forms in which Cost Records shall be maintained
- CRA-2: Form of Intimation of Appointment of Cost Auditor by the Company to Central Government
- CRA-3: Form of Cost Audit Report
- CRA-4: Form for filing Cost Audit Report with the Central Government
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

The Companies Act, 2013 empowers the Central Government to make the rules so that companies engaged in specified industries, manufacturing, providing goods and rendering services are compelled to maintain their cost records by getting then audited, vide Section 148.

Thus, it is the "subordinate legislative power" of the Central Government to make rules for maintenance of cost records and audit thereof with respect to specific industries. Accordingly, the Central Government has made, from time to time, several notifications/orders, ever since the provisions were made in the erstwhile Companies Act, 1956, as well as under the current Act of 2013.

## RULE 1: SHORT TITLE AND COMMENCEMENT

1. These rules may be called the Companies (Cost Records and Audit) Rules, 2014.
2. They shall come into force from the date of their publication in the Official Gazette issued on 30.06.2014.

## RULE 2: DEFINITIONS

In these rules, unless the context otherwise requires -

(a) "Act" means the Companies Act, 2013 (18 of 2013);

(aa) Customs Tariff Act Heading" means the heading as referred to in the Additional Notes in the First Schedule to the Customs Tariff Act, 1975 (51 of 1975);

(b) "Cost Accountant in practice" means a cost accountant as defined in clause (b) of sub-section (1) of Section 2 of the Cost and Works Accountants Act, 1959 (23 of 1959), who holds a valid certificate of practice under Sub-section (1) of Section 6 of that Act and who is deemed to be in practice under Sub- Section (2) of Section 2 thereof, and includes a firm or limited liability partnership of cost accountants;

(c) "Cost Auditor" means a Cost Accountant in practice, as defined in clause (b), who is appointed by the Board;

(d) "Cost Audit Report" means the duly signed Cost Auditor's report on the cost records examined and cost statements which are prepared as per these rules, including attachment, annexure, qualifications or observations attached with or included in such report;

(e) "Cost Records" means books of account relating to utilization of materials, labour and other items of cost as applicable to the production of goods or provision of services as provided in Section 148 of the Act and these rules;

(f) "Form" means a form annexed to these rules;

(fa) "lndian Accounting Standards" means Indian Accounting Standards as referred to in Companies (lndian Accounting Standards) Rules, 2015;

(g) "Institute" means the Institute of Cost Accountants of India constituted under the Cost and Works Accountants Act, 1959 (23 of 1959);

(h) All other words and expressions used in these rules but not defined, and defined in the Act or in the Companies (Specification of Definition Details) Rules, 2014 shall have the same meanings as assigned to them in the Act or in the said rules.

## COST RECORD

As per Rule 2 (e) the Companies (Cost Records and Audit) Rules, 2014,

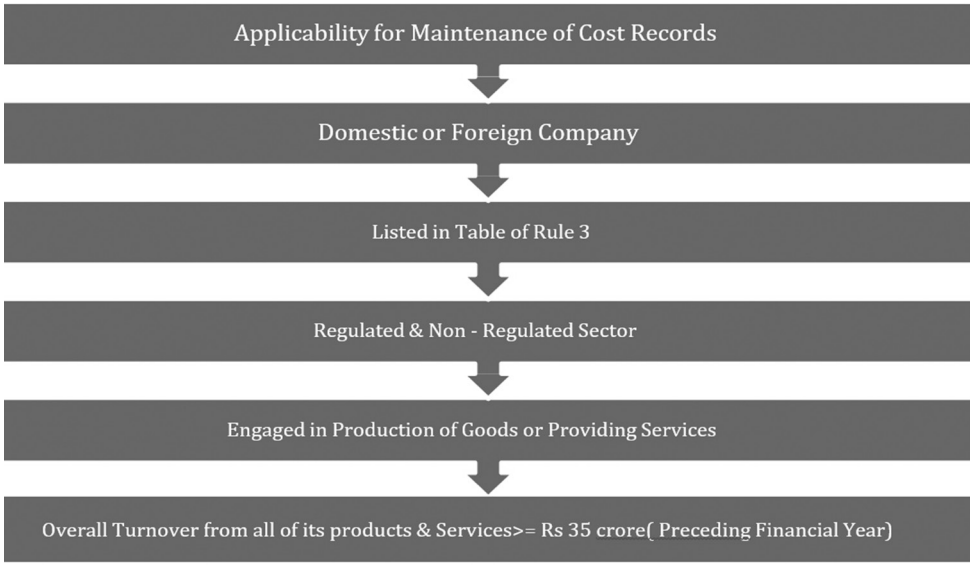
> "Cost Records" means books of account relating to utilization of materials, labor and other items of cost as applicable to the production of goods or provision of services under the provisions of Section 148 of the Act. It is mandatory to keep the cost records for proper supervision and control.

Every company specified in item (A) of rule 3 shall get its cost records audited in accordance with these rules if the overall annual turnover of the company from all its products and services during the immediately preceding financial year is rupees fifty crore or more as the aggregate turnover of the individual.

## RULE 3: APPLICATION OF COST RECORDS

For the purposes of sub-section (1) of section 148 of the Act. the class of companies, including foreign companies defined in clause (42) of section 2 of the Act, engaged in the production of the goods or providing services, having an overall turnover from all its products and services of rupees thirty five crore or more during the immediately preceding financial year, shall include cost records for such products or services in their books of account,

### DIAGRAMMATIC REPRESENTATION




### Companies Engaged in the Production of following Goods or providing following Services :

**(A) Regulated Sectors**

| Sl. No. | Industry/ Sector/ Product/ Service | 3" Customs Tariff Act Heading" (wherever applicable) |
|---|---|---|
| 1. | Telecommunication services made available to users by means of any transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature and regulated by the Telecom Regulatory Authority of India under the Telecom Regulatory Authority of India Act, 1997 (24 of 1997); including activities that requires authorisation or license issued by the Department of Telecommunications, Government of India under Indian Telegraph Act, 1885 (13 of 1885); | Not applicable. |
| 2. | Generation, transmission, distribution and supply of electricity regulated by the relevant regulatory body or authority under the Electricity Act, 2003 (36 of 2003); | Generation- 2716; Other Activity- Not Applicable |
| 3. | Petroleum products; including activities regulated by the Petroleum and Natural Gas Regulatory Board under the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006); | 2709 to 2715; Other Activity- Not Applicable |
| 4. | Drugs and pharmaceuticals; | 2901 to 2942; 3001 to 3006. |
| 5. | Fertilisers; | 3102 to 3105. |

| | | |
|---|---|---|
| 6. | Sugar and industrial alcohol; | 1701; 1703; 2207. |

**(B) Non-regulated Sectors**

| Sl. No. | Industry/ Sector/ Product/ Service | *"Customs Tariff Act Heading" (wherever applicable) |
|---|---|---|
| 1. | Machinery and mechanical appliances used in defence, space and atomic energy sectors excluding any ancillary item or items;<br>Explanation. - For the purposes of this sub-clause, any company which is engaged in any item or items supplied exclusively for use under this clause, shall be deemed to be covered under these rules. | 8401; 8801 to 8805; 8901 to 8908. |
| 2. | Turbo jets and turbo propellers; | 8411 |
| 3. | Arms and ammunitions and Explosives; | 3601 to 3603; 9301 to 9306. |
| 4. | Propellant powders; prepared explosives (other than propellant powders); safety fuses detonating fuses; percussion or detonating caps; igniters; electric detonators; | 3601 to 3603 |
| 5. | Radar apparatus, radio navigational aid apparatus and radio remote control apparatus; | 8526 |
| 6. | Tanks and other armoured fighting vehicles, motorised, whether or not fitted with weapons and parts of such vehicles, that are funded (investment made in the company) to the extent of ninety per cent, or more by the Government or Government agencies; | 8710 |
| 7. | Port services of stevedoring, pilotage, hauling, mooring, re-mooring, hooking, measuring, loading and unloading 4 [services rendered for a Port in relation to a vessel or goods regulated by the Tariff Authority for Major Ports under the Major Port Trusts Act, 1963 (38 of 1963)]; | Not applicable. |
| 8. | Aeronautical services of air traffic management, aircraft operations, ground safety services, ground handling, cargo facilities and supplying fuel rendered 5[at the airports] and regulated by the Airports Economic Regulatory Authority under the Airports Economic Regulatory Authority of India Act, 2008 (27 of 2008); | Not applicable. |
| 9. | lron and Steel; | 7201 to 7229; 7301 to 7326 |
| 10. | Roads and other infrastructure projects corresponding to para No. (1) (a) as specified in Schedule VI of the Companies Act, 2013 (18 of 2013); | Not applicable. |
| 11. | Rubber and allied products; including products regulated by the Rubber Board constituted under the Rubber Act, 1947 (XXIV of 1947); | 4001 to 4017 |
| 12. | Coffee and tea; | 0901 to 0902 |
| 13. | Railway or tramway locomotives, rolling stock, railway or tramway fixtures and fittings, mechanical (including electro mechanical) traffic signalling equipment's of all kind; | 8601 to 8608,6[8609] |

| | | |
|---|---|---|
| **14.** | Cement; | 2523; 6811 to 6812 |
| **15.** | Ores and Mineral products; | 2502 to 2522; 2524 to 2526; 2528 to 2530; 2601 to 2617 |
| **16.** | Mineral fuels (other than Petroleum), mineral oils etc.; | 2701 to 2708 |
| **17.** | Base metals; | 7401 to 7403; 7405 to 7413; 7419; 7501 to 7508; 7601 to 7614; 7801 to 7802; 7804; 7806; 7901 to 7905; 7907; 8001; 8003; 8007;8101 to 8113. |
| **18.** | Inorganic chemicals, organic or inorganic compounds of precious metals, rare-earth metals of radioactive elements or isotopes, and Organic Chemicals; | 2801 to 2853; 2901 to 2942; 3801 to 3807;3402to 3403;3809 to 3824. |
| **19.** | Jute and Jute Products; | 5303,6[5307], 5310 |
| **20.** | Edible Oil; | 1507 to 1518 |
| **21.** | Construction Industry as per para No. (5) (a) as specified in Schedule VI of the Companies Act 2013 (18 of 2013); | Not applicable. |
| **22.** | Health services, namely functioning as or running hospitals, diagnostic centres, clinical centres or test laboratories; | Not applicable. |
| **23.** | Education services, other than such similar services falling under philanthropy or as part of social spend which do not form part of any business; | Not applicable. |
| **24.** | Milk powder; | 0402 |
| **25.** | Insecticides; | 3808 |
| **26.** | Plastics and polymers; | 3901 to 3914; 3916 to 3921; 3925 |
| **27.** | Tyres and tubes; | 4011 to 4013 |
| **28.** | [Pulp and Paper]; | 6[4701 to 4704],4801 to 4802. |
| **29.** | Textiles; | 5004 to 5007; 5106 to 5113; 5205 to 5212; 5303; 6[5307] 5310; 5401 to 5408; 5501 to 5516 |

| | | |
|---|---|---|
| **30.** | Glass; | 7003 to 7008; 7011; 7016 |
| **31.** | Other machinery and Mechanical Appliances; | 8402 to 8487 |
| **32.** | Electricals or electronic machinery; | 8501 to 8507; 8511 to 8512; 8514 to 8515; 8517; 8525 to 8536; 8538 to 8547. |
| **33.** | Production, import and supply or trading of following medical devices, namely:- | 9018 to 9022"]. |
| | Cardiac stents;<br>Drug eluting stents;<br>Catheters;<br>Intra ocular lenses;<br>Bone cements;<br>Heart valves;<br>Orthopaedic implants;<br>Internal prosthetic replacements;<br>Scalp vein set;<br>Deep brain stimulator;<br>Ventricular peripheral shud;<br>Spinal implants;<br>Automatic impalpable cardiac 8[defibrillators],<br>Pacemaker (temporary and permanent);<br>Patent ductus arteriosus, atrial septal defect and ventricular septal defect closure device;<br>Cardiac re-synchronize therapy ;<br>Urethra spinicture devices;<br>Sling male or female;<br>Prostate occlusion device; and<br>Urethral stents: | |

Provided that nothing contained in serial number 33 shall apply to foreign companies having only liaison offices.

Provided further that nothing contained in this rule shall apply to a company which is classified as a micro enterprise or a small enterprise including as per the turnover criteria under sub-section (9) of section 7 of the Micro. Small and Medium Enterprises Development Act, 2006 (27 of 2006)].

## RULE 4: APPLICABILITY FOR COST AUDIT

The companies required to include cost records in their books of account in accordance with subrule (1), shall be required to get such cost records audited by a cost auditor.

Every company specified in item (A) of rule 3 shall get its cost records audited in accordance with these rules if the overall annual turnover of the company from all its products and services during the immediately preceding financial year is rupees fifty crore or more and the aggregate turnover of the individual product or products or service or services for which cost records are required to be maintained under rule 3 is rupees twenty five crore or more.

Every company specified in item (B) of rule 3 shall get its cost records audited in accordance with these rules if the overall annual turnover of the company from all its products and services during the immediately preceding financial year is rupees one hundred crore or more and the aggregate turnover of the individual product or products or service or services for which cost records are required to be maintained under rule 3 is rupees thirty five crore or more.

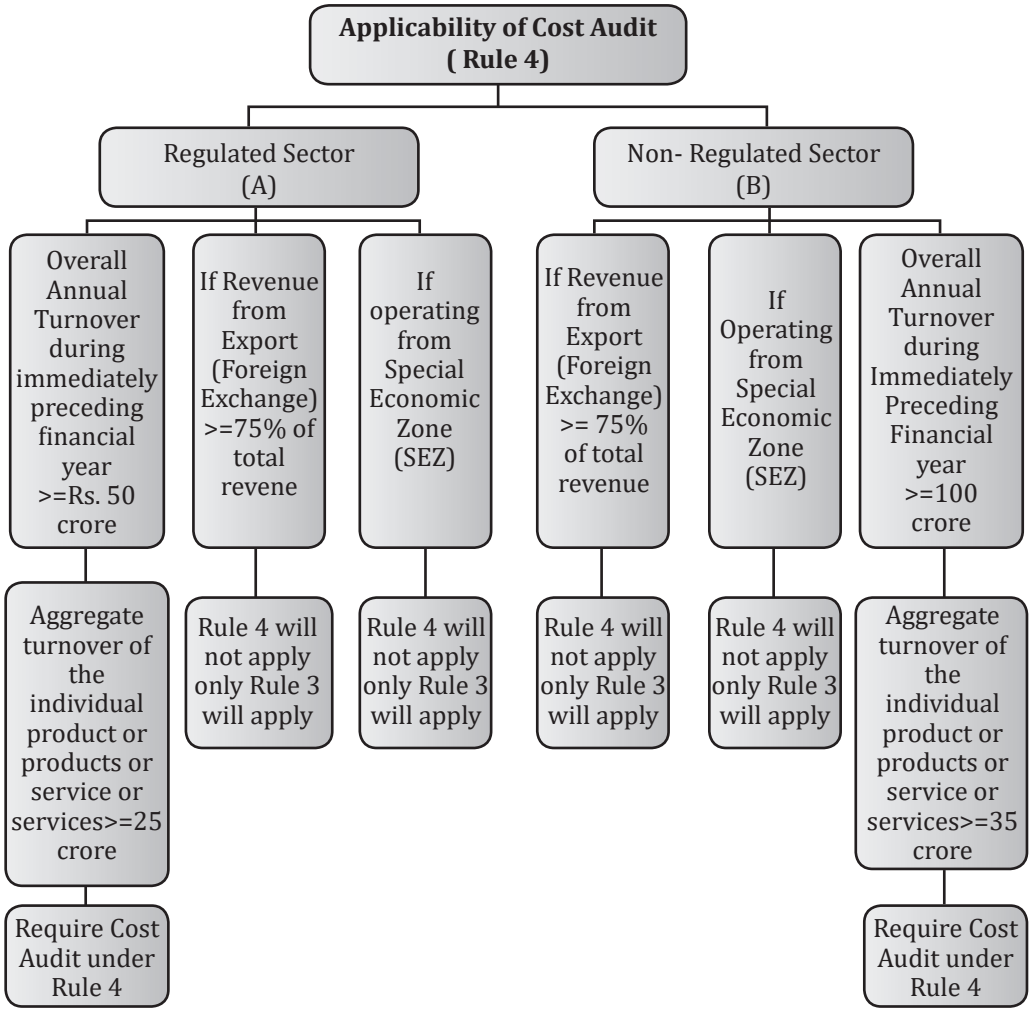
The requirement for cost audit under these rules shall not apply to a company which is covered in rule 3; and

(i) whose revenue from exports, in foreign exchange, exceeds seventy five per cent of its total revenue; or

(ii) which is operating from a special economic zone;

(iii) which is engaged in generation of electricity for captive consumption through Captive Generating Plant. For this purpose, the term "Captive Generating Plant" shall have the same meaning as assigned in rule 3 of the Electricity Rules, 2005.

### RULE 4: DIAGRAMMATIC REPRESENTATION



## RULE 5: MAINTENANCE OF COST RECORDS

(1) Every company under these rules including all units and branches thereof, shall in respect of each of its financial year commencing on or after the 1st day of April, 2014, will maintain cost records in form 2 [CRA-1].

Provided that company is covered in serial number 12 and serial numbers 24 to 32 of item (B) of rule 3, the requirement under this rule shall apply in respect of each of its financial year commencing on or after 1st day of April, 2015.

(2) The cost records referred to in the sub-rule (1) shall be maintained on regular basis in such a manner as to facilitate calculation of per unit cost of production or cost of operations, cost of sales and margin for each of its products and activities for every financial year on monthly or quarterly or half yearly or annual basis.

(3) The cost records shall be maintained in such a manner so as to enable the company to exercise, as far as possible, control over the various operations and costs to achieve optimum economies in utilization of resources and these records shall also provide necessary data which is required to be furnished under these rules.

## RULE 6: COST AUDIT

(1) The category of companies specified in rule 3 and the thresholds limits laid down in rule 4, shall within one hundred and eighty days of the commencement of every financial year, appoint a cost auditor.

Provided that before such an appointment is made, the written consent of the cost auditor, and a certificate from him, as provided in sub-rule (1A), shall be obtained

(1A) The cost auditor appointed under the sub-rule (1) shall submit a certificate that—

(a) the individual or the firm, as the case may be, is eligible for appointment and is not disqualified for appointment under the Act, the Cost and Works Accountants Act, 1959 (23 of 1959) and the rules or regulations made thereunder;

(b) the individual or the firm, as the case may be, satisfies the criteria provided in Section 141 of the Act, so far as may be applicable;

(c) the proposed appointment is within the limits laid down by or under the authority of the Act; and

(d) the list of proceedings against the Cost Auditor or audit firm or any partner of the audit firm pending with respect to professional matters of conduct, as disclosed in the certificate, is true and correct."

(2) Every company referred to in the sub-rule (1) shall inform the cost auditor concerned of his appointment as such and file a notice of such appointment with the Central Government within a period of thirty days of the Board meeting in which such appointment is made, or within a period of one hundred and eighty days of the commencement of the financial year, whichever is earlier, through electronic mode, in form CRA-2, along with the fee as specified in Companies (Registration Offices and Fees) Rules, 2014.

(3) Every cost auditor appointed as such shall continue in such capacity till the expiry of one hundred and eighty days from the closure of the financial year or till he submits the cost audit report, for the financial year for which he has been appointed.

Provided that the cost auditor appointed under these rules may be removed from his office before the expiry of his term, through a Board resolution after giving a reasonable opportunity of being heard to the Cost Auditor and recording the reasons for such removal in writing;

Provided further that the Form CRA-2 to be filed with the Central Government for intimating appointment of another Cost Auditor shall enclose the relevant Board Resolution to the effect;

Provided also that nothing contained in this sub-rule shall prejudice the right of the cost auditor to resign from such office of the company.

(3A) Any casual vacancy in the office of a Cost Auditor, whether due to resignation, death or removal, shall be filled by the Board of Directors within thirty days of the occurrence of such vacancy and the company shall inform the Central Government in Form CRA-2 within thirty days of such appointment of cost auditor.

(3B) The cost statements, including other statements to be annexed to the cost audit report, shall be approved by the Board of Directors before they are signed on behalf of the Board by any of the director authorized by the Board, for submission to the Cost Auditor to report thereon.

(4) Every Cost Auditor, who conducts an audit of the cost records of a company, shall submit the cost audit report along with his or its reservations or qualifications or observations or suggestions, if any, in form CRA-3.

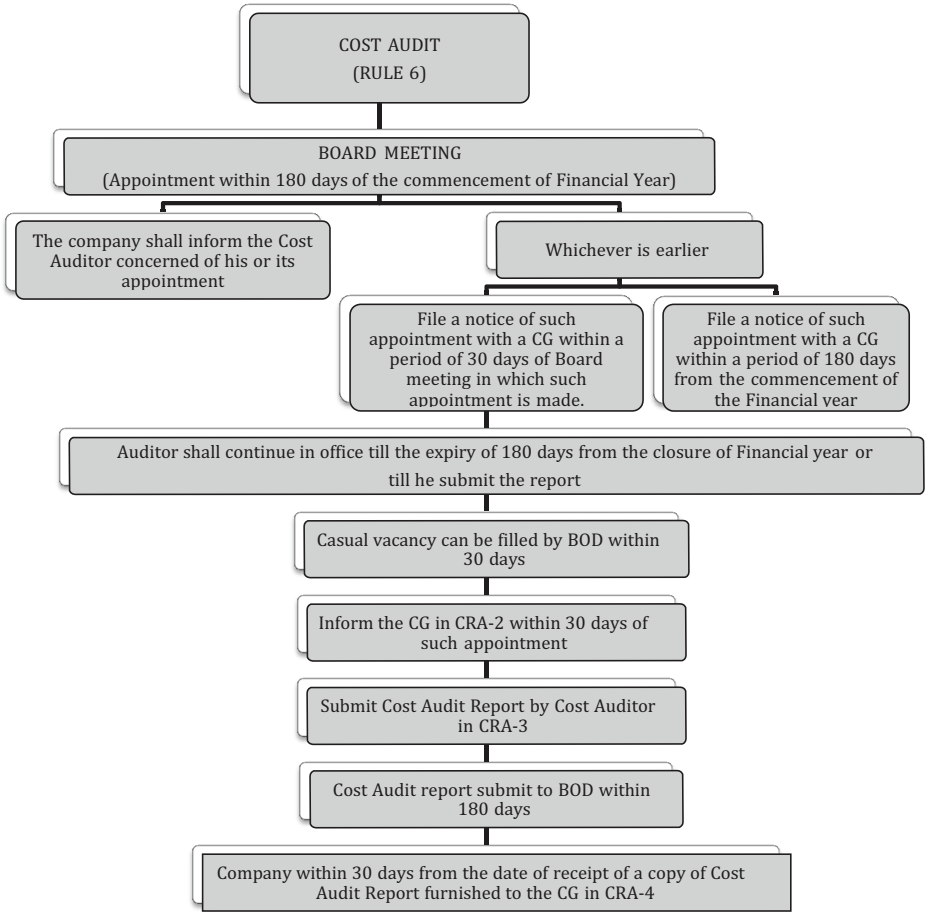
(5) Every Cost Auditor shall forward his duly signed report to the Board of Directors of the company within a period of one hundred and eighty days from the closure of the financial year to which the report relates and the Board of Directors shall consider and examine such report, particularly any reservation or qualification contained therein.

(6) Every company covered under these rules shall, within a period of thirty days from the date of receipt of a copy of the cost audit report, furnish the Central Government with such report along with full information and explanation on every reservation or qualification contained therein, in Form CRA-4 in Extensible Business Reporting Language (XBRL) format in the manner as specified in the Companies (Filing of Documents and Forms in Extensible Business Reporting language) Rules, 2015 along with fees specified in the Companies (Registration Offices and Fees) Rules, 2014."

Provided that the Companies which have got extension of time of holding Annual General Meeting under section 96 (1) of the Companies Act, 2013, may file form CRA-4 within resultant extended period of filing financial statements under section 137 of the Companies Act, 2013.]

(7) The provisions of sub-section (12) of section 143 of the Act and the relevant rules made thereunder shall apply mutatis mutandis to a cost auditor during performance of his functions under section 148 of the Act and these rules.

## RULE 6: DIAGRAMMATIC REPRESENTATION



## PURPOSE OF COST AUDIT

The primary purpose of Cost Audit is to express an opinion on the cost accounts of the company whether these have been properly maintained and compiled according to the cost accounting system followed by the enterprise or not. However, the purposes of Cost Audit may be segregated into general and social objectives.

The general objectives can be described to include the following:

(1) Verification of cost accounts with a view to ascertaining that these have been properly maintained and compiled according to the cost accounting system followed by the enterprise.

(2) Ensuring that the prescribed procedures of cost accounting records rules are duly adhered to.

(3) Detection of errors and fraud.

(4) Verification of the cost of each "cost unit" and "cost centre" to ensure that these have been properly ascertained.

(5) Determination of inventory valuation.

(6) Facilitating the fixation of prices of goods and services.

(7) Periodical reconciliation between cost accounts and financial accounts.

(8) Ensuring optimum utilization of human, physical and financial resources of the enterprise.

(9) Detection and correction of abnormal loss.

(10) Inculcation of cost consciousness.

(11) Advising management, on the basis of interfirm comparison of cost records, as regards the areas where performance calls for improvement.

(12) Promoting corporate governance through various operational disclosures.

### Social Purposes of Cost Audit

The following deserve special mention:

1. Facilitate in fixation of reasonable prices of goods and services produced by the enterprise.
2. Improvement in productivity of human, physical and financial resources of the enterprise.
3. Channelize enterprise resources to most optimum, productive and profitable areas.
4. Availability of audited cost data as regards contracts containing escalation clauses.
5. Facilitate in settlement of bills in the case of cost-plus contracts entered into by the Government.
6. Pinpointing areas of inefficiency and mismanagement, if any for the benefit of shareholders, consumers, etc., such that necessary corrective action could be taken in time.

## CRA-1: FORMS IN WHICH COST RECORDS SHALL BE MAINTAINED

The form CRA-1 prescribes the form in which cost records shall be maintained. The form categorizes the requirement of maintaining proper details as per 30 headings. The headings are as follows:

1. Material Cost
2. Employee Cost
3. Utilities
4. Direct Expenses
5. Repair and Maintenance
6. Fixed Assets and Depreciation

7. Overheads
8. Administrative Overheads
9. Transportation Cost
10. Royalty and Technical Know-how
11. Research and Development expenses
12. Quality Control Expenses
13. Pollution Control Expenses
14. Service Department Expenses
15. Packing Expenses
16. Interest and Financing Charges
17. Any other item of Cost
18. Capacity Determination
19. Work-in-progress and finished stock
20. Captive Consumption
21. By - Products and Joint Products
22. Adjustment of Cost Variances
23. Reconciliation of Cost and Financial Accounts
24. Related Party Transactions
25. Expenses or Incentives on Exports
26. Production records
27. Sales records
28. Cost Statements
29. Statistical Records
30. Records of Physical Verification.

## CRA-2: FORM OF INTIMATION OF APPOINTMENT OF COST AUDITOR BY THE COMPANY TO CENTRAL GOVERNMENT

(1) Corporate Identity Number (CIN) or Foreign Company Registration Number (FCRN) of the company

(2) General Information

(3) Product(s)/Service(s) to which Cost Audit relates

(4) Details of all the Cost Auditor(s) appointed

(5) Financial year to be covered under the Cost Audit

(6) Details of previous Cost Auditor which has not been reappointed

(7) Attachments

- Copy of the Board resolution of the company
- Optional attachment - if any

## CRA-3: FORM OF COST AUDIT REPORT

Clause (vii) have been added to auditor's report as under:

Detailed unit wise and product/service wise cost statements and schedules thereto In respect of the product/ services under reference of the company duly audited and certified by me/us are/are not kept in the company.

### Annexure to Cost Audit Report

**Annexure has been reclassified into Four Parts as under :**

**Part-A General Information**

General Details of Cost Auditors,

Cost Accounting Policy,

Product/Service Details – of the company as a whole.

**Part-B for Manufacturing Sector**

Quantitative Information, Abridged Cost Statement, Details of Materials

Consumed, Details of Utilities Consumed, Details of Industry Specific Operating Expenses.

**Part-C for Service Sector** Quantitative Information, Abridged Cost Statement, Details of Materials Consumed, Details of Utilities Consumed,

Details of Industry Specific Operating Expenses.

**Part-D Product and Service Profitability Statement, Profit** Reconciliation, Value Addition and Distribution Of Earnings, Financial Position and Ratio Analysis,

Related Party Transactions,

Reconciliation of Indirect taxes.

## CRA-4: FORM FOR FILING COST AUDIT REPORT WITH THE CENTRAL GOVERNMENT

1. Corporate Identity Number (CIN) or Foreign Company Registration Number (FCRN) of the company.
2. General Information.
3. Details of industries/ sectors/product(s)/ service(s) (CETA heading level, wherever applicable as per Rules for Regulated and Non-regulated sector) for which cost audit report is being submitted.
4. Details of industries/ sectors/product(s)/ service(s) (CETA heading level, wherever applicable as per Rules for Regulated and Non-regulated sector) not cover in cost audit report.
5. Details of cost auditor(s) appointment.
6. Details of observation of cost audit report.
7. Attachments :
    - XBRL document in respect of the cost audit report and Company's information and explanation on every qualification and reservation contained therein.
    - Optional attachment, if any.

## LESSON ROUND-UP

- The Companies Act, 2013 empowers the Central Government to make the rules so that companies engaged in specified industries, manufacturing, providing goods and rendering services are compelled to maintain their cost records by getting then audited, vide Section 148.
- As per Rule 2(e) the Companies (Cost Records and Audit) Rules, 2014, "Cost Records" means books of account relating to the utilization of materials, labour and other items of cost as applicable to the production of goods or provision of services under the provisions of Section 148 of the Act.
- It is mandatory to keep the cost records for the purpose of proper supervision and control.
- The class of companies, including foreign companies defined in clause (42) of Section 2 of the Act, engaged in the production of the goods or providing services, having an overall turnover from all its products and services of Rs. 35 crore or more during the immediately preceding financial year, shall include cost records for such products or services in their books of account.
- Every company specified in item (A) of rule 3 shall get its cost records audited in accordance with these rules if the overall annual turnover of the company from all its products and services during the immediately preceding financial year is rupees fifty crore or more and the aggregate turnover of the individual product or products or service or services for which cost records are required to be maintained under rule 3 is rupees twenty five crore or more.
- Every company specified in item (B) of rule 3 shall get its cost records audited in accordance with these rules if the overall annual turnover of the company from all its products and services during the immediately preceding financial year is rupees one hundred crore or more and the aggregate turnover of the individual product or products or service or services for which cost records are required to be maintained under rule 3 is rupees thirty five crore or more.
- The cost records referred to in sub-rule (1) shall be maintained on regular basis in such a manner as to facilitate calculation of per unit cost of production or cost of operations, cost of sales and margin for each of its products and activities for every financial year on monthly or quarterly or halfyearly or annual basis.
- The cost records shall be maintained in such a manner so as to enable the company to exercise, as far as possible, control over the various operations and costs to achieve optimum utilization of resources, and these records shall also provide necessary data which is required to be furnished under these rules.
- The category of companies specified in rule 3 and whose thresholds limits laid down in rule 4, shall within one hundred and eighty days of the commencement of every financial year, appoint a cost auditor.
- Form CRA-1 shall be maintained to keep cost records
- Form CRA-2 is the form of intimation of appointment of cost auditor by the company to Central Government
- Overhead may be defined as the cost of indirect material, indirect labour and such other expenses,
- including services, as cannot be conveniently charged direct to specific cost centres or cost units.
- Direct costs (materials, labour, etc.) are associated with individual jobs or products.
- Indirect expenses or overheads are not associated with individual jobs or products; they represent the cost of the facilities required for carrying on the operations.
- Cost Sheet is the statement designed to show the output of the particular accounting period along with breakup of costs.

## GLOSSARY

**Cost Auditor**

Cost Auditor means a Cost Accountant in practice, as defined in clause (b), who is appointed by the Board

**Cost Audit Report**

Cost Audit Report means the duly signed Cost Auditor's report on the cost records examined and cost statements which are prepared as per these rules, including attachment, annexure, qualifications or observations attached with or included in such report

## TEST YOURSELF

1. What do you mean by Cost Record? How should a company maintain the cost records?
2. Diagrammatically discuss the applicability of cost record.
3. State the provisions of the Companies Act, 2013 with respect to the Audit of Cost Accounts
4. As per Rule 4 of Companies Act 2013 explain the applicability of Cost Audit.
5. How can a Cost Auditor be appointed in a company? Explain the form of intimation of appointment of cost auditor by the company to the Central Government
6. What are the rights and responsibilities of a Cost Auditor?
7. Discuss the Cost Audit Report.
8. Whether maintenance of cost accounting records and cost audit thereof, subject to threshold limits prescribed, is applicable to products which are for 100% captive consumption?

# Lesson 15

# Budget, Budgeting and Budgetary Control

***Key Concepts One Should Know***

- Budgetary control
- Fixed and Flexible budget
- Zero base budgeting
- Performance budget
- Budget variance

## *Learning Objectives*

**To understand the:**

- Meaning and importance of budget and budgetary control
- Preparation of different types of budget
- Budget manual, budgeting key factor, budget period
- Zero Base Budgeting
- Performance Budget
- Budget Variance Analysis

## *Lesson Outline*


- Budget
- Forecast and Budget
- Budgeting
- Budgetary Control
- Objective of Budgetary Control
- Steps of Budgetary Control
- Preparation & Monitoring of Various Types of Budgets
- Functional Budget
- Master Budget
- Fixed Budget
- Flexible Budget
- Basic Budget
- Current Budget
- Short Budget Period
- Long Budget Period
- Control Ratios
- Zero Base Budgeting
- Performance Budget
- Budget Variance
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## BUDGET

A budget is a precise statement of the financial and quantitative policy to follow a course of action that management decide to follow in the immediate next period of time.

As per Chartered Institute of Management Accountants (CIMA), London, budget is ," A financial or quantitative statement, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective. It may include Income, Expenditure and Employment of Capital." The budget is a blue-print of the projected plan of action expressed in quantitative terms for a specified period of time.

It translate the policy into a concrete from. In order to implement it successfully the company adheres to a system of control.

**Budget is**

(a) The quantitative expression of a proposed plan of action by management for a specified period, and

(b) An aid to coordinate what needs to be done in order to implement the plan.

A budget is a method for translating the goals and strategies of an organization into operational terms.

### Essentials of Budget

- It is a statement expressed in monetary and/or physical units prepared for the implementation of policy formulated by the management.
- Objectives and degree of responsibility should be clearly stated and communicated to the management.
- A budget is prepared in advance and is based on the future plans of actions.
- It relates to a future period and is based on objectives to be obtained.
- A budget should be monitored periodically.
- Different types of budgets are prepared by an industrial concern for different purposes.

## FORECAST AND BUDGET

A forecast is an assessment of probable future events. Budget is a financial plan of a business enterprise to run its operations. At the planning stage it is necessary to forecast a probable course of action for the business. Budget is a sort of commitment or a target which the management seeks to attain on the basis of the forecasts made. Forecasts are made regarding sales, production cost and financial requirements of the business. A forecast denotes some degree of flexibility while a budget denotes a definite target.

The following points of distinction can be noted between a forecast and budget:

| FORECAST | BUDGET |
|---|---|
| Forecasting may be defined as analysis and interpretation of the future conditions in relation to operations of the enterprise. It involves looking ahead and projecting the future course of events. | A budget is a financial or quantitative statement, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective. It may include income, expenditure and employment of capital. |
| Forecast is a mere estimate of what is likely to happen. It is a statement of probable events which are likely to happen under anticipated conditions during a specified period of time. | Budget displays the policy and programme to be followed in a future period under planned conditions. |
| Forecasts, being statements of future events, do not connote any sense of control. | A budget is a tool of control since it represents actions which can be shaped according to will so that it would suit the conditions which may unexpectedly come up. |
| Forecasting is a preliminary step for budgeting.<br>It ends with the forecast of likely events. | It begins where forecasting ends. Forecasts get converted into budgets. |
| Forecasts have wider scope, since it can be made in those spheres also where budgets cannot interfere. | Budgets have limited scope. They it can be made of phenomena not capable of being expressed quantitatively. |

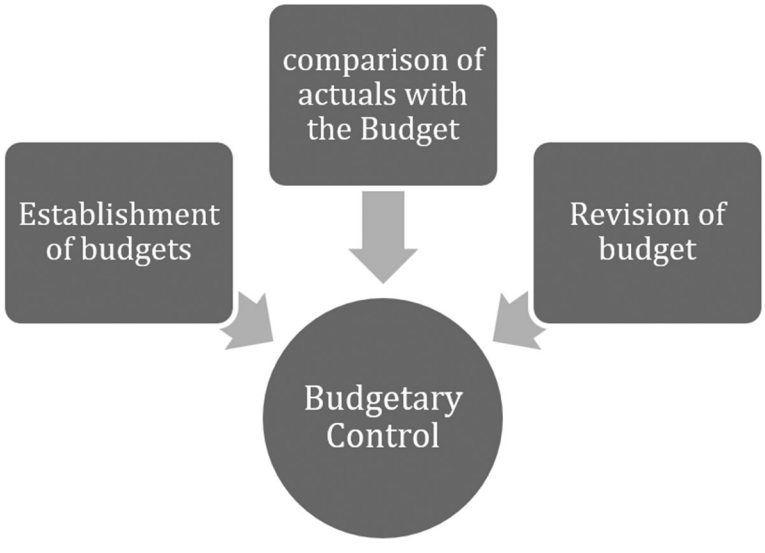
## BUDGETING

Budgeting is the complete process of designing, implementing and operating budgets. The main emphasis in budgeting process involved is the provision of resources to support plans which are being implemented.

## BUDGETARY CONTROL

CIMA, London, defines budgetary control as "the establishment of budgets relating to the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision".

It is the system of management control and accounting in which all operations are forecasted and planned so far as possible beforehand, and the actual results are compared with the forecasted and planned ones. Thus, budgetary control involves:



(a) Establishment of budgets;

(b) Continuous comparison of actual result with the previous made budget for the achievement of targets; thereby placing the responsibility for failure; and

(c) Revision of budget in the light of changed circumstances.

Budgetary control involves continuous comparison of actual results with the budgets and taking appropriate remedial action promptly. A budgetary control system, in this sense is also a control system. It is an excellent system for decent exert of the authority without losing control over the operations of the firm.

In short, budgetary control means laying down in momentary and quantitative terms what exactly has to be done and how it has to be done in the coming period; and to ensure that actual results do not diverge from the planned course of implementation more than necessary.

## OBJECTIVES OF BUDGETARY CONTROL

The objectives of budgetary control are following:

(1) To use different levels of management in a cooperative endeavour to achieve of the objectives of the firm.

(2) To facilitate centralized control with delegated authority and responsibility.

(3) To achieve maximum profitability by planning income and expenditure through optimum use of the available resources.

(4) To ensure adequate working capital in other resources for efficient operation of business.

(5) To reduce losses and wastes to the minimum.

(6) To bring out clearly where effort is needed to remedy the situation.

(7) To see that the firm is not deflected from marching towards its long-term objectives without being Overwhelmed by emergencies.

(8) Various activities like production, sales and purchase of materials are coordinated with the help of budgetary control.

### Advantages of Budgetary Control

Budgetary control offers many advantages. It uncovers unprofitable in operations, weaknesses in the organizational structure, and minimizes wasteful spending. It acts as a friend, philosopher and guide to the management. Its advantages can be summarized as follows:

1. It brings efficiency and economy in the working of the business enterprises.

2. It establishes divisional and departmental responsibility.

3. It coordinates the various divisions of a business, and therefore results in smoother operation of the entire organization.

4. It guards against undue optimism leading to over expansion.

5. It acts as a safety signal for the management. It serves as an automatic check on the judgement of the executives as losses are revealed in time which is a caution to the management to stop wastage.

6. Uniform policy without the disadvantage of a military kind of a business organization can be pursued by all divisions of the business by centralizing budgetary control.

7. It helps the management in obtaining the most profitable combination of different factors of production. This results in more economical use of capital.

8. It is the only means of predetermining when and to what extent financing will be necessary, avoiding the possibility of both over and under capitalization as well.

9. It provides a clear definition of the objective and policies of the concern and the tool for periodic examination the policies periodically.

## Limitations of Budgetary Control

(1) Budgetary control starts with the formulation of budgets which are mere estimates. Therefore, the adequacy or otherwise of budgetary control system, to a very large extent, depends upon the adequacy or accuracy with which estimates are made.

(2) Budgets are meant to deal with business conditions which are constantly changing. Therefore, budgets estimates lose much of their usefulness under changing conditions because of their rigidity. It is necessary that budgetary control system should be kept adequately flexible.

(3) The system of budgetary control is based on quantitative data and represents only an impersonal appraisal to the conduct of business activity unless it is supported by proper management of personal administration.

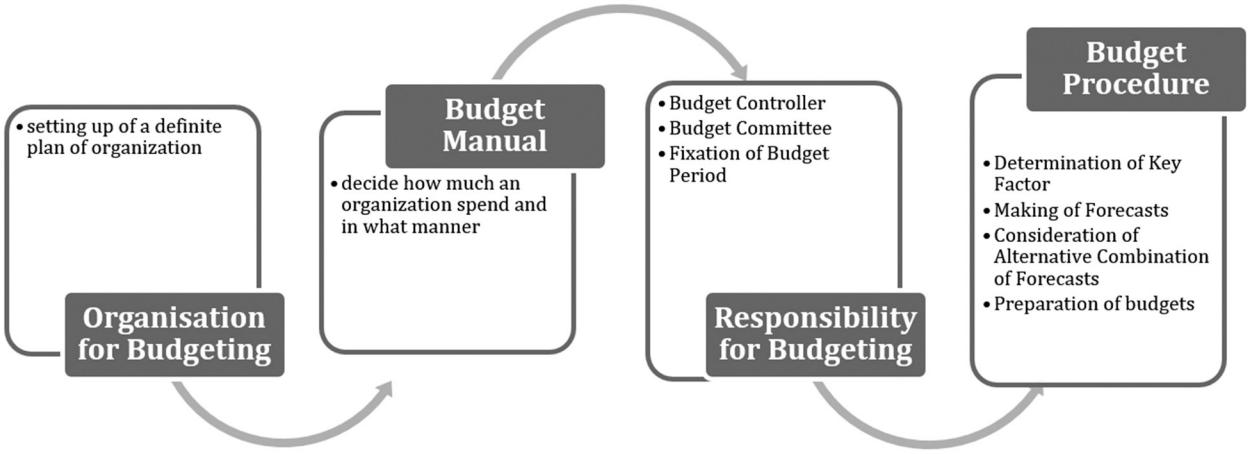
(4) It has often been found that in practice the organization of budgetary control system become top heavy and costly, specially from the point of view of small terms.

(5) Budgets and budgetary control have given rise to a very unhealthy tendency to be regarded as the solvent of all business problems. This has resulted in a very lukewarm human effort to deal with such problems and consequently the budgetary control system ends in failure.

(6) It is human nature to resent any kind of control which constricts the authority of executives is also resentd.

## Steps in Budgetary Control

Budgetary control requires the following steps to be taken:




### (1) Organisation for Budgeting

The setting up of a definite plan of organization is the first step to be taken prior to beginning the real work of installing budgetary control. The responsibility of each executive must be clearly defined. There should be no uncertainty regarding the point where the jurisdiction of one executive ends and that of another begins.

### (2) Budget Manual

The budget manual is a booklet specifying the objectives of an organization in relation to its spending strategy. The budget is made to decide how much an organization spend and in what manner. In the budget the organization sets its priorities too.

CIMA, London, defines it as, a document which sets out the responsibilities of the persons engaged in, the routine of, and the forms and records required for, budgetary control.

Following are some of the important matters covered in a budget manual :

(a) A statement regarding the objectives of the organization and how they can be achieved through budgetary control;

(b) A statement about the functions and responsibilities of each executive the both regarding preparation and execution of budgets;

(c) Procedures to be followed for obtaining the necessary approval of budgets. The authority of granting approval should be stated in explicit terms. Whether, one two or more signatures are required on each document should be clearly stated;

(d) Time tables for all stages of budgeting;

(e) The manner of scrutiny and the personnel to carry it out;

(f) Reports, statements, forms and other record to be maintained;

(g) The accounts classification to be employed. It is necessary that the framework within which the costs, revenue and other financial accounts are classified must be identical both in the accounts and budget department;

(h) The reporting of the remedial action;

(i) The manner in which budgets, after acceptance and issuance, are to be revised or the matter amended these are included in budgets and on which action can be taken only with the approval of top management.

The main idea behind the budget manual is to inform line executives beforehand about procedures to be followed rather than issuing frequent instructions from the controller's office regarding procedures and forms to be used. Such frequent instructions can be a source of friction between the line and staff management.

But there are many advantages attached to the use of the budget manual. It is a formal record defining the functions and responsibilities of each executive. The methods and procedures of budgetary control are standarized. There is synchronization of the efforts of all in an organization which result in maximization of profits.

**Advantages of Budget Manual-**

The following are the advantages of Budget Manual:

1. An overall well coordinated plan, provided by budgetary control system shows what role each manager is expected to play in maximizing the profits.
2. Any problem arising in the working of a budgetary control system can be settled through the manual.
3. New employees get acquainted with the procedure involved in the operation of the system by referring to manual.
4. Methods and procedures become standardized.
5. Since coordination is maintained, there is no overlapping of instructions. There is in other words synchronization of all efforts which leads to the attainment of the objectives with minimum of friction.

**(3) Responsibility for Budgeting**

**(a) Budget Controller**

The Chief Executive is ultimately responsible for the budget programme but it will be better if the large part of the supervisory responsibility is delegated to an official designated as Budget Controller or Director.

The budget controller should have knowledge of the technical side of the business and should report to the president.

**(b) Budget Committee**

The budget committee is a group of representatives of various functions in an organization. As all functions are inter-related and as any change in one's target will have its impact on that of the other, it is necessary to discuss the targets so that a mutually agreed programme is finally decided. This is what is called coordination in budget-making. It is a powerful force in knitting together various activities of the business and enforcing real control over operations.

The budget manual should specify the responsibilities and duties of the budget committee, which should include the following:

(1) Receive and review budget estimates from the respective divisions or departments and make recommendations.

(2) Recommend decisions or budget matters where there may be conflicts among departments or divisions.

(3) Recommend changes and approval of the revised budget.

(4) Receive, study and analyse periodic reports comparing the budget with actual performance.

(5) Consider policies with respect to follow-up procedures.

(6) Consider and make recommendations for the revision of the budget when conditions warrant.

(7) Consider recommendations for changes in budget policies and procedures.

(8) Make recommendations for the budget manual.

**(c) Fixation of Budget Period**

Budget Period means the period for which a budget is prepared and employed. The budget period will depend upon:

- the nature of the business, and
- the costing technique to be employed.

It refers to the period of time covered by a budget. The broad classification in this regard has already been stated as "long-term budget" and "short-term budget".

The short-term budget itself could be bifurcated into yearly and quarterly budgets. Long-term budgets provide the perspective, since one would be able to have a view of what is likely to be achieved and what the chief problems are likely to be, such as competition from new products. Short-term budgets, say, for a year are quite exact and those for a quarter even more so. These are particularly suitable for control purposes. A short-term budget need not necessarily be for one year. It is generally long enough to cover one season or a business year.

For example, in case of mass production industries it is necessary to compare continuously the actual expenses with the budget; and therefore, the budget period should be a short one. Similar would be the case of a garment manufacturer, as his business depends upon tastes and fashion which change very fast. But in case of a structural or heavy engineering works a long period budget period will be suitable.

**(4) Budget Procedure**

After the establishment of budget organization and fixation of the budget period the actual work of the budgetary control begins. The procedure followed in designing and operating a budgetary control system largely depends upon the nature of the business. The usual pattern is as follows:

**(a) Determination of Key Factor**

Key factor is that factor the extent of whose influence must first be assessed in order to ensure that functional budgets (relating to different functions of the business) are reasonably capable of fulfillment. It is also termed as limiting factor or governing factor.

The budget key factor or principal budget factor is described by the CIMA London terminology as: "a factor which will limit the activities of an undertaking and which is taken into account in preparing budgets".

It is essential to consider this factor before preparing the budgets. In some concerns, the key factor may be sales, while in other cases it may be production, material, labour, machinery or capital. This most important factor which governs the whole process of preparation of budgets should be predetermined. The budget relating to this particular factor should be prepared first and other budgets should be based upon it. A coordinated plan should then be finally approved.

If a limiting factor cannot increased by any means, the whole budget involving all functions will have to be built around that factor. For instance, if the production capacity is 50,000 units and it cannot be increased in the short run, all budgets, say, the sales budget and raw materials purchase budget, will have to be based on the production of 50,000 units. To achieve maximum profitability, a key factor must be overcome, if not, at least efforts should be made to minimize its adverse effect.

These factors are not of permanent nature and they can be overcome by the management in the long run if an effort is made in this direction by selecting optimum level of production, dealing in more profitable products, introducing new methods, changing material mix, working overtime or extra shifts, providing incentives to workers, hiring new machinery, etc.

**Examples of Principal Budget Factors (or key Factors)**

| Item | Budget Factor (or Key Factor) |
|---|---|
| Materials: | • Availability of supplies.<br>• Restrictions imposed by the Government like quotas. |
| Labour: | • Shortage in certain key processes. |
| Plant and machinery: | • Insufficient capacity for lack of space.<br>• Bottlenecks in certain key processes. |
| Sales: | • Market demand low.<br>• Insufficient advertising due to lack of funds. |
| Finance: | • Long-term finance.<br>• Short-term funds. |
| Management: | • Lack of managerial time for additional work. |

It would be desirable to prepare first the budget relating to this particular factor, and then the other budget. An illustrative list of key factors in certain industries in given below:

Examples of key factors in specific Industries :

| INDUSTRY | KEY FACTOR |
|---|---|
| Motor Car | Sales demand |
| Aluminium | Power |
| Petroleum Refinery | Supply of crude oil |
| Electro-optics | Skilled technicians |
| Hydro power generation | Monsoon |

**(b) Making of Forecasts**

Forecast means an estimate about the probable events at a given period of time. It differs from a budget. Budget is an operating and financial plan of a business enterprise. It is a sort of commitment or a target which the management seeks to attain on the basis of the forecasts made.

**(c) Consideration of Alternative Combination of Forecasts**

Alternative combinations of forecast are considered with a view to obtain the most efficient overall plan so as to maximize profits. When the optimum combination of forecast is selected, it should be regarded as being finalized.

**(d) Preparation of Budgets**

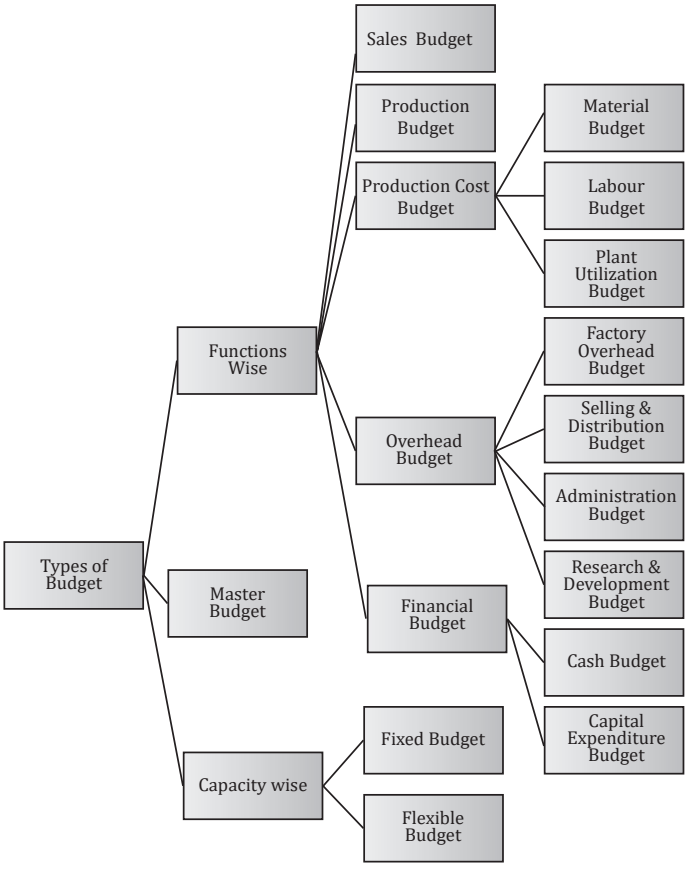
After finalization the forecast, budgets are prepared. Production budget will be prepared on the basis of sales budget and also after taking into consideration the available productive capacities. Different cost of production budgets will be prepared on the basis of main production budget. Financial budget will be prepared on the basis of sales forecast and production budget. All these budgets will be combined and coordinated into one Master Budget. These budgets may be revised from time to time taking into account the current developments.

## PREPARATION & MONITORING OF VARIOUS TYPES OF BUDGETS

Depending upon the various bases adopted, budgets may be classified into different categories. They may be classified on the basis of –

| Coverage or scope | Capacity or efficiency | Conditions | Period |
|---|---|---|---|
| • Functional Budget<br>• Master budget | • Fixed Budget<br>• Flexible Budget | • Basic Budget<br>• Current Budget | • Long-Period Budget<br>• Short-Period Budge |

## TYPES OF BUDGETS



## 1. FUNCTIONAL BUDGETS

Budgets for a period are really classified according to the various activities in the organization. All activities are interrelated. The forecasts for individual activities are prepared and coordinated with other activities and then consolidated to show total effect of all activities as a whole. Approved targets for individual functions are known as "functional budgets". The consolidation of all functional budgets is known as the "Master Budget". This is nothing but the targeted profit and loss statement and balance sheet of the organization.

Principal functional budgets are:

### (A) Sales Budget

The sales budget forms the fundamental basis on which all other budgets are built up. The sales budget is a forecast of total sales, expressed in terms of money and quantity. It is essentially a forecast of sales to be achieved in a budget period. Sales forecasts are influenced by a variety of factors, external as well as internal. External factors include general business conditions, Government policy, etc. Internal factors consist of sales- prices, sales trend, new products, etc. The sales budget is based on sales forecasting which is the responsibility of the sales manager and market research staff. The sales budget is regarded as the keystone of budgeting.

Factors to be taken into consideration while preparing sales budget are:

(i) Past sales figures and trends

(ii) Plant capacity

(iii) General trade prospects

(iv) Potential market

(v) Availability of material and supply

(vi) Seasonal fluctuations

(vii) Finance aspect

(viii) Nature and degree of competition in the market

The sales manager after taking into consideration all these factors will prepare the sales budget in terms of quantity and money, distinguishing between products, periods and area of sales.

**Illustration 1.**

Ram Ltd. provides you the following figures for the year 2017.

| | | Product A | Product B |
|---|---|---|---|
| Sales (in units): | Ist Quarter | 1,250 | 1,600 |
| | IInd Quarter | 2,950 | 800 |
| | IIIrd Quarter | 2,700 | 1,000 |
| | IVth Quarter | 3,100 | 600 |
| Selling price per unit | | Rs. 24 | Rs. 50 |
| Targets for 2018: | | | |
| Sales quantity increase (decrease) | | (20%) | 25% |
| Selling price increase (decrease) | | 25% | (20%) |

Sales area X, Y and Z respectively produce 10%, 20%, 70% of Product ' A' sales and 70%, 20% and 10% of Product 'B' sales.

Prepare a sales budget for 2018.

**Solution:**

**Sales Budget (in Total) for the year 2018**

| Product / Period | Product 'A' | | | Product 'A' | | |
|---|---|---|---|---|---|---|
| | **Units** | **Rate Rs.** | **Amount -Rs.** | **Units** | **Rate Rs.** | **Amount Rs.** |
| 1st Quarter | 1,000 | 30 | 30,000 | 2,000 | 40 | 80,000 |
| 2nd Quarter | 2,360 | 30 | 70,800 | 1,000 | 40 | 40,000 |
| 3rd Quarter | 2,160 | 30 | 64,800 | 1,250 | 40 | 50,000 |
| 4th Quarter | 2,480 | 30 | 74,400 | 750 | 40 | 30,000 |
| | **8,000** | | **2,40,000** | **5,000** | | **2,00,000** |

**Sales Budget (Area-wise)**

| Product & Area Period | Product 'A' | | | | Product 'B' | | | |
|---|---|---|---|---|---|---|---|---|
| | **X Rs.** | **Y Rs.** | **Z Rs.** | **Total Rs.** | **X Rs.** | **Y Rs.** | **Z Rs.** | **Total Rs.** |
| 1st Quarter | 3,000 | 6,000 | 21,000 | 30,000 | 56,000 | 16,000 | 8,000 | 80,000 |
| 2nd Quarter | 7,080 | 14,160 | 49,560 | 70,800 | 28,000 | 8,000 | 4,000 | 40,000 |
| 3rd Quarter | 6,480 | 12,960 | 45,360 | 64,800 | 35,000 | 10,000 | 5,000 | 50,000 |
| 4th Quarter | 7,440 | 14,880 | 52,080 | 74,400 | 21,000 | 6,000 | 3,000 | 30,000 |
| **Total** | **24,000** | **48,000** | **1,68,000** | **2,40,000** | **1,40,000** | **40,000** | **20,000** | **2,00,000** |

**(B) Production Budget**

This budget provides an estimate of total volume of production product wise with the scheduling of operations by days, weeks and months, and a forecast of closing finished product inventory. The production budget may be expressed in quantitative or financial units or both.

The main steps involving in the preparation of a production budget are production planning; consideration of capacity; integration with sales forecasts, inventory policies, management's overall policies. The operation of a production budget results in various advantages, main being: optimum utilization of productive resources of the enterprise, production of goods according to schedule enabling the concern to adhere to delivery dates, proper scheduling of factors of production.

For preparing production budget, following factors should be taken into consideration

(i) Inventory policies

(ii) Sales requirements

(iii) Production stability

(iv) Plant capacity

(v) Availability of material and labour

(vi) Time taken in production process

The sales and production budget are interdependent and must be prepared in cooperation with both sales and production department.

**Illustration 2.**

| | Product A | Product B |
|---|---|---|
| Sales (in units) as per Sales Budget; | | |
| 1st Quarter 2018 | 1,000 | 2,000 |
| 2nd Quarter 2018 | 2,360 | 1,000 |
| 3rd Quarter 2018 | 2,160 | 1,250 |
| 4th Quarter 2018 | 2,480 | 750 |
| | **Product A** | **Product B** |
| Stock position as on 1.1.2018: | | |
| Percentage of 1st Quarter 2018 sales | 20% | 100% |
| Stock position ending 1st\ 2nd and 3rd Quarter | | |
| Percentage of Next Quarter's sales | 50% | 50% |
| Stock position on 31.12.2018 | 2,200 | 1,000 |
| Prepare Production Budget for the year 2018. | | |

**Solution:**

**Production Budget for the year 2018**

| **Product & Period** | **Product 'A'** | | | | **Product 'B'** | | | |
|---|---|---|---|---|---|---|---|---|
| | **1st Q.** | **2nd Q** | **3rd Q.** | **4th Q.** | **1st Q.** | **2nd Q.** | **3rd Q.** | **4th Q.** |
| Particulars | | | | | | | | |
| A. Budgeted Sales | 1,000 | 2,360 | 2,160 | 2,480 | 2,000 | 1,000 | 1,250 | 750 |
| B. (+) Closing Stock | 1,180 | 1,080 | 1,240 | 2,200 | 500 | 625 | 375 | 1,000 |
| C. (-) Opening Stock | 200 | 1,180 | 1,080 | 1,240 | 2,000 | 500 | 625 | 375 |
| D. Units to be produced (A+ B -C) | 1,980 | 2,260 | 2,320 | 3,340 | 500 | 1,125 | 1,000 | 1,375 |

**Illustration 3.**

The following are the estimated sales of a company for eight months ending 30.11.2017:

| **Months** | **Estimated Sales (units)** | |
|---|---|---|
| Apr | 2017 | 12,000 |
| June | 2017 | 13,000 |
| May | 2017 | 9,000 |
| July | 2017 | 8,000 |
| Aug | 2017 | 10,000 |
| Sep | 2017 | 12,000 |
| Oct | 2017 | 14,000 |
| Nov | 2017 | 12,000 |

As a matter of policy, the company maintains the closing balance of finished goods and raw materials as follows: Stock item Closing balance of a month Finished Goods 50% of the estimated sales for the next months Raw Materials Estimated consumption for the next month.

Every unit of production requires 2 kg. of raw materials costing Rs. 5 per kg. Prepare Production Budget (in units) and Raw Materials Purchase Budget (in units and cost) of the company for the half year ending 30 Sep, 2017.

**Solution:**

**PRODUCTION BUDGET (IN UNITS)**

**For the half – year ending 30th the Sep. 2017**

| Month | Sales | Closing Balances 50% of the Estimated Sales For the next month | Opening Balances | Production |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 = (2) + (3) - (4) |
| 2017 | | | | |
| April | 12,000 | 6,500 | 6,000 | 12,500 |
| May | 13,000 | 4,500 | 6,500 | 11,000 |
| June | 9,000 | 4,000 | 4,500 | 8,500 |
| July | 8,000 | 5,000 | 4,000 | 9,000 |
| August | 10,000 | 6,000 | 5,000 | 11,000 |
| September | 12,000 | 7,000 | 6,000 | 13,000 |
| | 64,000 | | | 65,000 |

**PURCHASE BUDGETS (IN COST & UNITS)**

**For the year ending 30th September, 2017**

| Month | Production In units | Consumption (kg) @ 2 kg per unit | Closing Balance | Opening Balance | Purchase In kg | Rate Rs | Amount Rs |
|---|---|---|---|---|---|---|---|
| 2017 | | | | | | | |
| April | 12,500 | 25,000 | 22,000 | 25,000 | 22,000 | 5 | 1,10,000 |
| May | 11,000 | 22,000 | 17,000 | 22,000 | 17,000 | 5 | 85,000 |
| June | 8,500 | 17,000 | 18,000 | 17,000 | 18,000 | 5 | 90,000 |
| July | 9,000 | 18,000 | 22,000 | 18,000 | 22,000 | 5 | 1,10,000 |
| August | 11,000 | 22,000 | 26,000 | 22,000 | 26,000 | 5 | 1,30,000 |
| September | 13,000 | 26,000 | 26,000 | 26,000 | 26,000 | 5 | 1,30,000 |
| | 65,000 | 1,30,000 | | | | | 6,55,000 |

### (C) Production Cost or Cost of Production Budget

After determining the volume of production, it is necessary to determine the cost of producing this output. It may be further classified into :

#### (1) Material Budget

Materials requirement budget, commonly known as materials budget, assist the purchase department in suitably planning the purchases, fixing the maximum and minimum levels of materials, components, etc. The timing and amount of funds which will be needed to make purchases are also known with the help of the materials budget.

The preparation of material budget includes the following :

(i) The preparation of estimates of raw material requirements

(ii) Scheduling of purchases in required quantities at with appropriate time

(iii) Controlling of raw material inventories

**(2) Labour Budget**

The labour budget tells about the estimates of labour requirements essential for carrying out the budgeted output. The budget gives details regarding direct labour cost and labour hours. The rates of pay, allowances, bonus, etc., of each category are then considered and labour cost to be set for each budget centre is calculated by multiplying the wage rate with the labour hours for the number of units of products budgeted.

**(3) Plant Utilization Budget**

It is prepared for estimation of plant capacity to meet the budgeted production during the budgeted period. It is a forecast of plant capacities available for fulfilling production requirements as specified in production budget. This budget is expressed in working hours or other convenient units.

**(D) Overhead Budget**

It may be classified as follows :

**(1) Factory Overhead or Manufacturing Overhead Budget**

The following steps are required to be taken to prepare the manufacturing overhead budget:

(i) Classification of expenditure into fixed, variable and semi-variable and collection thereof in accordance with a schedule of standing order numbers;

(ii) Departmentalization of expenditure;

(iii) Determining the level of activity for setting the overhead rates; and level of activity may be actual, budgeted level or of normal capacity; and

(iv) Establishing the variable overhead rates per unit of production or productive hour.

**(2) Sales and Distribution Budget**

This budget includes all expenses relating to sales, advertising, delivery of goods to customers, etc. It is better if such costs are analyzed according to products, types of customers, territories and the sales department in the organization itself. The responsibility of preparation of this budget rests with the executives of sales department. The preparation of the budget depends upon the analysis of the market situations by the management, companies is advertising policies, research programmes and the fixed and variable elements.

**(3) Administration Overhead Budget**

The budget covers expenses of all administrative offi and management salaries. A careful analysis of the needs of all the administrative department of the enterprise is very necessary. The minimum requirement for the effi operation of each department can be estimated on the basis of the expenditure incurred in, and after a study of the plans and responsibilities of each administrative department for the budget period. The budget for the entire administrative division will be prepared by summing up the separate budgets of all administrative departments.

**(4) Research and Development Budget**

Research and development expenditure are to be incurred so that the products or methods of production do not become obsolete. The research and development budget is the forecast of all such expenses.

## (E) Financial Budget

It is classified into the following :

### (1) Cash Budget

A cash budget is a forecast of the financial position of the organization according to time period for a specific duration of time. Cash forecast can be made for a short period or even for a long duration. The cash budget plays an important part in coordinating and in servicec efficient working of the company. The budget is prepared by the chief accountant.

This budget is usually of two parts giving detailed estimates of (i) cash receipts and (ii) cash disbursements. Estimates of cash-receipts are prepared on a monthly basis and depend upon estimated cash-sales, collections from debtors and anticipated receipts from other sources such as sale of assets, borrowings, etc. Estimates of cash disbursements are based on estimated cash purchases, payments to creditors, employees remuneration, bonus, advances to suppliers, budgeted capital expenditure for expansion, etc.

The main objective of preparing cash budget are :

(i) The probable cash position, as a result of planned operation, is assessed; and thus the excess or shortage of cash becomes clear. This helps in arranging short-term borrowings in advance to meet the situations of shortage of cash or making investments when cash is in exess.

(ii) Cash can be coordinated in relation to total working capital, sales investment and debt.

(iii) A sound basis for credit for current control of cash position is established.

(iv) The effect of sudden and seasonal requirements, large stocks, delay in collection of receipts, etc., on the cash position of the organization is revealed and things become under to the management.

A cash budget can be prepared by any of the following methods:

(i) Receipts and Payments Method

(ii) Adjusted Profit and Loss Account Method

(iii) Balance Sheet Method.

(i) **Receipts and Payments Method:** In this method the cash receipts from various sources and cash payments to various agencies are estimated. Delay in cash receipts and lag in payments are taken into account for making estimates. Since this method is based on the concept of cash accounting, hence accruals and adjustments, obviously cannot find place in the preparation of cash budgets. The opening balance of cash of a period and the estimated cash receipts are added and from this, the total of estimated cash payments are deducted to find out the closing balance.

(ii) **Adjusted Profit and Loss Account Method:** In this method the opening balance is adjusted with the anticipated increases or decreases in current assets and liabilities, provision for depreciation, special receipts and the net profit for the year before taxation and appropriations. From the aggregate amount of these, the estimated taxation and dividends payable, expenditure on fixed assets and special payments, if any, are deducted. The resulting balance is the estimated cash in hand at the end of the budget period.

The vital point of difference between receipts and payments method and adjusted profit and loss method is that the former takes into account only cash transactions, while the latter considers non-cash items as it reverses all accruals. Further, adjusted profit and loss method gives only a broad idea of the cash position whereas receipts and payments method furnishes the maximum possible details.

(iii) **Balance Sheet Method:** Under this method of preparing cash budget a forecast balance sheet is prepared as at the end of the budget period with all items of assets and liabilities

except cash balance which is arrived at as a balancing figure. The magnitude of the two sides of the balance sheet excluding cash balance determines whether the bank account would show a debit or credit balance, i.e., cash balance in the bank or bank overdraft.

**Illustration 4.**

Prepare a cash budget for the months of May, June and July 2017 on the basis of following information:

**Income & Expenditure Forecast**

| MONTHS | CREDIT SALES (Rs) | CREDIT PURCHASES (Rs) | WAGES (Rs) | MANUFACTURING EXPENSES (Rs) | OFFICE EXPENSES (Rs) | SELLING EXPENSES (Rs) |
|---|---|---|---|---|---|---|
| March | 60,000 | 36,000 | 9,000 | 4000 | 2000 | 4000 |
| April | 62,000 | 38,000 | 8,000 | 3000 | 1500 | 5000 |
| May | 64,000 | 33,000 | 10,000 | 4500 | 2500 | 4500 |
| June | 58,000 | 35,000 | 8500 | 3500 | 2000 | 3500 |
| July | 56,000 | 39,000 | 9500 | 4000 | 1000 | 4500 |
| August | 60,000 | 34,000 | 8000 | 3000 | 1500 | 4500 |

1. Cash balance on 1st May, 2017 is Rs 8,000.
2. Plant costing Rs 16,000 is due for delivery in July, payable 10% on delivery and the balance after 3 months.
3. Advance tax of Rs 8,000 each is payable in march and June.
4. Period of credit allowed by suppliers – 2 months and to customers – 1 month.
5. Lag in payment of manufacturing – ½ months.
6. Lag in payment of office and selling expenses – 1 month.

**Solution:**

**CASH BUDGET**

| PARTICULARS | May | June | July |
|---|---|---|---|
| Opening balance | 8000 | 13,750 | 12,250 |
| CASH RECEIPTS: | | | |
| Debtors | 62,000 | 64,000 | 58,000 |
| | 70,000 | 77,750 | 70,250 |
| CASH PAYMENTS: | | | |
| Creditors Wages | 36,000 | 38,000 | 33,000 |
| Manufacturing expenses | 10,000 | 8,500 | 9,500 |
| Office expenses Selling expenses Plant | 3,750 | 4,000 | 3,750 |
| Advance tax TOTAL | 1,500 | 2,500 | 2,000 |
| Closing balance | 5,000 | 4,500 | 3,500 |
| | - | - 8,000 | 1,600 |
| | - 56,250 | 65,500 | - 53,350 |
| | 13,750 | 12,250 | 16,900 |

**(2) Capital Expenditure Budget**

The budget functions as a guidance as to the amount of capital that may be needed for the procurement of capital assets during the budget period. The budget is prepared after taking into account the available productive capacities, probable reallocation of existing assets and possible improvement in production techniques. If necessary, separate budgets may be prepared for each item of assets.

## THE FINAL OR MASTER BUDGET

The Master budget is "a summary of the budget schedules in capsule form made for the purpose of presenting, in one report the highlights of budget forecast".

CIMA, London, defines it as " the summary budget, incorporating its component functional budgets, which is finally approved, adopted and employed."

Thus, it is a summary budget which incorporates all other budgets. It sets out the plan of operations for all departments in considerable detail for the budget period. The budget may take the form of Profit & Loss Account and Balance Sheet and the budgeted cash flow at the end of the budget period.

The master budget is prepared by the budget committee on the basis of coordinated functional budgets and becomes the target of the company during the budget period once it is finally approved. This budget acts as the company's individualized key to successful financial planning and control. It provides the basis of computing the effect of any changes in any phase of operations, such as sales volume, product mix, prices, labour costs, material costs or change in facilities. It segregates income, costs and profits by areas of responsibility. Master budget presents all this information to the depth appropriate for the top management action. It also shows the gross and net profit and the important accounting ratios.

In a master budget, costs are classified and summarized by types of expenses as well as by departments. This information extends the range of usefulness of master budget. It is considered as the best mode of understanding the company's micro- economic position by making things clear and more transparent for the forthcoming budget period.

## FIXED BUDGETS

A budget prepared on the basis of standard or fixed level of activity is known as fixed budget. It does not change with a change in the level of activities. Therefore, it becomes an unrealistic measuring yardstick as the level of the activity actually attained does not conform to one assumes for the budgeting purposes. The management will not be in a position to assess the performance of different departmental heads on the basis of budget prepared by them because they can serve as measuring sticks only when the actual level of activity corresponds to the budgeted level of activity. On account of these defects of fixed budgeting, it has become a common practice in with of concerns where sales and production cannot be estimated accurately to give up the concept of fixed budgeting as it does not provide for automatic adjustments with the volume changes. Therefore, these budgets are useful only for fixed expenses.

## FLEXIBLE BUDGETS

The Chartered Institute of Management Accountants, London defines flexible budget as a budget which by recognizing different cost behaviour patterns, is designed to change as volume of output changes. It is a budget prepared in a manner so as to give the budgeted cost for any level of activity. Recognising the difference between fixed, semi-fixed and variable cost, it is designed to change in relation to the activity attained. It is designed to furnish budgeted cost at any level of activity attained.

Flexible budgeting is desirable in the following cases:

(i) Where the level of activity during the year varies from period to period, either due to the seasonal nature of the industry, or to the variation in demand.

(ii) Where the business is a new one and it is difficult to foresee the demand.

(iii) Where the undertaking is suffering from the shortage of some factor/factors of production, such as materials, labour, plant capacity, etc.

The main characteristic of flexible budget is that it shows the expenditure appropriate to various levels of output. If the volume changes the expenditure appropriate to it can be established from the flexible budget for comparison with actual expenditure as a means of control. It provides a logical comparison of budget allowances with the actual cost. When flexible budget is prepared, actual cost of actual activity is compared with budgeted cost of actual activity, i.e., two things to a the same base. For preparation of flexible budget, items of cost have to be analysed individually to determine how different items of cost behave to change in volume.

Therefore, in-depth cost analysis and cost identification is required for preparation of flexible budget.

Following are the striking features of flexible budgets:

(i) They are prepared for a range of activity instead of a single level.

(ii) They provide a very dynamic basis for comparison because they are automatically geared to changes in volume.

(iii) They provide a tailor-made budget for a particular volume.

(iv) These are based upon an adequate knowledge of cost behaviour pattern.

## Preparation of Flexible Budget

A budget prepared in a manner so as the budgeted cost complies with for any level of activity is known as flexible budget. A flexible budget is the opposite of a static budget. It is prepared for a range of activity instead of a single level. Fixed costs are related mostly to the period of time, and are not concerned with the level of production or volume of sales. Variable costs vary directly and proportionately with the volume of activity. At zero level activity, the variable costs will not be in existence. The semi-variable costs occupy an "in - between" position between the fixed and variable costs. Apart of these costs is variable and the rest if fixed. They are fixed to a certain level of activity and then rise with increase in the level of the activity but not in the same proportion as the activity increases. As a matter of fact budget for each department can be prepared on the lines of flexible budget by classifying costs into 'fixed' and 'variable'. In order to appropriately fix up the costs for different volumes, the degree of variability for each item cost at various levels of output could be evolved on the basis of past experience. This requires a close study of the individual items of expenditure, their nature and variability.

**Steps involved are:**

1. Decide the range of activity to develop a flexible budget.
2. Determine the cost behaviour - fixed, variable and semi-variable to each element of cost.
3. Select the activity level (generally in terms of output)
4. Prepare the budget at each activity level.

**Illustration 5.**

Appex Co. can produce 4,000 units of a certain product at 100% capacity. The following information is obtained from the books of account: .

| **Units produced** | **April** | **May** |
|---|---|---|
| | 2,800 | 3,600 |
| | Rs. | Rs. |
| Power. | 1,800 | 2,000 |
| Repairs & Maintenance | 500 | 560 |
| Indirect labour | 700 | 900 |
| Consumable stores | 1,400 | 1,800 |
| Salaries | 1,000 | 1,000 |
| Inspection | 200 | 240 |
| Depreciation | 1,400 | 1,400 |

Direct material cost per unit is Re. 1, and direct wages per hour is Rs.4. The rate of production per hour is 10 units.

Compute the cost of production at 100%, 80% and 60% capacity showing the variable, fixed and semi- fixed items under the flexible budget.

**Solution:**

Statement Showing Cost of Production under Flexible Budget

| **Items of Cost** | **60% Capacity** | **80% Capacity** | **100% Capacity** |
|---|---|---|---|
| | 2,400 Units | 3,200 Units | 4,000 Units |
| Variable Cost | Rs. | Rs. | Rs. |
| Direct Materials at Rs 1 per unit | 2,400 | 3,200 | 4,000 |
| Direct Wages at Rs 4 per Unit | 960 | 1,280 | 1,600 |
| Prime Cost | 3,360 | 4,480 | 5,600 |
| Factory Overheads Variable | | | |
| Indirect Labour | 600 | 800 | 1,000 |
| Consumable Stores | 1,200 | 1,600 | 2,000 |
| | 1,800 | 2,400 | 3,000 |
| Semi- Variable: | | | |
| Power-Fixed Rs 1,100 variable @ 25 paise per unit | 1,700 | 1,900 | 2,100 |
| Inspection-Fixed Rs 60 variable 25 paise per unit | 180 | 220 | 260 |
| Repair & Maintenance Fixed Rs 290 Variable 7.5 paise per unit | 470 | 530 | 590 |
| | 2,350 | 2,650 | 2,950 |
| Depreciation | 1,400 | 1,400 | 1,400 |
| Salaries | 1,000 | 1,000 | 1,000 |
| | 2,400 | 2,400 | 2,400 |
| Total Cost of Production | 9,910 | 11,930 | 13,950 |

**Illustration 6.**

X Ltd. has provided you the following information:

| Production capacity<br>Costs (Rs. Lakhs) | 80% | 60% |
|---|---|---|
| Direct Materials | 2.00 | 1.50 |
| Direct Labour | 2.00 | 1.50 |
| Direct expenses | 1.60 | 1.20 |
| Manufacturing Expenses | 4.00 | 3.85 |
| Administrative Expenses | 4.00 | 3.80 |
| Selling Expenses | 4.00 | 3.75 |
| Sales | 20.00 | 15.00 |
| Prepare a flexible budget at 50% and 90% capacity. | | |

**Solution:** (Rs. in lakhs)

| Particulars | | Capacity Level | | | |
|---|---|---|---|---|---|
| | | 50% | 60% | 80% | 90% |
| A | Sales | 12.5 | 15.00 | 20.00 | 22.50 |
| B | Variable Cost of Sales: | | | | |
| | (a) Direct Materials | 1.25 | 1.50 | 2.00 | 22.50 |
| | (b) Direct Labor | 1.25 | 1.50 | 2.00 | 2.25 |
| | (c) Direct E4xpenses | 1.00 | 1.20 | 1.60 | 1.80 |
| | (d) Mfg. Expenses | .375 | 0.45 | 0.60 | .675 |
| | (e) Adm. Expenses | .500 | 0.60 | 0.80 | .900 |
| | (f) Selling Expenses | .625 | 0.75 | 1.00 | 1.125 |
| | | 5.00 | 6.00 | 8.00 | 9.00 |
| C | Contribution (A - B) | 7.5 | 9.00 | 12.00 | 13.56 |
| D | Fixed Costs: | | | | |
| | (a) Mfg. Expenses | 3.4 | 3.4 | 3.4 | 3.4 |
| | (b) Adm Expenses | 3.2 | 3.2 | 3.2 | 3.2 |
| | (c) Selling Expenses | 3.0 | 3.0 | 3.0 | 3.0 |
| | | 9.6 | 9.6 | 9.6 | 9.6 |
| E | Net Profit before tax (C - D) | (2.1) | (.60) | 2.4 | 3.9 |

**Working Note:**

**Statement showing the Calculation of Fixed and Variable Expenses** (Rs. in lakhs)

| (A) Particulars | (B) Variable Costs at 20% | (C) = (B) × 80/20 Variable Costs at 80% | (D) Total cost at 80% | (E) = (D) - (C) Fixed Cost |
|---|---|---|---|---|
| Direct Material | .50 | 2.00 | 2.00 | Nil |
| Direct Labour | .50 | 2.00 | 2.00 | Nil |
| Direct Expenses | .40 | 1.60 | 1.60 | Nil |
| Mfg. Expenses | .15 | 0.60 | 4.00 | 3.4 |
| Adm. Expenses | .20 | 0.80 | 4.00 | 3.2 |
| Selling Expenses | .25 | 1.00 | 4.00 | 3.0 |
| | 2.00 | 8.00 | 17.60 | 9.6 |

**Illustration 7.**

For the production of 10,000 electric automatic irons the following are the budgeted expenses :

| | (Per unit ) Rs |
|---|---|
| Direct Material | 60 |
| Direct Labour | 30 |
| Variable overhead | 25 |
| Fixed overhead (Rs.1,50,000) | 15 |
| Variable expenses (direct) | 5 |

| | |
|---|---|
| Selling expenses (10% fixed) | 15 |
| Administration expenses (Rs 50,000 rigid for all levels of production) | 5 |
| Distribution expenses (20%) fixed | 5 |
| **The total cost of sale per unit** | **160** |

Prepare a budget for the production of 6,000 and 7,000 and 8,000 irons showing distinctly the marginal cost and the total cost.

**Solution:**

**Flexible Budget of Electrical Automatic Irons**

| Particulars | 6,000 Units | | 7,000 Units | | 8,000 Units | |
|---|---|---|---|---|---|---|
| | Total Rs | Per Unit Rs | Total Rs | Per Unit Rs | Total Rs | Per Unit Rs |
| Marginal Cost: | | | | | | |
| Direct Materials | 3,60,000 | 60.00 | 4,20,000 | 60,000 | 4,80,000 | 60,000 |
| Direct Labour | 1,80,000 | 30.00 | 2,10,000 | 30.00 | 2,40,000 | 30.00 |
| Direct Variable expenses | 30,000 | 5.00 | 35,000 | 5.00 | 40,000 | 5.00 |
| Variable Overheads: | | | | | | |
| Production | 1,50,000 | 25.00 | 1,75,000 | 25.00 | 2,00,000 | 25.00 |
| Selling | 81,000 | 13.50 | 94,500 | 13.50 | 1,08,000 | 13.50 |
| Distribution | 24,000 | 4.00 | 28,000 | 4.00 | 32,000 | 4.00 |
| Marginal Cost: | 8,25,000 | 137.50 | 9,62,500 | 137.50 | 11,00,000 | 137.50 |
| Fixed Production Overhead | 1,50,000 | 25.00 | 1,50,000 | 21.43 | 1,50,000 | 18.75 |
| Administration Overheads | 50,000 | 8.33 | 50,000 | 7.14 | 50,000 | 6.25 |
| Selling Overheads | 15,000 | 2.50 | 15,000 | 2.14 | 15,000 | 1.88 |
| Distribution Overheads | 10,000 | 1.67 | 10,000 | 1.43 | 10,000 | 1.25 |
| Fixed Cost | 2,25,000 | 37.50 | 2,25,000 | 32.14 | 2,25,000 | 28.13 |
| **Total Cost (Marginal plus Fixed Cost)** | **10,50,000** | **175.00** | **11,87,500** | **169.64** | **13,25,000** | **165.63** |

**Working notes :**

| | Selling Expenses (Rs.) | Distribution Expenses (Rs.) |
|---|---|---|
| Total for 10,000 units | 1,50,000 | 50,000 |
| Variable: 90% & 80%, respectively | 1,35,000 | 40,000 |
| Variable Expenses per unit | 13.50 | 4.00 |
| **Fixed Expenses 10% and 20% of total, respectively** | **15,000** | **10,000** |

**Illustration 8.**

The budget manager of Jaypee Electricals Ltd. is preparing a flexible budget for the accounting year commencing from 1st April, 2017. The company produces on product- a component – peekay. Direct material costs Rs. 7 per

unit. Direct labour averages Rs. 2.50 per hour and requires 1.60 hours to produce one unit of peekay. Salesmen are paid a commission of Re. 1 per unit sold. Fixed-selling and administration expenses amount to Rs. 85,000 per year. Manufacturing overheads under specified condition of volume have been estimated as follows:

Normal capacity of production of the company is 1,25,000 units. Prepare a budget of total cost at 1,40,000 units of output.

| Volume of production (Units) | 1,20,000 | 1,50,000 |
|---|---|---|
| Expenses: | Rs. | Rs. |
| Indirect material | 2,64,000 | 3,30,000 |
| Indirect labour | 1,50,000 | 1,87,500 |
| Inspection | 90,000 | 1,12,500 |
| Maintenance | 84,000 | 1,02,000 |
| Supervision | 1,98,000 | 2,34,000 |
| Depreciation - plant and equipment | 90,000 | 90,000 |
| Engineering services | 94,000 | 94,000 |
| **Total manufacturing overheads** | **9,70,000** | **11,50,000** |

**Solution:**

**Jaypee Electricals Ltd.**

**BUDGET FOR THE YEAR ENDING**

| **Normal Capacity 1,25,000 units** | **Rate per unit** | **Output 1,40,000 units** |
|---|---|---|
| Variable Costs | Rs. | Rs . |
| Direct Materials | 7.00 | 9,80,000 |
| Direct Labour | 4.00 | 5,60,000 |
| Salesmen's Commission | 1.00 | 1,40,000 |
| Indirect Materials | 2.00 | 3,08,000 |
| Indirect Labour | 1.25 | 1,75,000 |
| Inspection | 0.75 | 1,05,000 |
| **Total Variable Costs (1)** | | **22,68,000** |

**Semi-Variable Costs**

Maintenance (WN : 1)

| Fixed | | 12,000 |
|---|---|---|
| Variable | 0.60 | 84,000 |
| Supervision (WN : 2) | | |
| Fixed | | 54,000 |
| Variable | 1.20 | 1,68,000 |
| **Total Semi-Variable Costs (2)** | | **3,18,000** |

**Fixed Costs**

| | |
|---|---|
| Selling & Administration Expenses | 85,000 |
| Depreciation: Plant and Equipment | 90,000 |
| Engineering Service | 94,000 |
| **Total Fixed Costs (3)** | **2,69,000** |
| **Total Costs (1) + (2) + (3)** | **28,55,000** |

**Working Notes:**

1. Maintenance Cost Variable per unit = Change in Cost / Change in Output
   = 18,000/30,000 = Re 0.60 per unit
   Total Variable Cost for 1,20,000 units= 1,20,000 × 0.60 = Rs 72,000
   Total Fixed Costs = 84,000 -72,000 = Rs 12,000
2. Supervision Cost Variable Cost per unit= Change in Cost / Change in Output
   = 36,000 /30,000 = Rs 1.20 per unit
   Total Variable Cost for 1,20,000 units= 1,20,000 × 1.20 = Rs 1,44,000
   = 1,98,000 - 1,44,000 = Rs 54,000

## CONTROL RATIOS

Ratios are used to determine the production efficiency and the costs. It tells the ratio of actual level of activity attained, degree of efficiency attained and the actual capacity utilized during a budgeted period. Three important ratios are commonly used by the management to find out whether the deviations of actuals from budgeted results are favourable or otherwise.

These ratios are expressed in terms of percentages. They are:

**(a) Activity Ratios:** It is a measure of the level of activity attained over a period. This ratio expresses relationship between standard hours for actual production and budgeted hours. The formula is:

$$\text{Activity Ratio} = \frac{\text{Standard hours for actual output}}{\text{Budgeted Standard hours}} x100$$

**(b) Capacity Ratio:** This ratio indicates whether and to what extent budgeted hours of activity are actually utilized. The object is to show whether or not the available hours are being fully utilized.

The formula is :

$$\text{Capacity Ratio} = \frac{\text{Actual Hours Works}}{\text{Budgeted Hours}} x100$$

**(c) Efficiency Ratio or Productivity Ratio:** This ratio is an important measure of the level of efficiency attained by the productive processes. It indicates the efficiency attained in producing a stated output. The formula is Standard Hrs for Actual Production

$$\text{Efficiency Ratio} = \frac{\text{Standard hours for actual output}}{\text{Actual Hours Worked}} x100$$

**(d) Calendar Ratio:** This ratio indicates if the actual working days have been equal to more than or less than the budgeted number of days in the period under study. The formula is:

$$\text{Calendar Ratio} = \frac{\text{Actual working days in the period}}{\text{Working days on the basis of budget during the period}} x100$$

**Illustration 9**

Activity ratio of the company is 80% and its capacity ratio is 120%. Find out its efficiency ratio.

**Solution:**

Activity ratio = Capacity ratio x Efficiency ratio

80 = 120 x Efficiency ratio

Efficiency ratio = 80 /120

= 66.67%

## ZERO-BASE BUDGETING

Zero-base budgeting is a new technique designed to revitalize budgeting. A company should not only make decisions about the proposed new programmes, but it should also from time to time review the appropriatness of the existing programmes. Zero base budgeting is one of the such techniques of such an appraisal.

As the term suggests, it examines a programme or function or responsibility from scratch. The manager proposing this activity has, therefore, to prove that the activity is essential and the various amounts asked for are really reasonable taking into account the volume of activity.

CIMA defines zero-base budgeting as "a method of budgeting whereby all activities are re-evaluated each time a budget is set. Discrete levels of each activity are valued and a combination chosen to match funds available."

Zero base budgeting is a revolutionary concept of planning future activities, and it is sharply contradictory conventional budgeting. Zero base budgeting, may be better termed as "De nova budgeting" or budgeting from the beginning without any reference to any base past budget and actual happening. It is a technique which complements and links the existing planning, budgeting and review processes. It identifies alternative and efficient methods of utilising limited resources in effective attainment of selected benefits. It is a flexible management approach which provides a credible rationale for reallocating resources by focusing on systematic review and justification of the funding and performance levels of current programmes of activities.

Zero-base budgeting is based on the premise that every rupee of expenditure requires justification. The traditional budgeting approach includes expenditures of previous year which are automatically incorporated in new budget proposals and only increments are subjected to debate. Zero-base budgeting assumes that a responsibility-centre manager has had no previous expenditure.

**Important features of zero-base budgeting are:**

(i) Concentration of efforts is not simply on "how much" a unit will spend but "why" it needs to spend.

(ii) Choices are made on the basis of what each unit can offer for a specific cost.

(iii) Individual unit's objects are linked to corporate targets.

(iv) Quick budget adjustments can be made if during the operating year costs are required to maintain expenditure level.

(v) Alternative ways are considered.

(vi) Participation of all levels in decision-making.

## PERFORMANCE BUDGETING

Performance budgeting involves evaluation of the performance of an organization in the context of both specific as well as overall objectives of the organization. This requires complete clarity about both the short-term as well as long-term organizational objectives. The responsibility of the various levels of management should be predetermined in terms of results expected from them and the authority vested in them. In other words performance budgeting requires fixing of the responsibility of each executive in organization and the continuous appraisal of his performance. It is, therefore, considered to be synonymous with responsibility accounting.

The purpose of performance budgeting is to focus attention upon the work to be done, services to be rendered rather than things to be spent for or acquired. In performance budgeting, emphasis is shifted from control of inputs to effi and economic management of functions and objectives. It takes a system view of activities by trying to associate the inputs of the expenditure with the output of accomplishment in terms of services, benefi etc. In performance budgeting, the objectives of the budget makers and setting the task and subtask for accomplishment of the defi objectives are to be clearly decided well in advance before budgetary allocations of inputs are made. Each homogenous function is broken down into a number of subordinate functions.

Performance budgeting, is, therefore, looked upon as a budget based on functions, activities and projects and is linked to the budgetary system based on objective classification of expenditure.

The basic features of performance budgeting are :

(1) Budget is prepared for each managerial level. The manager concerned is made responsible and held accountable for his performance at his level over the specified period of time.

(2) The jurisdiction of the authority and responsibility for different costs controllable by the executive concerned is fixed up. In other words, each individual is held responsible for only such costs which are controllable by him.

(3) The concerned executive is vested with the requisite authority required for the responsibility entrusted to him.

The main purposes of performance budgeting are:

1. To review at every stage, and at ever level of the organization, so as to measure progress towards the short-term and long-term objectives.
2. To interrelate physical and financial aspects of every programme, project or activity.
3. To facilitate more effective performance audit.
4. To assess the effects of the decision-making of supervisor to the middle and top managers.
5. To bring annual plans and budgets in line with the short- and long-term plan objectives.
6. To present a comprehensive operational document showing the complete planning fabric of the programmes and prospects with their objectives interwoven with the financial and physical aspects.

The preparation of performance budget requires the following steps for achieving the desired goals efficiently:

(i) An organization chart should be prepared giving the responsibility and authority to each level of management.

(ii) The performance budget should not be imposed from above. The concerned executive should be taken into confidence while preparing the budgets relating to his area of operation.

(iii) The concerned executive should be continuously fed with the periodical reports, statements, etc., showing the budgeted and actual performance so that remedial measures may be taken during the relevant period.

(iv) The statements and reports mentioned above should be prepared regularly, accurately and timely.

However, performance budgeting has certain limitations such, as difficulty in classifying programmes and activities, problems of evaluation of various schemes, and relegation to the background of important programmes. Moreover, the technique enables only quantitative evaluation scheme and sometimes the needed results cannot be measured.

## BUDGET VARIANCE

A budget variance is the difference between the budgeted or baseline amount of expense or revenue, and the actual amount. The budget variance is favourable when the actual revenue is higher than the budget or when the actual expense is less than the budgeted expense.

A budget variance is frequently caused by bad assumptions or improper budgeting, so that the baseline against which actual results are measured are not reasonable. Those budget variances that are controllable are usually expenses, which are committed expenses, though a large portion of expenses are those expenses which cannot be altered in the short run, whereas controllable expenses are discretionary expenses, which can be eliminated without an immediate adverse impact on profits.

Budget versus actual analysis can provide insight as to what really happened in your business against what was expected. A budget is never going to be exact. Budgets typically uses rounded and estimated figures which are simply forecast. Analysis of budget help us to provide insight for positive or negative variance. Negative variances can be caused by an efficiency problem, utilization problem, or due to unexpected or unavoidable occurrence whereas positive variance can provide insight as to why you did so well and what processes are working for your business.

Managerial uses of variance analysis are:

1. Costs can be controlled as it brings into focus controllable and uncontrollable costs along with their causes.
2. The causes of variance are highlighted making it possible to take remedial measures in time.

### Importance of Budget Variance Analysis

1. It aids efficient budgeting activity as management wishes to have lower deviations from the planned budget.
2. It acts as a control mechanism and helps management look into possible ways of how such deviation can be avoided.
3. It facilitates assigning responsibility and implements control mechanism on departments where it is required.
4. It helps in identifying needed changes in the overall strategies, i.e., to revaluate the company's product line or target-customer base.
5. Without a variance analysis, a budget ceases to be a working document.

### Limitations of Budget Variance Analysis

1. If the budgeting is not made taking into consideration the detailed analysis of each factor, its exercise would be loosely done, which is bound to deviate from actual numbers.
2. It is an activity based on financial results which are released much later after quarterly closing, there may be a time gap which may affect the remedial action taking activity to a certain extent.

### LESSON ROUND-UP

- A budget is a precise statement of the financial and quantitative implications of the course of action that management has decided to follow in the immediate next period of time.
- Forecasting may be defined as analysis and interpretation of the future conditions in relation to operations of the enterprise. It involves looking ahead and projecting the future course of events.
- Budgeting is the complete process of designing, implementing and operating budgets. The main emphasis in this is short-term budgeting process involving the provision of resources to support plans which are being implemented.
- CIMA, London, defines budgetary control as "the establishment of budgets relating to the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision".
- The budget manual is a written document or booklet which specifies the objectives of the budgeting organization and procedures.

- Budget Period means the period for which a budget is prepared and employed.
- The budget key factor or principal budget factor is described by the CIMA London terminology as: "a factor which will limit the activities of an undertaking and which is taken into account in preparing budgets".
- The Master budget is "a summary of the budget schedules in capsule form made for the purpose of presenting, in one report, the highlights of budget forecast".
- The Chartered Institute of Management Accountants, London defines flexible budget as a budget which by recognising different cost behaviour patterns, is designed to change as volume of output changes. It is a budget prepared in a manner so as to give the budgeted cost for any level of activity. It is a budget which by recognising the difference between fixed, semi-fixed and variable cost is designed to change in relation to the activity attained.
- Zero base budgeting is defined as "a method of budgeting whereby all activities are re-evaluated each time a budget is set. Discrete levels of each activity are valued and a combination chosen to match funds available."
- Performance budgeting, is looked upon as a budget based on functions, activities and projects and is linked to the budgetary system based on objective classification of expenditure.
- Performance budgeting involves evaluation of the performance of an organization in the context of both specific as well as overall objectives of the organization.
- A budget variance is the difference between the budgeted or baseline amount of expense or revenue, and the actual amount. The budget variance is favourable when the actual revenue is higher than the budget or when the actual expense is less than the budgeted expense.
- Negative variances can be caused by an efficiency problem, utilization problem, or due to unexpected or unavoidable occurrence whereas positive variance can provide insight why you did so well and what processes are working for your business.

## GLOSSARY

**Budget**

A budget is a precise statement of the financial and quantitative implications of the course of action

that management has decided to follow in the immediate next period of time.

**Flexible budget**

A budget prepared in a manner so as the budgeted cost complies with for any level of activity is known as flexible budget.

**Zero base budgeting**

Zero base budgeting is a method of budgeting whereby all activities are re-evaluated each time a budget is set. Discrete levels of each activity are valued and a combination chosen to match funds available."

**Performance budgeting**

Performance budgeting, is a budget based on functions, activities and projects and is linked to the budgetary system based on objective classification of expenditure

**Budget variance**

A budget variance is the difference between the budgeted or baseline amount of expense or revenue, and the actual amount.

## TEST YOURSELF

1. A budget has been defined as," A financial, quantitative interpretation of a policy to be pursued for that period to attain a given objective." Bring out, from the above definition, the essentials of a budget.
2. Discuss the steps necessary for the success of budgetary control system in an organization.
3. Differentiate between zero-based budgeting and traditional budgeting.
4. Explain briefly the concept of flexible budget.
5. What do you understand by performance budgeting. What steps are required to be taken for preparing performance budget.
6. Write a short note on
   (a) Zero base budgeting
   (b) Principal budget factor
   (c) Budget manual
   (d) Fixed budget
   (e) Control ratios
7. A firm at present operates at 60 % of its capacity. At this level and at the level of 50 % (utilization of capacity, the figures relating ti its operations could be summarized as stated below:

| | 50% | 60% |
|---|---|---|
| | Rs. | Rs. |
| Materials | 10,00,000 | 12,00,000 |
| Labour | 8,00,000 | 9,00,000 |
| Manufacturing overheads | 6,00,000 | 6,60,000 |
| Administrative overheads | 3,50,000 | 3,50,000 |
| Selling and distribution overheads | 4,50,000 | 5,00,000 |
| Research and development | 1,50,000 | 2,00,000 |
| Total | 33,50,000 | 38,10,000 |
| Profit | 1,50,000 | 3,90,000 |
| Sales | 35,00,000 | 42,00,000 |

   Draw up the budget at 80% utilization of capacity assuming that-
   1. Sales at this level can be maintained flat 5 % reduction in the selling price to reduce the cost of material;
   2. Economy in purchase of material will equal to 2-1/2% of the current amounts;
   3. The research and development expenditure will be pegged a Rs2,50,000 per annum; and
   4. Administrative overheads will require 10% increase.
8. With the following data for a 600% activity, prepare a budget at 80% and 100% activity: Production at 60% capacity - 600 units

   Materials Rs. 100 per unit

   Labour Rs. 40 per unit

   Expenses Rs. 10 per unit

Factory expenses Rs. 40,000 (40% fixed)

Administration expenses Rs. 30,000 (60% fixed)

9. The cost of a product at capacity level of 5,000 'A' below For a variation in capacity above or below this level, individual expenses vary as indicated under 'B' Below

| Particulars | 'A' (Rs) | 'B'(Rs) |
|---|---|---|
| Material costs | 2,50,000 | 100% varying |
| Labour costs | 1,50,000 | 100% varying |
| Power | 12,500 | 80% varying |
| Repair & maintenance | 20,000 | 75% varying |
| Stores | 10,000 | 100% varying |
| Inspection | 5,000 | 20% varying |
| Depreciation | 1,00,000 | 100% varying |
| Administrative overheads | 50,000 | 25 % varying |
| Selling overheads | 30,000 | 50% varying |

Find out the unit cost of product under each individual expense at budgeted production levels of 4,000 and 6,000 units

10. The Sales Director of a manufacturing Company reports that next year he expects to Sell 50,000 units of a particular product:

The Production Manager consults the storekeeper and casts his figures as follows: Two kinds of raw materials A and B are required for manufacturing the products.

Each unit of the product requires 2 units of A and 3 units of B.

The estimated opening balances at the commencement of the

next year: Finished Products: 10,000 units

Material A 12,000 units

Material B 15,000 units

The desirable closing balances at the end of the next year are:

Finished Products: 14,000 units

Material A 13,000 units

Material B 16,000 units

Draw up a quantitative chart showing materials purchase budget for the next year.

# Lesson 16 Ratio Analysis

***Key Concepts One Should Know***

- Financial Statement Analysis
- Liquidity
- Long term solvency

## *Learning Objectives*

**To understand the:**

- Analyses and interpretation of the basic concepts of Financial Statement
- Need and importance of Financial Statement Analysis
- Analyses and interpretation of financial ratios and their significance
- Objective and need of different types of ratios

## *Lesson Outline*

- Financial Statement Analysis, Objective and Need
- Users of Financial Data for Analysis
- Ratio Analysis – Definition, Uses, Advantages, Limitations
- Classification And Interpretation of Ratios
- Analyzing Liquidity, Leverage, Solvency and Efficiency
- Analyzing Profitability, Turnover and Operating Ratios
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

Financial Statement Analysis involves the examination of the relationship between financial statement numbers and the trends in those numbers over a period of time. From an investor's point of view, predicting the future is what financial statement analysis is all about, while from a management's standpoint, financial statement analysis is useful in helping anticipate future conditions and, more importantly, as a for starting point in planning actions that will improve the firm's future performance.

## FINANCIAL STATEMENT ANALYSIS

It is defined as the process of identifying the financial strengths and weaknesses of a firm by adeptly establishing a relationship between the details of the Balance Sheet and the Profit & Loss Account of the enterprises.

It is a study of the relationship among various financial factors active in a business, as disclosed by a single set of statement. Moreover, a series of statements helps the analyses to study the trends of these factors.

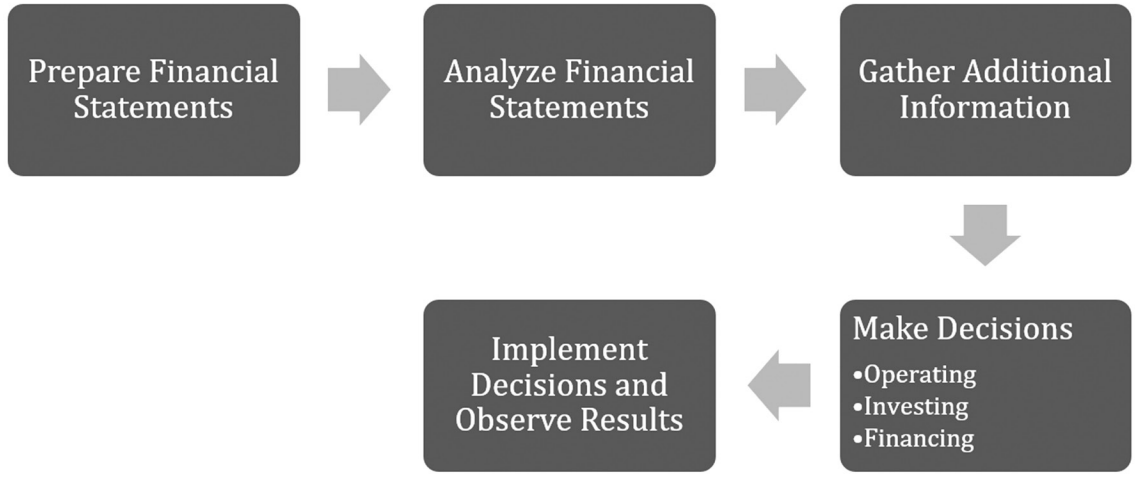
## OBJECTIVE OF FINANCIAL STATEMENT ANALYSIS

- To help in preparing budgets and analyze the past results with respect to earnings and financial position of the enterprise.
- To make inter-firm comparison of two or more firms easy.
- To study the short-term and long-term solvency of the firm with the help of financial statement analysis. Short-term solvency is useful for creditors and long-term solvency is useful for debenture holders etc.
- To enable the calculation of present earning capacity as well as future earning capacity of the enterprise.
- To enable the management to find out the overall as well as department wise department of the firm on the basis of available financial information.
- To provide reliable information about the available resources of the enterprise.
- To provide financial information regarding economic resources and obligations of a business enterprise.

## NEED FOR FINANCIAL STATEMENT ANALYSIS

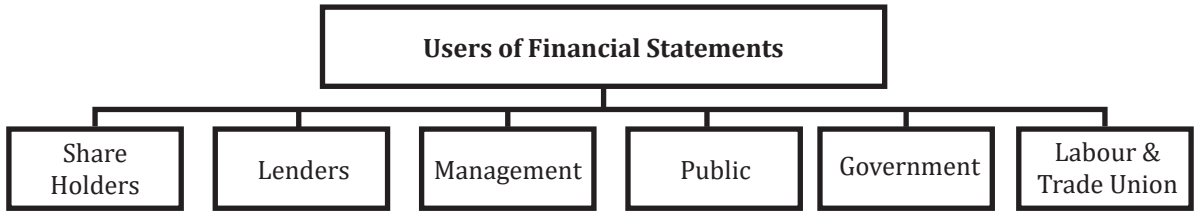
The preparation of financial statements is just the starting point of the process. After the statements are prepared, they are analyzed. Analysis of the summary information in the financial statement doesn't usually provide detailed answers to the management's questions but it does identify the areas in which further data should be generated. Decisions are then made and implemented, and the accounting system captures the results of these decisions so that new set of financial statements can be prepared. The process then repeats itself.

**Steps involved are:**




## USERS OF FINANCIAL STATEMENTS

The important objective of financial statement is to provide information for the use of following categories of persons:




### 1. Shareholders

Financial Statements act as an important source for the shareholders of the company. They can help in examining efficiency and effectiveness of the management and position, progress and prospects of the company.

### 2. Lenders

Short-term as well as long-term solvency information is needed by the lenders of the company to accurately assess the position of the business. Trade creditors are interested in short-term solvency, whereas debenture holders, long-term loan provider are interested in long-term solvency.

### 3. Management

Financial statements help the management in acquiring accurate information regarding the progress, position and prospects of business. They help the management in finding out the relationship between the working and progress of the business; and therefore, help the management in analyzing the trends in the present and future prospectus of the enterprise.

### 4. Public

Various groups such as financial analysts, lawyers, trade associations, researchers, financial press, labour unions are interested in the trend analysis, working and growth of a business. With the help of published financial information or statement of the enterprise, these interested groups are able to analyze and interpret, and therefore judge the working and growth of an enterprise.

### 5. Government

The growth of the economy is associated with the growth of the companies registered in the country. Any fraudulent activity or unscrupulous act affects the industry which percolates the growth of the economy. This can retard the economic growth of the country which would have an adverse effect on our national economy.

### 6. Labour and Trade Union

In India, workers are entitled to bonus under the payment of bonus act. Thus, the statement of Profit & Loss become greatly important to the workers.

### Sources and Techniques of Financial Statement Analysis

Financial statements are prepared on the basis of following:

A number of analytical tools are used in order to simplify complex financial information and make the financial statements more useful and reliable.

Following techniques are used for analyzing financial statements.

a) Comparative Statements
b) Common – Size Statements
c) Trend Analysis
d) Ratio Analysis
e) Fund Flow Analysis
f) Cash Flow Analysis

### Comparative Statements

Comparison of financial statements requires the comparative study of different items of financial statements of the same firm over two or more accounting periods are known as intra-firm comparison, and comparison with the financial data of another firm is known as inter-firm comparison.

Comparison and analysis of financial statements can be achieved by using:

a) **Comparative Income Statement**
Under comparative income statement analysis each item stated is represented as a percent of net sales.

b) **Comparative Balance Sheet**
Comparative balance sheets analysis is the study of the trend of the same item or group of items in two or more balance sheets of the same firm on different dates.

## Common Size Statement

In common size financial statements, all items on the statement are expressed as a percentage of the base item. Common size statements are useful for seeing how significant the components of the individual items of the statements are.

## Trend Analysis

Trend ratios can be defined as index numbers of the movements of the various financial items in the financial statements for a number of periods. It is a statistical device applied to the analysis of financial statements to reveal the trend of the items with the passage of time. Trend ratios show the nature and rate of movements in various financial factors. They provide a horizontal analysis of comparative statements and reflect the behaviour of various items with the passage of time.

## Fund Flow Analysis

Fund Flow Statement also referred to as statement of "Source and Application of Funds" presents the movement of funds and helps to understand the changes in the structure of assets, liabilities and equity capital. Whereas, the Balance Sheet provides only a summary of the assets and liabilities at a particular point of time. It reveals the financial state of any organization the assets side of a balance sheet shows the deployment of resources, while the liabilities side indicates its obligations. The statement of Profit and Loss shows the operating result of the business during a specified period. Both the statements provide the essential basic information about the financial activities of the business, but their usefulness is limited to analysis and planning process. From the management point of view, the usefulness of information provided by these income statements functions effectively and efficiently.

## Cash Flow Analysis

When it is required to explain to management the sources of cash and its uses during a particular period of time, a statement known as Cash Flow is prepared. The statement of cash flow reports the inflows (receipts) and outflows (payments) of cash and its equivalents of an organization during a particular period. It provides important information that compliments Statement of Profit & Loss and balance sheet. The statement of cash flow reports cash receipts and payments classified according to the entities' major activities - operating, investing and financing during the period. This statement reports a net cash inflow or net cash outflow for each activity and for the overall business. It also reports from where cash has come and how it has been spent. It explains the causes for the changes in the cash balance. In substance, the cash flow statement summarizes a myriad of specific cash transactions into a few categories for a business entity. The statement of cash flow reports the cash receipts, cash payments, and net changes in cash resulting from operating, investing and financing activities of an enterprise during a period in a format that reconciles the beginning and ending of cash balances.

# RATIO ANALYSIS

The relationship between two accounting figures is known as ratio.

Ratio analysis is a process of comparison of one figure with another, which helps to make proper analysis about the strengths and weaknesses of the firm's operations.

The calculation of ratios is a relatively easy and simple task, but the proper analysis and interpretation of the ratios is an important task. Ratio analysis is a very powerful analytical tool useful for measuring performance of an organization. It is extremely helpful in providing valuable insight onto company's financial picture.

## OBJECTIVES OF RATIO ANALYSIS

1. To show the firm's relative strengths and weaknesses
2. To help to analyze the past performance of the firm and to make future projections.
3. To allow interested parties like shareholders, investors, creditors and the government to analyze and make evaluation of certain aspects of firm's performance.
4. To concentrate on inter-relationship among the figures appearing in the financial statements.
5. To provide an easy way to compare present performance with the past.
6. To depict the areas in which the business is competitively advantageous and disadvantageous.
7. To determine the financial condition and performance of the firm.
8. To help to make suitable corrective measures when the financial conditions and financial performance are unfavourable to the firm.

## ADVANTAGES OF RATIO ANALYSIS

**1. Simplifies Financial Statements**

Ratio analysis simplifies the comprehension of financial statements. Ratios tell the whole story of changes in the financial condition of a business.

**2. Analyze Past and Forecast Future**

It helps to analyze and understand the financial health and trend of a business, indicating past performance and making it possible to forecast the future trends.

**3. Decision-Making and Cost Control**

It serves as a useful tool in management control process for decision-making and cost control purpose.

**4. Summaries Accounting Figures**

It makes the accounting figures easy to understand and highlight the inter-relationship between various segments of the business.

**5. Overall Profitability**

Different users of accounting information make use of specific ratios to meet or satisfy their requirements. But the management is always interested in overall profitability and efficiency of the business enterprise.

**6. Liquidity Position**

The short-term creditors are more interested in the liquidity position of a firm in the sense that their money would be repaid on due dates. The ability of the firm to pay short-term obligations can be found by computing liquidity ratios.

**7. Long-term Solvency**

This is required by long-term creditors, security analyst and the present and potential shareholders of the company. The help of capital structure ratios kept the above in assessing the financial status of the organization.

## LIMITATIONS OF RATIO ANALYSIS

The ratio analysis is not a full-proof method in financial statement analysis. It suffers from a number of limitations. Some of the important one are:

**1. Ratios ignore qualitative factors**

Ratios are obtained from the figures expressed in monetary terms. In this way, qualitative factors, which may be important are ignored.

**2. Trends are not the actual ratios**

The different ratios calculated from the financial statements of a business enterprise for one single year are of limited value. It would be more useful to calculate the important fit in the case of income, dividends, working capital, etc., for a number of years. Such trends are more useful than absolute ratios.

**3. Defective accounting information**

The ratios are calculated from accounted data in the financial statements. It means if the information is defective then the calculation of ratios would be wrong. Thus, the deliberate omissions would affect the ratios too.

**4. Change in accounting procedures**

A comparison of result of two firms becomes difficult when we find that the firms are using differentv procedures related to certain items, such as inventory valuation and treatment of intangible assets.

**5. Variations in general operating conditions**

While interpreting the results based on ratio analysis, all business enterprises have to work within given general economic conditions, state of the industry in which the firms are operating and the position of the individual companies within the industry. For example, if the firm is forced by the government to sell their products at a fixed price, its comparison with other firms would become impossible.

**6. Single ratio not sufficient**

It is very necessary to take into account the combined effect of various ratios so that the results are correctly interpreted regarding the financial condition and the profit-making performance of the business. Each ratio plays a part in interpreting the financial statement.

**7. The use of standard ratio**

The financial statements represent historical data and, therefore, the ratios based on them would only disclose what happened in the past.

## CLASSIFICATION OF RATIOS

### Functional Classification

The classification of ratios according to the purpose of its computation is known as functional classification.

On this basis ratios are categorized as follows:

**Profitability Ratios:** Profitability ratios gives some yardstick to measure the profit in relative terms with reference to sales, assets or capital employed. These ratios highlight the end result of business activities. The main objective is to judge the efficiency of the business.

**Turnover Ratios or Activity Ratios:** These ratios are used to measure the effectiveness of the use of capital/ assets in the business. These ratios are usually calculated on the basis of sales or cost of goods sold, and are expressed in integers rather than as percentages.

**Financial Ratios or Solvency Ratios:** These ratios are calculated to judge the financial position of the organization from short-term as well as long-term solvency point of view. Thus, it can be subdivided into: (a) Short-term Solvency Ratios (Liquidity Ratios), and (b) Long-term Solvency Ratios (Capital Structure Ratios).

**Market Test Ratios:** These are, of course, some profitability ratios, having a bearing on the market value of the shares.

The ratio analysis in made under the following categories:

| FINANCIAL RATIOS SOLVENCY RATIOS | ACTIVITY RATIOS TURNOVER RATIOS | PROFITABILITY RATIOS | MARKET TEST RATIOS |
|---|---|---|---|
| Short-Term Solvency Ratios<br>• Current Ratio<br>• Liquidity Ratio<br>• Cash Ratio<br>• Long-Term Solvency Ratios<br>• Debt – Equity Ratio<br>• Capital Gearing Ratio<br>• Fixed Asset Ratio<br>• Proprietary Ratio<br>• Interest Cover<br>• Dividend Cover | • Stock Turnover Ratio<br>• Debtors Turnover<br>• Ratio<br>• Creditors Turnover<br>• Ratio<br>• Fixed Assets Turnover<br>• Ratio<br>• Total Assets Turnover<br>• Ratio<br>• Working Capital<br>• Turnover<br>• Sales to Capital<br>• Employed | • Gross Profit Ratio<br>• Net Profit Ratio<br>• Cash Profit Ratio<br>• Return on Investment<br>• Return on Net Worth<br>• Debt service Coverage<br>• Operating Ratio | • Earnings Per Share<br>• Price Earnings Ratio<br>• Dividend Payout<br>• Dividend Yield Ratio |

## FINANCIAL RATIOS

### Short-Term Solvency Ratios/Liquidity Ratios

Liquidity or short-term solvency means ability of a business to pay its short-term liabilities. Inability to pay off short-term liabilities affects its credibility as well as its credit rating. Short-term lenders and creditors of a business are very much interested to know its state of liquidity because of the states they have in the business. Two ratios are used to highlight the business 'liquidity'. These are current ratio and quick ratio.

**1. Current Ratio/Working Capital Ratio**

This ratio is calculated as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The ideal current ratio is taken as 2 :1 (The ideal Current Ratio preferred by Banks is 1.33 : 1)

This ratio measures the short-term solvency of the company.

Current Assets are the assets which can be converted into cash within a year. Current assets normally include cash in hand or at bank, inventories, sundry debtors, loans and advances, marketable securities, pre-paid expenses, etc.

Current Liabilities are the liabilities that are payable within a year. Current liabilities consist of sundry creditors, bills payable, outstanding and accrued expenses, provisions for taxation, proposed and un- claimed dividend, bank overdraft etc.

Current Liabilities are the liabilities that are payable within a year.

**Significance** : A very high ratio will have adverse impact on the profitability of the organization. A high current ratio may be due to high level of inventory, inefficiency in collection of debtors, high balance in cash and bank accounts without proper investments.

**2. Liquid Ratio / Quick Ratio / Acid Test Ratio**

This ratio is calculated as follows:

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

The ideal liquid ratio is taken as 1:1

Liquid Assets are assets which are immediately converted into cash without incurring a loss. Liquid Assets would include cash in hand, cash at bank, sundry debtors excluding bad debts and readily marketable securities. Prepaid expenses and stock are not taken as liquid assets.

## Long-Term Solvency Ratios

**1.** Debt-Equity Ratio/ External-Internal Equity Ratio

It is the relation between borrowed funds and owner's capital

$$\text{Debt -Equity Ratio} = \frac{\text{Long Term Debts}}{\text{Equity}}$$

or

$$\text{Debt -Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholder's Fund}}$$

The ideal ratio is 2:1 if calculated by first formula; and 0.67:1 if calculated by second formula Debt means long-term loans i.e. debentures or long-term loans from financial institutions.

Equity means shareholders' funds i.e. preference share capital, equity share capital, reserves less loss and fictitious assets like preliminary expenses

**Significance :** The debt-equity ratio is used to ascertain the soundness of long-term financial policies of the business. The main purpose of this ratio is to determine the relative stakes of outsiders and shareholders.

**1. Capital-Gearing Ratio**

It is calculated as follows:

$$\text{Capital-Gearing Ratio} = \frac{\text{Fixed Income / Dividend Bearing Funds}}{\text{Equity Shareholders Funds}}$$

**Fixed Income Bearing Funds** = Debentures + Long Term Loans + Preference Share Capital.

**Equity Shareholders Funds** = Equity share capital + Reserves & Surplus – Debit balance of P&L – Fictitious Assets

**Significance**: It is a very important ratio. Gearing should be kept in such a way that the company is able to maintain a steady rate of dividend. High gearing ratio is not good for a new company or a company for which future earnings are uncertain.

**2. Fixed Assets Ratio**

It is shown as a proportion to long-term funds

$$\text{Fixed Asset Ratio} = \frac{\text{Fixed Assets}}{\text{Long Term Funds}}$$

Fixed Assets refer to net assets (i.e. original cost-depreciation to date) and trade investments including shares in subsidiaries.

Long-Term Funds include share capital, reserves and long -term loans.

**Significance:** This ratio indicates the proportion of long-term funds deployed in fixed assets. The higher the ratio indicates the safer the funds are available in case of liquidation. It also indicates the proportion of long-term funds that is invested in working capital.

**3. Proprietary Ratio**

It expresses the relationship between net worth and total assets. It expresses the extent to which shareholders funds have been invested in Assets.

$$\text{Proprietary Ratio} = \frac{\text{Proprietary Funds}}{\text{Total Assets}}$$

**Proprietary Funds** = Equity share capital + Preference share capital + Reserves – Fictitious Assets

**Total Assets** = Fixed Assets + Current Assets (Excluding Fictitious Assets)

**Significance:** A high proprietary ratio is indicative of strong financial position of a business. The higher the ratio, the better it would be.

**4. Interest Cover / Debt Service Ratio /Fixed Charges Cover**

$$\text{Interest Cover Ratio} = \frac{\text{Earnings Before Interest And Taxes (EBIT)}}{\text{Interest Expenses}}$$

An interest cover of 7:1 is considered reasonable by financial institution.

This Ratio measures the debt Servicing capacity of a firm in so far as fixed interest on long-term loan is concerned. This Ratio is expressed as 'number of times' to indicate that profit is number of times the interest charges.

**Significance**: The Interest Coverage Ratio shows how many times interest charges are covered by funds that are available for payment of interest. A very high ratio indicates that the firm is conservative in using the debt, and a very low ratio indicates excessive use of debt.

**5. Dividend Cover**

$$\text{Dividend Cover} = \frac{\text{Profit After Tax (PAT)}}{\text{Dividend}}$$

This ratio indicates the number of times the dividend is covered by net profit. This highlights the amount retained by a company for financing its future operations.

## PROFITABILITY RATIOS

**1. Gross Profit Ratio**

The ratio measures the gross profit margin on the total net sales made by the company. Gross Profit is the excess of the proceeds of goods sold and services rendered during a period over their cost, before taking into account administration , selling and distribution and financing charges.

It is calculated as follows :

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit} \times 100}{\text{Sales}}$$

**2. Net Profit Ratio**

This ratio measures the efficiency of operation of the company. The net profit is arrived at from gross profit after deducting administration, selling and distribution expenses. The ratio is calculated as follows:

$$\text{Net Profit Ratio} = \frac{\text{Profit after Tax (PAT)} \times 100}{\text{Sales}}$$

**3. Return on investment**

This ratio shows how much a company is earning on its investment i.e. capital employed. This ratio reflects the overall efficiency with which capital is used. Return on investment is an important measure of profitability and is useful for inter-firm comparison.

$$\text{Return on Investment} = \frac{\text{Operating Profit (EBIT)} _ \times 100}{\text{Capital Employed}}$$

**4. Return on Assets**

It is calculated as follows:

$$\text{Return on Assets} = \frac{\text{Profit After Tax (PAT)} \times 100}{\text{Net Assets}}$$

The profitability of the firm is measured by establishing the relation of net profit with the total assets of the organization. This ratio indicates the efficiency of utilization of assets in generating revenue.

**5. Return on Net Worth**

It is calculated as follows:

$$\text{Return on Net Worth} = \frac{\text{Profit after Tax (PAT)} \times 100}{\text{Net Worth}}$$

**6. Operating Ratio**

$$\text{Operating Ratio} = \frac{\text{Operating Cost} \times 100}{\text{Sales}}$$

Operating cost = Material cost + Labour cost +Factory overheads + office & selling expenses

Material Cost Ratio = Material consumed/Sales*100

Labour Cost Ratio = Labour Cost/Sales *100

Factory overheads cost ratio=Overheads Cost/Sales*100

Administrative expenses Ratio=Administrative expenses/Sales*100

Selling and distribution expenses ratio=Selling and distribution expenses/Sales*100

All these add upto the Operating Ratio.

## MARKET TEST RATIOS

**1. Earnings Per Share (EPS)**

This ratio is calculated to judge the overall profitability of the organization. The ratio measures the profit available for the equity shareholders on a per share basis.

It also helps in determining the market price of the equity share of the company and the company's capacity to pay dividend. The more the earning per share, the better are the performance and prospects of the company.

$$\text{Earning Per Share (EPS)} = \frac{\text{Profit available for Equity Shareholders}}{\text{No. of Equity Shares}}$$

**2. Price-Earnings Ratio (P/E Ratio)**

This ratio measures the number of times the earning of the latest year, at which the share price of the company is quoted. P/E ratio is the barometer of the market sentiment.

A high P/E ratio reflects high earnings potential, and a low P/E ratio reflects lower earnings potential.

$$\text{P/E Ratio} = \frac{\text{Market Price per share}}{\text{EPS}}$$

**3. Dividend Payout Ratio**

This ratio expresses the relationship between what is available as earning per share and what is actually paid in the form of dividends out of the available earnings.

A higher pay out ratio means a lower retention and ploughing back of profits, a deteriorating liquidity position an increase in the profit earning capacity of the company.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share (DPS)}}{\text{EPS}}$$

**4. Dividend Yield Ratio**

This ratio reflects the percentage yield that an investor receives on his investment at the current market price of the shares. This measure is useful for investors who are interested in yield per share rather than capital appreciation.

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend Per Share} \times 100}{\text{Market Price per share}}$$

## TURNOVER RATIOS

Turnover ratios are useful to measure how effectively the firms employ its resources.

**1. Stock Turnover Ratio / Stock Velocity**

This ratio measures how many times a company's inventory has been sold during the year. If inventory turnover ratio is low, it means either the inventory is growing or the sale are dropping.

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average Stock}}$$

OR

$$= \frac{\text{Raw Material Consumed}}{\text{Average stock of Raw Material}}$$

$$\text{Average Stock} = \frac{\text{Opening stock + closing stock}}{2}$$

$$\text{Stock Velocity} = \frac{\text{Average Stock} \times 365 \text{ days or } 12 \text{ months}}{\text{Cost of goods sold}}$$

**2. Debtors Turnover Ratio / Debtors Velocity**

It measures whether the resources tied up in debtors is reasonable and whether the company has been efficient in converting debtors into cash.

This Ratio measures the net credit sales of firm to the recorded trade debtors thereby indicating the rate at which cash is generated by turnover of receivable or debtors.

While calculating debtors turnover, it is important to note that provision for bad and doubtful debts are not deducted from total debtors in order to avoid the impression that a larger amount of receivables have been collected.

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average accounts receivables}}$$

Accounts receivables include debtors and bills receivables

Higher the ratio, the better the position

$$\text{Debtors velocity} = \frac{\text{Average Accounts Receivables} \times 365 \text{ days or } 12 \text{ months}}{\text{Credit sales}}$$

OR

$$= \frac{\text{Months/Days in a year}}{\text{Debtors Turnover ratio}}$$

It shows the speed at which the money is collected from the Debtors. The lower the velocity, the better is the position

**3. Creditors Turnover Ratio / Creditors Velocity**

This Ratio indicates the speed at which the payments for credit purchases are made to creditors.

$$\text{Creditors Turnover Ratio} = \frac{\text{Credit Purchases}}{\text{Average Accounts payable}}$$

Accounts payable include creditors and bills payable

$$\text{Creditors velocity} = \frac{\text{Average Accounts Payable} \times 365 \text{ days or } 12 \text{ months}}{\text{Credit Purchases}}$$

OR

$$= \frac{\text{Months/Days in a year}}{\text{Creditors Turnover}}$$

Longer Credit period or velocity is considered better, because it means that the company's operations are financed interest free by the suppliers.

**4. Working Capital Turnover Ratio**

This ratio indicates the extent of working capital employed in achieving sales of the firm:

$$\text{Working capital Turnover Ratio} = \frac{\text{Sales}}{\text{Working Capital}}$$

**5. Fixed Asset Turnover Ratio**

This ratio indicates the number of times fixed assets are being turned over in a year : This ratio indicates the extent to which investment in Fixed Assets contributes to generate sales. Fixed Assets are to be taken net of depreciation. Higher the ratio the better is the performance.

$$\text{Fixed Asset Turnover Ratio} = \frac{\text{Sales}}{\text{Fixed Assets}}$$

**6. Total Assets Turnover Ratio**

This ratio indicates the number of times total assets are being turned over in a year:

$$\text{Total Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Total Assets}}$$

A high ratio indicates overtrading of total assets while a low ratio reveals idle capacity.

**7. Sales To Capital Employed Ratio/Capital Turnover Ratio**

This ratio indicates the efficiency in utilization of capital employed in generating revenue.

$$\text{Sales to Capital employed ratio} = \frac{\text{Sales}}{\text{Capital employed}}$$

Higher the ratio, greater the profits.

**Illustration 1.**

From the following information, prepare the balance sheet of Copper company:

| | |
|---|---|
| Fixed assets | Rs 10,50,000 |
| Fixed asset turnover ratio (on cost of sales) | 2 |
| Finished goods turnover ratio(on cost of sales) | 6 |
| Gross profit on sales | 25% |
| Net profit(before interest) to sales | 8% |
| Fixed charge cover (debenture interest 7%) | 8 |
| Debt collection period | 1.5 Months |
| Material consumed to sales | 30% |
| Stock of raw material (in term of months consumption) | 3 |
| Current ratio | 2.4 |
| Quick ratio | 1 |
| Reserve to capital ratio | 0.21 |

**Solution:**

**Balance Sheet of Copper**

| **I. Equity and Liabilities** | **Amount** |
|---|---|
| Share capital | 10,00,000 |
| Reserves & Surplus | 2,10,000 |
| | 12,10,000 |
| Debenture | 4,00,000 |
| Current liabilities | 4,00,000 |
| **II. Assets** | **Amount** |
| Fixed Assets | 10,50,000 |
| Current Assets | 3,50,000 |
| Debtors | 50,000 |
| Stock | 3,50,000 |

| | |
|---|---|
| Finished goods | 2,10,000 |
| Stock of Raw Material | 50,000 |
| Cash & Bank (Bal. Fig.) | 20,10,000 |

**Calculation of cost of sales**

Fixed Asset Turnover Ratio = Cost of Sales / Fixed Assets

2 = x/10,50,000

X= Cost of Sales = 21,00,000

**Calculation of Sales**

Gross Profit = 25% on sales or 33.33% on cost

Gross Profit = 33.33% x 21,00,000 = 7,00,000

Sales = Cost of sales + Gross profit

= 21,00,000 + 7,00,000

= 28,00,000

**Calculation of Finished Goods Stock**

Finished goods turnover ratio = cost of sales/ Finished goods

6 = 21,00,000 / x

X = finished goods = 3,50,000

**Calculation of Net Profit Before Interest**

EBIT = sales x 8%

= 28,00,000 x 8% = 2,24,000

**Calculation of Debentures**

Fixed charge cover = EBIT / Interest

8 = 2,24,000 / x

X = interest = 28,000

Rate of debenture interest = 7%

So, Debentures = 100 x 28,000 / 7

= 4,00,000

**Calculation of Debtors**

Debt collection period = debtors / credit sales x 12

$$\frac{x}{1.5 = 28,00,000} \times 12$$

Debtors = 3,50,000

**Calculation of Raw Material Stock**

Material consumed = sales x 30%

= 28,00,000 x 30 % = 8,40,000

Raw material stock velocity = stock of raw material / material consumed x 12

$$3 = \frac{\text{stock}}{8{,}40{,}000 \times 12}$$

Stock of raw material = 2,10,000

**Calculation of Current Assets and Current Liabilities**

Total stock = stock of raw material + stock of finished goods

= 2,10,000 + 3,50,000

= 5,60,000

Current Ratio = Current Assets / current liabilities

2.4 = x/y 2.4y = x

Quick ratio = current assets – stock / current liabilities

1 = 2.4y – 5,60,000 / y

Y = current liabilities = 4,00,000

Current assets = 2.4 y

= 2.4 x 4,00,000 = 9,60,000

**Calculation of Reserves & Surplus**

Net Worth = Fixed Assets + Current Assets – Current Liabilities – Debentures

= 10,50,000 + 9,60,000 – 4,00,000 – 4,00,000

= 12,10,000

Reserve to capital = Reserves / Capital

0.21 = x/y 0.21y = x

Net Worth = Capital + Reserves

12,10,000 = y + 0.21 y

Capital = y = 10,00,000

Reserves = x = 10,00,000 x 0.21 = 2,10,000

**Illustration 2.**

From the following information, calculate the value of

a) Sales

b) Debtors

c) Closing stock

d) Creditors

| | |
|---|---|
| Debtors velocity | 3 months |
| Stock velocity | 6 months |
| Creditors velocity | 2 months |
| Gross Profit | 20% |

Gross profit for the year is Rs 5,00,000. Stock of the year is Rs 20,000 more than what it was in the beginning. Bills receivables & bills payable were Rs 60,000 & Rs 3,36,667, respectively.

**Solution:**

**Calculation of sales**

Gross profit ratio = gross profit / sales x 100

$$20 = \frac{5,00,000}{\text{sales}} \times 100$$

Sales = 25,00,000

**Calculation of debtors**

Debtors velocity = accounts receivables / credit sales x 12

3 = x/25,00,000 x 12

Accounts receivables = x = 6,25,000

Accounts receivables = bills receivables + debtors

6,25,000 = 60,000 + Debtors

Debtors = 5,65,000

**Calculation of closing stock**

Cost of goods sold = sales – gross profit

= 25,00,000 – 5,00,000

= 20,00,000

Stock velocity = average stock / cost of goods sold x 12

6 = Avg. Stock / 20,00,000 x 12

Avg. stock = 10,00,000

Avg. stock = opening stock + closing stock / 2

10,00,000 = x + x+20,000 / 2

Opening stock = x = 9,90,000

Closing stock = x + 20,000

9,90,000 + 20,000 = 10,10,000

**Calculation of creditors**

Cost of goods sold = opening stock + Purchases – closing stock

20,00,000 = 9,90,000 + x – 10,10,000

Purchases = x = 20,20,000

Creditors velocity = accounts payable / credit purchases x 12

2 = accounts payable /20,20,000 x 12

Accounts payable = 3,36,667

Accounts payable = creditors + bills payable

3,36,667 = creditors + 36,667

Creditors = 3,00,000

**Illustration 3.**

Closing debtors Rs 2,00,000, cash sales 25% of credit sales , excess of closing debtors over opening debtors Rs 80,000 , Total sales Rs 12,00,000.

Calculate debtors turnover ratio and average collection period.

**Solution:**

Total sales = 12,00,000

Cash sales = 25% of credit sales

Total sales = cash sales + credit sales

Cash sales = 25 / 125 x 12,00,000

= 2,40,000

Credit sales = 100/125 x 12,00,000

= 9,60,000

Closing debtors = 2,00,000

Opening debtors = 2,00,000 – 80,000

= 1,20,000

Average debtors = opening debtors + closing debtors / 2

= 1,20,000 + 2,00,000 / 2

= 1,60,000

**Debtors Turnover Ratio**

= credit sales / average debtors

= 9,60,000 / 1,60,000

= 6 times

**Average Collection Period**

= 12 / debtors turnover

= 12/6

= 2 times

**Illustration 4.**

**Calculate Debt – Equity Ratio**

| | |
|---|---|
| Debentures | Rs 4,00,000 |
| Creditors | Rs 1,00,000 |
| Long-term loans | Rs 8,00,000 |
| Share capital | Rs 2,00,000 |
| Reserve fund | Rs 1,20,000 |
| Preliminary expense | Rs 20,000. |

**Solution:**

Debt = debentures + Long term loans

= 4,00,000 + 8,00,000

= 12,00,000

Equity = Share capital + reserve fund – preliminary expenses

= 2,00,000 + 1,20,000 – 20,000

= 3,00,000

Debt – equity ratio = debt / equity

12,00,000 / 3,00,000

= 4

**Illustration 5.**

From the following information calculate stock at the end:

| | |
|---|---|
| opening stock | 62,000 |
| purchases | 4,20,000 |
| sales | 6,00,000 |
| gross profit | 33.33% |
| (on cost) | |

**Solution:**

Let the cost of goods = Re 1

Gross profit = 33.33% of Re 1 = 1/3

Sales = Cost Of Goods Sold (COGS) + Gross Profit

= 1 + 1/3

= 4/3

If sales are 4/3, COGS is 1

If sales are 1, COGS = 1 x ¾

If sales are Rs 6,00,000 , COGS = 1 x ¾ x 6,00,000 = Rs 4,50,000

COGS = opening stock + Purchases – closing stock Closing stock = opening stock + purchases – COGS

= 62,000 + 4,20,000 - 4,50,000

= 32,000

**Illustration 6.**

Balance sheet and income statement of AG Ltd for the year ended 31.03.2017 are as under:

**Income Statement of AG Ltd.**

| | |
|---|---|
| Sales | 1600 |
| Less: COGS | (1310) |
| Gross Margin | 290 |
| Less: Selling & Distribution expenses | (40) |
| EBIT | 250 |
| Less: Interest | (45) |
| EBT | 205 |
| Less: Tax | (82) |
| Net profit | 123 |

**BALANCE SHEET OF AG LTD. ON 31-3-2017**

| **I. EQUITY AND LIABILITIES** | **(in '000)** |
|---|---|
| Paid up capital | |
| Equity share capital of Rs 10 each | 400 |
| Retained earnings | 120 |
| Debentures | 700 |
| Creditors | 180 |
| Bills payable | 20 |
| Other current liabilities | 80 |
| **Total** | **1500** |
| **II. ASSETS** | |
| Net fixed assets | 800 |

| | |
|---|---|
| Inventories | 400 |
| Debtors | 175 |
| Marketable securities | 75 |
| Cash | 50 |
| **Total** | **1500** |

| Price per share Rs 15 | |
|---|---|
| INDUSTRY'S AVERAGE RATIOS | |
| Current ratio | 2.4 |
| Quick ratio | 1.5 |
| Sales to stock | 8 times |
| Avg collection period | 36 days |
| Debt to assets | 40% |
| Debt equity | 2:1 |
| Interest earned | 6 times |
| Net profit | 7% |
| Price to earnings | 15 |
| Return to total assets | 11% |

From the above information

Calculate all the relevant ratios and as a company secretary interpret them to identify the problematic areas, clearly and bring out the reason in respect of identified problem.

**Solution:**

| Particulars | Formula | AG Ltd | Industry | Comment |
|---|---|---|---|---|
| Current Ratio | Current assets/ current liabilities | 700/280 = 2.5 | 2.40 | Current ratio is slightly high as compared to the industry average ratio. This is due to high level of stock. |
| Quick Ratio | Quick assets current liabilities | 300/280 = 1.07 | 1.5 | Ratio is less as compared to the industry average. But at the same time it is noted that both quick ratio and current ratio are high which represents heavy accumulation of stock. |
| Sales to Stock Ratio | Sales / stock | 1600/400 = 4 | 8 | This ratio is weak as stock is being converted into sales only 4 times as compared to 8 times. |
| Avg Collection Period | Debtors/credit sales x 360 | 175/1600 x360 =40 days | 36 days | Ratio is satisfactory as compared to the Industry ratio. |
| Debt to Assets | Debt/total assets x100 | 700/1500 x 100 = 46.67% | 40% | This ratio is used to ascertain the soundness of long- term financial policies of the business. The ratio is satisfactory as it is near to industry ratio. |

| | | | | |
|---|---|---|---|---|
| Debt Equity | Debt/equity | 700/620 = 1.13 | 2 | The ratio is low which shows that long-term financial options are not properly availed by the company. |
| Interest Earned | EBIT/Interest | 250/45 = 5.55 | 6 | The ratio indicates that the firm is conservative in using debt. |
| Price to Earnings | Market price/ EPS | 15/3.075 = 4.88 | 15 | Low ratio indicates low earning potential and less market confidence in the company's equity. |
| Return to Total Assets | Net profit/total assets x 100 | 123/1500 x 100 = 8.2% | 11% | The ratio is less and hence the position is not satisfactory. |

## LESSON ROUND-UP

- Financial statement analysis involves the examination of the relationship among financial statement numbers and the trends in those numbers over time.
- Financial statement analysis is a study of relationship among various financial factors in a business as disclosed by a single set of statements, and study of the trends of these factors as shown in a series of statements.
- Steps involved for financial statement analysis are – Prepare financial statements, analyze financial statements, gather additional information, make decisions related to operating/investment, financing, and implement decisions and observe results
- Financial statements are prepared on the basis of (i) recorded facts; (ii) accounting conventions; (iii) postulates; (iv) personal judgements, and (v) accounting standards and guidance notes.
- According to the objective of analysing financial statement, the analysis can be long-term as well as short-term.
- Ratio analysis is a process of comparison of one figure with the other, which helps to make proper analysis about the strengths and weaknesses of a firm's operations.
- The functional ratios can be further classified into - profitability ratios, turnover ratios or activity ratios, financial ratios or solvency ratios and market test ratios.
- Liquidity or short-term solvency means ability of the business to pay its short-term liabilities.
- The debt equity ratio is used to ascertain the soundness of long-term financial policies of a business.
- The interest coverage ratio shows how many times interest charges are covered by funds that are available for payment of interest.
- P/E ratio is the barometer of the market sentiment.
- Turnover ratios are useful to measure how effectively firms employ its resources.
- Operating cost = Material cost + Labour cost +Factory overheads + office & selling expenses

## GLOSSARY

**Financial Statement Analysis**

The process of identifying the financial strengths and weaknesses of a firm by adeptly establishing a relationship between the details of the Balance Sheet and the Profit & Loss Account of the enterprises.

**Common size financial statements**

Common size financial statements, all items on the statement are expressed as a percentage of the base item.

**Trend ratios**

Trend ratios can be defined as index numbers of the movements of the various financial items in the financial statements for a number of periods.

**Fund Flow Statement**

Fund Flow Statement also referred to as statement of "Source and Application of Funds" presents the movement of funds and helps to understand the changes in the structure of assets, liabilities and equity capital.

**Cash Flow Analysis**

The statement of cash flow reports the inflows (receipts) and outflows (payments) of cash and its equivalents of an organization during a particular period.

**Ratio analysis**

Ratio analysis is a process of comparison of one figure with another, which helps to make proper analysis about the strengths and weaknesses of the firm's operations.

**Liquidity**

Liquidity or short-term solvency means ability of a business to pay its short-term liabilities.

**Liquid Assets**

Liquid Assets are assets which are immediately converted into cash without incurring a loss.

## TEST YOURSELF

1. Explain the different ratios that are commonly used and show how they are useful in financial analysis?
2. Write short notes on the following :
   a) Financial Statement Analysis
   b) Profitability Ratio
   c) Turnover Ratio
3. What are the objectives of ratio analysis?
4. Calculate Return on Share Capital

| | |
|---|---|
| 10% Preference Share Capital | Rs 2,00,000 |
| 32,000 Equity Shares of Rs 10 each | Rs 3,20,000 |
| Reserves & Surplus | Rs 12,80,000 |
| Net profit after tax | Rs 4,75,000 |

5. Calculate

a) Current ratio

b) Net profit ratio

c) Gross profit ratio

| | |
|---|---|
| Net sales | Rs 1,40,000 |
| Gross profit | Rs 10,000 |
| Net profit | Rs 6,000 |
| Bills receivables | Rs 2,000 |
| Debtors | Rs 8800 |
| Stock | Rs 10,000 |
| Cash | Rs 6,000 |
| Creditors | Rs 12,000 |
| Bills payable | Rs 8800 |

6. Calculate the creditors turnover ratio and debt payment period :

| | |
|---|---|
| Total purchases | Rs 9,80,000 |
| Cash purchases | Rs 1,85,000 |
| Opening creditors | Rs 61,400 |
| Closing creditors | Rs 56,600 |
| Purchase returns | Rs 10,200 |
| Bills payable in the beginning | Rs 45,000 |
| Bills payable at the end | Rs 57,000 |

7. Prepare Balance Sheet and Profit and Loss Account from the following information:

| | |
|---|---|
| Capital | 4,00,000 |
| Working capital | 1,80,000 |
| Bank overdraft | 30,000 |

There is no fictitious asset. Current assets contain only stock, debtors and cash.

The following additional data is also available:

(i) Closing stock is 20% higher than opening stock

(ii) Current ratio - 2.5

(iii) Quick ratio - 2.0

(iv) Proprietary ratio - 0.6 (Fixed assets: Proprietary fund)

(v) Gross profit ratio - 20% (of sales)

(vi) Stock velocity - 5

(vii) Debtor's velocity - 73 days

(viii) Net profit ratio - 10% (to average capital employed).

8. Calculate working capital turnover ratio from the following information:

Current ratio = 5:3

Quick ratio = 3:5

Inventory turnover ratio = 5 times

Closing Stock was Rs 1,92,000 less than opening stock Gross profit = 25% on cost

Average debt collection period = 3 months Cash sales = 25% of Total sales

Opening debtors = Rs 2,80,000 Closing debtors = Rs 3,20,000

9. From the following information you are required to calculate-

Sales;

Sundry Debtors;

Sundry Creditors;

Closing stock;

| | |
|---|---|
| Debtors velocity ratio | 3 months |
| Stock velocity ratio | 6 months |
| Creditors velocity ratio | 2 months |
| Gross profit ratio | 25% |

The gross profit for the year ended 31st March 2018 was Rs 5,00,000. Stock for the same period was Rs 20,000, more than it was in the beginning of the year. Bills receivable and bills payable were Rs 1,50,000 and Rs 83,333, respectively.

10. Calculate

a) Debt – equity ratio

b) Return on capital employed

c) Interest coverage ratio

d) Capital gearing ratio

| | |
|---|---|
| Earning before tax | Rs 15,00,000 |
| Preference shares | Rs 3,00,000 |
| Equity share capital | Rs 60,00,000 |
| 10% Debentures | Rs 15,00,000 |

# Lesson 17 Management Reporting (Management Information Systems)

***Key Concepts One Should Know***

- Levels of Management and reporting
- Management Reporting System
- Report presentation

## *Learning Objectives*

**To understand the:**

- Meaning & importance of Management Reporting.
- Level of management & reporting thereof.
- General principles of report presentation.
- Classification and forms of reporting
- Frequency of reporting as per the different levels of management.

## *Lesson Outline*

- Meaning of Management Reporting
- Importance of Reporting
- Level of Management & Reporting
- The Need for Management Reporting
- Essential Components to Management Reporting
- General Principles of Report Presentation
- Forms of Presentation of Information
- Attributes of Information
- Classification of Reports
- Forms of Reporting
- Frequency of Reporting
- Special Reports
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## INTRODUCTION

Accounting is an information system that attempts to pass on information in the form of reports, statements, charts and graphs to help the management in taking appropriate decisions. Management needs information for arriving at decisions and for evaluating the company performance to run the business effectively. The required information can be made available to the management by means of reports.

Reports can be defined as means of communication, usually in the written form, of facts which should be brought to the attention of the various levels of management that can use them to take suitable actions for proper control. For proper control the reports have to be prepared and presented in an appropriate manner. A systematic reporting system should be adopted for smooth flow of business.

### Importance of Reporting

1. **Provides Information:** The very purpose of preparing a report is to providing information to various levels of management. The term management includes Foreman, Chairman, Department Manager, General Manager and Special Officer. These people get information about the trend of the business, cash flow and fund flow, etc.

1. **Helps in Selection:** Out of the several points available, only relevant information is included in the report. A report brings many alternatives out of which a management has to choose one profitable alternative.

1. **Role in Control System:** A target is fixed well in advance in an organization. The management has to see whether the employees are working according to the targets and predetermined standards. The reports are prepared in such a way so as to evaluate the actual performance with the budgeted targets. If there are any unfavorable variances, the reasons are found out and remedial or corrective actions are taken by the management. In this way, a report is used as a control tool. A management can control the enterprises with the help of this tool.

1. **Helpful in Profitable Operations:** A report highlights the direction in which the business should move and the level of operation should be decided. On the basis of such report, a management can give clear cut instructions as how to increase the profitability to its organization.

1. **Follow the Principle of Management by Exception:** A management has very little time to exercise the control. Hence, the activities, which are not carried out according to planning and budgeting, are highlighted before the management. This is called the way of following the principle of management by exception.

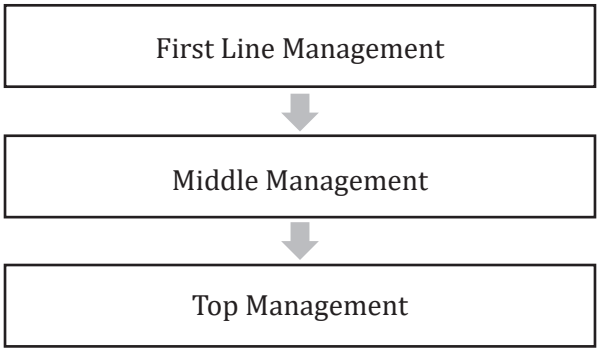
1. **Helpful in Achieving Overall Objectives:** Report motivates the executives and employees to take necessary steps towards increasing the earnings of the organization significantly. In this way, the management reaps achieving the maximum profit with the help of right kind of reporting system.

## LEVEL OF MANAGEMENT AND REPORTING

The fundamental principle of the system of reporting is that the information contained therein should meet the requirements of its recipient. Reports are prepared for each executive from the bottom to the highest level of management keeping in view his status and responsibility in the organization, so that he may be able to get timely information about the performance of persons working under him.

In any organization, there are three distinct levels of managements - first line managements, middle line management and top management.

The information presented and the method of reporting should meet the specific requirements of all these levels of management.




The three Guiding Principles to be followed are :

1) The lower the level of management, the more detailed should the report; the higher the level of management, more summarized should the report be.

2) The lower the level of management, should get the report more frequently whereas the higher level of management should get the reports less frequently. Middle management requires more detailed reporting with a great frequency in reporting as compared to the top management, because the former is concerned with day to day operations requiring timely action for making improvements.

3) Lower the level of management, less should be number of reports; higher the level of management, large should be the number report. The Board of Directors will receive a large number of reports because it controls every function in the organization. Person included in middle management and lower management will receive only those reports which relates to their departments.

**Higher Level of Management Reports**

- Are more summarized
- Are less frequent
- Are more in numbers

**Middle and Lower Level of Management Reports**

- Are more detailed
- Are more frequent

**Information Needs According to Management Level**

| *Level of Management* | *Main Issues* | *Information Sources* | *Time Horizon* | *Level of aggregation* | *Information recency* |
|---|---|---|---|---|---|
| Top-level management | Strategic | Mainly External | Long term | Summarized | Past as well as present |
| Middle-level management | Tactical | External/Internal | Medium | Intermediate | Somewhat current |
| Lower-level management | Operational | Mainly internal | Short term | Detailed | Very current |

## MEANING OF MANAGEMENT REPORTING

The Management Reporting System is essentially a mechanism for monitoring the 'mission' of an organization in terms of objectives set out evolved by the organization with a formal planning.

If the formal plan is imprecise or inadequate, and facts to take into account the actuality of the real-life situation, the de facto points of decision-making, and the recipient personnel, the monitoring system becomes open- ended and ineffective. Designers of the reporting system must, therefore, take into account the impact on it of such constraints. Merely a good management reporting system does not make an organization successful. It is the people working in that organization who work towards its success. Yet, a lack of a proper reporting system which could percolate at all level would allow the management to take remedial action.

### The Need for Management Reporting

Inefficient reporting processes that yield inaccurate and outdated information normally cause more harm than good. A strong management reporting is a necessity to produce timely and reliable information in order to make high-quality business decisions about the future of the company. Insight gathered from reporting allows for deeper analysis to understand problems, provides accurate comparisons against competitors and implement controls to hold employees accountable for budgets.

Effective processes uncover material financial misstatements prior to circulating information with investors and other stakeholders, and identify and address problem areas before they elevate to unmanageable levels. Without management reporting, employees may know there is a problem, but would be unable to identify its origin. Reporting identifies the problem's source, so you can begin working toward a solution. It also allows you to understand your current financial position compared to your competitors, in order to focus or realign business strategies to improve specific operating activities.

Management reporting systems help in capturing data that is needed by managers to run an effective business. Data could range from financial data, employee headcount, client, accounts, products, client assets in custody, investment performance, etc. The scope of a management reporting system is wide. However, here are the six reasons why an enterprise needs an effective management reporting system:

**Need for an effective Management Reporting System**

An effective management reporting system helps:

- Improve decision making
- Improves management effectiveness
- Improves responsiveness to issues
- Improve efficiency of resources in the delivery of organizational services

## Challenges in Management Reporting systems

Traditionally, Management Reporting systems were only used to pull up information. However, the system has undergone tremendous transformation over the years, making it a robust platform for reporting and management. Due to the advancement in technology, it can now provide financial and non-financial information, which can help management take the necessary action to control their business activity.

Often, businesses attempt to develop reporting processes, but miss the mark in achieving desired results. Common challenges in way include:

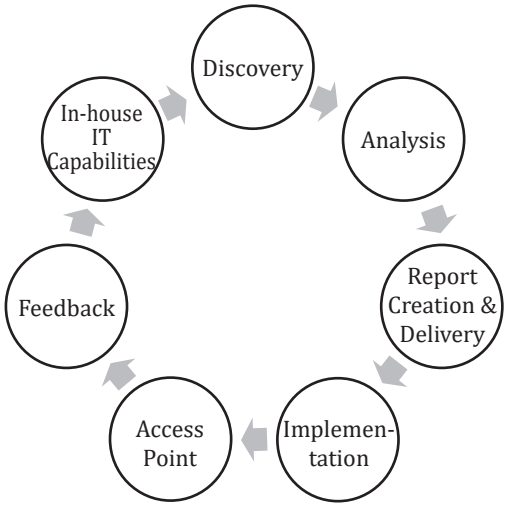
- Selecting appropriately and correctly using the right system to develop and deliver reports.
- Manipulating data in order to display the best metrics to make better business decisions and understand the company's current position.
- Implementing an inefficient accounting close process that does not allow for timely report delivery to stakeholders.
- Ensuring the integrity of the data.
- Adopting management reporting processes at the incorrect stakeholder levels throughout the organization.

## ESSENTIAL COMPONENTS TO MANAGEMENT REPORTING

A successful management reporting process contains several key elements. It should begin with an accurate healthy data and metrics to support core business strategies and initiatives to specific stakeholders. Data should support both the long- and short-term visions for the company, and should be trustworthy and from a reliable source. For example, failing to remove data for a discontinued product will negatively skew the remaining pool of data and the ultimate reporting information.

## Developing a Successful Management Reporting Programme

As with any key process, executive buy-in and vision are required upfront, in order to effectively implement and change management reporting in an organization. After that has been attained, you can begin taking steps toward implementing an effective management reporting programme. These include:



**Discovery:** Identify and involve stakeholders early on, and effectively communicate the vision across the organization and to the appropriate stakeholders. Identify and access the data sources available to meet your specific data needs.

**Analysis:** Understand the level of effort involved in creating each report. Develop data definitions to ensure everyone interprets it the same way. Keep the data tight and prioritize your information, in order to keep from overwhelming the data recipient, and understand what the data says, and further encourage quick decision-making abilities the recipient.

Report creation and delivery: Create the reports and determine the appropriate delivery method of the data. Reports should be concise and comprehensive, but not overwhelming. Pay close attention while formatting and reporting, considering the specific needs of your users.

**Implementation:** Develop each report separately, and establish a governance process and policies to ensure data health across the organization. Define access control requirements, detailing who should have rights to access information. Minimize work by leveraging implemented software to create repeatable processes and automate report jobs for predetermined times throughout the month.

**Access point:** Create a common place for users to access data, such as a Web portal or SharePoint site.

**Feedback:** Collect comments and suggestions from users to discover ways to continuously improve the data and process.

**In-house IT capabilities:** Ensure that in-house Information Technology (IT) personnel can manage necessary systems and issues if they arise.

## GENERAL PRINCIPLES OF REPORT PRESENTATION

In order to make a report which is trustworthy and easily understandable, certain general principles are to be followed while reporting. A good report will help the management in taking the expected action to improve the performance of the organization.

The basic principles to be kept in mind while preparing and submitting the report are as follows:

1) The report should have a proper title to describe the subject matter reported. It should be in a good format and should have subheadings and paragraph divisions. The name of recipient of the report should be written on the top of report.
2) The report should relate to certain period, and the period of time should be indicated on the top of report.
3) The report should he factual.
4) The report should be brief and concise but clear.
5) The report should be prompt because information delayed is information denied.
6) A report should distinguish between controllable and non-controllable factors and should report them separately. It is because management can take suitable actions regarding controllable factors.
7) Appropriate remarks should be given in the report. It saves valuable time of the management and ensures prompt attention.
8) A report should be periodically reviewed.
9) The report must be correct within the permissible degree of inaccuracy. The margin of error allowed will depend upon the purpose for which the report is prepared.
10) The report should draw manager's attention immediately to exceptional matters so that management by exception may be carried out effectively.
11) Visual reporting through graphs, charts and diagrams should be preferred to descriptive reports because visual reporting attracts the eye more quickly and leaves impression on the mind lasting.
12) While doing comparisons in the report, it should be ensured that the comparisons between the same matters.
13) Detailed analysis should be given for all the result so that there can be comparison between the actual and the budgeted.
14) The format of report should remain unchanged from period to period.

## FORMS OF PRESENTATION OF INFORMATION

Information may be presented in the following forms:

1) **Verbal (or oral):** Group meetings, seminars, conferences, or interviews may be organized where employees from various levels can meet to discuss and exchange their ideas.

2) **Written:** This is the most usual form of reporting and here the information takes the form of a written report.

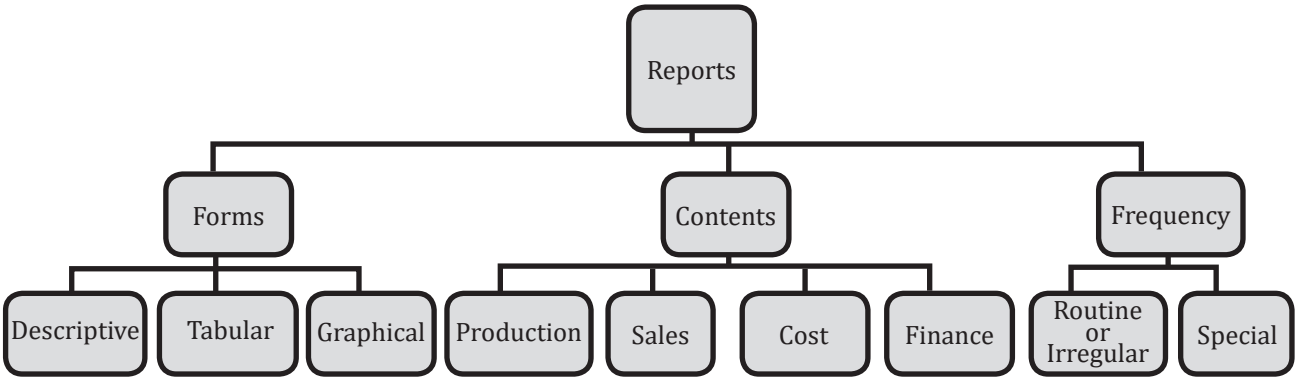
For information to be useful to managers, it must possess certain attributes.

## ATTRIBUTES OF INFORMATION

| | |
|---|---|
| Accuracy | Must be true and correct and must accurately describe the item or event |
| Timeliness | Available when it is needed and without excessive delay |
| Relevance | Pertains to the situation at hand. Information relevant at one time may not be relevant at another if it does not add to the knowledge needed by a decision-maker |
| Completeness | Provides the user with all the details needed to understand a solution. Complete information (that is, certainly) is rarely available |
| Frequency | Prepared or presented to users often enough to be up-to-date |
| Time horizon | Oriented toward past, present or future activities and events |
| Scope | Broad or narrow in coverage of an area of interest |
| Origin | May originate from sources within the organization or from external sources |
| Form of presentation | Tables of numbers or graphic displays of information are the most common written or printed forms. May also include verbal presentation. |

## CLASSIFICATION OF REPORTS

Reports can be classified by their forms, contents and frequency as follows:




## FORMS OF REPORTING

1. **Descriptive reporting:** These types of reports are written out in a descriptive style. They usually do not take the help of tables and graphs. They may include tables and graphs in order to lay emphasis on some of the points discussed. The language used is very important in such reports. It should be simple and correct and may convey the idea of the reporter to the management. The report should have suitable heading and it should be suitably paragraphed. The main report should be summarized, so that its recipient is able to know the exceptional matters, and the recommendation of the report without going into its details.

2. **Tabular reports:** Such reports are presented in the form of comparative statements. This form of reporting is applied in case of periodical reports covering production, costs, sales and finance. These reports

should use same standard form of statements or tables from period to period so that proper comparison may be made between the present and past performance.

3. **Graphic presentation:** It is very important method of presenting information to the management. It is a pictorial and attracts the eye of the recipient more quickly and forcibly. Recently graphs and diagrams have become very popular because they make comparisons of fairly long periods within a short space. This method of presenting information can eff depict production costs, fl in inputs and outputs, position & movement of stocks, variances, components of cost of production.

## FREQUENCY OF REPORTING

### 1. Routine reports

Routine reports are rendered at periodic intervals. The intervals at which routine reports are to be presented should be fixed for each report. Production reports should be rendered at shorter intervals because delayed reporting on production may lead to a continuing loss for a longer period. Thus, an effort should be made to take note of production losses as early as possible so that the corrective measures may be taken to eliminate the losses.

### 2. Special reports

Special reports are to be presented after thoroughly investigation of the problem which requires to be scrutinized. The following matters may the covered by special reports before presenting them to the management:

1. The effect of idle capacity on the cost of production of different products.
2. Make or buy decision.
3. Whether to replace labour by machines or not.
4. Whether to explore the new market at a selling price which is below the cost of production.
5. Whether to continue the sale of the product at a very low rate during depression.
6. Cost reduction schemes.
7. The most suitable method of raising funds.
8. The most suitable method of investing surplus cash.
9. Whether to purchase on higher fixed assets.
10. Research and development expenditure problems.
11. The effect of labour disputes on production and consequently on the cost of production.
12. The effect of a high rate of labour turnover.
13. Price fixation problems.
14. The effect of providing a particular facilities to workers.
15. Feasibility study for a project.
16. Report on new taxation policy and its effect on company's profits.
17. Report on important development in the industry.
18. Report on general economic forecast.
19. Report on whether to operate a casting system or not.
20. Report on company's financial position and profitability.
21. Report on the effect of a change in the government's policy

## LESSON ROUND-UP

- Reports can be defined as means of communication, usually in the written form, of facts which should be brought to the attention of the various levels of management who can use them to take suitable action for proper control.
- In any organization, there are three distinct level of managements- first line managements, middle management and top management.
- Information needs of managers vary according to their managerial levels
- Reports for top-level management are more summarized, less frequent and more in numbers
- Reports for lower level of management are more detailed, more frequent and less in numbers
- A management reporting system is essentially a mechanism for monitoring the 'mission' of an organization in terms of objectives set out in formal plan evolved by the organization.
- Inefficient reporting processes that yield inaccurate and dated information normally cause more harm than good.
- Effective processes uncover material financial misstatements prior to circulating information with investors and other stakeholders, and identify and address problem areas before they elevate to unmanageable organization.
- The components of an effective management reporting programme are discovery, analysis, report creation and delivery, implementation, access point, feedback, in-house IT capabilities.
- A good report will help the management in taking the expected action to improve the performanceof the concern.
- Information can be presented in two forms : Verbal or written
- Some of the important attributes of information are accuracy, timeliness, relevance and completeness
- Reports are classified into three types: Contents, Form, Frequency.
- There are three forms of reporting: Descriptive, Tabular & Graphic Presentation.
- Routine reports are rendered at periodic intervals.
- The intervals at which routine reports are to be presented should be fixed for each report.
- Special reports are to be presented after investigating the problem which requires to be scruitinized.

## GLOSSARY

**Management Reporting System**

It is a mechanism for monitoring the 'mission' of an organization in terms of objectives set out evolved by the organization with a formal planning

**Routine reports**

Routine reports are reports which are rendered at periodic intervals.

**Special reports**

Special reports are to be presented after thoroughly investigation of the problem which requires to be scrutinized

## TEST YOURSELF

1. What is reporting? What are the essential requisites for a report to make it useful to management?
2. What do you understand by the term "reporting to the management"? Discuss briefly the matter that how you would deal with a matter while reporting to the Board of Directors?

# Lesson 18 Decision Making Tools

***Key Concepts One Should Know***

- Marginal costing
- Absorption costing
- CVP Analysis
- Transfer Pricing
- Activity based costing

## *Learning Objectives*

To understand the:

- Meaning of Absorption Costing, Its Advantages and Limitations
- Marginal Cost and Marginal Costing Meaning
- Features of Marginal Costing
- Distinction between Direct Costing and Absorption Costing
- Distinction between Contribution and Profit
- Arguments For and Against Marginal Costing
- Distinction between Absorption Costing and Marginal Costing
- Impact of inflation on Holding of Large Inventories
- Behavioural Considerations of Absorption Costing
- Practical Applications of Marginal Costing

## *Lesson Outline*

- Marginal Costing Vs Absorption Costing
- Practical Applications of Marginal Costing
- Cost-Volume-Profit Analysis
- Break Even Analysis
- Transfer Pricing
- Transfer Pricing for Domestic Transactions
- Transfer Pricing for International Transactions
- Activity Based Costing
- Traditional Costing
- LESSON ROUND UP
- GLOSSARY
- TEST YOURSELF

## MARGINAL COSTING

The term ***'marginal cost'*** is defined as the amount at any given volume of output by which aggregate costs are changed, if the volume of output is increased or decreased even by one unit.

It is a variable cost of one unit of a product or a service, i.e., a cost which could be avoided if that unit was not produced or provided.

Marginal costing is a principle whereby variable costs are charged to cost units and the fixed costs attributable to the relevant period is written off in full against the contribution for that period. Marginal costing is the ascertainment of marginal cost and the effect on profit because of changes in volume or type of output by differentiating between fixed costs and variable cost. In Marginal costing, costs are classified into fixed and variable costs. The concept of Marginal costing, is based on the behaviour of costs that vary with the volume of output. Marginal costing, is known as 'variable costing' in which only variable costs are accumulated and cost is ascertained only on the basis of variable costs.

### Features of Marginal Costing

- All costs are categorized into fixed and variable costs. Variable cost per unit is same at any level of activity. Fixed costs remain constant in total regardless of changes in volume.
- Fixed costs are considered period costs and are not included in product cost, only variable costs are considered as product costs.
- Stock of work-in-progress and finished goods are valued at marginal cost of production.
- In Marginal costing products transferred from one process to another are valued at marginal costs only.
- Prices are determined with reference to marginal cost and contribution margin.
- Profitability of departments, products, etc., is determined with reference to their contribution margin.
- In accounting, marginal cost, the Overhead Control Account in the Cost Ledger represents only the variable overhead. Fixed costs are taken as expenses in the Profit and Loss Account and, thus excluded form costs.
- Presentation of data is oriented to highlight the total contribution and contribution from each product.
- The difference in the magnitude of the opening stock and closing stock does not affect the unit cost of production since all the product costs are variable costs.

### Formulas Used in Marginal Costing

The formulas used in Marginal costing are as follows:

| | | |
|---|---|---|
| Sales | = | Variable cost + Fixed cost + Profit |
| Sales - Variable | = | Contribution |
| Sales – Variable cost | = | Fixed cost + Profit Contribution |
| Contribution | = | Fixed cost + Profit |
| Contribution – Fixed | = | Profit |
| Profit | = | Contribution – Fixed Cost |
| Fixed Cost | = | Contribution – Profit |

### Meaning of Contribution

In Marginal costing, costs are classified into fixed and variable costs. The contribution is the difference between the sales volume and the marginal cost of sales. It can also be defined as excess of sales revenue over the variable cost. In Marginal costing it is not possible to determine the profit per unit of product because fixed

overheads are charged in total to the Profit and Loss Account rather than recovered in product costing. Contribution is a pool of amount from which total fixed costs will be deducted to arrive at the profit or loss.

**Example:**

Sales value Rs.80,000, Variable cost Rs.50,000 and Fixed cost Rs.20,000

**Solution:**

Contribution = Selling price - variable cost

= Rs.80,000 - 50,000

=Rs.30,000

Profit = Contribution - Fixed Cost

=Rs.30,000 - 20,000

= Rs.10,000

## Contribution and Profit: Distinction

The distinction between contribution and profit is given below:

| CONTRIBUTION | PROFIT |
|---|---|
| 1. It includes fixed cost and profit. | 1. It does not include fixed cost. |
| 2. Marginal costing technique uses the concept of contribution. | 2. Profit is the accounting concept to determine profit or loss of a business concern. |
| 3. At break-even point, contribution equals to fixed cost. | 3. Only the sales in excess of break-even point results in profit. |
| 4. Contribution concept is used in managerial decision-making. | 4. Profit is computed to determine the profitability of product and the concern. |

## ADVANTAGES OF MARGINAL COSTING

1) Cost-volume-profit relationship data wanted for profit planning purposes is readily obtained from the regular accounting statements. Hence management does not have to work with two separate sets of data to relate one to the other.

2) The profit for a period is not affected by changes in absorption of fixed expenses resulting from building or reducing inventory. Other things remaining equal (e.g. selling prices, costs, sales mix), profits move in the same direction as sales when direct costing is in use.

3) Manufacturing cost and income statements in the direct cost form follow management's thinking more closely than does the absorption cost form for these statements. For this reason, management finds it easier to understand and use direct cost reports.

4) The impact of fixed costs on profits is emphasised because the total amount of such cost for the period appears in the income statement.

5) Marginal income figures facilitate relative appraisal of products, territories, classes of customers, and other segments of the business without having the results obscured by allocation of joint fixed costs.

6) Marginal costing lies in with such effective plans for cost control as standard costs and flexible budgets.

7) Marginal costing furnishes a better and more logical basis for the fixation of sales prices as well as tendering for contracts when business is dull.

8) Break-even point can be determined only on the basis of marginal costing.

## LIMITATIONS OF MARGINAL COSTING

Marginal costing technique has the following limitations:

(1) In marginal costing, costs are classified into fixed and variable. Segregation of costs into fixed and variable is rather difficult and cannot be done with precision.

(2) Marginal costing assumes that the behaviour of costs can be represented in straight line. This means that fixed costs remains completely fixed over a period at different levels and variable costs change in linear pattern i.e. the change is proportion to the change in volume. In real life, fixed costs are liable to change at varying levels of production especially when extra plant and equipments are introduced and hence variable costs may not vary in the same proportion as the volume.

(3) Under marginal costing technique fixed costs are not included in the value of stock of finished goods and work-in-progress. As fixed costs are incurred, these should also form part of the costs of the product. Due to this elimination of fixed costs from finished stock and work-in-progress, the stocks are understated. This affects the results of profit and loss account and the balance sheet. Thus, profit may be unnecessarily deflated.

(4) In the marginal costing system monthly operating statements will not be as realistic or useful as under the absorption costing system. This is because under this system, marginal contribution and profits vary with change in sales value. Where sales are occasional, profits fluctuate from period to period.

(5) Marginal costing fails to give complete information, for example rise in production and sales may be due to extensive use of existing machinery or by expansion of the resources or by replacement of the labour force by machines. The marginal contribution of P/V ratio fails to bring out reasons for this.

(6) Under marginal costing system the difficulties involved in the apportionment and computation of under and over absorption of fixed overheads are done away with but problem still remains as far as the under absorption or over absorption of variable overheads is concerned.

(7) Although for short term assessment of profitability marginal costs may be useful, long-term profit is correctly determined on full costs basis only.

(8) Marginal costing does not provide any standard for the evaluation of the performance. Marginal contribution data do not reveal many effects which are furnished by variance analysis. For example, efficiency variance reflects the efficient and inefficient use of plant, machinery and labour and this sort of valuation is lacking in the marginal cost analysis.

(9) Marginal costing analysis assumes that sales price per unit will remain the same on different levels of production but these may change in real life and give unrealistic results.

(10) In the age of increased automation and technology advancement, impact of fixed costs on product is much more than that of variable costs. As a result a system that does not account the fixed costs is less effective because a substantial portion of the cost is not taken into account.

(11) Selling price under the marginal costing technique is fixed on the basis of contribution. This may not be possible in the case of 'cost plus contracts'. Thus the above limitations indicate that fixed costs are equally important in certain cases.

## COST-VOLUME-PROFIT ANALYSIS

In this section, we will try to answer the following questions :

What is Cost-Volume-Profit Analysis and its techniques?

What is the Contribution Margin analysis? What is Break-Even Analysis?

How to find out the Break-Even level? What is Margin of Safety?

How CVP analysis can be used in taking different decisions?

## COST-VOLUME-PROFIT (CVP) ANALYSIS

CVP Analysis is a technique that may used by the management to evaluate how costs and profits are affected by changes in the volume of business activities.

Managers are quite often faced with decisive situations involving sales level, sales mix, selling prices and the right combination of these factors that will produce acceptable profits. As a result of change in operating conditions or change in economic environmental factors, the value of and the relationship among these variables also change. A management accountant may be of great help to answer the questions about the consequences of following particular courses of action such as:

- What would the effect on profits be if the selling price is reduced/or more units are sold?
- What is the level of sales at which the firm will just break even and will not be earning any profits?
- What level of sales must be achieved to earn a desired level of profits?
- What sales level is required to meet additional fixed costs?
- What is the most profitable sales mix?
- What will be the effect of offering sales commission to a salesman out of the profit of the firm?

### Techniques of CVP Analysis

The CVP analysis deals with the prices, costs structure and sales volume and identifies the profit figure with one or other combination of these variables. The key elements in the CVP analysis are selling prices, sales volume, variable cost per unit, total fixed costs and the sales mix (if the firm is dealing with more than one product at a time). There are two basic techniques of CVP analysis. These are:

1. The Contribution Margin Analysis, and
2. The Break-Even Analysis.

The Break-Even Analysis can be taken up in two forms:

(i) Mathematical Approach,

(ii) Graphical Approach.

### Cost Behaviour and CVP Analysis

The income statement prepared as per the variable costing provides the information needed for the CVP analysis. Such income statement, bifurcates costs on the basis of cost behaviour into fixed and variable components. All variable costs are deducted from the sales revenue to find out the contribution margin from where the total fixed costs are deducted the net profit is calculated. The fixed costs are treated as period costs and consequently none if the fixed costs are inventoried. The distinction between fixed and variable costs provides the foundation for the development of linear relationship that can be used to estimate costs and profits at different sales volume. The cost behaviour information (i.e., fixed and variable cost elements) is used by managers to take decisions. Among important uses of cost behaviour information is CVP analysis which deals with the way the costs and profits change as the sales level changes.

### Marginal Cost Equation

Contribution theory explains the relationship between the variable cost and selling price. It tells us that selling price minus variable cost of the units sold is the contribution towards fixed expenses and profit.

If the contribution is equal to fixed expenses, there will be no profit or loss and if it is less than fixed expenses, loss is incurred.

Since the variable cost varies in direct proportion to output, therefore if the firm does not produce any unit, the

loss will be there to the extent of fixed expenses.

These points can be described with the help of following marginal cost equation:

$$S - V = C = F \pm P/L$$

Where, S= selling price, V= variable cost, C= contribution, F= fixed cost, P/L= profit/loss

## Contribution Margin Analysis

By definition, Contribution Margin (CM) is equal to the sales minus variable costs. This can be stated as:

**Contribution Margin = Sales – Variable Cost**

As the selling price per unit and the variable cost per unit are assumed to be constant, the CM per unit also remains constant. Say, the selling price is Rs.50 and the variable cost is Rs. 30. So, the CM will be Rs.20 per unit. Each unit sold by the firm generates a contribution of Rs.20, which is available to recover fixed costs and after they are covered, to contribute to the profit of the firm. This can also be expressed in the form of Contribution Margin Ratio as follows:

$$\text{CM Raito} = \frac{(\text{Selling Price-Variable Cost}) \times 100}{(\text{Selling Price})}$$

The CM Ratio is also known as Profit – Volume Ratio (PV ratio) or Contribution to Sales Ratio.

Suppose, in the above case, the firm is selling 1000 units and the fixed cost of operations is Rs.12,000. The Contribution Margin and the Net Profit will be:

| | | |
|---|---|---|
| CM | = | Sales X CM Ratio |
| | = | (1,000 x 50) x 40% = Rs, 20,000 |
| Net Profit | = | CM-Fixed Cost |
| | = | 20,000-12,000 = 8,000 |

Now, if the sales increases by 100 units or Rs.5000, then the CM as well as NP both will increase by 40% of Rs.5000, i.e., Rs.2000. This can be verified as follows:

| | | |
|---|---|---|
| CM | = | Sales X CM Ratio |
| | = | 55,000 X 40% = Rs. 22,000 |
| Net Profit | = | Rs.22,000–Rs.12,000 = Rs.10,000 |

PV Ratio can also be expressed as :

$$\text{PV Raito} = \frac{(\text{Contribution per unit}) \times 100}{(\text{S.P .per unit})}$$

$$\text{Or,} = \frac{(\text{Total Sales-Total Variable Cost}) \times 100}{(\text{Total Sales})}$$

$$\text{Or,} = \frac{(\text{Change in Contribution}) \times 100}{(\text{Change in Sales})}$$

$$\text{Or} = \frac{(\text{Fixed Cost}) \times 100}{(\text{BE Sales})}$$

The CM is the difference between sales and the variable costs (VC), or

CM = Sales-Variable Cost

Or, VC = Sales-CM

## THE BREAK EVEN ANALYSIS

The Break Even Analysis (BE Analysis) is the fundamental technique of CVP analysis. The CM per unit is available (i) for the recovery of the fixed cost, and (ii) to contribute towards the profit of the firm. Since the fixed costs remain constant over a given period, the firm must sell enough units to generate sufficient total CM, which is at least equal to the total fixed cost. The BE point is the sales level at which the contribution margin is just equal to the fixed cost, and the firm has no profit no loss. At the BE sales level, the total costs fixed + variable) are just covered. Any sales level below the BE level will therefore result in loss, and sales level above the BE level will bring profit to the firm. Once the BE sales level has been achieved, the net profit will increase by the unit contribution amount for each unit sold.

BE sales level may be computed for a product or for group of products or for the entire firm. All the costs i.e., fixed or variable of the manufacturing and non-manufacturing operations must be incorporated in the calculation of BE level. It may be noted that the BE sales level is the minimum sales level, the firmmust achieve to incur no loss, but in no case should it be taken to imply a desirable level. No firm in the long run can survive by operating at the BE sales only. The BE Analysis may be attempted in mathematical mode in the form BE equation or in graphical mode.

**Break-Even Equation:** The BE Equation may be derived from the basic relationship between sales and profit as follows:

| | |
|---|---|
| Net Profit (NP) | = Sales (S)-Variable Cost (VC) -Fixed Cost (F) |
| or,S | = VC + F + NP |
| No. of Units Sold (U) X S.P. | = (No. of Units Sold X V.C. per unit) + F + NP |
| U x SP | = U X VC + F+NP |

The left hand side of the above equation consists of:

i. The number of units to be sold,

ii. The selling price per unit, and

iii. Total sales value obtained by multiplying the two above.

At the BE level, the profit is zero, and the above equation can written as:

| | |
|---|---|
| U (SP) | = U (VC) + F |
| U (SP)-U(VC) | = F |
| U (SP-VC) | = F |
| U | $= \frac{F}{(SP-VC)}$ |

U = F/ Contribution Margin per unit.

Thus the BE analysis can be applied by determining the value of one or more of these variables. If the selling price is known one can find out the number of units to be sold to break even. If the number of units expected to be sold are known one can use this equation to find out the minimum selling price to break even. Example illustrates the use of BF equation.

**Illustration 1.**

Rama Ltd. is selling at present, 8,000 units of a product at a selling price of Rs.20 per unit. The variable cost is Rs.10 per unit and the fixed costs are Rs.60,000 per annum. The firm can use the BE equation to answer the questions namely:

i. What is the BE sales level for the firm?

ii. How many units the firm must sell to earn a profit of Rs.40,000.

iii. What will be the profit if the fixed costs are reduced by Rs.10,000 and the variable costs are reduced by 10%.

iv. What selling price will give a profit of Rs.40,000 at the sales of 8,000 units.

v. How much extra sales must be made to meet the extra fixed cost of Rs.5,000.

**Solution:**

These questions may be attempted as follows:

(i) BE Sales level: At break even level, the NP is zero and the equation can be written as:

U × SP = U ×VC + F

U × Rs.20 = U × 10 + Rs.60,000

20U = 10U +60,000

10U = 60,000

U = 6,000

The firm should sell 6,000 units (Rs.1,20,000) to break even.

(ii) Desired Sales to earn profit of Rs.40,000: The sales level can be derived as follows:

20U = 10U+60,000 + 40,000

10U = 1,00,000

U = 10,000

So, sales of 10,000 units will give a profit of Rs.40,000.

(iii) Profit level if Fixed cost and Variable costs change: 8,000 × 20 = (8,000 X 9)+50,000 + NP

NP = Rs.1,60,000-72,000-50,000

= Rs. 38,000

(iv) Desired Selling price to earn a Net Profit of Rs.40,000:

8,000 × SP = (8,000 × 10)+60,000+40,000

8,000 ×SP = 80,000 + 60,000+40,000

SP = Rs.22.50

So, a selling price of Rs. 22.50 per unit will give a profit of Rs.40,000 at the sales of 8,000 units.

(v) Extra Sales to meet additional Fixed costs of Rs.5000: U × Rs. 20 = U × Rs. 10 + 60,000+5,000

20U = 10U+65,000

10U = 65,000

U = 6,500

So, additional sales of 500 units will make the firm meet additional fixed cost of Rs.5,000, The BE sales level can be found by directly using the Contribution Margin as follows :

$$\text{BE Sales} = \frac{\text{(Fixed Cost)}}{\text{(CM per unit)}} = \frac{\text{(Rs.60,000)}}{\text{(Rs.20-10)}} = 6{,}000 \text{ units}$$

or BE Sales = (Fixed Cost)/(CM per unit) = (Rs.60,000)/(50%)=Rs.1,20,000

## PROFIT-VOLUME RATIO

The ratio or percentage of contribution margin to sales is known as P/V ratio. This ratio is also known as marginal income ratio, contribution to sales ratio, or variable profit ratio. P/V ratio, usually expressed as a percentage, is the rate at which profit increases with the increase in volume. The formulae for P/V ratio are:

$$\text{P / V ratio} = \frac{\text{Marginal Contribution}}{\text{Sales}}$$

Or

$$\frac{\text{Sales Value - Variable Cost}}{\text{Sales Value}}$$

Or

$$\frac{\text{1– Variable Cost}}{\text{Sales Value}}$$

Or

$$\frac{\text{Fixed Cost + Profit}}{\text{Sales Value}}$$

Or

$$\frac{\text{Change in Profits / Contributions}}{\text{Change in Sales}}$$

(All the above formula mean the same thing).

A comparison for P/V ratios of different products can be made to find out which product is more profitable. Higher the P/V ratio more will be the profit and lower the P/V ratio, lesser will be the profit. P/V ratio can be improved by:

(i) Increasing the selling price per unit.

(ii) Reducing direct and variable costs by effectively utilising, men, machines and materials.

(iii) Switching the production to more profitable products showing a higher P/V ratio.

## SIGNIFICANCE OF PROFIT-VOLUME (P/V) RATIO

Profit volume (or contribution-sales) ratio is a logical extension of marginal costing. It is the study of the interrelationships of cost behaviour patterns, levels of activity and the profit that results from each alternative combination. The significance of profit volume ratio may be enumerated from the following application which are as under:

(a) Ascertainment of profit on a particular level of sales volume.

(b) Determination of break-even point.

(c) Calculation of sales required to earn a particular level of profit.

(d) Estimation of the volume of sales required to maintain the present level of profit in case selling prices are to be reduced by a stipulated margin.

(e) Useful in developing flexible budgets for cost control purposes.

(f) Identification of minimum volume of activity that the enterprise must achieve to avoid incurring losses.

(g) Provision of data on relevant costs for decisions relating to pricing, keeping or dropping product lines, accepting or rejecting particular orders, make or buy decision, sales mix planning, altering plant layout, channels of distribution specification, promotional activities etc.

(h) Guiding in fixation of selling price where the volume has a close relationship with the price level.

(i) Evaluation of the impact of cost factors on profit.

## Margin of Safety

A firm may be interested in evaluating and measuring the risk involved in operating at diff volumes. An important measure of risk, known as Margin of Safety, is an integral part of the CVP analysis. The Margin of Safety is the difference between the Actual Sales (or the budgeted sales) and the break even Sales for a given period.

Margin of safety is calculated as follows:

$$\text{Margin of safety} = \text{Total sales} - \text{Break even sales}$$

Margin of safety can also be calculated with the help of P/V Ratio i.e.

$$\text{Margin of safety} = \frac{\text{Profit}}{\text{P/V Ratio}}$$

Margin of safety can also be expressed as percentage of sales i.e.:

$$= \frac{\text{Margin of safety} * 100}{\text{Total sales}}$$

It is important that there should be reasonable margin of safety, otherwise, a reduced level of activity may prove disastrous. The soundness of a business is gauged by the size of the margin of safety. A low margin of safety usually indicates high fixed overheads so that profits are not made until there is a high level of activity to absorb fixed costs.

A high margin of safety shows that break-even point is much below the actual sales, so that even if there is a fall in sales, there will still be a point. A low margin of safety is accompanied by high fixed costs, so action is called for reducing the fixed costs or increasing sales volume.

The margin of safety may be improved by taking the following steps:

(i) Lowering fixed costs.

(ii) Lowering variable costs so as to improve marginal contribution.

(iii) Increasing volume of sales, if there is unused capacity.

(iv) Increasing the selling price, if market conditions permit, and

(v) Changing the product mix as to improve contribution.

In case of Rama Ltd., the BE sales was 6,000 units. If the firm is operating at 6,000 units only, the margin of safety is zero and decline of even a single unit in sales volume will inflict a loss on the firm. If the firm expects a sales level of 8,000 units, then it has a margin of safety of 2,000 units (8,000-6,000). The Margin of Safety can be presented as a % of sales or as an amount as follows:

$$\text{Margin of Safety} = \text{S.P} \times (\text{Actual Sales} - \text{BE Sales})$$

$$= \text{Rs.20} \times (8000-6000) = \text{Rs.40,000}$$

$$\text{or Margin of Safety} = \frac{(\text{Expected Sales}-\text{BE Sales}) \times 100}{(\text{Expected Sales})}$$

$$= \frac{((8000 \times 20)-(6000 \times 20)) \times 100}{((800 \times 20))}$$

$$= \frac{(1,60,000-1,20,000) \times 100 = 25\%}{1,60,000}$$

A firm having large margin of safety is naturally less vulnerable to risk as compared to one that has low margin of safety. The general rule in this respect may be stated as follows: The greater the margin of safety, the lower the risk and vice versa.

It may be noted that the Margin of Safety depends too much on the cost pattern of the firm. Even if two firm have same sales level and same profit, the margin of safety may not be equal. This has been explained in the following. Example

**Illustration 2.**

There are two firm A Ltd. and B. Ltd. The sales and cost information for these two firms are given below:

| | A Ltd. | B Ltd. |
|---|---|---|
| Sales (Units) | 10,000 | 10,000 |
| Selling Price (per unit) | Rs.20 | Rs.20 |
| Variable Cost (per unit) | Rs.15 | Rs.10 |
| Fixed Cost | Rs.40,000 | Rs.90,000 |

Analyse the cost information.

**Solution:**

The profit position, BE sales and Margin of Safety may be presented as follows:

| | A Ltd. | B Ltd. |
|---|---|---|
| Sales (1000 × 20) | Rs. 2,00,000 | Rs. 2,00,000 |
| Variable Cost | 1,50,000 | 1,00,000 |
| Contribution | 50,000 | 1,00,000 |
| Fixed Cost | 40,000 | 90,000 |
| Net profit | 10,000 | 10,000 |

| | A Ltd. | B Ltd. |
|---|---|---|
| BE Sales | Rs.1,60,000 | Rs.1,80,000 |
| Margin of Safety(Rs.) | 40,000 | 20,000 |
| Margin of Safety (%) | 20% | 10% |

It is evident that Margin of Safety of A Ltd. (Rs. 40,000 or 20%) is double than that of B Ltd. (Rs. 20,000 or 10%) in spite of the fact that both have same sales (in volume as well as in rupees) and same profit level. The difference in margin of safety can be traced to the fact that the cost structures of two firms are entirely different. B Ltd. has higher fixed cost as compared to A Ltd. and the former would suffer losses more quickly than the latter in case of decrease in sales. If a firm has high risk level as indicated by low margin of safety, then the following steps may be taken to improve the position:

(i) Increasing the overall sales level.

(ii) Reduction in fixed cost or conversion of fixed cost into variable costs.

(iii) Reducing the BE level by increasing the contribution.

**CVP Analysis and Target Net Profit:** The CVP analysis can be done to determine the sales volume needed to earn a desired amount of profit. This desired profit can be expressed as a fixed absolute amount, or as a % of sales. Say, Rama Ltd. is interested in earning a minimum profit of 80,000 or minimum profit of 10% of sales. What level of sales must be achieved?

**(i) Target Profit of Rs. 80,000:** The basic BE equation is:

S = VC + F + Profit

S = .5S + Rs.60,000 + Rs.80,000

0.5S = 1,40,000

S = 2,80,000

This can also be found as follows:

Desired = (F + Desired profit)/C.M. Ratio

$$= \frac{60,000 + 80,000}{50\%} = Rs.\ 2,80,000$$

So, the sales of Rs.2,80,000 (or 14,000 units) will give a profit of 80,000.

**(ii) 10% of Sales:** If the firm wants to earn profit of 10% of sales, then it can be presented as follows: 0.1S = 0.5S + Rs.60,000

0.4S = 60,000

S = 1,50,000

So, at the sales level of 1,50,000, the profit will be 10% of sales.

**Illustration 3. (Calculation of margin of safety)**

You are given the following data:

| | Sales | Profit |
|---|---|---|
| Year 2018 | Rs.1,20,000 | Rs.8,000 |
| Year 2019 | Rs.1,40,000 | Rs.13,000 |

Find out:

(i) P/V Ratio,

(ii) B.E. Point,

(iii) Profit when sales are Rs.1,80,000

(iv) Sales required to earn a profit of Rs.12,000

(v) Margin of safety in year 2019

**Solution:**

| | Sales | Profit |
|---|---|---|
| Year 2018 | Rs.1,20,000 | 8,000 |
| Year 2019 | Rs.1,40,000 | 13,000 |
| Difference | Rs. 20,000 | 5,000 |

Change in profit

$$\text{(i) P/V Ratio} = \frac{\text{Change in profit}}{\text{Change in sales}} \times 100$$

$$\text{(i) P/V Ratio} = \frac{5,000}{20,000} \times 100 = 25\%$$

(ii) Break-even point:

F = ( S x P/V Ratio ) - P

Year 2018: F = ( Rs.1,20,000 x 25% ) - Rs.8,000 = Rs.22,000, or

Year 2019: F = ( Rs.1,40,000 x 25% ) - Rs.13,000 = Rs.22,000

$$\text{Break-even point} = \frac{\text{Fixed costs}}{\text{P/V Ratio}}$$

$$\frac{\text{Rs.22,000}}{25\%}$$

= Rs. 88,000

(iii) Profit when sales are Rs.1,80,000

P = (S x P/V Ratio ) - F

= ( Rs.1,80,000 x 25% ) - 22,000

= Rs.23,000

( iv ) Sales required to earn a profit of Rs.12,000

$$\text{S (Rs.)} = \frac{\text{Fixed costs + Desired Profit}}{\text{P/V Ratio}}$$

$$= \frac{\text{Rs.22,000 + 12,000}}{25\%} = \text{Rs.1,36,000}$$

(v) Margin of safety in 2019

Margin of safety= Actual sales - Break-even sales

= Rs.1,40,000 - 88,000

= Rs. 52,000

## Applications of CVP Analysis

The CVP analysis, as discussed so far, has many applications in decision-making. Once the CVP relationship of a firm is determined, the management can use this information in a number of decision-making situations. The CVP analysis can be used in the budgeting process where several alternative strategies regarding future performance are evaluated. Different applications of CVP analysis can be examined as follows:

The following information is available in respect of ABC Ltd.

| | |
|---|---|
| Current operating level | 500 Units |
| Selling price (per unit) | Rs.250 |
| Variable Cost (per unit) (60%) | Rs.150 |
| Contribution Margin (40%) | Rs.100 |
| Fixed Cost | Rs.35,000 |
| Current Sales (500 × 250) | Rs.1,25,000 |

Now, one or more of there variables may be changed to see the effect on profitability with the help of CVP analysis as follows :

**(i) Change in Variable Costs and Sales Volume:**

In many situations, a firm cannot increase its selling prices because of competitive environment. However, it may have opportunity of reducing the cost of production by using less expensive raw material, packing material etc. But this may result in less sales. This gives rise to a decision-making.

Suppose, ABC Ltd. has a proposal of utilizing a cheaper raw material which will reduce the variable cost to Rs.125 per unit. However, the use of cheaper raw material may result in decrease in sales by 10% (to 450 units only). Should the firm use cheaper raw material? This can be explained as follows:

| | |
|---|---|
| Present Contribution Margin | Rs.100 per unit |
| New Contribution Margin | Rs.125 per unit |
| Total Existing Contribution Margin (500 × 100) | Rs.50,000 |
| Total New Contribution Margin (450 ×125) | Rs.56,250 |
| Increase In Contribution Margin | Rs,6,250 |

As the Fixed cost is not expected to change, the profit of the firm would also increase by Rs.6,250. So, the cheaper raw material may be used. Moreover, the BE sales level which presently is 350 units (Rs. 35,000 ÷Rs. 100) will be reduced to 280 units (Rs. 35,000 ÷Rs. 125) only.

**(ii) Change in Fixed Cost and Sales Volume:**

Quite often, the firm may have a proposal to increase the sales level by increasing fixed costs of advertisement, etc. This decision-making situation may be evaluated as follows:

Say, ABC Ltd. (refer to original data) has a proposal that sales can be increased to 600 units by incurring additional advertisements of 12,000. Should it be implemented?

| | |
|---|---|
| Existing Sales(500 × 250) | Rs. 1,25,000 |
| New Sales (600 × 250) | Rs. 1,50,000 |
| Increase in Sales | 25,000 |
| Increase in Contribution Margin (40% of 25,000) | 10,000 |
| Increase in Fixed Cost | 12,000 |
| Net decrease in Profit | 2,000 |

The firm need not take up the advertisement because the net profit is expected to fall by Rs.2,000. In this case, the BE sales level will increase from 350 units to 470 units, i.e., (35,000 + 12,000) ÷100. This is self evident the fixed cost has increased from Rs. 35,000 to Rs. 47,000. Even if the existing sales figure (Rs.1,25,000) is not known, the incremental sales, i.e., Rs.250 × (600 - 500) Rs. 25,000 can be taken upto proceed in the similar way. This incremental analysis is simple but concentrates on the variables involved only.

**(iii) Change in Fixed Cost, Variable Costs and Sales Volume :**

The management may face a situation which involves a trade off between a fixed cost and a variable cost. The CVP analysis may be used in such situation as follows: Say ABC Ltd. (refer to original data) has a proposal that sales staff may be paid a commission of 10% of sales instead of fixed salaries totalling Rs.8,000. Should the change in staff remuneration be introduced given that sales will increase by 10%? It may be noted that this situation involves a simultaneous change in 3 variables. This can be analyzed as follows:

| | |
|---|---|
| New Variable Cost per unit (Rs. 150+10% of Rs. 250) | Rs.175 |
| New Fixed Cost | Rs.27,000 |
| New Contribution margin (Rs.250-175) | Rs.75 |
| Increase in Sales (10%) | 50 units |
| Total Contribution (New) (550 × 75) | Rs.41,250 |
| Existing Contribution (500 ×100) | 50,000 |
| Decrease in Contribution | 8,750 |

| | |
|---|---|
| Less : Decrease in Fixed Cost | 8,000 |
| Net Decrease in Profit | 750 |

The net profit of the firm is expected to decrease by Rs.750. So, the proposed scheme need not be adopted. Further, the BE level will also marginally increase from 350 units to 360 units (i.e., 27,000 ÷ 75).

**(iv) Change in Selling Price, Fixed Cost and Sales Volume:**

A firm may have an opportunity to sell more units provided the selling price is reduced marginally and a renewed advertisement campaign is undertaken. The CVP analysis may be used in such situations as explained below:

Say, ABC Ltd. (refer to original data) has a proposal that its sales can be increased by 40% if (i) it reduces its selling price by 10% and (ii) it undertakes advertisement of Rs.15,000. Should it adopt the scheme?

| | |
|---|---|
| New Selling price (Rs.250-10% of 250) | Rs.225 |
| New Contribution Margin (Rs.225-150) | 75 |
| New fixed Cost (Rs.35,000 +15,000) | Rs.50,000 |
| New Sales Level (500 + 40% of 500) | 700 units |
| Total new Contribution (700 × Rs.75) | Rs. 52,500 |
| Total Existing Contribution (500 X 100) | 50,000 |
| Increase in Contribution | 2,500 |
| Less : Increase in Fixed Cost | 15,000 |
| Decrease in Net Profit | 12,500 |

The net profit, after new scheme, would be reduced by Rs. 12,500. So, the firm need not adopt the new scheme. New BE sales level would be 666 units, i.e., (Rs.50,000 ÷ 75).

**(v) Special Pricing situation:**

In certain cases, the management may face a situation where a bulk order may be procured provided the selling price is quoted reasonably low. Assuming that the firm is operating at a level higher than BE level and the total fixed costs are already covered, the price may be quoted as low as the variable cost. But the firm must make some profit from bulk order also otherwise why to take so much of trouble?

Say, ABC Ltd. (refer to original data) has sufficient idle capacity. It has received an enquiry for the supply of 300 units (packed in better box at an additional cost of Rs.20 per box). The company may not entertain the enquiry unless it is expected to give a profit of Rs.6,000. What minimum price should it quote?

As the existing fixed costs are already fully covered, the firm can quote a price which will ensure the recovery of total variable costs as well as the desired profit. This can be found as follows:

| | |
|---|---|
| Variable Cost (per unit) | Rs. 150 |
| Additional variable Cost | 20 |
| Desired Profit (6000 ÷300) | 20 |
| Price to be quoted | Rs.190 |

Now, suppose that the production of additional 300 units will result the increase of fixed cost by Rs.3000. The firm should quote a price which will ensure the recovery of this cost (Rs.10 per unit) also, So, the minimum price to be quoted is Rs.200 (190 +10).

## PRACTICAL APPLICATIONS OF MARGINAL COSTING

Marginal costing is a technique frequently used for short-term decision-making. The important applications of marginal costing as a tool for decision making are listed below:

(a) Key or Limiting factor Analysis

(b) Profit planning

(c) Selection of profitable product mix

(d) Make or buy decisions

(e) Introduction of a new product

(f) Discontinuance of a product or closure of a department

(g) Accept or Reject special offer and sub-contracting

(h) Planning of activity level

(i) Market expansion

(j) Temporary cessation of operations

## Key or Limiting Factor Analysis

Marginal costing can also be used in budgeting to help the management to determine the profit-maximizing budget. Planning is necessary when one or more factors of production or other business resources are in short supply. Marginal costing rally shows its merit when scarce resources are being considered. Examples of resource restrictions which may apply are as follows:

- Limit to the availability of a particular grade of labour
- Shortage of raw materials
- Limit to machine capacity
- Shortage of cash to finance production (working capital)

When labour supply, materials availability, capacity of machine or cash availability limit production to less than the volume which could be actually achieved. Management is faced with the problem of deciding what to produce and what not to produce, because the resources are insufficient to make everything. The limiting factor is often sales demand itself, in which case the business should produce enough goods or services to meet the demand in full, provided that sales of the goods earning positive contribution towards fixed costs and profits.

## Profit Planning

Profit planning is the main goal of any business firm. Profit planning thus becomes a vital starting point of all managerial functions. Marginal costing technique is extensively used by the management in profit-planning. A profit target is fixed and management tries to achieve it by bringing changes in the factors affecting the profit. These factors are: (a) Selling price, (b) Quantity sold, (c) Variable cost per unit, (d) Total fixed costs, and (e) Sales-mix. With the help of marginal citing, the impact of the changes in above variables can easily be evaluated and desired profit can be achieved by the management. Profit figure is planned and activity level is determined to achieve that planned profit. It helps in doing sensitivity analysis by observing different costs and revenue situations, and their resultant impact on profit, and guides in the determining activity level to achieve the targeted profit.

## Selection of Profitable Product Mix

In a multi-product concern, a problem is faced by the management as to which product mix or sales mix will give the maximum profit. The product mix which gives the maximum profit must be selected. Product mix is the ratio in which various products are produced and sold. The marginal costing technique helps the management in taking decisions regarding changing the ratio of product mix which gives maximum contribution or in dropping the unprofitable product line. The product which gives less contribution may be reduced or discontinued. A multi-product company takes weeks to choose its product mix. It analyzes and decides which combination of products would yield the largest total contribution.

## Make or Buy Decisions

A manufacturing industry may make some products, parts or tools related to operation, or sometimes it may buy the same thing from outside. The management must decide which is more profi to the fi making or buying. Such decisions are best taken with full knowledge of the marginal or variable cost of making rather than

buying a product. But it is also helpful to know through Marginal costing what contribution to fi costs will result from a 'make' decision. Sometimes, in manufacturing companies, a problem may arise as to whether the component, subassembly or product is to be manufactured within the organization or purchased from the market.

## Introduction of a New Product

A manufacturing firm may add additional products with the available facility. The new product is sold in the market at a reasonable price, large quantities. It may become popular. If favourable, the sales can be increased but in thus the total cost comes down and contributes some amount towards fixed costs and profits. When a firm intends to introduce a new product into the market, the major consideration in taking such a decision is to see whether that particular product is able to recover atleast its variable cost, and any contribution in excess of variable cost from it would improve the overall profitability of the firm. The important point to note is that all the present fixed costs of the firm are being met by the existing products.

## Discontinuance to a Product or Closure of a Department

The marginal costing technique is used in taking decisions regarding discontinuance of a product. If any product's performance is not impressive, such a product should be discontinued only if there is no contribution margin from that product. In other words.

Marginal costing technique shows the contribution of each product to fixed costs and profit. If a department or a product contributes the least amount, the department can be closed or its production can be discontinued. It means the product which gives a higher amount of contribution may be chosen and the rest should be discontinued.

The following points should be remembered while taking the above decisions :

(a) If a product/product line is dropped, there will be some disengaged capacity, which may be left unused or may be used to increase the production of products/product lines that are during profit.

(b) If any factor of production is key factor (i.e. available in restricted quantity or supply is short), then contribution should be expressed in terms of per unit of key factor.

It is also suggested that the following guiding principles should be followed in taking a its decision to drop a product/product line or department.

(i) Product yielding highest contribution should be accorded top priority in production programme.

(ii) Non-product/product their line should be dropped, if it does'nt yields any amount of positive contribution.

(iii) If any factor is key factor, that product/product line should be dropped as it which provides least contribution per unit of key factors.

## Accept or Reject Special Offer and Subcontracting

In times of taking decisions to accept or reject new order in subcontracting, the organization has to analysis whether it is profitable to accept or reject the new order in subcontracting. The following problems demonstrate the use of the contribution technique.

## Planning of Activity Level

A manufacturing company may have plans to expand or contract the level of activities depending upon the conditions prevailing in the market. Such planning is to be considered before the events overtake the business. Marginal costing is very useful for taking such decisions by enabling management to compare the contribution at different levels of activities.

## Market Expansion

The schemes of sales promotion would aim at increasing the sales volume within the usual sales territories. Sales volume can also be increased by tapping new territories. This can be done either by extending its own marketing organization (such as opening a branch/depot/shop) or through local distributors. A sort of competition may also be there due to the attachment of customers of that area to some other brand, removal of

which will involve higher selling and distribution costs. Marginal costing technique will be useful in providing relevant information in taking market expansion or contraction decisions.

### Temporary Cessation of Operations

A factory or plant may have to cease its operations temporarily for sometime due to various reasons, like labour troubles, material shortage, financial difficulties, major breakdown and lack of orders. Shutdown costs are to be incurred in temporary closing of department/division/enterprise. In such cases closing as well as reopening cost. Shutdown costs may be sub-divided into three parts :

(a) Costs incurred on suspension of operations, e.g., cost of notifying to customers about shutdown, cost of construction of shelters, sheds for protection of plant and machinery, cost of storage of material, retrenchment compensation and lay off costs payable to employees.

(b) Costs incurred during continued shutdown, e.g., cost of care and custody of plant and machinery, security measures for protection of assets and maintenance costs.

(c) Costs incurred in resuming operations after reopening e.g., cost of recruiting and training new workers, re-establishment of marketing contracts and time lag in picking up production.

The marginal costing technique will help the management in taking decision to continue operations or shutdown plant temporarily for sometime. If the existing operations are able to earn at least some contribution to meet fixed costs during the period of shutdown, then the suggested course of action would to continue operations, even if there are losses as it would enable the organization to recover at least its part of fixed costs. In situation where even variable costs are not covered then the operations may be suspended temporarily until there is some improvement in business situation.

$$\text{Shutdown point (Rs.)} = \frac{\text{(Fixed cost – Shutdown cost)}}{\text{(Contribution p.u.)}} \times \text{Selling price p.u.}$$

## ABSORPTION COSTING

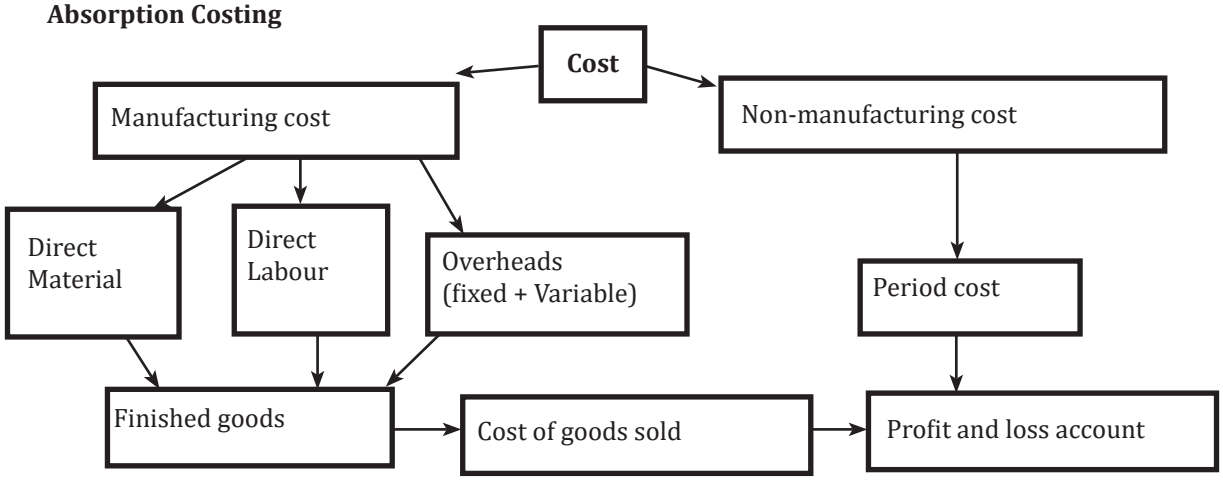
Absorption costing means that all of the manufacturing costs are absorbed by the total units produced. In short, the cost of a finished unit in inventory will include direct materials, direct labour, and both variable and fixed manufacturing overhead. As a result, absorption costing is also referred to as full costing or the full absorption method. Absorption costing is often contrasted with variable costing or direct costing. Under variable or direct costing, the fixed manufacturing overhead costs are not allocated to the products manufactured. Variable costing is often useful for management's decision-making. However, absorption costing is required for external financial reporting and for income tax reporting. It is also referred to as the full- cost technique

### SYSTEM OF PROFIT REPORTING

Absorption costing is a costing technique that includes all manufacturing costs, in the form of direct materials, direct labour, and both variable and fixed manufacturing overheads, while determining the cost per unit of a product. In the context of costing of a product/service, an absorption costing considers a share of all costs incurred by a business to each of its products/services. In absorption costing technique; costs are classified according to their functions. The gross profit is calculated after deducting production costs from sales and from gross profit, costs incurred in relation to other business functions are deducted to arrive at the net profit. Absorption costing gives better information for pricing products as it includes both variable and fixed costs.

Absorption costing technique absorbed fixed manufacturing overhead into the cost of goods produced and are only charged against profit in the period in which those goods are sold. In absorption costing income statement, adjustment pertaining to under or over-absorption of overheads is also made to arrive at the profit. Absorption costing is a simple and fundamental method of ascertaining the cost of a product or service. It is based on sharing of all indirect costs and direct cost to cost units/cost centers. Following chart shows the ascertaining the profit under absorption costing:

**Absorption Costing**




## STOCK VALUATION

Finished goods inventories are over-stated in absorption costing as it includes one more cost element in inventory value than under variable costing, i.e., the fixed manufacturing cost.

| Inventory value under absorption costing:<br>= Direct material + Direct labour +variable manufacturing costs+ Fixed manufacturing costs |
|---|

## Income Determination under Marginal Costing and Absorption Costing

The net profit under the two systems may be same or different. Difference in profit may be because of the different basis of inventory valuation. In marginal costing stocks of work-in-progress and finished goods are valued at variable cost whereas in absorption costing stocks are valued at total cost;

Income statement under the two systems may be prepared in the formats given below :

## Format of Income Statement (Absorption Costing)

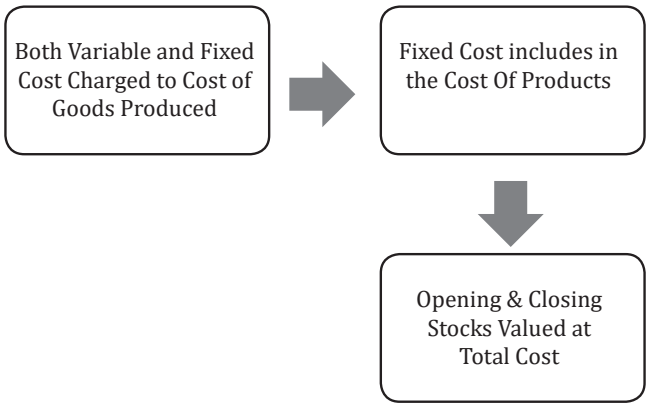
| | Rs. |
|---|---|
| Sales | xxxxx |
| **Production Costs :** | |
| Direct material consumed | xxxxx |
| Direct labour cost | xxxxx |
| Variable manufacturing overheads | xxxxx |
| Fixed manufacturing overheads | xxxxx |
| **Costs of goods produced** | xxxxx |
| Add : Opening stock of finished goods<br>(valued at cost of previous period's production) | xxxxx |
| **Cost of goods available for sale** | |
| Add : (or less) Under (or over) absorption of fixed manufacturing overheads | |
| Add: Administration costs | xxxxx |
| Selling and distribution costs | xxxxx |
| **Total cost** | xxxxx |
| **Profit** (Sales – Total cost) | xxxxx |

## ABSORPTION COSTING AND MARGINAL COSTING: DISTINCTION

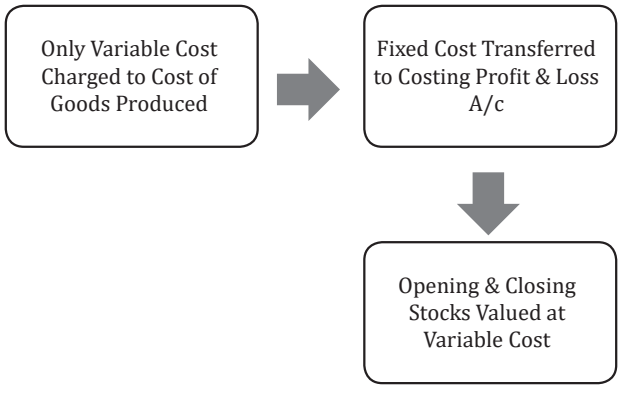
The main points of difference between Absorption Costing and Marginal costing are as follows:

| ABSORPTION COSTING | MARGINAL COSTING |
|---|---|
| 1. Total cost (both fixed and variable) is charged to the cost of products and inventory valuation. | 1. Only variable cost is charged to products and inventory valuation. |
| 2. Fixed cost is included in the cost of products. | 2. Fixed cost is not included in the cost of products. It is transferred to Costing Profit and Loss Account. |
| 3. Opening and closing stocks are valued at total cost which inducts both fixed and variable costs. Stock values in Absorption costing are, therefore, higher than in Marginal costing. | 3. Stocks are valued only at variable costs. Stock values are lower in Marginal costing than in Absorption costing. |
| 4. Profitability is measured by profit earned by various products or departments. | 4. Profitability is judged by the contribution made by various products or departments. |
| 5. Cost data is arrived on conventional pattern and hence is only the net profit for each product that is arrived at. | 5. Cost data helps to know the total contribution and contribution of each product. |
| 6. Valuation of opening and closing stock is affected due to the rued costs. | 6. Difference in valuation of opening and closing stock does not affect the unit cost of production. |

**Absorption Costing**




**Marginal Costing**



## Impact of Inflation on Holding of Large Inventories

In an inflationary economy, prices rise rapidly. Holding large inventories will affect the inventory carrying cost including interest on-funds blocked. There are other risks like obsolescence, deterioration in quality, limited

shelf-life in case of certain materials, etc. In addition to these risks, cheaper substitutes may be available at a later date. New sources of supply may be available at competitive rate or else price may fall. Hence, speculation should be avoided. The funds so blocked may be invested for expansion or diversification, which may result into higher profitability than the benefit arising from holding large inventory. Hence, normal level of inventory may be held to avoid stock-out leading to loss of production. In view of above points all inventory control techniques may be applied for deciding the amount to be invested in inventory. Inflationary economy is one factor, there are several other considerations for deciding the quantum of inventory.

## Behavioural Considerations in Absorption Costing

Absorption costing is based on the progressive reapportionment of costs through cost centres until all non-production costs are identified with production centres where they can be absorbed into the cost of saleable products or services. To avoid behavioural problems in the operation of this system, there are three desirable features:

1) Costs apportioned into a cost centre should be reported separately from those costs incurred by the manager of that cost centre. Only the latter category of costs is 'controllable' by him in the short-term, and it is only in relation to such costs that his performance should be judged.
2) The amounts apportioned should, for control purposes, be at budgeted amounts. Any excess or saving compared with budget should be recognized as the responsibility of the manager of the department where the costs were incurred.
3) At the time of setting budgets there should be a full discussion on cost apportionment proposals. This may give receiving cost centres an opportunity to challenge the level of service department costs, or at least it will ensure that every manager understands how and why the apportionment is made.

**Illustration 4.** Zen Ltd. supplies you the following data :

| | |
|---|---|
| Direct material cost | Rs.48,000 |
| Direct wages | Rs.22,000 |
| Variable overheads – Factory | Rs.13,000 |
| Adm. And selling | Rs.2,000 |
| Fixed overheads – Factory | Rs.20,000 |
| Adm. and selling | Rs.8,000 |
| Sales | Rs.1,25,000 |

Prepare an income statement under absorption costing.

**Solution :**

Income Statement (Absorption Costing)

| | | **Rs.** |
|---|---|---|
| **(A)** | | 1,25,000 |
| Sales | 48000 | |
| Direct materials | 22000 | |
| Direct wages | | |
| Factory overheads– Variable | 13000 | |
| – Fixed | 20000 | |

| | | |
|---|---|---|
| **(B) Cost of Production** | | |
| Adm. and selling overheads | | **1,03,000** |
| – Variable | | |
| | 2000 | |
| – Fixed | 8000 | 10,000 |
| **(C) Total Cost** | | |
| Profit (A-B) | | 12,000 |

| **Format of Income Statement (Marginal Costing)** | |
|---|---|
| | **Rs.** |
| Sales xxxxx | |
| **Variable Manufacturing costs** | xxxxx |
| • Direct material consumed | xxxxx |
| • Direct labour | xxxxx |
| • Variable manufacturing overheads | xxxxx |
| **Cost of goods produced** | |
| Add : Opening stock of finished goods | xxxxx |
| (valued at variable cost of previous period) | xxxxx |
| Less : Closing stock of finished goods (valued at current variable cost) | |
| Cost of goods sold | xxxxx |
| Add : Variable adm., selling and dist. Overheads | xxxxx |
| Total Variable Cost | xxxxx |
| Contribution (Sales – Total variable cost) | xxxxx |
| Less : Fixed cost (production, adm., selling and dist.) | xxxxx |
| **Net Profit** | **xxxxx** |

**Illustration 5.** From the data given in illustration 17.1, prepare an income statement under marginal costing.

**Solution :**

**Income Statement (Marginal Costing)**

| | | | **Rs.** |
|---|---|---|---|
| (A) | Sales | | 1,25,000 |
| (B) | Variable Cost | | |
| | Direct materials | 48000 | |
| | Direct wages | 22000 | |
| | Variable overheads– Factory | 13000 | |
| | – Adm. and selling | 2000 | 85,000 |

| | | | |
|---|---|---|---|
| (C) | Contribution (A-B) | | 40,000 |
| | Fixed overheads – Factory | 20,000 | |
| | – Adm. and selling | 8,000 | |
| | | | 28,000 |
| | Profit (C-D) | | 12,000 |

**Illustration 6**

XYZ Ltd. has a production capacity of 2,00,000 units per year. Normal capacity utilisation is reckoned as 90%. Standard variable production costs are Rs.11 per unit. The fixed costs are Rs. 3,60,000 per year. Variable selling costs are Rs.3 per unit and fixed selling costs are Rs. 2,70,000 per year. The unit selling price is Rs.20

In the year just ended on 30th June, 2019, the production was 1,60,000 units and sales were 1,50,000 units. The closing inventory on 30th June was 20,000 units. The actual variable production costs for the year were Rs.35,000 higher than the standard.

(i) Calculate the profit for the year:
  (a) By absorption costing method and
  (b) By marginal costing method.

(ii) Explain the difference in the profits.

**Solution:**

(i)(a) Income Statement ( Absorption costing)

For the year ended on 30th June 2019

| | Rs. | Rs. |
|---|---|---|
| Sales (1,50,000 units @Rs.20) | | 30,00,000 |
| Production costs: | | |
| Variable (1,60,000 units @ Rs.11) | 17,60,000 | |
| Add: Increase | 35,000 | 17,95,000 |
| Fixed (1,60,000 units @ Rs.2, WN 1) | | 3,20,000 |
| Cost of Goods Produced | | 21,15,000 |
| Add: Opening stock (10,000 units @ Rs.13, WN 2) | | 1,30,000 |
| Cost of Goods available for sale | | 22,45,000 |
| Less: Closing stock (Rs.21,15,000/1,60,000 units x 20,000 units ) | | 2,64,375 |
| Cost of Goods Sold | | 19,80,625 |
| Add: Under absorption of fixed production overheads(3,60,000 - 3,20,000 ) | | 40,000 |
| | | 20,20,625 |
| Add: Variable selling costs ( 1,50,000 units @ Rs.3 ) | | 4,50,000 |
| Fixed selling costs | | 2,70,000 |
| Total costs | | 27,40,625 |
| Profit( Sales - Total costs) | | 2,59,375 |

**Working Note:**

1. Fixed production overheads are absorbed at a pre-determined rate based on normal capacity, i.e. Rs.3,60,000 / 1,80,000 units ( 90% of 2,00,000 units)= Rs.2 per unit
2. Opening stock is 10,000 units, i.e.,1,50,000 units + 20,000 units - 1,60,000 units. It is valued at Rs.13 per unit, i.e.Rs.11 + Rs.2 ( Variable + fixed ).

(i)(b) Income Statement ( Marginal costing)

For the year ended on 30th June 2019

| | Rs. | Rs. |
|---|---|---|
| Sales (1,50,000 units @Rs.20) | | 30,00,000 |
| Variable costs: | | |
| Variable production cost (1,60,000 units @ R | 17,60,000 | |
| Add: Increase | 35,000 | 17,95,000 |
| Variable selling costs ( 1,50,000 units @ Rs.3 ) | | 4,50,000 |
| | | 22,45,000 |
| Add: Opening stock (10,000 units @ Rs.11) | | 1,10,000 |
| | | 23,55,000 |
| Less: Closing stock (Rs.17,95,000/1,60,000 units x 20,000 units ) | | 2,24,375 |
| Variable Cost of Goods Sold | | 21,30,625 |
| Contribution ( sales - Variable cost of goods sold) | | 8,69,375 |
| Less: Fixed production costs | 3,60,000 | |
| Fixed selling costs | 2,70,000 | 6,30,000 |
| Profit ( Contribution - Fixed costs) | | 2,39,375 |

(ii) Reasons for Difference in Profit:

| | |
|---|---|
| Profit as per absorption costing | 2,59,375 |
| Add: Opening stock under valued in marginal costing (Rs 1,30,000 - 1,10,000 ) | 20,000 |
| | 2,79,375 |
| Less: Closing stock under valued in marginal costing (Rs.2,64,375 - 2,24,375) | 40,000 |
| Profit as per marginal costing | 2,39,375 |

## Limiting or Key Factor

The objective of a business is to earn maximum profit. However, it is not always easy to achieve this objective because profit-earning is affected by a variety of factors. For example: An undertaking may have sufficient orders on hand, ample skilled labour and production capacity, but may be unable to obtain all the quantity of material it needs for the manufacture of maximum quantities which could be. Thus, material is the factor which limits the size of output and prevents an undertaking from maximizing its profit. Similarly, sometimes a business is not able to sell all that it can produce. In such a case, sales in the limiting factor.

A limiting or key factor may thus be defined as the factor in the activities of an undertaking which at a particular point in time or over a period limit the volume of output. Examples of limiting factors are :

(i) Sales

(ii) Labour of particular skill

(iii) Financial resources

(iv) Materials

(v) Production capacity or machine hours

The purpose of the limiting factor technique is to indicate the most profitable course of action in all such cases where alternatives are possible.

**Contribution per unit of key factor** – In case a key factor is operating, the most profitable position is reached when contribution per unit of key factor is maximum. For instance, if a choice lies between producing the product A which yields a contribution of R.15 per unit and product B which yields a contribution of Rs.20 per unit, product B would be more profitable.

If however, product A takes 3 kg of material which is a limiting factor) and product B takes 5kg the respective contributions per kg of material would be :

Product A = Rs.15 ÷ 3kgs = Rs.5

Product B = Rs.20 ÷ 5kgs = Rs.4

Product A, which gives the greater contribution in terms of per unit of limiting factor will be more profitable.

**Illustration 7.**The following data is given :

| | **Product A** | **Product B** |
|---|---|---|
| Direct materials | Rs. 24 | Rs. 14 |
| Direct labour @ Rs.3 per hour | Rs. 6 | Rs. 9 |
| Variable overhead @ Rs.4 per hour | Rs. 8 | Rs. 12 |
| Selling price | Rs. 100 | Rs. 110 |
| Standard time | 2hrs | 3hrs |

State which product you would recommend to manufacture when :

(a) Labour time is the key factor

(b) Sales value is the key factor

**Solution :**

| | **Product A (Rs.)** | **Product B (Rs.)** |
|---|---|---|
| Selling price (S) | 100 | 110 |
| Direct material | 24 | 14 |
| Direct labour | 6 | 9 |
| Variable overhead | 8 | 12 |
| Variable cost (V) | 38 | 35 |
| Contribution (S-V) | 62 | 75 |
| (a) Contribution per labour hour | Rs.62 ÷ 2 hrs | Rs.75 ÷ 3hrs |
| (b) Contribution per rupee of sales value | = Rs.31 | = Rs.25 |
| | = Rs.62 ÷ 100 | =Rs.75 ÷ 110 |
| | = 62 paise | = 68 paise |

**Conclusion :**

(a) Product A is recommended when labour time is the key factor because contribution per labour hour of product A is more than that of product B.

(b) When sales value is the key factor, product B is recommended because contribution per rupee of sales alue of product B is more than that of product A.

(c) When sale quantity is the key factor, product B is more profitable because its contribution per unit is higher than that of the product A.

**Illustration 8.** (Income Statement – Marginal vs. Absorption Costing)

The following cost data is available from the records of M/s ZP Ltd., with regard to their product 'Milenium'

Selling price per unit Rs.60.00

Variable cost per unit Rs.36.00

Fixed cost per unit Rs.12.00

Normal output 1,00,000 units

Other additional data available for four consecutive periods are as under :

| | Period I | Period II | Period III | Period IV | Total units |
|---|---|---|---|---|---|
| Opening stock | – | – | 30,000 | 20,000 | – |
| Production | 1,00,000 | 1,20,000 | 1,10,000 | 90,000 | 4,20,000 |
| Sales | 1,00,000 | 90,000 | 1,20,000 | 1,10,000 | 4,20,000 |
| Closing stock | – | 30,000 | 20,000 | | – |

You are required to prepare a statement showing profit for different periods, under both marginal costing and absorption costing methods, showing under/over absorption of overheads, if any, and also given your comments.

**Solution :**

**Income Statement (Marginal Costing)**

| | I Rs. | II Rs. | III Rs. | IV Rs. | Total Rs. |
|---|---|---|---|---|---|
| Sales @ Rs. 60 p.u. (A) | 60,00,000 (100000 x 60) | 54,00,000 (90000 x 60) | 72,00,000 (120000 x 60) | 66,00,000 (110000 x 60) | 2,52,00,000 (420000 x 60) |
| Openingstock @ Rs.36 | -- | -- | 10,80,000 | 7,20,000 | -- |
| Production cost @ Rs.36 | 36,00,000 | 43,20,000 | 39,60,000 | 32,40,000 | 1,51,20,000 |
| **Total** | **36,00,000** | **43,20,000** | **50,40,000** | **39,60,000** | **1,51,20,000** |
| Less : Closing stock | -- | 10,80,000 | 7,20,000 | --- | -- |
| Cost of Goods sold (B) | 36,00,000 | 32,40,000 | 43,20,000 | 39,60,000 | 1,51,20,000 |
| Contribution (A- B) | 24,00,000 | 21,60,000 | 28,80,000 | 26,40,000 | 1,00,80,000 |
| Less : Fixed cost | 12,00,000 | 12,00,000 | 12,00,000 | 12,00,000 | 48,00,000 |
| Profit | 12,00,000 | 9,60,000 | 16,80,000 | 14,40,000 | 52,80,000 |

**Income Statement (Absorption Costing)**

| | I Rs. | II Rs. | III Rs. | IV Rs. | Total Rs. |
|---|---|---|---|---|---|
| Sales (A) | 60,00,000 | 54,00,000 | 72,00,000 | 60,00,000 | 2,52,00,000 |

| | | | | | |
|---|---|---|---|---|---|
| Openingstock @ Rs.48 | -- | -- | 14,40,000 | 9,60,000 | -- |
| Production @ Rs.48 | 48,00,000 | 57,60,000 | 67,20,000 | 52,80,000 | 2,01,60,000 |
| Less : Closing stock | --- | 14,40,000 | 9,60,000 | --- | --- |
| Less Over absorbed over head | 48,00,000 | 43,20,000 | 57,60,000 | 52,80,000 | 2,01,60,000 |
| | -- | 2,40,000 | 1,20,000 | --- | 3,60,000 |
| Add : Under absorbed over head | 48,00,000 | 40,80,000 | 56,40,000 | 52,80,000 | 1,98,00,000 |
| | --- | --- | --- | 1,20,000 | 1,20,000 |
| Cost of sales (B) | 48,00,000 | 40,80,0000 | 56,40,000 | 54,00,000 | 1,99,20,000 |
| Profit (A-B) | 12,00,000 | 13,20,000 | 15,60,000 | 12,00,000 | 52,80,000 |

**Comments**

**Period I –** There is no opening or closing stock. Thus profit is the same under marginal costing and absorption costing.

**Period II –** Profit under absorption costing is higher because closing stock is more than the opening stock.

**Period III –** Profit under marginal costing is higher because opening stock is more than closing stock.

**Period IV –** Profit is higher in marginal costing because opening stock is more than closing stock.

**Overall –** For the full year (overall) profits under the two systems equal because there is no opening or closing stock.

**Illustration 9.** From the following data calculate the break-even point

| | |
|---|---|
| Direct material per unit | Rs.3 |
| Direct labour per unit | Rs.2 |
| Fixed overhead (total) | Rs.10,000 |
| Variable overhead | 100% on direct labour |
| Selling price per unit | Rs.10 |
| Trade discount | 5% |

Also determine the net profits, if sales are 10% above the break-even point.

**Solution :**

**Marginal Cost Statement**

| | Rs. |
|---|---|
| Net selling price (Rs.10-5% discount) | 9.50 |
| Direct material | 3.00 |
| Direct labour | 2.00 |
| Variable overheads | 2.00 |
| Variable cost | 7.00 |
| Contribution (Rs.9.50-7.00) | 2.50 |

Break-even point = 4,000 units

Break-even point = $\frac{\text{TTåTTT}}{\text{'GиT}}$ = 4,000 units

| | Rs. |
|---|---|
| B.E. Point (in Rs.) = 4,000 units @ Rs.10 | 40,000 |
| Less : 5% discount | 2,000 |
| Net sales value of B.E. Point | 38,000 |
| When sales are 10% above B.E. point | |
| Sales = 4,000 + 10% = 4,400 units | **Rs.** |
| Contribution (4,400 units x Rs.2.50) | 11,000 |
| Less : Fixed cost | 10,000 |
| Profit | 1,000 |

## TRANSFER PRICING

When responsibility accounting concept took roots in performance appraisal and the heads of divisions felt that their performance should be evaluated on a level playing ground, the concept of cost centres gave way to profit centres. Each division became a profit centre on its own, taking into consideration the credit for the performance, in terms of a return, to be added on to cost, before they transferred their product for further conversion in the subsequent division.

The quantum of return to be added to the cost of the product or product component or intermediate product produced by the division became a very interesting but complicated exercise. This exercise took the form of transfer pricing, which has grown significantly in stature.

Normally, a transaction between two companies, when they are not related, becomes a sale. When they are related or under common control, however, these transactions are covered under transfer pricing. Transfer price represents the value or price at which transactions take place between related parties. Again, transfer price is a price at which a company transfers physical goods and intangible property, as also provides services to associated companies. With globalization, almost 60 per cent of the companies have their own associates or subsidiaries, and, as such, these transactions are covered by transfer pricing, especially to minimize tax incidence.

Transfer pricing is needed to monitor the flow of goods and services among the divisions of a company and to facilitate divisional performance measurement. The main use of transfer pricing is to measure the notional sales of one division to another division. Thus the transfer prices used in the organization will have a significant effect on the performance evaluation of the various divisions. This requires that the system of transfer pricing should be objective and equitable. Transfer pricing becomes necessary when there are internal transfers of goods or services and it is required to appraise the separate performances of the divisions or departments involved.

Transfer pricing is the process of determining the price at which goods are transferred from one profit center to another profit center within the same company. If profit centers are to be used, transfer prices become necessary in order to determine the separate performances of both the 'buying' and 'selling' profit centers. If transfer prices are set too high, the selling center will be favored whereas if set too low the buying center will receive an unwarranted proportion of the profits.

### Objectives of Transfer Pricing

1. **Profitability:** The transfer pricing should pay close attention to the profitability of both the divisions of the organizations. Since both, the divisions belong to the same firm. Thus the items, goods, and services can be configured at any arbitrary price.
2. **Goal congruence:** The prices should be set so that the divisional management desire to maximize divisional earnings is consistent with the objectives of the company as a whole. The transfer prices should

not encourage sub-optimal decision-making. The system should be so designed that decisions that improve business unit profits will also improve company profits.

3. **Performance appraisal:** The prices should enable reliable assessments to be made of divisional performance. The prices form part of information, which should:
   - Guide decision making
   - Appraise managerial performance
   - Evaluate the contribution made by the division to overall company profits.
   - Assess the worth of the division as an economic unit.

   The transfer prices should be designed such that they help in measuring the economic performance.
4. **Divisional autonomy:** The prices should seek to maintain the maximum divisional autonomy so that the benefits of decentralization (motivation, better decision-making, initiatives, etc.) are maintained. The profits of one division should not be dependent on the actions of other divisions.
5. **Simple and easy:** The system should be simple to understand and easy to administer.
6. The transfer price should provide each segment with the relevant information required to determine the optimum trade-off between company costs and revenues.

## Transfer Pricing Methods

Since the products and services would be transferred within the company itself, the external market mechanism to set transfer prices may not necessary apply. The method by which transfer prices are set is determined by management and can be any of the following broad systems. The methods of transfer pricing can be divided into four categories:

1. Market based transfer pricing
2. Cost based transfer pricing
3. Negotiated transfer pricing
4. Opportunity cost transfer pricing

### 1. Market Based Transfer Pricing

Where a market exists outside the firm for the intermediate product and where the market is competitive (i.e. the firm is a price taker) then the use of market price as the transfer price between divisions would generally lead to optimal decision making. Such a price would meet all of the objectives of a transfer price i.e.

- Achieve goal congruence
- Realistic performance evaluation
- Maintain autonomy of the divisions

Where significant external buying and selling costs exist then a transfer may be set somewhat lower than market price to reflect the cost savings from internal transfers. The circumstances may lead to negotiated market prices where the total cost savings are apportioned between the buying and selling divisions. In such circumstances an arbitration procedure may be required but too much central intervention of this nature could undermine the autonomy of the divisions.

Where appropriate market price exists then their use represents a feasible ideal. However the following difficulties may arise in applying the concept:

(a) No market for the intermediate product or service being considered

(b) Though market exists, difficulty in obtaining a competitive price. (price is only strictly comparable when all features are identical- quality, delivery, finish, and so on.

(c) Market exists but is not perfectly competitive i.e. the market is affected by the pricing decision of divisional managers.

(d) Market prices that are available may be considered unrepresentative e.g. there may be considerable excess capacity in the intermediate market that current quotations are well below long run average price. In such circumstances the use of either the current, abnormally low price or the long run "normal" price may lead to sub-optimal decision making on the part of the supplying divisional management or to loss of motivation and autonomy of the purchasing division.

**Adjusted market price:** Inter-divisional transfers in most situations cannot replicate a competitive market situation. A division may have the advantage or disadvantage of being a captive buyer or captive supplier. Capacities may be related which are different from the economically competitive capacities to take advantage of the synergies of integration or to remove the uncertainties attached with the supply of critical items by outside parties, etc. these and many other factors may be considered while fixing the transfer prices. They will thus justify the setting of transfer prices based on adjusted market price. The extent of adjustment to market price will still have to be decided.

## 2. Cost Based Transfer Pricing

Cost based transfer pricing systems are commonly used because the conditions for setting ideal market prices frequently do not exist; e,g. there may be no intermediate market or the market which does exist may be imperfect.

Providing that the required information is available, a decision rule that would lead to optimal decisions for the firm as a whole, would be to transfer at marginal cost up to the point of transfer, plus any opportunity cost to the firm as a whole.

**Limitations:**

Even assuming that variable outlay costs as conventionally recorded in accounting systems, are a reasonable approximation of economic marginal costs the imposition of such a rule would undermine the concept of profit centers in that the profitability of divisions required to transfer at marginal cost could not be appraised and The autonomy of divisions would be affected.

- The cost may include inefficiencies of the selling division which would thus be passed on to the buying division. Accordingly, standard cost, rather than actual costs should be used as the basis of the transfer price in order not to burden the buying department with the inefficiencies of the supplying department.
- The two main cost derived methods are those based on full cost and variable cost.

### A. Full Cost Transfer Pricing

In this method, the transfers are made at full costs plus a profit markup. The full cost (or cost plus) is likely to be treated by the buying division as an input variable cost so that external selling price decisions , if based on cost may not be set at levels which are optimal as far as the firm as a whole is concerned.

Limitations of full cost transfer pricing;

- The calculated cost is only accurate at one level of output.
- The validity of any pricing decision base on past costs is questionable
- When transfers are made at full cost plus a profit markup the selling division is automatically given a certain level of profit rendering genuine performance appraisal difficult
- When the selling division is inefficient or working at low volume the costs may be unacceptably high as
- far as the buying division is concerned.

### B. Variable Cost Transfer Pricing

Here transfers are made at the (standard) variable costs up to the point of transfer. Assuming that the variable cost is a good approximation of economic marginal cost then this system would enable decisions to be made which would be in the interest of the firm as a whole.

However, variable cost based prices will result in a loss for the selling division so performance appraisal becomes meaning less and motivation will be reduced.

Sub-optimal decision making may be minimized by the following:

**(a) Two step pricing:** a transfer price is established that includes two charges:

1. A charge is made for each unit sold that is equal to the standard variable cost of production.
2. A periodic (usually monthly) charge is made that is equal to the fixed costs associated with the facilities reserved for the buying unit.

One or both of these components should include a profit margin.

**(b) Profit sharing:** a profit sharing system might be used to ensure congruence of business unit interest with company interest. This operates as follows:

1. The product is transferred to the marketing unit at standard variable cost.
2. After the product is sold, the business units share the contribution earned, which is the selling price minus the variable manufacturing and marketing costs.

This method of pricing may be appropriate if the demand for the manufactured product is not steady enough to warrant the permanent assignment of facilities, as in the 2-step method. In general, this method accomplishes the purpose of making the marketing unit's interest congruent with the company's. This dual transfer price approach has an apparent fairness in that credit for profits earned and shared between divisions but performance appraisal based on arbitrarily apportioned profit shares has obvious shortcomings and administrative difficulties.

The problems in implementing a profit sharing system are:

1. There can be arguments over the way contribution is divided between the two profit centers. Senior management might have to intervene to settle these disputes which is costly, time consuming, and works against a basic reason for decentralization, namely, autonomy of business unit managers
2. Arbitrarily dividing up the profits between units does not give valid information on the profitability of each segment of the organization.

Since the contribution is not allocated until after the sale has been made, the manufacturing unit's contribution depends on the marketing unit's ability to sell and on the actual selling price. Manufacturing units may perceive this situation to be unfair.

A variable cost based transfer price so that and, as a separate exercise, credit the supply division with a share of the overall profit which eventually results from the transferred item.

### 3. Negotiated Transfer Pricing

Transfer price could be set by negotiation between the buying and selling divisions. This would be appropriate if it can be assumed that such negotiations would result in decisions which were in the interest of the firm as a whole and which were acceptable to the parties concerned.

A company could establish a formal mechanism whereby representatives from the buying and selling units meet periodically to decide on outside selling prices and on the sharing of profits for products having significant amounts of upstream fixed costs and profit. This mechanism is workable only if the review process is limited to decisions that involve a significant amount of business to at least one of the profit centers; otherwise, the value of these negotiations may not be worth the effort.

Limitations of negotiated transfer pricing;

1. It is unlikely that the parties concerned have equal bargaining power
2. Protracted negotiations may be time consuming and divert management energies away from their primary tasks
3. Disagreements which are all too likely, will require some form of arbitration by central management which itself undermines the autonomy of divisions and may cause resentment. It must be remembered

that the objectives of divisionalisation is to enhance the overall efficiency of the organization so that care must be taken not to nullify any benefits through inter-divisional wrangling over transfer prices.

**4. Opportunity Cost Transfer Pricing**

In several cases there are situations where the pricing of inter-divisional transfers based on market price or its variants becomes difficult because of the lack of existence of reasonable market for such intermediates. This may also be the case where the supplier division is a monopoly producer or the user division is a monopoly consumer.

In such circumstances the transfer price is set by the central management an ideal option for the central management will be to set the price at a level which equals the opportunity cost of the supplier division and the user division. Both divisions under these circumstances will be encouraged to produce and consume that quantity which is optimal from the point of view of the company as a whole. If the user division fails to provide adequate orders from the supply division the amount of contribution in respect of the production foregone due to lack of orders should be charged from such division.

## ACTIVITY-BASED COSTING

### INTRODUCTION

The Activity-Based Costing (ABC) is a costing system, which focuses on activities performed to produce products. ABC is that costing in which costs are first traced to activities and then to products. This costing system assumes that activities are responsible for the incurrence of costs and create the demands for activities.

E.g. an accounting firm prepares tax returns; a University teaches students. Costs are charged to products based on individual product's use of each activity. In traditional absorption costing system, costs are first traced not to activities but to an organizational unit, such as department or plant and then to products. It means under both, ABC and traditional absorption costing system the second and final stage consists of tracing costs to the product.

ABC aims at identifying as many costs possible to be subsequently accounted as direct costs of production. Any cost that is traced to a particular product via its consumption of activity becomes direct cost of the product. For instance, in conventional costing system, cost of setup and adjustment time is considered as factory overhead and subsequently assigned to different products on the basis of direct labour hours. But in ABC, setup and adjustment time is determined for each product and its costs are directly charged to each product. ABC is generally used as a tool for understanding product and customer cost and profitability.

As global competition intensifies, companies are producing an increasing variety of products and services. They are finding that producing different products and services places varying demands on their resources. The need to measure more accurately how different products and services use resources has led companies such as American Express, Boeing, General Motors, and Exxon Mobil to refine their costing systems. One of the main ways companies around the globe have refined their costing systems is through activity based costing.

## MEANING OF ACTIVITY BASED COSTING (ABC)

**CIMA** defines Activity Based Costing as, 'cost attribution to cost units on the basis of benefit received from indirect activities e.g. ordering, setting up, assuring quality.'

ABC has also been defined by CAM-1 organisation of Arlinton Texas as "the collection of financial and operation performance information tracing the significant activities of the firm to product Costs".

The features of ABC are as under:

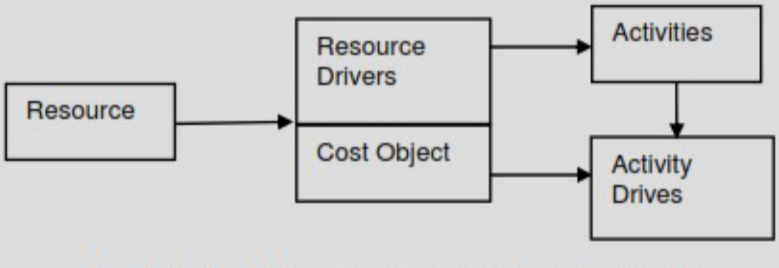
- Activity-based costing (ABC) is a two-stage product costing method that first assigns costs to activities
- and then allocates them to products based on the each product's consumption of activities.
- The cost pools in the two-stage approach now accumulate activity-related costs.
- An activity is any discrete task that an organization undertakes to make or deliver a product or service.

- Activity-based costing is based on the concept that products consume activities and activities consume resources.
- Activity-based costing can be used by any organization that wants a better understanding of the costs of the goods and services it provides, including manufacturing, service, and even non¬profit organizations.

## BASICS OF ABC

ABC assigns costs to products by tracing expenses to "activities". Each Product is charged based on the extent to which it used an activity. The primary objective of ABC is to assign costs that reflect/mirror the physical dynamics of the business provides ways of assigning the costs of indirect support resources to activities, business processes, customers, products. It recognises that many organisational resources are required not for physical production of units of product but to provide a broad array of support activities.

Cost of a product is the sum of the costs of all activities required to manufacture and deliver the product. Products do not consume costs directly. Money is spent on activities which are consumed by product/ services.




**Relationship between resources and cost objects**

## EVOLUTION OF ACTIVITY BASED COSTING SYSTEM

The concepts of ABC were developed in the manufacturing sector of the United States during the 1970's and 1980's. During this time, the consortium for advanced manufacturing - International, now known simply as CAM-I, provided a formative role for studying and formalizing the principles that have become more formally known as Activity Based Costing.

ABC is developed due to many deficiencies of Traditional Cost systems, which lead to the discovery of the ABC System. Which are as under:

(i) The present costing system has developed convenient overhead recovery basis and blanket overhead recovery are acceptable when valuing stocks for financial reporting, but they are inappropriate when used for decision-making and typical product strategy decisions. Such decisions have implications. Over 3-5 years and over this period many fixed costs become variable.

(ii) It's easy to determine accurate costs of products or services when a company has only a few products. When companies expand their product offerings and these products use different amount of resources such as supervision, quality control it is more difficult to determine accurate costs of products. This situation is a main reason why companies use ABC.

(iii) Traditional costing fails to capture cause and effect relationships. If focused on the cost incurred.

(iv) Traditional accounting was confined merely to furnish information at product level. The new manufacturing technology demands the feedback of performance while production is still in progress rather than history.

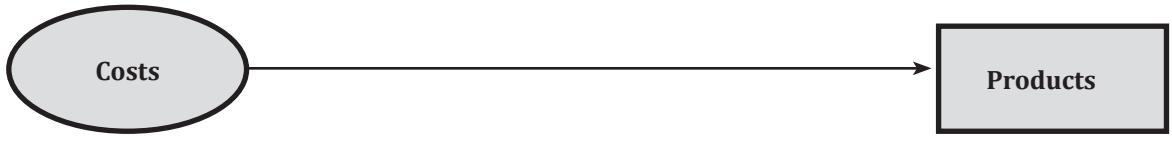
Therefore, in order to overcome the inadequacies of traditional methods of overhead absorption, Activity Based Costing has been devised.

## DISTINCTION BETWEEN TRADITIONAL ABSORPTION COSTING AND ACTIVITY BASED COSTING

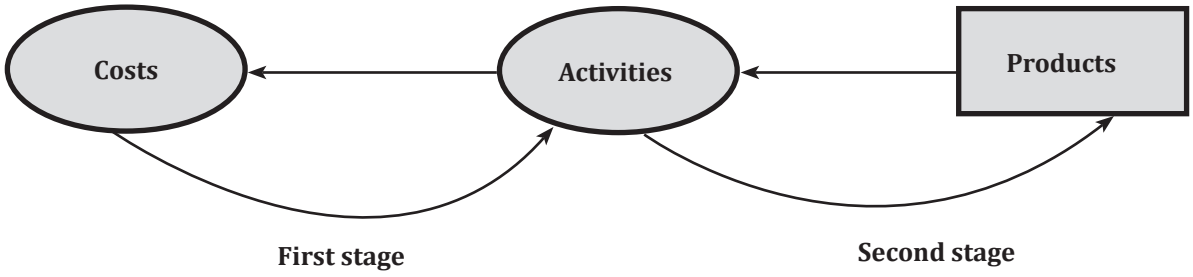
| Traditional Absorption Costing | Activity Based Costing |
|---|---|
| Overheads are first related to departments cost centres (Production and Service Cost Centres) | Overheads are first related to activities or grouped into Cost Pools. |
| Only two types of activities viz. Unit Level Activities and Facility Level Activities are identified. | All levels of activities in the manufacturing cost hierarchy viz. Unit Level, Batch Level, Product Level and Facility Level are identified. |
| This method relates overheads to cost centres i.e. locations. It is not realistic of the behaviour of costs. | This method relates overheads to the causal factor i.e. driver. Thus, it is more realistic of cost behaviour. |

We can summarise the main difference between ABC and traditional costing by following picture:

- **Traditional allocation method**




◊ **Activity-based allocation method**




## OBJECTIVES OF ACTIVITY BASED COSTING

The objectives of Activity Based Costing are as under:

1. To improve product costing
2. To identify non-value adding activities in the production process which might be a suitable focus for attention or elimination
3. To provide required information for decision making
4. To reduce the frivolous (nonessential) use of common resources
5. To encourage managers to evaluate the efficiency of internally provided services
6. To calculate the full cost of products for financial reporting purposes and for determining cost-based prices.

## TERMINOLOGY OF ACTIVITY BASED COSTING

1. ***A Cost Object:*** It is an item for which cost measurement is required e.g. Product, job or a customer.
2. ***A Cost Driver:*** In an ABC system, the allocation basis that are used for applying costs to services or

procedures are called cost drivers. It is a factor that causes a change in the cost of an activity. Few examples of cost driver as under:

| Function | Cost Drivers |
|---|---|
| Research and Development | • Number of research projects<br>• Personnel hours on a project<br>• Technical complexities of projects |
| Customer Service | • Number of service calls<br>• Number of products serviced<br>• Hours spent on servicing products |

3. ***Unit level cost:*** Traditionally, cost drivers were viewed only at the unit level. These drivers create unit-level costs meaning that they are caused by the production or acquisition of a single unit of product or the delivery of a single unit or service.
4. ***Batch level cost:*** Costs are caused by a group of things being made, handled or processed at a single time are referred to as batch level costs.
5. ***Product-level cost:*** A cost caused by the development, production or acquisition of different items is called a product level or process level cost. These include engineering change orders, equipment maintenance, product development and scrap, if related to product design.
6. ***Facility-level cost:*** Some costs cannot be related to a particular product line. These are instead related to providing a facility. For e.g. Cost of maintaining a building or plant security or advertisement promoting the organization.
7. ***Organizational-level cost:*** Certain costs are incurred at organizational level for the single purpose of supporting continuing facility operations. These organizational level costs common to many different activities and products and services can be prorated among services and products on an arbitrary basis only. These costs are not product related .thus they should be subtracted from net product revenues instead of an arbitrary and illogical apportionment.
8. ***Cost Pool:*** Costs are grouped into pools according to the activities, which drive them. In this all costs associated with procurement i.e. ordering, inspection, storing etc would be included in this cost pool and cost driver identified.

The technique of ABC lays importance on different costs for different costs, which are relevant to a particular decision.

## STAGES IN DEVELOPING ACTIVITY BASED COSTING SYSTEM

### *Step 1. IDENTIFY RESOURCES*

Resources represent the expenditure of an organization. These are the same costs that are represented in a traditional accounting, ABC links these cost to products, customers or services.

### *Step 2. IDENTIFY ACTIVITIES*

Activities represent the work performed in an organization. ABC accounts for the costs based on what activities caused them to occur. By determining the actual activities that occur in various departments it is then possible to more accurately relate these costs to customers, products and services.

### *Step 3. IDENTIFY COST OBJECTS*

ABC provides profitability by one or more cost object. Cost object profitability is utilized to identify money-losing customers to validate separate divisions or business units. Defining outputs to be reviewed is an important step in a successful ABC implement action.

### *Step 4. DETERMINE RESOURCE DRIVERS*

Resource drivers provide the link between the expenditure of an Organisation and activities performed within the Organisation.

### *Step 5. DETERMINE COST (ACTIVITY) DRIVERS*

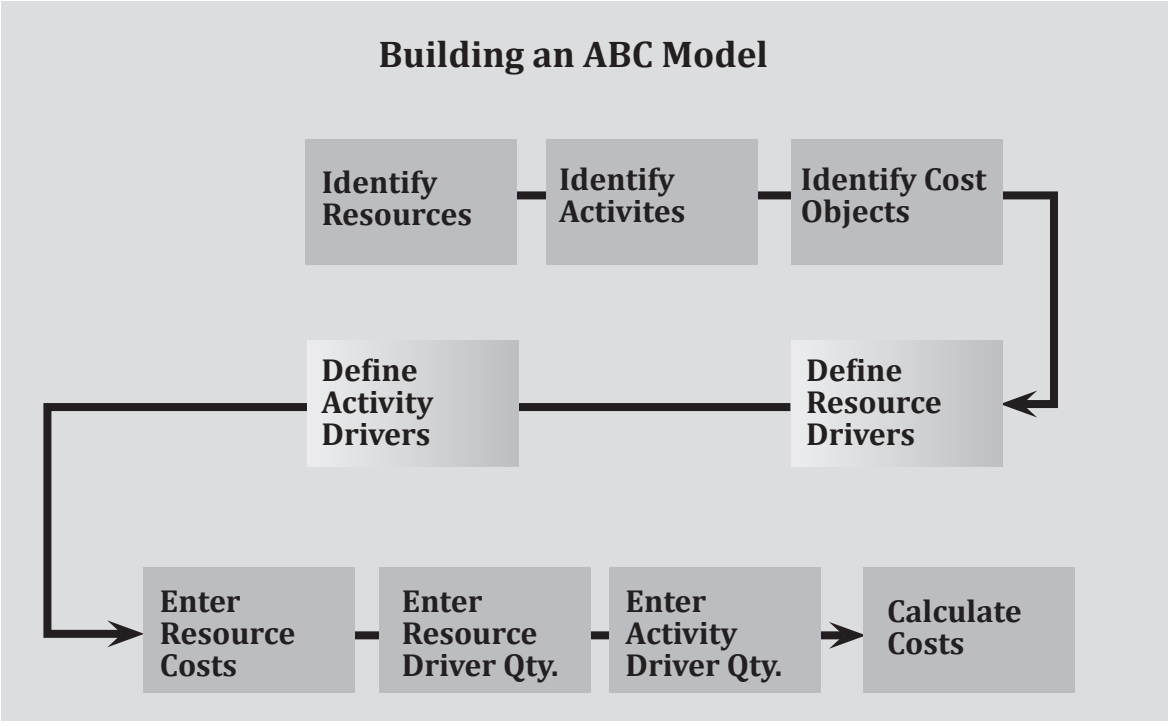
Determination of cost drivers completes the last stage of the model. Cost drivers trace or links the cost of performing certain activities to cost objects.

$$\text{Activity Cost Driver Rate} = \frac{\text{Total Cost of Activity(Cost pool)}}{\text{Activity Cost Driver}}$$

### *Step 6. ASSIGN COSTS TO THE COST OBJECTS*

We can use following formula for assigning costs to the cost objects

| Costs = Resources Consumed x Activity Cost Driver Rate |
|---|




## DIFFERENT TYPES OF ACTIVITIES

### Identification of activities for ABC

***Meaning of Activities:*** Activities comprise of units of work or tasks. For example, purchase of materials is an activity consisting a series of tasks like purchase requisition, advertisement inviting quotations, identification of suppliers, placement of purchase order, follow-up etc.

***Types of Activities:*** Activities basically fall into four different categories, known as the manufacturing cost hierarchy. These categories were first identified by Cooper in 1990 and help to determine the type of activity cost driver required. The categories are:

| Type of Activity | Examples |
|---|---|
| Unit level activities: These are activities for which the consumption of resources can be identified with the number of units produced. It is performed each time a unit is produced. | Use of indirect materials/consumables. |
| Batch level activities: The costs of some activities are driven by the number of batches of units produced. These are activities related to setting up of a batch or a production run. It is performed each time a batch is processed. | Material ordering, Inspection of Products. |
| Product level activities: The cost of some activities are driven by the creation of a new product line and its maintenance. | Designing the product, Producing parts specifications and keeping technical drawings of products. |
| Facility Level Activities: It must be carried out regardless of which products are produced. These are activitiesnecessary for sustaining the manufacturing process and cannot be directly attributed to individual products | Plant Security, Production Manager's Salary and Maintenance of buildings. |

## IMPORTANCE OF ACTIVITY BASED COSTING (ABC)

ABC provides information for decision making about product costs and product-line profitability. Implementation of ABC will emphasis on more precise profit analysis, more accurate costing, better allocation of overhead, improved cost control and cost management. It supports the manager in operating decisions, such as performance measurement, product design and process improvement. It is also used to advocate for strategic decisions, such as customer profitability and pricing and product mix. Due to the increasing accuracy of output costs, ABC information enables managers to make better decisions on product, product design, process improvement, market segments and customer mix. It can lead product designers to decisions on trade offs between minimizing cost and desired performance and it provides the cost information of diverse designs that product designers can compare moreover, using product costing techniques at the design stage can be combined with target costing since product costs can determine the mix of products to manufacture and to sell and can evaluate profitability by product group or customer type.

We can summarise the importance of ABC as under:

1. To link the cost to its causal factor - i.e. the Cost Driver
2. To identify costs of activities rather than cost centres
3. To ascertain product costs with greater accuracy by relating overheads to activities
4. To overcome the inherent limitations of traditional absorption costing and use of blanket overhead rates
5. To assist managers in budgeting and performance measurement
6. To provide the links between the activities, the organizational acts and the resources consumed, and illustrate the differences between resource consumption and resource provision
7. To help in cost control and cost reduction, as well as improved profitability.
8. To provide valuable economic information to support a company's operational improvement and customer satisfaction programs.
9. To furnish many significant benefits over traditional costing techniques
   (a) most accurate data about product cost;
   (b) more comprehensive cost information for performance measurement;
   (c) relevant data for management's decision-making;

(d) more potential for sensitivity analysis;

(e) providing a model prospect on value-adding organizational transactions and activities

## USES OF ACTIVITY BASED COSTING

The areas in which activity based information is used for decision making are as under: -

***1. Activity costs:*** ABC is designed to track the cost of activities, so we can use it to see if activity costs are in line with industry standards. If not, ABC is an excellent feedback tool for measuring the ongoing cost of specific services as management focuses on cost reduction.

***2. Customer profitability:*** Though most of the costs incurred for individual customers are simply product costs, there is also an overhead component, such as unusually high customer service levels, product return handling, and cooperative marketing agreements. An ABC system can sort through these additional overhead costs and determine which customers are actually providing a reasonable profit. This analysis may result in some unprofitable customers being turned away, or more emphasis being placed on those customers who are contributing more in profits.

***3. Distribution cost:*** Organisation uses a variety of distribution channels to sell its products, such as retail, Internet, distributors, and mail order catalogs. Most of the structural cost of maintaining a distribution channel is overhead, so if we can make a reasonable determination of which distribution channels are using overhead, we can make decisions to alter how distribution channels are used, or even to drop unprofitable channels.

***4. Make or buy:*** ABC enables the manager to decide whether he should get the activity done within the firm or outsource the same. Outsourcing may be done if the firm is incurring higher overhead costs as compared to the outsourcer or vice-versa.

***5. Margins:*** With proper overhead allocation from an ABC system, we can determine the margins of various products, product lines, and entire subsidiaries. This can be quite useful for determining where to position company resources to earn the largest margins.

***6. Minimum price:*** Product pricing is really based on the price that the market will bear, but the marketing manager should know what the cost of the product is, in order to avoid selling a product that will lose a company money on every sale. ABC is very good for determining which overhead costs should be included in this minimum cost, depending upon the circumstances under which products are being sold.

***7. Production facility cost:*** It is usually quite easy to segregate overhead costs at the plant-wide level, so we can compare the costs of production between different facilities.

## LIMITATIONS OF ACTIVITY BASED COSTING

Activity based costing help managers in decision making. However activity based costing has certain limitations or disadvantages which as are under:

1. Implementing an ABC system requires substantial resources, which is costly to maintain.
2. Activity Based Costing is a complex system which need lot of record for calculations.
3. In small organisation mangers are accustomed to use traditional costing systems to run then operations and traditional costing systems are often used in performance evaluations.
4. Activity based costing data can be easily misinterpreted and must be used with care when used in decision making. Managers must identify which costs are really relevant for the decisions at hand.
5. Reports generated by this systems do not conform to generally accepted accounting principles (GAAP). Consequently, an organization involved in activity based costing should have two cost systems - one for internal use and one for preparing external reports.

**Illustration 10**

Autolite Private Ltd. an auto repair business, uses activity based costing and accumulates overhead costs in the following cost pools:

- Human Resources
- Parts management
- Purchasing
- Quality Control
- Equipment set-up
- Training employees
- Assembly department
- Receiving department

You are to find out for each cost pool whether the cost pool would be unit-level, batch-level, product-level or facility level.

**Solution:**

| ACTIVITY COST POOL | HIERARCHY |
|---|---|
| Human Resources | Facility-level |
| Parts management | Product-level |
| Purchasing | Batch-level |
| Quality Control | Unit-level |
| Equipment set-up | Unit-level |
| Training employees | Facility-level |
| Assembly department | Unit-level |
| Receiving department | Batch-level |

**Illustration 11**

Explain briefly each of the following categories in Activity based Costing by giving at least three examples:

(i) Batch level activities

(ii) Product level activities

(iii) Facility level activities.

**Solution**

***(i)*** ***Batch level activities -*** The cost of some activities (mainly manufacturing support activities) are driven by the number of batches of units produced. These activities are known as Batch level activities. Examples are:

(i) Material ordering.

(ii) Machine set up cost.

(iii) Inspection of products - like first item of every batch.

***(ii)*** ***Product level activities -*** The cost of some activities are driven by the creation of a new product line and its maintenance. These activities are known as Product level activities. Examples are:

(i) Designing the product.

(ii) Producing parts to a certain specified limit.

(iii) Advertising cost, if advertisement is for individual products.

***(iii)*** ***Facility level activities -*** The cost of some activities cannot be related to a particular product line, instead they are related to maintaining the building and facilities. These activities are known as Facility level activities. Examples are:

(i) Maintenance of buildings.

(ii) Plant security.

(iii) Production manager's salary.

(iv) Advertising campaigns promoting the company.

**Illustration 12**

The cost accountant of ABC Manufacturing attended a workshop on activity-based costing and was impressed by the results. After consulting with the production personnel, he prepared the following information on cost drivers and the estimated volume for each driver.

| | **Products** | | | **Total** |
|---|---|---|---|---|
| | **A** | **B** | **C** | |
| Units produced | 25,000 | 15,000 | 5,000 | 45,000 |
| Direct materials Cost Per Unit in ` | 40.0 | 30.0 | 55.0 | |
| Direct labour in ` | 15.0 | 15.0 | 15.0 | |

| **Cost driver** | **Cost driver volume** | | | **Total** |
|---|---|---|---|---|
| | A | B | C | |
| Number of setups | 125 | 75 | 50 | 250 |
| Machine Hours | 2,500 | 1,500 | 2,000 | 6,000 |
| Direct labour hours | 25,000 | 15,000 | 5,000 | 45,000 |
| Number of Inspection | 50 | 25 | 25 | 100 |

The cost accountant also determined how much overhead costs were incurred in each of the four activities as follows:

| **Activity** | ***Overhead costs in Rs.*** |
|---|---|
| Machining | |
| Setup | 1,50,000 |
| Machining | 7,50,000 |
| Total of Machining Overhead Cost | 9,00,000 |
| Assembly | |
| Assembly | 360,000 |
| Inspection | 90,000 |
| Total of Assembly Overhead Cost | 4,50,000 |
| Total Overhead Cost | 13.50.000 |

**Required:**

1. Determine the cost driver rate for each activity cost pool.
2. Use the activity-based costing method to determine the unit cost for each product.

**Solution:**

**Activity Cost drive rate Machining**

Setup Rs. 600 per setup ( = Rs. 150,000 ÷ 250 setups)

Machining Rs. 125 per machine hour (= Rs. 750,000 ÷ 6,000 machine hours)

**Assembly**

Assembly Rs. 8 per direct labor hour (= Rs. 360,000 ÷ 45,000 direct labor hours)

Inspection Rs. 900 per inspection (= Rs. 90,000 ÷ 100 inspections)

In the following table, the total costs are divided by the number of units to arrive at the unit cost for each product.

| | | A | B | C |
|---|---|---|---|---|
| Direct Materials in Rs. | | 10,00,000 | 4,50,000 | 2,75,000 |
| Direct Labour in Rs. | | 3,75,000 | 2,25,000 | 75,000 |
| **Applied Overhead** | | | | |
| Set Up cost in Rs. | 600 per setup | 75,000 | 45,000 | 30,000 |
| Machining cost in Rs. | 125 per Machine Hours | 3,12,500 | 1,87,500 | 2,50,000 |
| Assembly cost in Rs. | 8 per Labour Hour | 2,00,000 | 1,20,000 | 40,000 |
| Inspection cost in Rs. | 900 per inspection | 45,000 | 22,500 | 22,500 |
| Total Overhead Cost in Rs. | | 6,32,500 | 3,75,000 | 3,42,500 |
| Total Cost in Rs. | | 20,07,500 | 10,50,000 | 6,92,500 |
| Number of Units | | 2,000 | 15,000 | 5,000 |
| Unit Cost in Rs. | | 80.3 | 70 | 138.5 |

**Illustration 13**

The Indiana Company produces only two products: a major computer part and cell phones. The company uses a normal cost system and overhead costs are currently allocated using a plant-wide overhead rate based on direct labor hours. Outside cost consultants have recommended, however, that the company use activity-based costing to charge overhead to products.

The company expects to produce 4,000 computer parts and 2,000 cell phones in 2013. Each computer part requires two direct labor hours to produce and each cell phone requires one-half hour to produce. The direct material and direct labor costs included in the two products are as follows:

| *Item* | *Computer Part* | *Cell Phone* |
|---|---|---|
| Direct Material (per unit) in Rs. | 30 | 17 |
| Direct labour cost per unit in Rs. | 16 | 4 |

Budgeted (Estimated) Total Factory Overhead Data For 2013:

| Activity | *Budgeted Overhead in* ` | Estimated Volume Level |
|---|---|---|
| Production Setups | 80,000 | 20 setups |
| Material Handling | 70,000 | 5,000 lbs. |
| Packaging and Shipping | 120,000 | 6,000 boxes |
| Total Factory Overhead | 270,000 | |

Based on an analysis of the three overhead activities, it was estimated that the two products would require these activities as follows in 2013

| *Activity* | *Computer Part* | *Cell Phone* | *Total* |
|---|---|---|---|
| Production Setups | 5 | 15 | 20 |
| Material handling (lbs) | 1000 | 4000 | 5000 |
| Packaging and Shipping (boxes) | 4000 | 2000 | 6000 |

**Required:**

1. Calculate the cost of each product using a plant-wide rate based on direct labor hours.
2. Calculate the activity cost rates for (a) setups, (b) material handling and (c) packaging and shipping.
3. Cost out the two products using an activity-based costing system.

**Solution**

**Calculation of Labour Cost per Direct labour Hours (D.L.H)**

| *Item* | *Computer Part* | *Cell Phone* |
|---|---|---|
| Direct labour cost per unit in Rs. | 16 | 4 |
| Number of Direct Labour Hour per unit | 2 | 0.5 |
| Direct Labour Cost per hour | 8 | 8 |

**1. The Cost of Each Product Using a Plant-Wide Rate Based on Direct Labour Hours:**

Step 1: Calculation of plant-wide overhead rate:

Total budgeted DLH =

4,000 computer parts x 2 DLH per part + 2,000 cell phones x 0.5 DLH per phone = 9,000 DLH

Over head Rate = Total Budgeted Overhead Dollars/Total Budgeted Direct Labor Hours

= Rs.270,000/ 9,000 DLH = Rs.30 per DLH

Step 2: Calculation of each product's cost using a plant-wide rate:

| *Item* | *Computer Part* | *Cell Phone* |
|---|---|---|
| Direct Material (per unit) in Rs. | 30 | 17 |
| Direct labour cost per unit in Rs. | 16 | 4 |
| Manufacturing overhead @ Rs.30 per labour hour | 60 | 15 |
| **Total** | **106** | **36** |

The Activity Cost Rates for (1) Setups. (2) Material Handling and (3) Packaging and Shipping:

| *Activity* | *Budgeted Overhead in Rs.* | *Estimated Volume Levels* | *Activity cost rates* |
|---|---|---|---|
| Production Setups | 80,000 | 20 | 4000 per setup |
| Material handling (lbs) | 70,000 | 5000 | 14 per lbs |
| Packaging and Shipping (boxes) | 1,20,000 | 6000 | 20 per box |

Cost of the Two Products Using an Activity-Based Costing System:

| ***Item*** | ***Computer Part*** | ***Cell Phone*** |
|---|---|---|
| No of item | 4,000 | 2,000 |
| Direct Material cost in Rs. | 1,20,000 | 34,000 |
| Direct labour cost in Rs. | 64,000 | 8,000 |
| Production set up cost in Rs. | 20,000 | 60,000 |
| Material handling cost in Rs. | 14,000 | 56,000 |
| Packaging and Shipping Rs. | 80,000 | 40,000 |
| Total Manufacturing Cost For All Units in Rs. | 298,000 | 198,000 |
| Total Units Produced | 4,000 parts | 2,000 phones |
| Total Cost Per Unit in Rs. | 74.50 | 99 |

## LESSON ROUND-UP

1. Contribution (C) = Sales – Variable cost (S - V)

Or (C) = Fixed cost + Profit (F + P)

Or (C) = Fixed cost – Loss (F - L)

Thus S – V = F + P

Or S – V = F – L

Also Contribution = Sales in Rs. X P/V ratio

Or Contribution = (Sales at BEP in Rs. X P/V ratio) + Profit

Or Contribution = (Sales at BEP in units x Contribution per unit)+Profit

Or Contribution = (Margin of Safety in Rs. X P/V ratio) + Fixed cost

Or Contribution = (Margin of Safety in units x C per unit) + Fixed Cost

Or $\text{Contribution} = \frac{\text{Proftt}}{\text{Margin of safety in\%}}$

2. Contribution/Sales ratio or Profit/Volume ratio (C/S or P/V ratio)

P/V ratio = - 100

Also P/V ratio = $\frac{\text{Contribution}}{\text{Sales}} = \frac{C}{S} = \frac{S\text{-}V}{S}$ ratio in % x $\frac{\text{C profit}}{\text{S sales}}$

$$\text{P/V ratio} = \frac{\text{Fixed cost}}{\text{B.E. Point in Rs.}} \text{ x100}$$

$$\text{P/V ratio} = \frac{\text{Profit}}{\text{Margin of safety in Rs.}} \text{ x 100}$$

P/V ratio = 100 – variable cost as a % of sales

3. Break-even point (BEP)

$$\text{BEP (in units)} = \frac{\text{(Total fixed cost)}}{\text{(Contribuion per unit)}} = \frac{F}{\text{C (per unit)}}$$

$$\text{BEP (in units)} = \frac{\text{F + Profit in Rs.}}{\text{C (per unit)}} = \frac{\text{F + Profit}}{\text{P/V ratio}}$$

BEP = Actual sales – Margin of safety

4. Calculation of sales to earn a given profit (in units) = $\frac{\text{F + Profit in Rs.}}{\text{C (per unit)}} = \frac{\text{F + Profit}}{\text{P/V ratio}}$

5. Cost indifference point

$$\frac{\text{(difference in fixed cost)}}{\text{(difference in P/V ratio or Contribution per unit)}}$$

6. Margin of Safety (M/S)

= Actual sales – Break-even point

$$M/S \text{ ratio} = \frac{(\text{Actual sales-BEP}) \times 100}{(\text{Actual sales})}$$

Or Margin of safety in % of sales

$$= \frac{(\text{Margin of safet}) \times 100}{(\text{Actual sales})} = 100 - \text{B.E. Sales in \%}$$

$$M/S = \frac{\text{Profit}}{(\text{P/V ratio})}$$

Profit = Margin of safety x P/V ratio

Profit = Actual sales x M/S ratio x P/V/ ratio

7. Break-even sales in %

= Actual sales x Break-even point

= B.E. Point x 100 Total sales

= 100 – Margin of safety in % Profit = Sales – Total cost

Or = Sales – Variable cost – Fixed cost

Or = Contribution – Fixed cost

Or = Margin of safety in Rs. X P/V ratio Fixed Cost = Sales – Variable cost – Profit

Or = Contribution – Profit

= Total cost – Variable cost

= Sales at BEP in Rs. x P/V ratio

$$\text{Overall Break-even point (of all products} = \frac{(\text{Total fixed cost of all the products})}{(\text{Overall P/V ratio})}$$

## GLOSSARY

**Marginal cost**

It is defined as the amount at any given volume of output by which aggregate costs are changed, if the volume of output is increased or decreased even by one unit.

**Contribution**

The contribution is the difference between the sales volume and the marginal cost of sales.

**CVP Analysis**

CVP Analysis is a technique that may be used by the management to evaluate how costs and profits are affected by changes in the volume of business activities.

**Margin of Safety**

The Margin of Safety is the difference between the Actual Sales (or the budgeted sales) and the break even Sales for a given period.

**ABC Costing**

The collection of financial and operation performance information tracing the significant activities of the firm to product Costs.

## TEST YOURSELF

1. What do you mean by marginal costing discuss its usefulness and limitations.
2. Define marginal cost and marginal costing. How would you treat variable cost and fixed costs in marginal costing?
3. Marginal costing rewards sales whereas absorption costing rewards production 'Comment'.
4. State the distinction between marginal cost and absorption costs as regards valuation of finished goods inventories.
5. What do you understand by contribution? How is it related to profit?
6. What do you understand by marginal cost equation?
7. What is P/V ratio? Explain its uses.
8. What are the uses of CVP analysis? Discuss the various ways of presenting CVP relationship.
9. What do you understand by (a) break-even point; and (b) break-even chart?
10. First class co., manufacturing ball pens, is working at 40% capacity, producing 10,000 pens per year.

    The cost elements for each ball pen are given as under :

    Material - Rs.20

    Labour - Rs.6

    Overheads - Rs.10 (40% variable)

    Each ball pen sells for Rs.40. the selling price falls by 3% if production is at 50% capacity and by 5% if worked at 90% capacity. The fall in selling prices is accompanied by similar fall in material prices.

    You are required to find out profit at 50% and 90% capacities using marginal costing approach. Also calculate B.E. points at these two levels.
11. From the followings data, you are required to calculate the break-even point and net sales value at this point :

| | |
|---|---|
| Selling price per unit | Rs.25 |
| Direct material cost per unit | 8 |
| Direct labour cost per unit | 5 |
| Fixed overheads | 24,000 |
| Variable overheads @60% on direct labour | |
| Trade discount | 4% |

If sales are 15% and 20% above the break-even volume, determine the net profits.

12. A company budget for a production of 1,50,000 units. The variable cost per units is Rs.14 and fixed cost is Rs.2 per unit. The company fixes its selling price to fetch a profit of 15% on cost.
    (a) What is the break-even point?
    (b) What is the profit-volume ratio?
    (c) If it reduces its selling price by 5% how does the revised selling price affect the break-even point and the profit volume ratio?
    (d) If a profit increase of 10% is desired more than the budget, what should be the sales at the reduced prices?

13. You are given :
    Margin of Safety = Rs10,000 which represent 40% of sales P/V ratio = 50%
    Find out :
    (a) Break-even sales
    (b) Fixed cost
    (c) Total sales
    (d) Profit

14. (a) From the following particulars draw a break-even chart and find out the break-even point.
    Variable cost per unit
    Rs.15 Fixed cost Rs. 54,000
    Selling price unit Rs. 20
    (b) What should be the selling price if break-even point is to be brought down to 6,000 units.

15. (i) Ascertain profit when sales = Rs.2,00,000 fixed cost = Rs.40,000, Break-even point = Rs.1,60,000
    (ii) Ascertain sales, when fixed cost Rs.20,000 profit = Rs.10,000, Break-even point is Rs.40,000

# Lesson 19

# Valuation, Principles And Framework

***Key Concepts One Should Know***

- Valuation
- Net present value
- Ind AS for valuation

## *Learning Objectives*

**To understand the:**

- Importance of valuation
- Methods/ Approaches of valuation
- Relation between WACC and NPV
- Relation between WMCC and NPV
- Indian Accounting Standard (Ind AS)
- Ind AS applicable for valuation

## *Lesson Outline*

- Introduction
- Areas where valuation is used
- Approaches of valuation
- Asset Approach
- Income Approach
- Market Approach
- Indian Accounting Standard
  - Ind AS 32
  - Ind AS 33
  - Ind AS 113
- LESSON ROUND-UP
- TEST YOURSELF

## INTRODUCTION

Knowing what business is worth and what determines its value is prerequisite for intelligent decision-making. Corporate valuations form the basis of corporate finance activities including capital-raising, mergers & acquisitions (M&A) and also to meet regulatory/accounting requirements or for voluntary purpose. The rapid globalization of the world economy has created both opportunities and challenges for organizations leading to uncertainty blowing across global markets and raising the importance of independent valuations all over the world. Justifying the value of businesses has grown more complex and challenging it has been accepted that valuation is not an exact science; it depends upon a number of factors like purpose, stage of business, past financials, industry scenario, management and promoters strengths.

Valuation is more of an art-based on professional experience of the valuer rather than a science-based empirical studies and logics. Business valuation is the process of determining the "Economic Worth" of a company based on its Business Model under certain assumptions and limiting conditions and subject to data available on the valuation date. It is an important concept in corporate finance and business management. Supposing a business is for sale, how does one know what is the real value of that business is? More basically, how does a business owner know the net value of his business, or how is valuing a business for sale accomplished?

## AREAS WHERE VALUATION IS USED

| Areas | Description |
|---|---|
| Mergers & Acquisitions | Valuation is an important aspect in M& A. It not only assists business owners in determining the value of their business, but also helps them to maximize the value of their business considering a sale, merger, acquisition, joint venture, or strategic partnership. |
| Succession Planning | Succession to family members: In planning for the transfer of family business to the next generation.<br>Succession to employees: For many closely held businesses, the sale of the business to one or more key employees is often a viable succession strategy.<br>Succession to outside parties: It comprises mergers, acquisitions, purchase and sale of businesses. |
| Going Public | In general, when a new company goes for an Initial Public Offering (IPO), it is doing that in order to generate capital to grow its business. In such circumstances, a question arises as to how to evaluate the fair value of such a stock. The Indian Capital Market follows a free pricing regime and thus the accurate pricing of an IPO is of immense importance. |
| Dispute Resolution | Valuation is an increasingly important aspect of many commercial disputes. Before deciding how to manage a dispute, it is necessary to determine the likelihood of a successful outcome and the potential stake involved. Judicial precedents are also available that affect the selection of valuation methodologies and applicability of discounts/ premiums. |

Voluntary Assessment : At times, the management wants to know the true and fair value of the business for which they undertake the exercise of voluntary assessment for their internal management purposes and future decision-making.

The art of valuation lies in identifying the key value drivers and key risk areas after analyzing the following:

- Nature of Business, its history, future prospects, and growth potential
- Promoters and management background
- Core Team strength
- Profitability strategies

- Competitive landscape and differentiation
- Economic outlook and industry trend
- Purpose of valuation and size of transaction

## Generally Acceptable Methodologies of Valuation

A number of business valuation models can be constructed that utilize various methods under the broad business valuation approaches. Most treatises and court decisions encourage the valuer to consider more than one method, which must be reconciled with one another to arrive at a conclusion. Understanding of the internal resources and intellectual capital of the business being valued is as important as the economic, industrial and social environment. The choice of the appropriate valuation approach (or approaches) to be used in a given valuation project is based on the judgment of the valuer. The valuer's choice of methods is determined by the characteristics of the business to be valued, the purpose and use of the valuation and its report, the pattern of historical performance and earnings of the subject company, the company's competitive market position, experience and quality of management, the availability of reliable information requisite to the various valuation methods, the marketability of equity ownership interest to be valued, and others. These factors are summarized below:

- History and nature of the business
- Industry and general economic outlook
- Book value and financial condition
- Earning capacity
- Dividend-paying capacity
- Prior sales and size of the block of stock; and
- Comparisons to similar publicly traded guideline companies.

## CONCEPTUAL FRAMEWORK OF VALUATION

The term 'valuation' implies the task of estimating the worth/value of an asset, a security or a business. The price an investor or a firm(buyer ) is willing to pay to purchase a specific asset/security would be related to this value.

Obviously, two different buyers may not have the same valuation for an asset/business as their perception regarding its worth/value may vary; one may perceive the asset/business to be of higher worth(for whatever reason) and hence may be willing to pay a higher price than the other. A seller would consider the negotiated selling price of the asset/business to be greater than the value of the asset/business he is selling.

In the case of business valuation, the valuation is required not only of tangible assets( such as plant and machinery, land and building, office equipment, etc.) but also of intangible assets( say, goodwill, brands patents, trademark and so on); equally important in this regard is the value of the human resources that run/manage the business.

The following concepts of value are explained in this section:(i) book value. (ii) market value, (iii) intrinsic value, liquidation value, (v) replacement value, (vi) salvage value, (vii) value of goodwill (viii) going concern value and (ix) fair value.

**(i) Book Value:** Book value refers to the financial sum/amount at which as asset is shown in the balance sheet of a firm. Generally, the sum is equal o the initial acquisition cost if an asset less accumulated depreciation. Accordingly, this mode of valuation of assets is as per the going concern principle of accounting. In other words book value of an asset shown in balance does not reflect its current sale value.

In the context of business, book value refers to total book value of all valuable assets ( excluding fictitious assets, such as accumulated losses and unwritten part of deferred revenue expenditures, like advertisement, preliminary expenses, cost of issue of securities) less all external liabilities ( including preference share capital). The concept, in literature, is also referred to as net worth.

**(ii)** **Market Value:** Market value refers to the price at which as asset can sold in the market. The concept can, evidently, be applied with respect to tangible assets only; intangible assets ( in isolation), more often than not , do not have any sale value. Viewed from the perspective of the business unit as a whole, it refers to the aggregate market value ( as per stock market quotation) of all equity shares outstanding, Being so, it is possible to use this concept only in the case of listed companies.

**(iii)** **Intrinsic/Economic Value**: As per concept, in the case of business intended to be purchased, its valuation is equivalent to the present value of incremental future cash inflows after taxes likely to accrue to the acquiring firm, discounted at the relevant risk adjusted discount rate, as applicable to the acquired business. Clearly, the present value indicates the maximum price at which the business can be acquired.

**(iv)** **Liquidation Value:** As the name suggests, liquidation value represents the price at which each individual asset can be sold if business operations are discontinued in the wake of liquidation of the firm. In operational terms, the liquidation value of a business is equal to the sum of (i) realisable value of assets and (ii) cash and bank balances minus the payments required to discharge all external liabilities. In general, among all measures of value, the liquidation value of an asset/or business is likely to be the least.

**(v)** **Replacement Value:** Normally, replacement value is the cost of acquiring a new asset of equal utility and the usefulness. The concept is normally useful in valuing tangible assets such as office equipment and furniture and fixtures, which do not contribute towards the revenue of the business firm.

**(vi)** **Salvage Value:** Salvage value represent realisable scrape value on the disposal of assets after the expiry of their economic useful life. The concept may be employed to value assets such as plant and machinery, contributing towards revenues of the firm. Salvage value should be the net of removal costs.

**(vii)** **Value of Goodwill:** Viewed in the economic sense, the business firm can be said to have 'real' goodwill in case it earns rate of return(ROR) on invested funds higher than the ROR earned by the similar firms( with the same level of risk). In the operational terms, goodwill results when the firm earns excess (may be referred to as 'super') profits. Defined in this way the value of goodwill is equivalent to the present value of super profits (likely to accrue, say for 'n' number of years in future), the discount rate being the required rate of return applicable to such business firms.

In the case of mergers and acquisition decisions, the value of goodwill paid is equal to the net difference between the purchase price paid for the acquiring business (say, Rs 100 crore) and the value of assets acquired net of liabilities the acquiring firm has undertaken to pay for (say, Rs.90 crore; the value of goodwill is Rs. 10 crore.

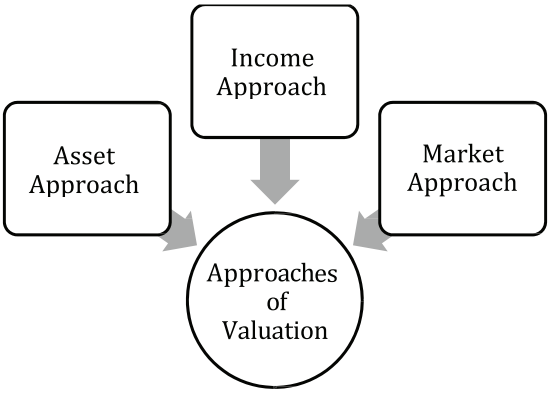
**(viii)** **Going Concern Value:** This concept applies to a business firm as an operating unit. The going concern value of a firm is based primarily on how profitable its operations would be as a continuing entity.

The procedure for establishing the going concern value usually consists of two steps. First, a projection is made about maintainable income from business as a going entity. Second, the maintainable income is translated into a going concern value by applying a suitable capitalisation factor. To illustrate, suppose the maintainable income of Rs.10,00,000 is projected for a firm and a capitalisation rate of 15 percent is deemed appropriate. The going concern value of the firm then would be:

$$\frac{\text{Rs. } 10,00,000}{0.15} = \text{Rs. } 66,66,667$$

**(ix)** **Fair Value:** The concept of 'fair' value draws heavily on the value concepts enumerated above; in particular, book value, intrinsic value and market value; the fair value is hybrid in nature and often is the average of these three values.

## APPROACHES OF VALUATION




There are broadly three approaches of valuation:

- Asset Approach
- Income Approach
- Market Approach

## 1. ASSET APPROACH

The asset-based approach focuses on the company's net asset value (NAV), or the fair-market value of its total assets minus its total liabilities to determine what it would cost to recreate the business. There is some room for interpretation in the asset approach in terms of deciding which of the company's assets and liabilities to include in the valuation, and how to measure the worth of each.

The asset-based approach is best used when a business is non-operating or has been generating losses, and the company's focus is its holding investments or real estate. The adjusted net asset method is commonly used for estimating the value of the business. The diff between the fair market value of the company's total assets and the fair market value of its total liabilities determines its fair market value. This technique also includes the value of all of the business's intangible assets and liabilities, such as goodwill and pending litigations.

The cost based approach, the primary emphasis places upon the fair market value of the assets and liabilities of a business. As a result, this approach uses various methods that consider the value of individual assets and liabilities including intangible assets. The most well-known method in this approach relies upon reported balance sheet assets and liabilities generally termed as book value. It should be recognized, however as per the book value concept assets are reported in accordance with various accounting conventions that may or may not accurately reflect fair market value.

It is further classified into :

**(a) Net Asset Value**

The total value of the assets of a company less its liabilities is its net asset value. For the purpose of valuation, the usual thing to do is to divide the net assets by number of shares to get the net assets per share. This is the asset value belonging to each share in the same way as the price-earning ratio measures the profit per share.

Net asset value is useful for shares valuation in sectors where the company value come from the held assets rather than the stream of profit that was generated by the company business. The examples are property companies and investment trusts. Both are convenient ways wherein the investors can buy diversified bundles of the assets they hold.

The assets' value can be obtained at book value or market prices and used depending on the circumstances and the sector. Some assets need to be excluded. One example of this is the tangible book value of NAV.

The value as per NAV is arrived as follows

| | |
|---|---|
| Total assets | xx |
| (excluding miscellaneous expenditure & debit balance in P&L) | |
| Less: Total Liabilities | xx |
| NAV | xx |
| OR | |
| Share Capital | xx |
| Add: Reserves | xx |
| Less: Miscellaneous expenses | xx |
| P& L (Dr balance) | xx |
| NAV | xx |

$$\text{value per share} = \frac{\text{NAV}}{\text{No. of shares}}$$

**Illustration 1.**

Following is the balance sheet of A Ltd. as on 31st March, 2017:

| **Particulars** | **Amount (Rs.)** |
|---|---|
| **I. EQUITIES AND LIABILITIES** | |
| 1. Shareholders' funds | |
| (a) Share Capital | |
| Authorized, Issued subscribed and paid-up capital | |
| 14% Preference shares of Rs. 100 each | 7,50,000 |
| Equity shares of Rs. 10 each, fully called up and paid up 15,00,000 | 22,50,000 |
| (b) Reserve and surplus | |
| General reserve | 9,00,000 |
| 2. Non-current liabilities | |
| 15% Debentures | 7,00,000 |
| 3. Current Liabilities | |
| Current liabilities | 5,00,000 |
| TOTAL | 43,50,000 |
| **II. ASSETS** | |
| 1. Non-current Assets | |
| (a) Fixed Assets | |
| Tangible Assets & intangible Assets | 32,50,000 |
| (b) Investment | 6,00,000 |
| 2. Current Assets | |
| Misc-Current Assets | 5,00,000 |
| **TOTAL** | **43,50,000** |

**Calculate under Net Assets method**

(a) Discharge 15% debentures at a premium of 10%

(b) Fixed assets 10% above the book value

(c) Investments at par value

(d) Current assets at a discount of 10%.

**Solution:**

| Net Asset Method: | (in '000's) |
|---|---|
| Value of assets : | |
| Fixed assets (32,50,000 + 10%) | 35,75 |
| Investments | 6,00 |
| Current assets (5,00,000 – 10%) | 4,50 |
| Total assets | 46,25 |
| Less: Liabilities : | |
| 15% debentures (7,00,000 + 10%) | 7,70 |
| Current liabilities | 5,00 |
| | 33,55 |

**Illustration 2.**

**Balance Sheet of X Ltd as on 31.3.2018**

| **Liabilities** | **Amount** | **Assets** | **Amount** |
|---|---|---|---|
| Equity share capital of Rs. 100 each | 1,00,000 | Land & Building | 30,000 |
| 6% Debentures of Rs. 10 each | 20,000 | Plant & Machinery | 1,10,000 |
| Reserve Fund | 34,000 | Stock | 16,000 |
| Dividend Equalization reserve | 4,000 | Debtors | 14,000 |
| Employee's Provident Fund Trade | 3,000 | Cash | 3,000 |
| Creditors | 10,000 | | |
| Profit & Loss A/c | 2,000 | | |
| | 1,73,000 | | 1,73,000 |

The assets of X Ltd are valued at 10% less with the exception of land & building which are valued at book value.

Company to receive 5% of net valuation of the business as goodwill.

**Solution:**

| **Particulars** | **Rs.** |
|---|---|
| Assets as per balance sheet | 1,73,000 |
| Less: 10% reduction excluding | |
| Land & building and cash | (14,000) |
| | 1,59,000 |

| | |
|---|---|
| Less: Liabilities | |
| 6% debentures | 20,000 |
| Trade creditors | 10,000 |
| Employees P.F | 3,000 |
| Add: goodwill (5%) | 1,26,000 |
| NAV | 6,300 |
| | 1,32,300 |

**(B) Price to Book Multiple Method**

The application of this method is similar to that of the P/E multiple method. Since the book value of equity is essentially the amount of equity capital invested in the firm, this method measures the market value of each dollar of equity invested.

This method can be used for

- companies in the manufacturing sector which have significant capital requirements;
- companies which are not in technical default (negative book value of equity);

The Price/Book Value Multiple of Comparable Company is arrived as follows:

Step 1- Weighted Average Market Price
Step 2- Divide by: Value per share as per Net Assets Value
Step 3- Price/Book Value Multiple

**Illustration 3**

NCH Corporation, which markets cleaning chemicals, insecticides and other products, paid dividends of Rs.2.00 per share in 2017 on earnings of Rs.4.00 per share. The book value of equity per share was Rs.40.00, and earnings are expected to grow 6% a year in the long term. The stock has a beta of 0.85, and sells for Rs.60 per share. (The treasury bond rate is 7%.) .Based upon these inputs, estimate the price/book value ratio for NCH.

**Solution:**

Dividend Payout Ratio = 2/4 = 50%

Return on Equity = 4/40 = 10%

Cost of Equity = 7% +0.85 * 5.5% = 11.68%

Expected Growth Rate = 6%

Price/Book Value Ratio = (.1) (.5)(1.06)/(.1168 - .06) = 0.93

A simpler solution might be the following:

Price/Book Value Ratio = (.10 - .06)/(.1168 - .06) = 0.70

(This solution takes into account the relationship between ROE and g, i.e., g=b(ROE)

## 2. INCOME OR EARNING APPROACH

The Income-based method of valuations works on the premise that the current value of any business is a function of the future value that an investor can expect to receive from purchasing all or part of the business. In other words, the value of the business must be related to the profits it will earn and the cash it will generate in the future.

It is further divided into two methods :

**(a) Discounted Cash Flow Method (DCF)** - DCF expresses the present value of the business as a function of its future cash earnings capacity. In this method, the appraiser estimates the cash flow of any business after all operating expenses, taxes, and necessary investments in working capital and capital expenditure is being met. Valuing equity using the free cash flow to stockholders requires estimating only free cash flow to equity holders, after debt holders have been paid off. This method is more appropriate when future returns are expected to be substantially different from current operations. It usually has two stages, the first stage involves a discreet forecast of future earnings or cash flow to be discounted to the present using a discount rate, and the second stage involves the construction and discounting of a terminal value. The terminal value is determined when the entity's future return stream is expected to achieve a stable long-term growth.

It is a method of valuing a project, company, or asset using the concepts of the time value of money. All future cash flows are estimated and discounted by using cost of capital to give their present values (PVs). The sum of all future cash flows, both incoming and outgoing, is the net present value (NPV), which is taken as the value of the cash flows in question.

**PV of future sum** = $FV/(1+r)n$
OR
$= FV \times PVF(r,n)$

**PV of a series of Equal Future cash flows or Annuity**
= Annuity Amount x PVAF (r,n)

**Illustration 4.**

Assume that a deposit to be made at year zero into an account that will earn 8% compounded annually. It is desired to withdraw Rs. 5,000 three years from now and Rs. 7,000 six years from now. What is the size of the year zero deposit that will produce these future payments.

**Solution:**

PV = FV x PVF(r,n)

= Rs. 5,000 x PVF(8%,3) + Rs 7,000 x PVF(8%,6)

= Rs. 5,000 x (0.794) + Rs. 7,000 x (0.630)

= 3,970 + 4,410 = Rs. 8,380

**Illustration 5**

Machine A costs Rs. 1,00,000 payable immediately. Machine B costs Rs. 1,20,000 half payable immediately and half payable in one year's time. The expected cash receipts are :

| Year(at end) | Machine A (in Rs.) | Machine B (in Rs.) |
|---|---|---|
| 1 | 20,000 | 60,000 |
| 2 | 60,000 | 60,000 |
| 3 | 40,000 | 80,000 |
| 4 | 30,000 | |
| 5 | 20,000 | |

At 7% opportunity cost, which machine should be selected on the basis of NPV?

**Solution: Machine A** **Machine B**

| Year | Cash flow(Rs.) | PVF | PV(Rs.) | Cash flow(Rs.) | PVF | PV (Rs.) |
|---|---|---|---|---|---|---|
| 0 | - 1,00,000 | 1.000 | -1,00,000 | -60,000 | - 1.000 | -60,000 |
| 1 | 20,000 | 0.935 | 18,700 | -60,000 | 0.935 | -56,100 |
| | | | | 60,000 | 0.935 | -56,100 |
| | | | | 60,000 | 0.873 | 52,380 |
| 2 | 60,000 | 0.873 | 52,380 | 80,000 | 0.816 | 48,960 |
| 3 | 40,000 | 0.816 | 32,640 | | | |
| 4 | 30,000 | 0.763 | 22,890 | | | |
| 5 | 20,000 | 0.713 | 14,260 | | | |
| NPV | | | 40,870 | | | 41,340 |

**Machine B is having higher NPV and may be selected.**

**Illustration 6.**

A corporate firm has employed a total capital of Rs. 1,000 lakh ( provided equally by 10 percent debt and 5 lakh equity share capital of Rs.100 each), its cost of equity is 14 percent and is subject to corporate tax rate of 40 percent.

Further, suppose the following are projected free cash flows (FCF) to all investors of the firm for 5 years:

| Year-end | Rs. lakh |
|---|---|
| 1 | 300 |
| 2 | 200 |
| 3 | 500 |
| 4 | 150 |
| 5 | 600 |

Compute (i) valuation of firm and (ii) valuation from the perspective of equity holders. Assume 10 percent debt is repayable at the year-end 5 and interest is paid at each year-end.

**Solution:**

**Computation of overall cost of capital**

| Source of capital | After tax cost (%) | Weights | Total cost (%) |
|---|---|---|---|
| Equity | 14 | 0.5 | 7 |
| Debt | 6* | 0.5 | 3 |
| Weighted average cost of capital (Ko) | | | 10 |

*10% (1- 0.4 tax rate) = 6 percent

**(i) Valuation of firm, based on Ko** (Rs.lakh)

| Year-end | FCFF | PV factor (0.10) | Total present value |
|---|---|---|---|
| 1 | 300 | 0.909 | 272.70 |
| 2 | 200 | 0.826 | 165.20 |

| | | | |
|---|---|---|---|
| 3 | 500 | 0.751 | 375.50 |
| 4 | 150 | 0.683 | 102.45 |
| 5 | 600 | 0.621 | 372.60 |
| Total present value | | | 1288.45 |
| Less: value of debt | | | 500.00 |
| Value of equity | | | 788.45 |

**(ii) Valuation of equity, based on Ke** (Rs.lakh)

| Year-end | FCFF to all investors | After tax payment to debt holders | FCFE to equity holders | PV factor (0.14) | Total present value |
|---|---|---|---|---|---|
| 1 | 300 | 30* | 270 | 0.877 | 236.79 |
| 2 | 200 | 30 | 170 | 0.769 | 130.73 |
| 3 | 500 | 30 | 470 | 0.675 | 317.25 |
| 4 | 150 | 30 | 120 | 0.592 | 71.04 |
| 5 | 600 | 530** | 70 | 0.519 | 36.33 |
| Total present value | | | | | 792.14 |

* interest on Rs.500 lakh @10% = Rs.50 lakh; Rs50 lakh(1- 0.40)=Rs.30 lakh

**inclusive of debt repayment of Rs.500 lakh at year-end 5.

**b) Capitalization of Earning Method**

The capitalization method basically divides the business expected earnings by the so-called 'capitalization rate'. The idea is that the business value is defined by the business earnings and the capitalization rate is used to relate the two. This method is more appropriate when it appears that a company's current operations are indicative of its future operations, assuming of course, a normal growth rate. Under this method a stable level of earnings is divided by a capitalization rate in order to arrive at an operating value for the entity. Where net earnings are being capitalized, the capitalization rate is the net earnings discount rate less the average sustainable growth rate.

$$\text{Value} = \frac{\text{Net Operating Income}}{\text{Capitalization Rate}}$$

$$\text{Capitalization Rate} = \text{Discount Rate} - \text{Growth Rate}$$

**Illustration 7**

An investor wants to invest in an equity share of PKN Ltd. The company's last EPS was Rs. 50 per share and dividend payout ratio is 40%. The required rate of return from equity investment is 20%. Calculate the intrinsic value of equity if

(i) There is no growth in dividend.

(ii) Dividend are expected to grow at a constant rate of 18% p.a.

**Solution:**

We are given that EPS = Rs. 5

Dividend = 40%

So, last dividend (D0) = 40% of Rs. 5 = Rs. 20

(i) When there is no growth in dividend So,

D0 = D1 = Rs 20

$P0 = \frac{D1}{Ke}$

$= \frac{20}{0.20}$

= Rs. 100

Therefore, the intrinsic value is Rs. 100 when there is no growth in dividend.

(ii) When there is constant growth rate in dividend g = 18%

therefore, D1 = D0 (1+ g)

= 20 (1 + 0.18)

= 23.6

$P0 = \frac{D1}{Ke - g}$

= 23.6/ .20 - 0.18

= Rs. 1180

Therefore, the intrinsic value is Rs. 1180, when there is constant growth of 18%.

**Illustration 8**

Equity shares are currently selling at Rs. 60. The company is expected to pay a dividend of Rs. 3 with a growth rate of 8%. Find out the rate of return.

**Solution:**

P0 = Rs. 60 g= 8%

D1 = Rs.3

$P0 = \frac{D1}{Ke - g}$

Ke = D1 / P0 + g

= 0.05 + .08

= 0.13 or 13%

**(ii) Cost of Debt**

Kd = (Int x (1-t))

Where , Kd = Cost of Debt Int = Average Interest Rate t = Marginal rate of tax

**Illustration 9**

In Satija company, the value of 14% Debentures is Rs. 60,00,000 . Assume a tax rate is 50%. Compute the cost of debt.

**Solution:**

Kd = (Int x (1-t))

= 14 (1-.5 )

= 7%

**(iii) DCF – Discounting Rate**

Weighted Average Cost of Capital (WACC)

D = Debt

E = Equity

Kd = Post tax cost of debt Ke = Cost of equity

**Illustration 10**

Satija company has following capital structure :

| | |
|---|---|
| Equity Shares (4,00,000) | Rs. 80,00,000 |
| 10% Preference shares | Rs. 20,00,000 |
| 14% Debentures | Rs. 60,00,000 |

The share of the company currently sells for Rs. 25. It is expected that the company will pay a dividend of Rs. 2 per share which will give a growth at 7%. Tax rate is 50%. Calculate WACC.

**Solution:**

**Cost of capital (c/c)**

Kd = (Int x (1-t))

= 14 (1-.5 )

= 7%

$Ke = \frac{D1}{P0} + g$

$= \frac{2}{25} + 0.07$

= 0.08 + 0.07

= 15%

Kp = 10%

**Calculation of WACC**

| Source | Amount | Weight (W) | Specific c/c | W x c/c |
|---|---|---|---|---|
| Equity Shares 10% | 80,00,000 | 0.500 | 0 .15 | 0 .07500 |
| Preference shares | 20,00,000 | 0.125 | 0 .10 | 0 .01250 |
| 14% Debentures | 60,00,000 | 0.375 | 0 .07 | 0 .0265 |
| | 1,60,00,000 | | | 0.11375 |

**WA CC = 11.37%**

## Marginal Cost of Capital

In practice, the investment proposal require funds to be raised from new internal/external sources thus, increasing the total funds also. When this happens, the cost of capital of additional funds is called Marginal Cost of Capital.

If the additional financing uses more than one source, say a combination of debt and preference share capital, then the WACC of new financing is called the Weighted Marginal Cost of Capital (WMCC).

**Calculation of WMCC**

WMCC is calculated on the basis of market value weights because the new funds are to be raised at the market values.

The specific cost of capital can be accurately calculated.

**Illustration 11**

A firm wishes to raise funds upto Rs. 10,00,000 and finds that its WMCC depends upon the amount of funds raised. The firm has set pattern for financing, i.e., 75% shareholders funds and 25% debt. The shareholders funds may be taken as consisting of retained earnings and capital. The following cost for each source have been estimated at different levels of financing from that source.

| Source | Amount (Rs) | Cost |
|---|---|---|
| Shareholders Fund | Upto Rs 1,50,000 | 12% |
| | 1,50,000 – 6,00,000 | 14% |
| | 6,00,000 – 9,00,000 | 17% |
| | Upto Rs 1,00,000 | 7.15% |
| | 1,00,000 – 2,00,000 | 8.57% |
| Bonds (Rate of Interest) | 2,00,000 – 3,00,000 | 11.43% |

Find out the WMCC at different breaking points given that

(i) the tax rate is 30%.

(ii) the retained earnings of Rs 1,50,000 will be provided by the current earnings at specific cost of capital of 12%.

(iii) additional needed shareholder funds will have to be raised by the issue of share capital.

**Solution:**

After tax specific cost of debt funds are:

7.15(1 - .3) = 5%

8.57(1 - .3) = 6%

11.43(1 - .3) = 8%

**Percentage Composition of**

Shareholders funds 75%

Bonds 25%

**Breaking points at different levels of each source**

| Source | Amt(Rs.) | Weight | Break point (Rs.) | Total Funds (Rs.) | Specific c/c |
|---|---|---|---|---|---|
| Shareholder Funds | 1,50,000 | 0.75 | 2,00,000 | Upto 2,00,000 | 0.12 |
| | 6,00,000 | 0.75 | 8,00,000 | 2,00,000 – 8,00,000 | 0.14 |
| | 9,00,000 | 0.75 | 12,00,000 | 8,00,000 –12,00,000 | 0.17 |
| | 1,00,000 | 0.25 | 4,00,000 | Upto Rs 4,00,000 | 0.05 |
| | 2,00,000 | 0.25 | 8,00,000 | 4,00,000 – 8,00,000 | 0.06 |
| Bonds | 3,00,000 | 0.25 | 12,00,000 | 8,00,000 – 12,00,000 | 0.08 |

**Calculation of WMCC**

| Range (Rs.) | Source | Weight | C/C | Weight x c/c | WMCC |
|---|---|---|---|---|---|
| Upto Rs 2,00,000 | SH funds | 0.75 | 0.12 | 0.0900 | |
| | Debt | 0.25 | 0.05 | 0.0125 | 0.1025 |
| 2,00,000 – 4,00,000 | SH funds | 0.75 | 0.14 | 0.1050 | |
| | Debt | 0.25 | 0.05 | 0.0125 | 0.1175 |
| 4,00,000 – 8,00,000 | SH funds | 0.75 | 0.14 | 0.1050 | |
| | Debt | 0.25 | 0.06 | 0.0150 | 0.1200 |
| 8,00,000 –12,00,000 | SH funds | 0.75 | 0.17 | 0.1275 | |
| | Debt | 0.25 | 0.08 | 0.0200 | 0.1475 |

**WMCC at different level of financing**

| Levels of financing | WMCC |
|---|---|
| Upto Rs 2,00,000 | 10.25% |
| 2,00,000 – 4,00,000 | 11.75% |
| 4,00,000 – 8,00,000 | 12.00% |
| 8,00,000 -12,00,000 | 14.75 % |

**WMCC AND NPV**

WMCC can be effectively used in the calculation of NPV by analyzing WMCC in conjunction with the firm's investment opportunities.

1. A proposal may be considered desirable if its NPV discounted at WMCC is zero or positive.
2. NPV under constant WMCC
3. If a firm has constant WMCC, the different proposal may be evaluated on the basis of this WMCC. The proposal having highest NPV should be accepted.NPV and Increasing WMCC

   If the firm's WMCC has break points over increasing levels of new financing, then determining the optimal

capital budgeting procedure is a difficult task. As the firm increases the amount of investments, the return from the projects will decrease, since generally, the first project accepted has highest return, the next project selected will have next highest return and so on. In other words, the return on investment will decrease as the firm accepts more and more proposals. At the same time, the WMCC will increase because additional amount of new financing will be required. The firm would accept, therefore, the proposals upto the point where the WMCC is just equal to marginal return on investment. Beyond this point, the return will be less than the costs.

**Illustration 12**

A firm finds break points in its WMCC at the following levels of new financing:

| Levels of Financing | WMCC |
|---|---|
| Rs 12,00,000 | 10% |
| Rs 18,00,000 | 12% |
| Rs 28,00,000 | 16% |
| Rs 36,00,000 | 21% |

Analyze the above and set the acceptance criteria for the selection of the proposals.

**Solution:**

The information given about of the firm denotes that additional funds can be procured by the firm only at increasing WMCC. So, the firm has to decide as to which investment proposal be accepted and which are to be rejected.

In the first instance, the firm should evaluate the proposals which require funds upto Rs.12,00,000 only at the discount rate of 10%. Projects having positive NPV may be accepted. Then, it should proceed to evaluate those proposals which require funds upto Rs.18,00,000 at discount rate of 12% and so on.

Suppose the firm gets the following values of NPV at different financing constraints and different discount rates:

| Levels of financing | NPV (Rs.) |
|---|---|
| 12,00,000 | 5,00,000 |
| 18,00,000 | 9,00,000 |
| 28,00,000 | 15,00,000 |
| 36,00,000 | 13,00,000 |

So, the highest NPV of Rs.15,00,000 occurs when the firm accepts the proposal requiring funds of Rs. 28,00,000 and discounted at 16%. In the view of the objective of maximization of shareholders wealth, the optimal capital budgeting consists of the investment requiring funds upto Rs. 28,00,000 and returning a NPV of Rs. 15,00,000. The funds for these proposals may be raised at a specific cost of capital of 16%.

## 3. MARKET BASED APPROACH

Market Approach refers to the notion of arriving at the value of a company by comparing it to the market value of similar publicly listed companies. The comparison is based on certain financial ratios or multiples, such as the price to book value, price to earnings and EV/EBITDA, of the equity in question to those of its peers. This type of approach, which is popular as a strategic tool in the financial industry, is mainly statistical, based on historical data, and current market sentiments. This is also known as relative valuation method.

A market approach is a method of determining the appraisal value of an asset based on the selling price of similar items. The market approach is a business valuation method that can be used to calculate the value of property or as part of the valuation process for a closely held business. Additionally, the market approach can be used to determine the value of a business ownership interest, security or intangible asset. Regardless of what asset is being valued, the market approach studies recent sales of similar assets, making adjustments for differences in size, quantity or quality.

The market value, as reflected in the stock market quotations, is yet another means for estimating the value of a business.

The major problem of this method is that the market value of a firm is influenced not only by financial fundamentals but also by speculative factors. As a result, this value can change abruptly due to speculative influences, market sentiments and personal expectations.

Apart from the limited applicability of the method only to listed corporate enterprises, whose shares/securities are actively traded, the valuation of a business is not in tune with the going concern concept. Nevertheless, such a method of business valuation may be/is of immense usefulness in deciding swap ratios of shares in merger decisions.

### a) Fair Market Value (FMV)

Fair Market Value (FMV) is, in its simplest expression, the price that a person reasonably interested in buying a given asset would pay to a person seriously interested in selling it for the purchase of the asset, or what the asset would fetch in the marketplace. To establish FMV, it must be assumed that prospective buyers and sellers are reasonably knowledgeable about the asset, that they are behaving in their own best interests, that they are free of undue pressure to trade and that a reasonable time period is given for completing the transaction.

Book value is the price paid for a particular investment or asset. Fair market value, on the other hand, is the current price at which that same asset can be sold. Book value and fair market value can work together to help investors determine how much they stand to gain or lose by selling off assets.

One way analysts try to identify the fair market value for a company is with a metric called the P/E (price to earnings) ratio. P/E Ratio is one of the most widely used tools for stock selection. It is calculated by dividing the current market price of the stock by its earning per share (EPS). It shows the sum of money you are ready to pay for each rupee worth of the earnings of the company. PE = Market price / EPS.

**Fair Value = Expected or Standard P/E x Expected EPS**

**Step 1:** Calculate the P/E ratio.

**Step 2:** Compare the P/E ratio for your company with other companies in the same industry. For instance, if you want to find the fair value for a bank, you must compare the P/E ratio to other P/E ratios in the banking industry.

**Step 3:** Interpret the meaning of the P/E ratio. A high P/E ratio means the company is overvalued and a low P/E ratio means the company is undervalued. For instance, if I own a company with a P/E ratio of 5 when the average P/E ratio for companies in the same industry is 3, I know that my stock is overvalued (more expensive).

**Step 4:** Adjust the stock price down to the average P/E ratio for the industry. If the average P/E ratio is 3, and the P/E ratio on my stock is 5 (current price Rs.10 / earnings per share Rs. 2), then I can use the P/E equation to find what the stock price would need to be in order to have a P/E ratio of 3. The equation is: New P/E ratio x Earnings per share. The answer is 3 x Rs. 2 or Rs. 6. The fair market value for this stock is Rs. 6, not Rs. 10.

**Illustration 13**

The expected EPS of a company for the current year is Rs. 6. In the industry the standard P/E ratio is 13 to 15. The company is in high growth stage. What is the best estimate of company's share price? Should the share be purchased?

**Solution:**

Since the company is in growth stage, we can assume that the appropriate P/E ratio is 15.

Therefore,

Share price = 15 x 6 = Rs. 90

If the actual price is lower than Rs. 90, then the share should be purchased.

**Illustration 14**

You are given the following information about a company

Recent EPS = Rs. 1.89 Growth rate (constant)= 6% Dividend payout ratio = 50% Required rate of return = 10%

After five years, the expected P/E ratio is 12.5. Calculate

(i) The intrinsic value of share at present

(ii) The expected selling price of share at the end of 5th year

(iii) The maximum price at which the investor should buy this share

**Solution:**

(i) E0 = 1.89 g = 6%

Ke = 10%

b = 0.50

$$Po = \frac{E1\ (1-b)}{Ke - g}$$

E1 = E0 (1 + g)

= 1.89(1 + 0.06)

= 2.0034

$$Po = \frac{2.0034\ (1 - 0.50)}{0.10 - .06}$$

= Rs. 25.04

Therefore, the intrinsic value is Rs. 25.04

ii) The expected P/E ratio at the end of 5th year = 12.5

Expected selling price at the end of 5th year will be:

P5 = P/E X EPS

= 12.5 x 1.89 (1 + 0.06)6

= 33.45

(iii) The maximum price an investor will be willing to pay would be the intrinsic value of this share, i.e., Rs. 25.04

**Illustration 14.**

A firm is currently paying a dividend of Rs. 2 per share. The rate of dividend is expected to grow at 5% for first five years and 10% thereafter. Find the value of share if the required rate of return is 15%.

**Solution:**

It must be noted that the annual dividends are paid after the close of the accounting year. Therefore, dividend just paid are Do, i.e., in the beginning of the current year.

Do = Rs. 2

g = 5% p.a for first five years

D1 = 2(1+ 0.05) = Rs. 2.10

Similarly, D2, D3, D4 , D5 can be calculated

Dividends for first five years are :

| Dividend | PVF ( 15%, n) | PV of dividend |
|---|---|---|
| 2.1 | 0.87 | 1.83 |
| 2.21 | 0.756 | 1.67 |
| 2.32 | 0.658 | 1.53 |
| 2.43 | 0.572 | 1.39 |
| 2.55 | 0.497 | 1.27 |
| | Total | 7.69 |

Now it is given that g = 10% from 6th year onwards

Therefore, D6 = 2.55 (1 + 0.10) = Rs. 2.81

Present value of P5 = $\frac{\text{D6 x PVF}}{\text{Ke – g}}$

= 2.81 / 0.15 – 0.10 x 0.497

= 27.88

Intrinsic Value (Po) = PV of dividend in 5 years + PV of P5

= 7.69 + 27.88

= Rs. 35.57

**Illustration 15.**

Darwin Ltd has the following details

ROE = 15%

Expected EPS = Rs. 5 Expected

DPS = Rs. 2

Required rate of return = 10% p.a

As a financial advisor, you are required to calculate its expected growth rate, its price, P/E ratio.

**Solution:**

EPS1 = Rs. 5

DPS1 = Rs. 2

Retention ratio is 60% (3/5) r = 15%

g= br = 0.60 (0.15) = 0.09

Ke = 10%

Po = 2/(0.10 – 0.09) = Rs 200

Now its P/E ratio is calculated below:

P/E ratio = Price / EPS 1

= 200/5 = 40

## INDIAN ACCOUNTING STANDARD (Ind AS)

Indian Accounting Standard (abbreviated as Ind-AS) are the Accounting standards adopted by companies in India and issued under the supervision and control of Accounting Standards Board (ASB), which was constituted as a body in the year 1977. ASB is a committee under the Institute of Chartered Accountants of India (ICAI) which consists of representatives from government department, academicians, other professional bodies viz. ICAI, representatives from ASSOCHAM, CII, FICCI, etc., while formulating the accounting standards, ASB will give due consideration to standards issued by IASC and try to integrate them to the extent possible, in the light of the conditions and practices prevailing in India.

The Ind-AS are named and numbered in the same way as the corresponding International Financial Reporting Standards (IFRS). National Advisory Committee on Accounting Standards (NACAS) recommend these standards to the Ministry of Corporate Affairs (MCA). MCA has to spell out the accounting standards applicable for companies in India.

### Procedures for Issuing Accounting Standards

Following is the procedure adopted by ASB for issuing Accounting Standards:

(a) ASB determines the broad areas requiring formulation of Accounting Standards and list them according to priority.

(b) An exposure draft is prepared with the help of a study group constituted for this purpose. Views of government, public sector undertakings, industry and other organizations are also obtained before formulating the Exposure Draft (ED).

(c) ED comprises the following:

  (i) A statement of concepts and fundamental accounting principles relating to the standard.

  (ii) Definition of the terms used in the standards.

  (iii) The manner in which the accounting principles have been applied for formulating the standard.

  (iv) The presentations and disclosures requirements in complying with the standard.

  (v) Class of enterprises to which the standard will apply.

  (vi) Date from which the standard will be effective.

(d) The Exposure Draft will be published in the professional journals and circulated otherwise to obtain views and comments. ASB after revising the standards submits the same to the council.

(e) The council will consider and, if necessary, amend the standards after consulting the ASB, then in its final form the council issues the standard under its authority.

## Ind AS FOR VALUATION

### Ind AS 33- Earnings per share

**Objective**

To prescribe principles for the determination and presentation of earnings per share, so as to improve performance comparisons between different entities in the same reporting period and between different reporting periods for the same entity.

**Scope**

- To companies that have issued ordinary shares to which Indian Accounting Standards (Ind ASs) notified under the Companies Act apply.
- An entity that discloses earnings per share shall calculate and disclose earnings per share in accordance with this Standard.

- When an entity presents both consolidated financial statements and separate financial statements prepared in accordance with Ind AS, the disclosures required by this Standard shall be presented both in the consolidated financial statements and separate financial statements.

**Definition**

- Anti dilution is an increase in earnings per share or a reduction in loss per share resulting from the assumption that convertible instruments are converted, that options or warrants are exercised, or that ordinary shares are issued upon the satisfaction of specified conditions.
- Dilution is a reduction in earnings per share or an increase in loss per share resulting from the assumption that convertible instruments are converted, that options or warrants are exercised, or that ordinary shares are issued upon the satisfaction of specified conditions.

**Measurement**

**Basic earnings per share**

- An entity shall calculate basic earnings per share attributable to ordinary equity holders of the entity and, if presented, profit or loss from continuing operations attributable to those equity holders.
- Basic earnings per share shall be calculated by dividing profit or loss attributable to ordinary equity holders of the entity (numerator) by the weighted average number of ordinary shares outstanding (denominator) during the period.

**Earnings :-**

Adjusted for

- After tax amount of preference dividend.
- Difference arising on the settlement of preference shares.
- Income/expense debited or credited to securities premium/other reserves that was otherwise required to be recognised in profit & loss in accordance with Ind As.

**Weighted average number of shares :-**

- No. of ordinary share outstanding at the beginning of period.
- Adjusted by no. of outstanding shares bought back or issued.
- Multiplied by time weighting factor.
- Adjusted for events (other than the conversion of potential ordinary shares), that have changed the number of ordinary shares outstanding without a corresponding change in resources. (eg, share split , reverse share split(share consolidation) , bonus element in rights issue to existing shareholders)

**Diluted earnings per share**

- An entity shall calculate diluted earnings per share attributable to ordinary equity holders of the entity and, if presented, profit or loss from continuing operations attributable to those equity holders.
- Diluted earnings per share shall be calculated by dividing profit or loss attributable to ordinary equity holders of the entity (numerator) by the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares (denominator) during the period.

**Earnings :-**

Adjust the earnings calculated for the purpose of Basic EPS by the tax effect of

- Interest/dividends related to dilutive potential ordinary shares.
- Any other changes in income or expense that would result from the conversion of the dilutive potential ordinary shares.

**Weighted average number of shares :-**

- The weighted average number of ordinary shares as calculated for BEPS plus additional ordinary shares that would be issued on the conversion or exercise of potential ordinary shares.
- The potential ordinary shares shall be deemed to have been converted into ordinary shares at the beginning of the period or, if later, the date of the issue of the potential ordinary shares.
- If conversion/exercise options lapse during the period, the number of shares would be pro-rated for the part of the year that the potential common shares were outstanding, i.e. they are included in the calculation of diluted earnings per share only for the portion of the period during which they are outstanding.
- The dilutive weighted average common shares are calculated independently for each period presented(interim vs annual).
- Potential ordinary shares shall be treated as dilutive when, and only when, their conversion to ordinary shares would decrease earnings per share or increase loss per share from continuing operations.

**Retrospective adjustment**

- If the number of ordinary or potential ordinary shares outstanding increases as a result of a capitalisation, bonus issue or share split, or decreases as a result of a reverse share split, the calculation of basic and diluted earnings per share for all periods presented shall be adjusted retrospectively.
- If these changes occur after the reporting period but before the financial statements are approved for issue, the per share calculations for those and any prior period financial statements presented shall be based on the new number of shares.

**Disclosure**

If EPS is presented, the following disclosures are required :

- the amounts used as the numerators in calculating basic and diluted earnings per share, and a reconciliation of those amounts to profit or loss attributable to the entity for the period.
- the weighted average number of ordinary shares used as the denominator in calculating basic and diluted earnings per share, and a reconciliation of these denominators to each other.
- instruments (including contingently issuable shares) that could potentially dilute basic earnings per share in the future, but were not included in the calculation of diluted earnings per share because they are antidilutive for the period(s) presented.
- A description of those ordinary share transactions or potential ordinary share transactions, that occur after the reporting period and that would have changed significantly the number of ordinary shares or potential ordinary shares outstanding at the end of the period if those transactions had occurred before the end of the reporting period.

## Ind AS 32 FINANCIAL INSTRUMENT PRESENTATION

### What is Financial Instrument?

It can be a financial liability or an equity instrument. If it is an equity instrument then:

(a) It does not have any contractual obligation.

(b) It is either a non-derivative and if it is derivative, it is to be settled either in cash or by an asset for the fixed number of entity's own equity instruments.

In a situation, where an entity can exchange its own equity instruments top receive or deliver shares, then this arrangement/contract is not an equity instrument but a financial asset or financial liability.

## Scope

This standard is applicable to all financial instruments except :

- Subsidiaries, joint ventures, associates, etc.
- Employees' benefits
- Insurance contracts
- Instruments where share-based payments are involved
- The standard applies to contracts to buy or sell non-financial instruments which can be settled in cash by some other financial instruments
- When a contract is readily convertible in cash
- A written option can only be settled in cash not otherwise.

## Presentations

- The issuer of a financial instrument will classify the instrument either as an asset or as an equity instrument
- Under certain conditions, an issuer will define an equity instrument if it has no contractual obligations to deliver cash or financial asset of other entity or to exchange any assets / liabilities under favourable conditions. If the instrument is to settled with the issuer's own equity instrument then it is a non – derivative that includes no contractual obligation to deliver the entity's own equity, or if it is a derivative it would require settlement with a fixed amount of cash or a fixed number of shares of the entity.

## Puttable Instruments

- These include contractual obligations for the issuer to repurchase or redeem instruments for cash or other financial asset when sold.
- If an instrument entitles the holder to a pro-rata share after payment of all liabilities on liquidation, the instrument is subordinate to all other instruments. A subordinate instrument has no priority over other claims to the assets. All subordinate instruments are puttable, and the formula to calculate the redemption price is the same in that class.
- Puttable instruments do not have any obligations apart from the contractual obligations by the issuer.

## Settlement with Entity's Own Shares

In a settlement if an entity receives its own shares, then it is a financial asset or financial liability contract:

- It is a financial liability when the entity has to buy back its own shares for cash.
- A contract that requires delivery of an entity's own shares in exchange for cash or another asset, it is a financial asset.

## Contingent Settlement Provisions

A contingent settlement requires a financial instrument to deliver cash or another financial asset on the happening of a certain event in the future which will render the instrument as a financial liability. Such events are beyond the control of the entity.

## Interest, Dividends, Gains and Losses

- Interest, dividends, gains and losses relating to a financial instrument or a component which is a financial liability, shall be recognized in the P & L statement.
- Any dividend distributions to the holder of financial instruments long with any transaction costs shall be directly debited to equity, net of any income tax benefits.

- The issue cost of equity should be deducted from equity. These costs are typically legal, like accounting, etc.
- If dividends are classified as an expense, it should be presented in the statement of comprehensive income.
- The requirement of IAS 1 and IFRS 7 are to be complied with.

### Offsetting a Financial Asset and a Financial Liability

A financial asset and a financial liability shall be set off and the net amount shall be presented in the financial statements under the following circumstances:

(a) There is a legal enforceable right of set off.

(b) The entity wants to settle on net basis or wants to realize asset and settle liability simultaneously.

But, if the transfer of an asset does not qualify for re-recognition, then the set off of asset and liability do not take place.

This standard requires a set off when doing so presents the future cash flows after settling two or three instruments.

Offsetting assets with liabilities is inappropriate when :

(a) Several instruments are used to emulate one instrument.

(b) Financial assets and liabilities have same primary risk exposure.

(c) Financial assets are pledged.

(d) Assets are set aside in trust.

(e) Obligations arising under an insurance contract.

## Ind AS 113 - FAIR VALUE MEASUREMENT

### Objectives

1. To determine Fair Value.
2. To set out a single Ind AS framework for measuring fair value.
3. To require disclosures with respect to fair value measurements.

### Scope

This Ind AS applies when another Ind AS requires or permits fair value measurements or disclosures about fair value measurements.

### Exclusion

This Ind-AS does not apply to the following:

1. Share-based payment transaction as per Ind AS 102
2. Leasing transactions within as per Ind AS 47, and
3. Measurements that have some similarities to fair value but are not fair value, such as net realisable value (NRV) in Ind AS 2,Inventories, or value in use in Ind AS 36, Impairment of Assets.

### Fair Value Measurement

**(a) Definition of Fair Value**

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

**(b) Fair Value Measurement – Approach**

Ind AS 113 states that fair value measurement requires an entity to determine all of the following:

- **Asset/Liability:** The particular asset/liability that is subject to measurement maybe either a stand-alone asset/liability or a group of assets / group of liabilities / group of assets and liabilities.
- Principal / Most advantageous market: The principal (or most advantageous market) for the asset or liability.
- Non-financial assets: For a non-financial asset, the valuation premise that is appropriate for measurement (consistent with its highest and best use).

**(c) Valuation Techniques**

The valuation techniques consider the availability of data to develop inputs, and the level of the fair value hierarchy within which the inputs are categorized.

## Principal Market Vs Most Advantageous Market

A fair value measurement assumes that the transaction to sell asset or transfer a liability takes place either:

(i) In the principal market of an asset or liability , or

(i) In the absence of the principal market, the most advantageous market of asset or liability

Principal market is the market with the greatest volume and the highest level of activity for the asset or liability. Different entities can have different principal markets as the access of an entity to some market can be restricted.

The most advantageous market is the market that maximizes the amount that would be received to sell the asset, or minimizes the amount that would be paid to transfer the liability.

## (d) Fair Value Measurement – Valuation Techniques

**(i) Market Approach**

- Market Multiples similar publicly listed companies (Revenue, EBITDA, EBIT, Price to Book, etc. adjusted for differences in growth, risk and profitability)
- Guideline Transactions in the market in the same industry as the subject Company

**(ii) Cost Approach**

- Reflects the amount that would be required to replace the service capacity of an asset.
- For Non-financial assets=Current Replacement Cost + Obsolescence

**(iii) Income Approach**

- Present Value Techniques (e.g. Discounted Cash Flow Method when valuing a business)
- Option Pricing Models (e.g. Black Scholes, Monte Carlo Simulation and Binomial models in valuing ESOP or put/call options).
- Multi-Period Excess Earnings Method (e.g. Valuing the primary intangible asset in the business)
- Relief-from-royalty Method (e.g. Valuing Brand or IP)
- With-and-without Method (e.g. Valuing Non-Compete agreements)

## Fair Value Measurement – Fair Value Hierarchy

Ind AS 113 establishes a fair value hierarchy that transfers inputs to valuation techniques in 3 levels.

**(i) Input Level 3 (unobservable)**

Inputs that reflect management's own assumptions about the assumptions that a market participant would make (E.g. Projected cash flows used to value a business or non-controlling interest in an unlisted entity)

**(ii) Input Level 2 (Indirectly observable)**

- Prices in active markets for similar assets / liabilities, quoted prices for identical / similar items in markets that are not active
- Inputs other than quoted prices (e.g. – interest rates, yield curve)

**(iii) Input Level 1 (Directly observable)**

Quoted prices in active markets for identical assets / liabilities (e.g. Quoted prices for an equity security on the BSE/ NSE).

## Disclosures In Financial Statements

An entity shall disclose information that helps users of its financial statements assess both of the following:

(a) For assets and liabilities that are measured at fair value on a recurring or non-recurring basis in the balance sheet after initial recognition, the valuation techniques are used to develop those measurements.

(b) For recurring fair value measurements using significant unobservable inputs (Level 3),the effect of the measurements on profit or loss or other comprehensive income for the period.

## LESSON ROUND-UP

- Corporate valuations form the basis of corporate finance activity including capital raising, M&A and also to meet regulatory / accounting requirements or for voluntary purpose.
- Business Valuation is the process of determining the "Economic Worth" of a company based on its Business Model under certain assumptions and limiting condition and subject to data available on the valuation date.
- The Indian Capital Market follows a free-pricing regime and thus the accurate pricing of an IPO is of immense importance.
- There are broadly three approaches to valuation: Asset approach, Income approach, Market approach The adjusted net asset method is commonly used for estimating the value of the business.
- Net asset value is useful for shares valuation in sectors where the company value comes from the held assets rather than the stream of profit that was generated by the company business.
- The Income-based method of valuations is based on the premise that the current value of any business is a function of the future value that an investor can expect to receive from purchasing all or part of the business.
- If the additional financing uses more than one source, say a combination of debt and preference share capital, the WACC of new financing is called the Weighted Marginal Cost of Capital (WMCC)
- WMCC can be effectively used in the calculation of NPV by analyzing WMCC in conjunction with the firm's investment opportunities.
- A market approach is a method of determining the appraisal value of an asset based on the selling price of similar items. The market approach is a business valuation method that can be used to calculate the value of property or as part of the valuation process for a closely held business.
- Indian Accounting Standard (abbreviated as Ind-AS) is the Accounting standard adopted by companies in India and issued under the supervision and control of Accounting Standards Board (ASB), which was constituted as a body in the year 1977.

## TEST YOURSELF

1. Explain the areas where valuation is required.
2. Write short notes on
   (a) Ind AS 113
   (b) Fair Market Value
   (c) Relation between WMCC and NPV
3. Critically examine the earning approach to cost of equity share capital.
4. Explain Book value vs. Market value weights in cost of capital.
5. "Individuals do have a time preference for money". State the reasons for such a preference.
6. Calculate cost of capital in each of the following cases :
   (i) A 7 year Rs 100 bond of a firm can be sold for a net price of Rs 97.75 and is redeemable at a premium of 5%. The coupon rate of interest is 15% and tax rate is 55%.
   (ii) A company issues 10% irredeemable preference shares of Rs 105 (FV = 100)
   (iii) The current market value of a share is Rs 90 and the expected dividend at the end of current year is Rs 4.50 with a growth rate of 8%.

   (*Ans (i) 7.74% (ii)9.52% (iii) 13%*)

(7) What is the present value of cash flow of Rs 750 per year forever?
   (a) At an interest rate of 8%?
   (b) At an interest rate of 10%?

(*Ans (a) Rs 9375 (b) Rs 7500*)

The ABC company has the total capital structure of Rs 80,00,000 consisting of :

| **Particulars** | **Weight (%)** |
|---|---|
| Ordinary shares (2,00,000 shares) | 50% |
| 10% Preference Shares | 12.5% |
| 14% Debentures | 37.5% |

The shares of the company sells for Rs 20. It is expected that company will pay next year the dividend of Rs 2 per share which will grow at 7% forever. Tax rate 50%. You are required to :

(a) Compute a weighted average cost of capital-based on existing capital structure :

(b) Compute the new weighted average cost of capital if the company raises an additional Rs 20,00,000 debt by issuing 15% debentures. This would result in increasing the expected dividend to Rs 3 and leave the growth rate unchanged, but the price of the share fall to Rs 15 per share.

(c) Compute the weighted average cost of capital if in (b) above, the growth rate increases to 10%.

(*Ans: (a) 17% (b) 15.4% (c) 27%*)

# Lesson 20

# Valuation of Shares, Business and Intangible Assets

***Key Concepts One Should Know***

- Valuation of shares
- Valuation of goodwill
- Valuation methods

## *Learning Objectives*

To understand the:

- Need for valuation
- Different methods for valuation of shares
- Different methods for valuation of goodwill
- Internally generated goodwill
- Methods for valuation of business
- Role of different regulatory authorities in valuation

## *Lesson Outline*

- Need for Valuation
- Methods of Valuation of Shares Net Asset Method
- Earning Basis
- Fair Value of Preference Shares
- Valuation of Business Asset Approach
- Earning Value Approach
- Market Value Approach
- Valuation of Intangible Asset
- Meaning of Goodwill
- Methods of Valuation of Goodwill
- Regulatory Valuation
- SEBI
- FEMA

  Income Tax Act

  Companies Act

  RBI
- LESSON ROUND-UP
- GLOSSARY
- TEST YOURSELF

## NEED FOR VALUATION

The necessity for valuation arises for statutory as well as commercial reasons:

(i) Assessment under wealth tax act, gift tax act

(ii) Formulation of scheme for amalgamation

(iii) Purchase and sale of shares of private companies

(iv) Raising loan on the security of shares

(v) For paying court fees

(vi) Conversion of shares

(vii) Purchase of block of shares for the purpose of acquiring interest or otherwise in another company

(viii) Purchase of shares by the employees of the company where retention of such shares is limited to the period of their employment

(ix) Compensation to the shareholders by the government under a scheme of nationalization

(x) Acquisition of shares of dissentient shareholders under a scheme of reconstruction.

Normally a stock exchange is the most common source of ascertaining the value of shares especially for transactions involving small block of shares which are quoted on stock exchanges. But stock exchange prices form an unreliable basis because prices on a particular day are generally determined on the basis of demand and supply which are influenced by factors outside the business.

The wide fluctuations in prices of shares at the stock exchange are the outcome of actions and opinions of the private and institutional investors all over the country and indeed the world.

Thus the valuation of shares has to be done by the accountant by adopting sound and reasonable basis. Various tax laws make specific provisions regarding the valuation of shares and lay down either the general principles or the exact procedures to be followed.

### Factors Affecting Valuation of Shares

The principle factors which have to be taken into consideration for valuing the shares of a joint stock company are :

1. Earnings or profitability and stability of profits
2. The yield or returns from other similar companies
3. The dividend policy of the company
4. Unfavourable financial ratios
5. Net assets position
6. Capital employed
7. The size of the block of the shares to be valued
8. Policy of the government

## METHODS OF VALUATION OF SHARES

There are two principal methods of valuation of shares :

**Methods of Valuation of Shares**

- Net Assets Method
- Earning Basis Method

## NET ASSET METHOD

Valuation of shares on net asset basis is also called asset backing or intrinsic value or break up value method. Under this method, the value per share is arrived at by valuing the assets of the company and deducting all liabilities and claims of the preferred shareholders and dividing the net assets by total equity shares with the same paid up value. Unless otherwise stated, goodwill is included in net assets.

In all cases of valuation on assets bases on, except those based on book value basis, it is important to arrive at current replacement and realization value. It is more so in case of assets like patents, trade marks, know-how, etc., which may possess values substantially more or less than those shown in the books.

The mechanism of asset valuation is simple:

(i) Arrive at the current replacement costs of assets for valuation based on appraisal or, in the case of a firm which is not a going concern, determine the net realizable value for break up valuation and deduct there from all liabilities in the books of account and such other liabilities which have not been recorded but are likely to rank for payment, and the amount payable to preferred shareholders. The approach should be conservative. Under provision for taxation, liabilities on account of gratuities, arrears of preference dividends, etc., are instances of what may not appear in books.

(ii) If circumstances suggest existence of goodwill from a study of the profit record, particular advantages, etc., the same should be evaluated with reference to any method appropriate for the purpose for addition to the result obtained in (i) above.

(iii) The result, as arrived at, shall represent the asset value for the whole undertaking; to arrive at value per share, the same should be divided by the number of equity shares in the company, provided all shares are equally paid up. If the company has equity shares of varying fully paid-up values, the total value should first be allocated to the different paid-up value groups and each such allocation would be divided by the number of shares in each of such groups.

### The Net Asset Method may be written as follows :

| | |
|---|---|
| Total Realizable value of assets | xx |
| Less: Total amount payable to outside liabilities | xx |
| BALANCE | xx |
| Less: Preference Share Capital (Paid-up value) | xx |
| Balance available for Equity Shareholders | xx |

$$\text{Valuation per Equity Share} = \frac{\text{Balance available for Equity Shareholders}}{\text{No. of Equity Shares with same paid up value}}$$

Alternatively, the valuation of equity shares by the net asset method can also be arrived at as follows :

| | |
|---|---|
| Equity Share Capital | xxx |
| **Add:** Reserves | xxx |
| Other surpluses | xxx |
| Profit on revaluation | xxx |
| **Gross Equity** | **xxx** |
| **Less:** Loss on revaluation | xxx |
| Miscellaneous expenditure | xxx |
| Accumulated losses | xxx |
| **Net Equity** | xxx |

$$\textbf{Valuation per Equity Share} = \frac{\text{Net Equity}}{\text{No. of Equity Shares}}$$

**Illustration 1.**

The following particulars are available in relation to X Ltd.

(i) Capital : 4500, 8% Preference shares of Rs 100 each fully paid and 50,000 equity shares of Rs. 10 each fully paid

(ii) External liabilities : 50,000

(iii) Reserves and Surplus : Rs. 50,000

(iv) The average expected profit (after taxation) earned by the company: Rs. 1,05,000

(v) The normal profit earned on the market value of equity shares (fully paid) of the same type of companies is 10%

(vi) 10% of the profits after tax is transferred to reserves.

Calculate the intrinsic value per equity share and value per share according to dividend yield basis. Assume that out of total assets, Rs. 4,000 worth of assets are fictitious.

**Solution:**

| (i) **Intrinsic value of shares** | **Rs.** |
|---|---|
| Preference share capital | 4,50,000 |
| Equity share capital | 5,00,000 |
| Reserves and surplus | 50,000 |
| External liabilities | 85,000 |
| | 10,85,000 |
| Less: Fictitious Assets | 4,000 |
| External liabilities | 85,000 |
| | 9,96,000 |
| Less: Preference share capital | 4,50,000 |
| Assets available for equity shareholders | 5,46,000 |

Intrinsic value per share = $\frac{5,46,000}{50,000}$

= Rs. 10.92

**(ii) Dividend Yield Basis**

| | |
|---|---|
| Average profit after tax | 1,05,000 |
| Less: transfer to reserve | 10,500 |
| Dividend on preference shares | 36,000 |
| Profits available for equity shareholders | 58,500 |

Rate of dividend = $\frac{58,500}{5,00,000} \times 100$

= 11.7%

Value per Equity share = $\frac{11.7 \times 10}{10}$

= Rs. 11.70

## EARNING BASIS METHOD

In most of the cases, the investor is interested in the earnings of the company since the business enterprise is accepted as a going concern. The earning basis of share valuation is expressed through:

(i) Yield method or Dividend yield method

(ii) Earning Capacity method

### Valuation based on Rate of Dividend

This method of valuation is suitable for small blocks of shares because small shareholders are usually interested in dividends. The value of a share according to this method is ascertained as follows:

$$\text{Value of share} = \frac{\text{Possible rate of dividend x Paid up value per share}}{\text{Normal rate of dividend}}$$

OR

$$= \frac{\text{Dividend (in rupees) per share}}{\text{Normal rate of dividend}} \times 100$$

$$\text{Possible rate of dividend} = \frac{\text{Total profit available for dividend}}{\text{Total paid up equity capital}} \times 100$$

In other words, dividend on equity shares should be calculated by deducting from the maintainable profits:

(i) taxation;

(ii) transfers to reserve;

(iii) transfers to debenture redemption fund;

(iv) preference dividend, and by dividing the remaining by the number of shares.

### Valuation based on Rate of Earning

This method of valuation of shares is suitable for valuing large block of company's shares because they are more interested in company's earnings rather than what the company distributes in the form of dividends. The value of a share on this basis can be calculated as follows:

$$\text{Value of share} = \frac{\text{Rate of Earning x Paid-up Value per Share}}{\text{Normal Rate Of Earning}}$$

$$\text{Rate of earning} = \frac{\text{Actual Profit Earned} \times 100}{\text{Capital Employed}}$$

Rate of earning is calculated by taking into account the total capital employed including long-term borrowings.

Since the total capital is taken into account, the profit figure should be before debenture interest, preference dividend, but after income tax. This is quite appropriate when the dividend is much more than the rate of earning on capital.

**Valuation based on price earning ratio:** This method is suitable for ascertaining the market value of shares which are quoted on a recognized stock exchange. According to this method, the shares are valued on the basis of earning per share multiplied by price earning ratio. Thus,

$$\text{Market Value of Share} = \text{Price Earning Ratio} \times \text{Earning Per Share}$$

$$\text{Earning Per Share} = \frac{\text{Profit available for equity shareholders}}{\text{Number of Equity Shares}}$$

$$\text{Price Earning Ratio} = \frac{\text{Market value per share}}{\text{Earning Per Share}}$$

**CAPITALIZATION FACTOR:** The value of a share according to yield basis can also be ascertained by finding out the capitalization factor or the multiplier. The capitalization factor will be ascertained by dividing 100 by the normal rate of return.

$$\text{Capitalization Factor} = \frac{100}{\text{Normal Rate of Return}}$$

The profit available is capitalized by multiplying it with the capitalization factor. The value of equity share is obtained by dividing the capitalized value by the number of equity shares.

## FAIR VALUE OF SHARES

The fair value of shares can be calculated by using the following formula:

$$\text{Fair Value of Share} = \frac{\text{Value by Net Asset Method} + \text{Value by Yield Method}}{2}$$

This method is also known as dual method of share valuation. This method attempts to minimize the demerits of both the methods. This is, of course, no valuation but a compromised formula for bringing the parties to an agreement. However, it is recognized in the government circles for valuing shares of investment companies for wealth tax purposes.

## VALUATION OF PREFERENCE SHARES

The yield-based valuation of preference shares would hold good only if:

(i) the dividend on the share has been paid regularly, and it is reasonably expected that it would continue to be paid; and

(ii) that investment is adjudged by the criteria that the total assets of the concern are equal to 4 or 5 times the preference capital.

Preference shares may have certain additional rights. For example, the right to get an additional share of profi or the right to get the share converted into equity shares at a certain rate. The right to get an additional share of profi will probably increase the market value of the share depending upon the size of the total profi and the conditions under which the additional dividend will come to preference share holders. Total yield per share will have to be worked out and on that basis the market value will be ascertained by the formula:

$$\frac{\text{Total Yield Per Share}}{\text{Normal Rate of Yield}} \times 100$$

**Illustration 2.**

**Diamond Limited**

**Balance Sheet as at 31st March, 2014**

| **Particulars** | **Note No.** | **Amount as at 31st March,2014** |
|---|---|---|
| I. EQUITY AND LIABILITIES | | |
| (1) Shareholders' funds | | |
| (a) Share Capital | | 2,00,000 |
| (b) Resrve and Surplus | 1 | 72,000 |
| (2) Current liabilities | | |
| (a) Trade payable | | 1,28,000 |
| (b) Provision for Income Tax | | 60,000 |
| **TOTAL** | | **4,60,000** |
| **II. ASSETS** | | |
| (1) Non-current assets | | |
| (a) Fixed Assets | 2 | 2,60,000 |
| (b) Preliminary expenses | 2 | 12,000 |
| (2) Current Assets | | |
| (a) Inventories | | 48,000 |
| (b) Trade receivable | | 88,000 |
| (c) Cash at bank | | 52,000 |
| **TOTAL** | | **4,60,000** |

**Note No. 1.**

**Reserve and Surplus**

| | |
|---|---|
| General reserve | 40,000 |
| Profit and loss account | 32,000 |
| | 72,000 |

**Note No. 2.**

**Fixed Assets**

| | |
|---|---|
| Land and buildings | 1,10,000 |
| Plant and machinery | 1,30,000 |
| Patents | 20,000 |
| | 2,60,000 |

The expert valuer valued the Land and Buildings at Rs. 2,40,000; Goodwill at Rs. 1,60,000; and Plant and Machinery at Rs. 1,20,000. Out of the total debtors, it is found that Debtors of Rs. 8,000 are bad. The profits of the company have been as follows:

| | Rs. |
|---|---|
| 31.3.2012 | 92,000 |
| 31.3.2013 | 88,000 |
| 31.3.2014 | 96,000 |

The company follows the practice of transferring 25% of profits to General Reserve. Similar type of companies earn at 10% of the value of their shares. Ascertain the value of shares of the company under:

(i) intrinsic value method;

(ii) yield value method; and

(iii) fair value method.

**Solution:**

**Diamond Ltd.**

**Valuation of shares**

**(i) Intrinsic Value Method**

| **Assets:** | **Rs.** |
|---|---|
| Land and Buildings | 2,40,000 |
| Goodwill | 1,60,000 |
| Plant and Machinery | 1,20,000 |
| Patents and Trade Marks | 20,000 |
| Stock | 48,000 |
| Debtors less bad debts | 80,000 |
| Bank Balance | 52,000 |
| | 7,20,000 |
| **Less: Liabilities:** | |
| Sundry creditors | 1,28,000 |
| Net assets | 5,92,000 |

Intrinsic value of shares (each share) $= \frac{\text{Net Assets}}{\text{No. of shares}}$

$\frac{5,92,000}{20,000} = 29.60$

| **(ii) Yield Value Method** | **Rs.** |
|---|---|
| Total profit of last three years | 2,76,000 |
| Less: Bad debts | 8,000 |
| Average profit = $\frac{2,68,000}{3} = 89,333$ | 2,68,000 |

| | |
|---|---|
| Add: Decrease in depreciation on Plant and Machinery say | |
| @ 15% on Rs 10,000 | 1,500 |
| Less: Increase in depreciation on land and building say | |
| @ 10% on Rs 1,30,000 {10% of (240000 – 110000)} | 13,000 |
| Average profit | 77,833 |
| Less: Transfer to Reserve @ 25% of 77,833 | 19,458 |
| Profit available for Dividend | 58,375 |

$$\text{Rate of Dividend} = \frac{58\,375 \times 100}{2\,00\,000}$$

$$= 29.187\%$$

$$\text{Yield value of each share} = \frac{\text{Rate of Dividend}}{\text{Normal Rate of Return}} \times \text{Paid-up value of each share}$$

$$= \frac{29.187 \times 10}{10} = \text{Rs. } 29.19$$

**(iii) Fair Value Method**

$$\text{Fair value of each share} = \frac{\text{Intrinsic value + Yield Value}}{2}$$

$$\frac{29.60 + 29.19}{2}$$

= Rs 29.40

**Illustration 3.**

The Balance Sheet of RNR Limited as on 31.12.2017 is as follows :

| Equity & Liabilities | (Rupees in Lakhs) |
|---|---|
| 1,00,000 equity shares of Rs. 10 each fully paid | 10 |
| 1,00,000 equity shares of Rs. 6 each, fully paid up | 6 |
| Reserves and Surplus | 4 |
| Liabilities | 10 |
| | 30 |
| **II. Assets** | |
| Goodwill | 5 |
| Fixed assets | 15 |
| Other tangible assets | 5 |
| Intangible assets (market value) | 3 |
| Miscellaneous expenditure to the extent not written off | 2 |
| | 30 |

Fixed assets are worth Rs. 24 lakhs. Other Tangible assets are revalued at Rs. 3 lakhs. The company is expected to settle the disputed bonus claim of Rs. 1 lakh not provided for in the accounts. Goodwill appearing in the Balance Sheet is purchased goodwill. It is considered reasonable to increase the value of goodwill by an amount equal to average of the book value and a valuation made at 3 years' purchase of average super-profit for the last 4 years.

After tax, profits and dividend rates were as follows :

| Year | PAT (Rs. in Lakhs) | Dividend % |
|---|---|---|
| 2014 | 3.0 | 11% |
| 2015 | 3.5 | 12% |
| 2016 | 4.0 | 13% |
| 2017 | 4.1 | 14% |

Normal expectation in the industry to which the company belongs is 10%.

Akbar holds 20,000 equity shares of Rs. 10 each fully paid and 10,000 equity shares of Rs. 6 each, fully paid up. He wants to sell away his holdings.

(i) Determine the break-up value and market value of both kinds of shares.

(i) What should be the fair value of shares, if controlling interest is being sold ?

**Answer:**

Break up value of Re. 1 of share capital = $\frac{\text{Rs. 28.98 lakhs}}{\text{Rs. 16.00 lakhs}}$

= Rs. 1.81

Break up value of Rs. 10 paid up share= 1.81 × 10 = Rs. 18.10

Break up value of Rs. 6 paid up share = 1.81 × 6 = Rs. 10.86

Market value of shares :

Average dividend = $\frac{11\% + 12\% + 13\% + 14\%}{4}$

= 12.5%

Market value of Rs. 10 paid up share = $\frac{12.5\% \times 10}{10\%}$ = Rs. 12.50

Market value of Rs. 6 paid up share = $\frac{12.5\% \times 6}{10\%}$ = Rs. 7.50

(i) Break up value of share will remain as before even if the controlling interest is being sold. But the market value of shares will be different as the controlling interest would enable the declaration of dividend upto the limit of disposable profit.

$$= \frac{\text{Average Profit* x 100}}{\text{Paid up value of shares}}$$

$$= \frac{\text{Rs. 3.4 lakhs}}{\text{Rs. 16 lakhs}} \text{ x } 100 = 21.25\%$$

Market value of shares :

For Rs. 10 paid up share = $\frac{21.25\% \times 10}{10\%}$ = Rs. 21.25

For Rs. 6 paid up share = $\frac{21.25\% \times 6}{10\%}$ = Rs. 12.75

Fair value of shares = $\frac{\text{Breakup value + Market value}}{2}$

Fair value of Rs. 10 paid up share = $\frac{18.10 + 21.25}{2}$ = Rs. 19.68

Fair value of Rs. 6 paid up share = $\frac{10.86 + 12.75}{2}$ = Rs. 11.81

* (Transfer to reserves has been ignored)

**Working Notes:**

| **(A) Calculation of Average Capital Employed** | *(Rs. in lakhs)* |
|---|---|
| Fixed assets | 24.00 |
| Other tangible assets | 3.00 |
| Intangible assets | 3.00 |
| | 30.00 |
| Less : Liabilities | 10.00 |
| Bonus | 1.00 |
| | 19.00 |
| Less : ½ of profits [½ (4.1 – Bonus)] | 1.55 |
| Average capital employed | 17.45 |

**(B) Calculation of Super Profit**

| | | |
|---|---|---|
| Average profit = ¼ ( 3 + 3.5 + 4 + 4.1 – Bonus ) | | |
| = ¼ × 13.6 = | 3.400 | |
| Less : Normal profit = 10 % of Rs. 17.45 lakhs | 1.745 | |
| Super profit = | 1.655 | |
| 3 Years' purchase of average super-profit = 3 × 1.655 = Rs. 4.965 lakhs | | |
| Increase in value of goodwill = ½ (book value + 3 years' super profit) | | |
| = ½ (5 + 4.965) = Rs. 4.9825 lakhs | | |
| Net assets as revalued including book value of goodwill | | 24.00 |
| Add : Increase in goodwill (rounded-off) | | 4.98 |
| Net assets available for shareholders | | 28.98 |

## VALUATION OF BUSINESS

Business valuation is a process and a set of procedures used to estimate the economic value of an owner's interest in a business. Valuation is used by financial market participants to determine the price they are willing to pay or receive to affect a sale of a business. In addition to estimating the selling price of a business, the same valuation tools are often used by business appraisers to resolve disputes related to estate and gift taxation, divorce litigation, allocate business purchase price among business assets, establish a formula for estimating the value of partners' ownership interest for buy-sell agreements, and many other business and legal purposes.

### Three Business Valuation Methods

### 1. Asset-Based Approach

Basically, these business valuation methods total up all the investments in the business. Asset-based business valuations can be done on a going concern or on a liquidation basis.

- A going concern asset-based approach lists the business's net balance sheet value of its assets and subtracts the value of its liabilities.
- A liquidation asset-based approach determines the net cash that would be received if all assets were sold and liabilities paid off.

### 2. Earning Value Approach

These business valuation methods are predicated on the idea that a business's true value lies in its ability to produce wealth in the future. The most common earning value approach is Capitalizing Past Earning.

With this approach, a valuator determines an expected level of cash flow for the company using a company's record of past earnings, normalizes them for unusual revenue or expenses, and multiplies the expected normalized cash flows by a capitalization factor.

The capitalization factor is a reflection of what rate of return a reasonable purchaser would expect on the investment, as well as a measure of the risk that the expected earnings will not be achieved.

### 3. Market Value Approach

Market Approach refers to the notion of arriving at the value of a company by comparing it to the market value of similar publicly listed companies. The comparison is based on certain financial ratios or multiples, such as the price to book value, price to earnings, EV/EBITDA, etc., of the equity in question to those of its peers. This type of approach, which is popular as a strategic tool in the financial industry, is mainly statistical, based on historical data, and current market sentiments. This is also known as relative valuation method.

A market approach is a method of determining the appraisal value of an asset based on the selling price of similar items. The market approach is a business-valuation method that can be used to calculate the value of property or as part of the valuation process for a closely held business. Additionally, the market approach can be used to determine the value of a business ownership interest, security or intangible assets. Regardless of what asset is being valued, the market approach studies recent sales of similar assets, making adjustments for differences in size, quantity or quality.

## VALUATION OF INTANGIBLE ASSETS

### Intangible Assets

Intangible asset is defined as a capital asset having no physical existence, its value being dependent on the rights that possession confers upon the owner. Intangible assets are expected to benefit the firm beyond the current operating cycle of the business.

Accounting Standard (AS) 26 Intangible Assets issued by the Institute of Chartered Accountants of India deals with meaning and valuation of intangible assets. According to this Accounting Standard, an intangible asset is

an identifiable non-monetary asset, without physical substance, held for use in the production or supply of goods or services, for rental to others, or for administrative purposes.

If an item covered by AS-26 does not meet the definition of an intangible asset, expenditure to acquire it or generate it internally is recognized as an expense when it is incurred. However, if the item is acquired in an amalgamation in the nature of purchase, it forms part of the goodwill recognized at the date of the amalgamation.

(i) Following are the features of intangible assets :

(ii) It is non-physical in nature.

(iii) It gives the specific rights to the holders over several future years.

(iv) It is possible for multiple uses at the same time.

(v) It creates future value.

(vi) It is identifiable as non-monetary asset.

(vii) It has limited ability to protect property rights.

(viii) Investment in intangible assets is basically risky

**Approaches for Valuing Intangible Assets**

There are three approaches used in valuing intangible assets;

**(i) Cost Approach**

In cost approach, expenditure incurred in developing the asset is aggregated. If the asset has been purchased recently, its purchase price may be taken to be the cost.

**(ii) Market-Value Approach**

In market-value approach, valuation is made by reference to transactions involving similar assets that have taken place recently in similar markets.

**(iii) Economic-Value Approach**

Economic value approach is based on the cash flows or earnings attributable to those assets and the capitalizaiton thereof, at an appropriate discount rate or multiple rate.

## Recognition and Initial Measurement of an Intangible Asset

An intangible asset should be recognized if, and only if:

(a) it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise; and

(b) the cost of the asset can be measured reliably.

## Acquisition of Intangible Assets as Part of an Amalgamation

An intangible asset acquired in an amalgamation in the nature of purchase is accounted for in accordance with Accounting Standard (AS) 14, Accounting for Amalgamations. Judgement is required to determine whether the cost (i.e., fair value) of an intangible asset acquired in an amalgamation can be measured with sufficient reliability for the purpose of separate recognition.

Certain enterprises that are regularly involved in the purchase and sale of unique intangible assets have developed techniques for estimating their fair values indirectly. These techniques may be used for initial measurement of an intangible asset acquired in an amalgamation in the nature of purchase if their objective is to estimate fair value and if they reflect current transactions and practices in the industry to which the asset belongs. These techniques include, where appropriate, applying multiples reflecting current market transactions to certain indicators driving the profitability of the asset (such as revenue, market shares and operating profit) or discounting estimated future net cash flows from the asset.

## Amortization of Intangible Assets

### 1. Amortization Period

The depreciable amount of an intangible asset should be allocated on a systematic basis over the best estimate of its useful life. There is a rebuttable presumption that the useful life of an intangible asset will not exceed ten years from the date when the asset is available for use. Amortization should commence when the asset is available for use.

As the future economic benefits embodied in an intangible asset are consumed over time, the carrying amount of the asset is reduced to reflect that consumption. This is achieved by systematic allocation of the cost of the asset, less any residual value, as an expense over the asset's useful life. Amortization is recognized whether or not there has been an increase in, for example, the asset's fair value or recoverable amount.

### 2. Amortization Method

The amortization method used should reflect the pattern in which the asset's economic benefits are consumed by the enterprise. If that pattern cannot be determined reliably, the straight-line method should be used. The amortization charge for each period should be recognized as an expense, unless some Accounting Standard permits or requires it to be included in the carrying amount of another asset.

## Recoverability of the Carrying Amount – Impairment Losses

To determine whether an intangible asset is impaired, an enterprise applies Accounting Standard on Impairment of Assets, which explains how an enterprise reviews the carrying amount of its assets and how it determines the recoverable amount of an asset, and when it recognizes or reverses an impairment loss.

If an impairment loss occurs before the end of the first annual accounting period commences after the acquisition for of an intangible asset acquired in an amalgamation in the nature of purchase, the impairment loss is recognized as an adjustment to both the amount assigned to the intangible asset and the goodwill (capital reserve) recognized at the date of the amalgamation. However, if the impairment loss relates to specific events or changes in circumstances occurring after the date of acquisition, the impairment loss is recognized under Accounting Standard on Impairment of Assets and not as an adjustment to the amount assigned to the goodwill (capital reserve) recognized at the date of acquisition.

## MEANING OF GOODWILL

Goodwill is an intangible but not a fictitious asset, which implies that it has some realizable value. From the accountants' point of view goodwill, in the sense of attracting custom, has little significance unless it has a saleable value. To the accountant, therefore, goodwill may be said to be that element arising from the reputation, connection, or other advantages possessed by a business which enables it to earn greater profits than the return normally expected on the capital represented by the net tangible assets employed in the business. In considering the return normally expected, the nature of the business has to be taken into consideration, the risks involved, fair management remuneration and any other relevant circumstances. The goodwill possessed by a firm may be due, inter alia, to the following:

1. The location of the business premises, the nature of the firm's products or the reputation of its services.
2. The possession of favourable contracts, complete or partial monopoly, etc.
3. The personal reputation of the promoters.
4. The possession of efficient and contented employees.
5. The possession of trade marks, patents or a well-known business name.
6. The continuance of advertising campaigns.
7. The maintenance of the quality of the firm's product and development of the business with changing conditions.

The need for evaluating goodwill may arise in the following cases:

1. when the business or when the company is about to be sold to another company or when the company is about to be amalgamated with another company;
2. when stock exchange quotations are not available, company's shares have to be valued for taxation purposes, gift tax, etc.;
3. when a large block of shares, so as to enable the holder to exercise control over the company concerned, has to be bought or sold; and
4. when the company has previously written off its goodwill and wants its right back. In the valuation of goodwill consideration of the following factors will have a bearing:
   (a) nature of the industry, its history and the risks to which it is subject to;
   (b) prospects of the industry in the future;
   (c) the company's history – its past performance and its record of past profits and dividends;
   (d) the basis of valuation of assets of the company and their value;
   (e) the ratio of liabilities to capital;
   (f) the nature of the management and the chances of its continuation;
   (g) capital structure or gearing;
   (h) size, location and reputation of the company's products;
   (i) the incidence of taxation;
   (j) the number of shareholders;
   (k) yield on shares of companies engaged in the same industry which are listed on the Stock Exchanges;
   (l) composition of purchasers of the products of the company;

## Internally Generated Goodwill

Internally generated goodwill should not be recognized as an asset.

To assess whether an internally generated intangible asset meets the criteria for recognition, an enterprise classifies the generation of the asset into:

(a) a research phase; and

(b) a development phase.

### 1. Research Phase

No intangible asset arising from research (or from the research phase of an internal project) should be recognized. Expenditure on research (or on the research phase of an internal project) should be recognized as an expense when it is incurred.

### 2. Development Phase

An intangible asset arising from development (or from the development phase of an internal project) should be recognized if, and only if, an enterprise can demonstrate all of the following:

(a) the technical feasibility of completing the intangible asset so that it is available for use or sale;

(b) its intention to complete the intangible asset and use or sell it;

(c) its ability to use or sell the intangible asset;

(d) how the intangible asset will generate probable future economic benefits. Among other things, the enterprise should demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;

(e) the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

(e) its ability to measure the expenditure attributable to the intangible assets during its development reliably.

Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance should not be recognized as intangible assets.

## METHODS OF VALUING GOODWILL

### 1. AVERAGE PROFITS METHOD

Under this method, goodwill is expressed to be a purchase of certain number of years profit based on the average of a given period. This involves two steps:

1. Calculation of average profit taking into consideration the profit of the preceding years.
2. Multiplying the average profit with number of purchase years.

**Why Average Profits?**

Goodwill is paid for obtaining a future advantage. However, the future is uncertain and is usually estimated on the basis of past. Therefore, in a business what profits are likely to accrue in the future depends upon its average performance in the past and hence the average profits.

**Illustration 4.**

X purchased business from Y on 30th June, 2017. Profit earned by Y for the preceding years ending on 31st December every year were- 2014 – Rs. 41,000, 2015 – Rs. 40,000 and 2016 – Rs. 42,000.

It was ascertained that profits of 2015 included a non- recurring item of Rs. 1500 and profit of 2016 was reduced by Rs. 2000 due to an extraordinary loss on account of theft. The annual premium was Rs. 200 per annum. X at the time of purchasing the business, was employed with Rama Bros and was getting Rs. 500 p.m. he intends to replace the manager who at the present is getting Rs. 350 p.m. the goodwill is calculated at 2 years purchase of the average profits. Calculate the goodwill of the business.

| **Solution:** | **Rs.** |
|---|---|
| Profits (2014) | 41,000 |
| Profits (2015) | 38,500 (40,000 – 1500) |
| Profits (2016) | 44,000 (42,000 + 2,000) |
| **Total Profits** | **1,23,500** |
| Average profits = $\frac{1,23,500}{3}$ = | 41,167 |
| Less: insurance premium(annual) | 200 |
| Salary (Rs 500 x 12) | 6,000 |
| Add: salary of manager (12 x 350) | 4,200 |
| Net average profit | 39,167 |
| Goodwill | = 39,167 x 2 = 78,334 |

### 2. SUPER PROFIT METHOD

In this case the future maintainable profits of the firm are compared with the normal profits for the firm. Normal earnings of a business can be judged only in the light of normal rate of earning and capital employed in the business.

There are three methods of calculating goodwill based on super profit which are as under:

**(i) PURCHASE OF SUPER PROFIT METHOD**

Goodwill as per this method is
= super profit x number of purchase years

**(ii) SLIDING – SCALE VALUATION OF SUPER PROFIT**

This method is a variation of the purchase method. This has been advocated by A.E. Cutforth, and is based upon the theory that the greater the amount of super profit, the more difficult it would be to maintain. In this method the super profit is divided into two or three divisions. Each of these is multiplied by a different number of years' purchase, in descending order from the first division. For example, if super profit is estimated at Rs. 2,25,000,

**Goodwill is calculated as follows:**

| | **Rs.** |
|---|---|
| First Rs 75,000 say 5 years | 3,75,000 |
| Second Rs 75,000 say 4 years | 3,00,000 |
| Third Rs 75,000 say 3 years | 2,25,000 |
| Total goodwill | 9,00,000 |

**(iii) Capitalization of Super Profit**

$$\frac{\text{Average Annual Super Profit}}{\text{Normal Rate of Return}} \times 100$$

**Illustration 5.**

From the following particulars of three companies ascertain the value of goodwill. Terms and conditions are as follows:

(i) Assets are to be revalued.

(ii) Goodwill is to be valued at four years' purchase of average super profits for three years. Such average is to be calculated after adjustment of depreciation at ten per cent on the amount of increase/decrease on revaluation of fixed assets. Income tax is to be ignored.

(iii) Normal profit on capital employed is to be taken at 10 percent, capital employed being considered on the basis of net revalued amounts of tangible assets.

The summarized Balance Sheets and relevant information are given below:

*(Rs. in Lakhs)*

| **Liabilities** | **P Ltd.** | **Q Ltd.** | **R Ltd.** |
|---|---|---|---|
| Equity shares of Rs.10 each | 24.00 | 28.00 | 12.00 |
| Reserves | 4.00 | 2.00 | 4.00 |
| 10 percent debentures | 8.00 | - | 4.00 |
| Expenses and creditors | 8.00 | 6.00 | 4.00 |
| | 44.00 | 36.00 | 24.00 |

**Assets**

| | | | |
|---|---|---|---|
| Goodwill | - | 2.0 | - |
| Net tangible block | 32.00 | 24.00 | 20.00 |
| Current assets | 12.00 | 10.00 | 4.00 |
| | 44.00 | 36.00 | 24.00 |

| | P Ltd. | Q Ltd. | R Ltd |
|---|---|---|---|
| Revaluation of tangible block | 40,00,000 | 20,00,000 | 24,00,000 |
| Revaluation of current assets | 14,00,000 | 5,60,000 | 3,20,000 |
| Average annual profit for three years before charging debenture interest | 7,20,000 | 5,76,000 | 2,72,000 |

**Solution:**

| | P Ltd. | Q Ltd. | R Ltd. |
|---|---|---|---|
| Average profit after charging debenture Interest | 640,000 | 576,000 | 272,000 |
| Less/Add : Depreciation on revaluation | (80,000) | 40,000 | (40,000) |
| | 5,60,000 | 6,16,000 | 2,32,000 |
| Less : Normal profit at 10% (WN1) (192,000) | (3,80,000) | (1,96,000) | |
| Super Profit | 1,80,000 | 4,20,000 | 40,000 |
| Goodwill at 4 years' purchase of super Profits | 7,20,000 | 6,80,000 | 1,60,000 |

W.N.1 Calculation of Capital Employed

| | P Ltd. | Q Ltd. | R Ltd. |
|---|---|---|---|
| Tangible fixed assets | 40,00,000 | 20,00,000 | 24,00,000 |
| Current assets | 14,00,000 | 560,000 | 320,000 |
| Less : Debentures and Creditors | (16,00,000) | (6,00,000) | (8,00,000) |
| | 38,00,000 | 19,60,000 | 19,20,000 |

## 3. CAPITALIZATION OF AVERAGE PROFIT

The capitalization of profit method values goodwill at the excess of capital that should have been employed for earning the average profit over the capital which has been actually employed. In this method, the value of whole business is found by using the formula

$$\frac{\text{Average annual profit}}{\text{Normal rate of return}} \times 100$$

From this figure, net assets (excluding goodwill) of the firm are deducted and the resultant figure will be the goodwill.

**Illustration 7.**

International Ltd. is developing a new production process. During the financial year ending 31st March, 2017, the total expenditure incurred was Rs.50 lakhs. This process met the criteria for recognition as an intangible asset on 1st December, 2016. Expenditure incurred till this date was Rs. 22 lakhs. Further expenditure incurred on the process for the financial year ending 31st March, 2018 was Rs.80 lakhs. As at 31st March, 2018, the recoverable amount of know-how embodied in the process is estimated to be Rs. 72 lakhs. This includes estimates of future cash outflows as well as inflows.

You are required to calculate:

(i) Amount to be charged to Profit and Loss A/c for the year ending 31st March, 2017 and carrying value of intangible as on that date.

(ii) Amount to be charged to Profit and Loss A/c and carrying value of intangible as on 31st March, 2018. Ignore depreciation.

**Solution:**

**(a) As per AS 26 'Intangible Assets'**

**(i) For the year ending 31.03.2017**

**(1) Carrying value of intangible as on 31.03.2017:**

At the end of financial year 31st March 2017, the production process will be recognized (i.e., carrying amount) as an intangible asset at a cost of Rs. 28 lakhs (expenditure incurred since the date the recognition criteria were met, i.e., on 1st December 2016).

**(2) Expenditure to be charged to Profit and Loss Account:**

The Rs. 22 lakhs is recognized as an expense because the recognition criteria were not met until 1st December 2017. This expenditure will not form part of the cost of the production process recognized in the balance sheet.

**(ii) For the year ending 31.03.2018**

| **(1) Expenditure to be charged to Profit and Loss account:** | ***(Rs. in lakhs)*** |
|---|---|
| Carrying Amount as on 31.03.2017 | 28 |
| Expenditure during 2017–2018 | 80 |
| Total book cost | 108 |
| Recoverable Amount | 72 |
| Impairment loss | 36 |

Rs. 36 lakhs to be charged to Profit and Loss Account for the year ending 31.03.2008.

| **(2) Carrying value of intangible as on 31.03.2018:** | **(Rs. in lakhs)** |
|---|---|
| Total Book Cost | 108 |
| Less : Impairment loss | 36 |
| Carrying amount as on 31.03.2018 | 72 |

**Illustration 8.**

Dell International Ltd. is developing a new production process. During the financial Year 31st March, 2016, the total expenditure incurred on this process was Rs. 40 lakhs. The production process met the criteria for recognition as an intangible asset on 1st December 2015. Expenditure incurred till this date was Rs.16 lakhs.

Further expenditure incurred on the process for the financial year ending 31st March 2017 was Rs.70 lakhs. On 31-03-2017, the recoverable amount of know-how embodied in the process is estimated to be Rs. 62 lakhs. This includes estimates of future cash outflows as well as inflows.

You are required to work out:

(a) What is the expenditure to be charged to the Profit and Loss Account for the financial year ended 31st March 2016? (Ignore depreciation for this purpose)

(b) What is the carrying amount of the intangible asset as at 31st March 2016?

(c) What is the expenditure to be charged to the Profit and Loss Account for the financial year ended 31st March 2017? (Ignore depreciation for this purpose)

(d) What is the carrying amount of the intangible asset as on 31st March 2017?

**Solution:**

(a) Rs. 16 lakhs

(b) Carrying amount as on 31-03-2016 will be expenditure incurred after 01-12-2015 = Rs. 24 lakhs

(c) Book cost of intangible asset as on 31-03-2017 is as follows Total Book cost = Rs.(70 + 24) lakhs = Rs. 94 lakhs Recoverable amount as estimated = Rs. 62 lakhs

Difference to be charged to Profit and Loss account = Rs. 32 lakhs

(D) Rs. 62 lakhs

**Illustration 9.**

A Pharma Company spent Rs. 33 lakhs during the accounting year ended 31st March, 2016 on a research project to develop a drug to treat "AIDS". Experts are of the view that it may take four years to establish whether the drug will be effective or not and even if found effective it may take two to three more years to produce the medicine, which can be marketed. The company wants to treat the expenditure as deferred revenue expenditure. Comment.

**Solution:**

As per para 41 of AS 26 'Intangible Assets', no intangible asset arising from research (or from the research phase of an internal project) should be recognized. Expenditure on research (or on the research phase of an internal project) should be recognized as an expense when it is incurred.

Thus the company cannot treat the expenditure as deferred revenue expenditure. The entire amount of Rs. 33 lakhs spent on research project should be charged as an expense in the year ended 31st March, 2016.

## Illustration 10.

From the following data compute the 'Intrinsic' value of each category of equity shares of Ankit Ltd.:

**Shareholders funds**

100,000 'A' Equity shares of Rs.10 each, fully paid

100,000 'B' Equity shares of Rs.10 each, Rs. 8 paid

100,000 'C' Equity shares of Rs.10 each, Rs. 5 paid

Retained Earnings Rs.9,00,000

**Solution:**

**Computation of Net assets**

(i) Worth of net assets is equal to shareholders' fund, i.e.,

Paid up value of 'A' equity shares 100,000 x Rs. 10 = 10,00,000

Paid up value of 'B' equity shares 100,000 x Rs. 8 = 8,00,000

Paid up value of 'C' equity shares 100,000 x Rs. 5 = 5,00,000

Retained earnings = 9,00,000

Net assets = 32,00,000

Add: Notional calls (100,000 x 2 + 100,000 x Rs. 5) = 7,00,000

Intrinsic Value of each equity share of Rs. 100 fully paid up =39,00,000 / 300,000 = Rs. 13

(ii) Intrinsic values of each category of equity shares

'A' equity shares of Rs. 10 fully paid up Rs 13

'B' equity shares of Rs. 10 each, out of which Rs. 8 paid up(13-2)= Rs 11

Value of 'C' Equity shares of Rs. 10 each, out of which Rs. 5 paid up (13-5)= Rs 8

**Illustration 11.**

Average profit of a firm is Rs. 48,000. The rate of capitalization is 12%. Assets and liabilities of the firm are Rs. 4,00,000 and Rs. 1,70,000 respectively.

**Solution:**

Net Assets = Total assets – Outside liabilities

= 4,00,000 – 1,70,000

= Rs. 2,30,000

Value of goodwill = $\frac{\text{Average Profit}}{\text{NRR}} \times 100$ - Net Assets

= 48,000 x 100 / 12 – 2,30,000

= 4,00,000 - 2,30,000

= Rs. 1,70,000

**Illustration 12.**

A firm has a total capital investment of Rs. 2,25,000. The firm earned net profit during the last four years Rs. 35,000 , Rs. 40,000 , Rs. 60,000 , Rs. 50,000. The fair return on the net capital employed is 15%. Find out the value of goodwill if it is based on 3 years' purchase of the average super profits of past four years.

| **Solution:** | **Rs.** |
|---|---|
| Total profit earned during four years | 1,85,000 |
| Average annual profit (1,85,000 /4) | 46,250 |
| Fair return on capital employed (15% of 2,25,000) | 33,750 |
| Super Profit (46,250 – 33,750) | 12,500 |
| Value of goodwill (12,500 x 3) | 37,500 |

## VALUATION GUIDELINES-REGULATORY REQUIREMENTS

There was no provision in the earlier company law i.e. the Companies Act, 1956 for valuation or specified persons who could conduct valuation of companies, shares etc. The concept of a "Registered Valuer" under Indian law was introduced for the first time vide Section 247 of Chapter XVII of the Companies Act, 2013 for matters requiring valuation under the said act.

The Ministry of Corporate Affairs has notified the provisions governing valuation by registered valuers [Section 247 of the Act, 2013] and the Companies (Registered Valuers and Valuation) Rules, 2017 ("Rules"), both to come into effect from 18th October, 2017.

As per section 247 of The Companies Act, 2013, Where a valuation is required to be made in respect of any property, stocks, shares, debentures, securities or goodwill or any other assets (herein referred to as the assets) or net worth of a company or its liabilities under the provision of this Act, it shall be valued by a person having such qualifications and experience, registered as a valuer and being a member of an organisation recognised, in such manner, on such terms and conditions as may be prescribed and appointed by the audit committee or in its absence by the Board of Directors of that company..

The valuer appointed shall,—

(a) make an impartial, true and fair valuation of any assets which may be required to be valued;

(b) exercise due diligence while performing the functions as valuer;

(c) make the valuation in accordance with such rules as may be prescribed; and

(d) not undertake valuation of any assets in which he has a direct or indirect interest or becomes so interested at any time 2during a period of three years prior to his appointment as valuer or three years after the valuation of assets was conducted by him.

The Rules provides the eligibility criteria which needs to be fulfilled for obtaining a certification for being a registered valuer and the manner in which the certification maybe obtained. The Rules also provide that the Insolvency and Bankruptcy Board of India ("IBBI") established under the Insolvency and Bankruptcy Code, 2016 be the "Registering Authority" which will hold examinations and grant certifications of the designation of a "Registered Valuer".

## Valuation Guidelines Prescribed by the RBI under The Foreign Exchange Management Act, 1999

The Reserve Bank of India (the "RBI") is India's central banking institution, which controls the monetary policy of the Indian rupee (similar to the Federal Reserve System in the U.S.). Valuation guidelines are prescribed in the Master Circular on Foreign Investment in India (the "FEMA Circular") issued by the RBI, dated July 1, 2013.

The RBI, in its monetary policy announced on April 1, 2014, stated that it has decided to withdraw the valuation norms governing issue and transfer of shares under the foreign direct investment ("FDI") route and, going forward, transactions will be valued based on acceptable market practices. The announcement also indicated that the operating guidelines governing the same shall be notified separately.

All Indian companies issuing equity shares, fully and mandatorily convertible debentures, and fully and mandatorily convertible preference shares are subject to the pricing guidelines / valuation norms and reporting requirements, amongst other requirements, as prescribed under FEMA Regulations. To understand the valuation guidelines in an easier manner, the same have been bifurcated into inbound and outbound transactions as below:

*Inbound Transactions (Money Coming Into India)*

Transfer or issue of shares by an Indian resident to a non-resident:

In case of an unlisted entity: The RBI guideline states that the price for transfer or issue of shares by an Indian resident to a non-resident shall not be less than the Fair Value of shares as determined by:

- A Category I Merchant Banker registered with the Securities and Exchange Board of India (the "SEBI"), or
- A Chartered Accountant who is a member of the Institute of Chartered Accountants of India ("ICAI")

The sole valuation method prescribed by the FEMA Circular for the above stated purpose is the Discounted Free Cash Flow ("DCF") Method

In case of a listed entity: The RBI guideline states that the price for transfer or issue of shares by an Indian resident to a non-resident shall not be less than the market price of the shares as determined under the "SEBI guidelines for allotment of shares on preferential basis," which is as follows:

The issue of shares on preferential basis shall be made at a price not less than higher of the following:

- The average of the weekly high and low of the closing prices of the company's shares quoted on the stock exchange during the six months preceding the relevant date, or
- The average of the weekly high and low of the closing prices of the related shares quoted on a stock exchange during the two weeks preceding the relevant date.

*Outbound Transactions (Money Going Out of India)*

Transfer of shares by a non-resident to an Indian resident:

In case transfer of funds exceed USD 5 million: The RBI guideline states that the price for transfer of shares by a non-resident to an Indian resident shall not be more than the Fair Value of shares as determined by:

- A Category I Merchant Banker registeredwith the SEBI
- In any other case: The RBI guideline states that the price for transfer of shares by a non-resident to an
- Indian resident shall not be more than the Fair Value of shares as determined by:
- A Category I Merchant Banker registered with the SEBI, or
- A Chartered Accountant who is member of the ICAI

In case of an outbound transaction, no specific valuation methodologies have been prescribed by the RBI; however, the following valuation methods have been recommended:

For valuing a minority stake

- Guideline Public Company Method

For valuing a controlling stake

- DCF Method
- Merger and Acquisition Method

## VALUATION GUIDELINES UNDER SEBI

### Valuation under SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2018

***Pricing of frequently traded shares***

**Regulation 164 of Valuation of shares as per Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018.**

If the equity shares of the issuer have been listed on a recognised stock exchange for a period of twenty six weeks or more as on the relevant date, the price of the equity shares to be allotted pursuant to the preferential issue shall be not less than higher of the following:

a) the average of the weekly high and low of the volume weighted average price of the related equity shares quoted on the recognised stock exchange during the twenty six weeks preceding the relevant date; or

b) the average of the weekly high and low of the volume weighted average prices of the related equity shares quoted on a recognised stock exchange during the two weeks preceding the relevant date.

If the equity shares of the issuer have been listed on a recognised stock exchange for a period of less than twenty six weeks as on the relevant date, the price of the equity shares to be allotted pursuant to the preferential issue shall be not less than the higher of the following:

a) the price at which equity shares were issued by the issuer in its initial public offer or the value per share arrived at in a scheme of compromise, arrangement and amalgamation under sections 391 to 394 of the Companies Act, 1956 or sections 230 to 234 the Companies Act, 2013, as applicable, pursuant to which the equity shares of the issuer were listed, as the case may be; or

b) the average of the weekly high and low of the volume weighted average prices of the related equity shares quoted on the recognised stock exchange during the period the equity shares have been listed preceding the relevant date; or

c) the average of the weekly high and low of the volume weighted average prices of the related equity shares quoted on a recognised stock exchange during the two weeks preceding the relevant date.

***Pricing of infrequently traded shares***

**Regulation 165 of Valuation of shares as per Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018.**

Where the shares of an issuer are not frequently traded, the price determined by the issuer shall take into account the valuation parameters including book value, comparable trading multiples, and such other parameters as are customary for valuation of shares of such companies: Provided that the issuer shall submit a certificate stating that the issuer is in compliance of this regulation, obtained from an independent valuer to the stock exchange where the equity shares of the issuer are listed.

### Valuation under SEBI (Substantial Acquisition of Shares & Takeovers) Regulations, 2011

***Pricing of frequently traded shares***

Traded Turnover of Shares ≥ 10% [In the Last Twelve Calendar Months preceding the Month of Public announcement

**Method of Valuation-** Valuation to be done by a Merchant Banker or CA with 10 year experience

The offer price shall be the highest of,—

(a) the highest negotiated price per share of the target company for any acquisition under the agreement attracting the obligation to make a public announcement of an open offer;

(b) the volume-weighted average price paid or payable for acquisitions, whether by the acquirer or by any person acting in concert with him, during the fifty-two weeks immediately preceding the date of the public announcement;

(c) the highest price paid or payable for any acquisition, whether by the acquirer or by any person acting in concert with him ,during the twenty-six weeks immediately preceding the date of the public announcement;

(d) the volume-weighted average market price of such shares for a period of sixty trading days immediately preceding the date of the public announcement as traded on the stock exchange where the maximum

Volume of trading in the shares of the target company are recorded during such period, provided such shares are frequently traded;

***Pricing of Infrequently traded shares***

Traded Turnover of Shares < 10% [In the Last Twelve Calendar Months preceding the Month of Public Announcement

**Method of Valuation**- Valuation to be done by a Merchant Banker or CA with 10 year experience

Where the shares are not frequently traded, the price determined by the acquirer and the manager to the open offer taking into account valuation parameters including, book value, comparable trading multiples, and such other parameters as are customary for valuation of shares of such companies;

## VALUATION UNDER INCOME TAX ACT, 1961

In case of Valuation of Shares, determining the fair market value (FMV) of shares is difficult particularly in case of unquoted equity shares.

Rule 11UA of the Income Tax Rules, 1962 prescribes a specific formula based on "Net Asset Value Approach". The Finance Act, 2017 has inserted Section 56(2) (x) so as to widen the scope of taxability of receipt of sum of money or property without/inadequate consideration.

### New Valuation Guidelines (Rule 11UAA of Income Tax Rules, 1962)

Year of applicability: The valuation guideline is applicable from assessment year 2018-19 (i.e. financial year 2017-18).

The FMV of unquoted equity shares on the valuation date = (A+B+C+D - L)× (PV)/(PE)

Where

A= book value of all the assets (other than jewellery, artistic work, shares, securities and immovable property) in the balance-sheet as reduced by,- i) any amount of income-tax paid, if any, less the amount of income-tax refund claimed, if any; and ii) any amount shown as asset including the unamortised amount of deferred expenditure which does not represent the value of any asset;

B= the price which the jewellery and artistic work would fetch if sold in the open market on the basis of the valuation report obtained from a registered valuer;

C= FMV of shares and securities as determined in the manner provided in this rule;

D= the value adopted or assessed or assessable by any authority of the Government for the purpose of payment of stamp duty in respect of the immovable property;

L= book value of liabilities shown in the balance sheet, but not including the following amounts, namely:

i) the paid-up capital in respect of equity shares;

ii) the amount set apart for payment of dividends on preference shares and equity shares where such dividends have not been declared before the date of transfer at a general body meeting of the company;

iii) reserves and surplus, by whatever name called, even if the resulting figure is negative, other than those set apart towards depreciation;

iv) any amount representing provision for taxation, other than amount of income-tax paid, if any, less the amount of income-tax claimed as refund, if any, to the extent of the excess over the tax payable with reference to the book profits in accordance with the law applicable thereto;

v) any amount representing provisions made for meeting liabilities, other than ascertained liabilities;

vi) any amount representing contingent liabilities other than arrears of dividends payable in respect of cumulative preference shares PE = total amount of paid up equity share capital as shown in the balance-sheet

PE= total amount of paid up equity share capital as shown in the balance-sheet

PV= the paid up value of such equity shares

## Quoted shares and securities

- If received by way of transaction through recognized stock exchange the FMV would be the transaction value as recorded on such recognised stock exchange.
- If received by way of transaction carried out other than through any recognised stock exchange, the FMV would be: a) Average of the lowest and the highest price of the shares or securities quoted on recognised stock exchange on the valuation date; b) Where shares or securities are not traded on recognised stock exchange on the specified date, average of the lowest and the highest price of the shares or securities quoted on recognised stock exchange on a date immediately preceding the valuation date

## Unquoted equity shares

FMV = (A +B+C+D – L) x (PV) / (PE) (i.e., same valuation approach as described above) Unquoted shares and securities (other than unquoted equity shares)

FMV would be the amount which would be fetched if sold in the open market on the specified date. This has to be supported by Valuation report by Merchant banker or a chartered accountant.

## LESSON ROUND-UP

- There are two principal methods of valuation of shares: Net Assets Method and Earning Basis.
- Valuation of shares on net asset basis is also called asset backing or intrinsic value or break up value method.
- The earning basis of share valuation is expressed through: Yield method or Dividend yield method or Earning Capacity method.
- Yield basis valuation may take the form of valuation based on rate of return and productivity factor.
- The value of share as per Net Asset Method

$$\text{Valuation per Equity Share} = \frac{\text{Balance available for Equity Shareholders}}{\text{No. of Equity Shares with same paid up value}}$$

- The value of share as per rate of return method

$$\text{Value of share} = \frac{\text{Possible rate of dividend x Paid up value per share}}{\text{Normal rate of dividend}}$$

OR

$$= \frac{\text{Dividend (in rupees) per share}}{\text{Normal rate of dividend}} \times 100$$

- The value of shares as per rate of earnings method

$$\text{Value of share} = \frac{\text{Rate of earning}}{\text{Normal rate of earning}} \times \text{Paid-up value per share}$$

- The value of share as per Fair Value method

$$\text{Fair value of share} = \frac{\text{Value by net asset method}}{2} + \text{Value by yield method}$$

- Intangible asset is defined as a capital asset having no physical existence, its value being dependent on the rights that possession confers upon the owner. Accounting Standard (AS) 26 Intangible Assets issued by the Institute of Chartered Accountants of India deals with meaning and valuation of intangible assets.
- There are three approaches used in valuing intangible assets;cost approach , Market value approach, Economic value approach.
- The depreciable amount of an intangible asset should be allocated on a systematic basis over the best estimate of its useful life.
- The amortization charge for each period should be recognized as an expense unless some Accounting Standard permits or requires it to be included in the carrying amount of another asset.

## GLOSSARY

**Net Asset Method**

The value per share is arrived at by valuing the assets of the company and deducting all liabilities and claims of the preferred shareholders and dividing the net assets by total equity shares with the same paid up value

**Business valuation**

Business valuation is a process and a set of procedures used to estimate the economic value of an owner's interest in a business.

**Intangible asset**

Intangible asset is defined as a capital asset having no physical existence, its value being dependent on the rights that possession confers upon the owner.

**Capitalization of average profit**

The capitalization of profit method values goodwill at the excess of capital that should have been employed for earning the average profit over the capital which has been actually employed.

## TEST YOURSELF

1. What do you mean by amortization of an intangible asset?
2. What are the different approaches for valuation of business?
3. How will you deal with internally generated goodwill in the books of accounts?
4. "Stock exchanges are the most common source for ascertaining the value of shares but still it forms an unreliable basis" explain the statement.
5. Write a short note on residual value of an intangible asset.
6. How is an intangible asset recognized? How is initial measurement of intangible asset is done?
7. Write short notes on capital market information-P/E ratio, yield ratio and market value/book value of shares.
8. Briefly discuss methods of valuation of intangible assets.

# Lesson 21

# Accounting for Share Based Payments (Ind AS 102)

***Key Concepts One Should Know***

- Grant Date
- Share base payment
- Equity-Settled SBP Transactions
- Cash-Settled SBP Transactions
- Vesting and non-vesting conditions

## *Learning Objectives*

**To understand:**

- Basic of Ind AS 102
- Applicability of Ind AS 102.
- Importance of Grant Date
- Timeline for the application of Ind AS 102

## *Lesson Outline*

- Scope of IndAS 102
- What is Share Based Payment (SBP) Transaction & Arrangement
- Grant Date
- Vesting and Non-Vesting Conditions
- Classification of Conditions to Receive Share-Based Payments
- Timeline of a Share Option Award
- Share-Based Payment Awards with a Cash Alternative
- Modification, Cancellation or Settlement
- Difference Between IGAAP & Ind-AS 102
- LESSON ROUND UP
- TEST YOURSELF

## OBJECTIVE

The objective of this Standard is to specify the financial reporting by an entity when it undertakes a share-based payment transaction. In particular, it requires an entity to reflect in its profit or loss and financial position the effects of share-based payment transactions, including expenses associated with transactions in which share options are granted to employees.

### What Is Share Based Payment (SBP) Transaction & Arrangement ?

SBP transaction is a transaction in which the entity :

(a) receives goods or services from the supplier of those goods or services in a SBP arrangement, or

(b) incurs an obligation to settle the transaction with the supplier in a SBP arrangement when another group entity receives those goods or services.

*SBP arrangement* is an agreement between the entity (or another group entity or any shareholder of any group entity) and another party that entitles the other party to receive ;

(a) cash or other assets of the entity for amounts that are based on the price (or value) of equity instruments of the entity or another group entity, or

(b) equity instruments of the entity or another group entity, provided the specified vesting conditions, if any, are met.

### Example of Share-Based Payment Arrangements

SBP arrangements between employers and employees

- Share Appreciation Rights (SAR) that entitle employees to cash payments calculated by reference to increases in the market price of an entity's shares.
- Share ownership plans where employees receive an entity's shares in exchange for their services.

SBP arrangements that are not between employers and employees

- An external consultant (not an employee) may provide services in return for shares in the entity.
- Asupplier may provide goods in return for shares in the entity.
- Ashareholder (rather than an employer) may grant shares to an employee.

## SCOPE

An entity shall apply this Standard in accounting for all share-based payment transactions, whether or not the entity can identify specifically some or all of the goods or services received, including:

1. **Equity-Settled Share-Based Payment Transactions** in which the entity receives goods or services as consideration for equity instruments of the entity (e.g., the grant of shares or share options to employees).

   For equity-settled share-based payment transactions, the entity shall measure the goods or services received, and the corresponding increase in equity, directly, at the fair value of the goods or services received, unless that fair value cannot be estimated reliably. If the entity cannot estimate reliably the fair value of the goods or services received, the entity shall measure their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted.

2. **Cash-Settled Share-Based Payment Transactions** in which the entity receives goods or services and incurs a liability based on the price (or value) of the entity's shares or other equity instruments of the entity as consideration (e.g., the grant of share appreciation rights to employees.

Cash-Settled Share-Based Payment Transactions which entitle the employees to future cash payments based on the increase in the entity's share price.

Cash-Settled Share-Based Payment Transactions in which the entity receives or acquires goods or services and the terms of the arrangement provided either the entity or the supplier of those goods or services with a choice of whether the entity settles the transaction in cash (or other assets) or by issuing equity instruments,. In the absence of specifically identifiable goods or services, other circumstances may indicate that goods or services have been (or will be) received, in which case this Standard applies.

**Determining the Fair Value of Equity Instruments Granted**

- For transactions measured by reference to the fair value of the equity instruments granted, an entity shall measure the fair value of equity instruments granted at the measurement date, based on market prices if available, taking into account the terms and conditions upon which those equity instruments were granted.
- If market prices are not available, the entity shall estimate the fair value of the equity instruments granted using a valuation technique to estimate what the price of those equity instruments would have been on the measurement date in an arm's length transaction between knowledgeable, willing parties. The valuation technique shall be consistent with generally accepted valuation methodologies for pricing financial instruments, and shall incorporate all factors and assumptions that knowledgeable, willing market participants would consider in setting the price.

Share-based payment transaction may be settled by another group entity (or a shareholder of any group entity) on behalf of the entity receiving or acquiring the goods or services. This is applicable to an entity that :

(a) receives goods or services when another entity in the same group (or a shareholder of any group entity) has the obligation to settle the share-based payment transaction, or

(b) has an obligation to settle a share-based payment transaction when another entity in the same group receives the goods or services, unless the transaction is clearly for a purpose other than payment for goods or services supplied to the entity receiving them.

## IMPORTANT CONCEPTS OF ACCOUNTING FOR SHARE-BASED PAYMENTS

### Grant Date

Grant date is the date at which the entity and another party (including an employee) agree to a share-based payment arrangement, being when the entity and the counterparty have ***a shared understanding of the terms and conditions of the arrangement.*** At the grant date, the entity confers on the counterparty ***the right to cash, other assets or equity instruments*** of the entity provided the specified vesting conditions, if any, are met. If that agreement is subject to an approval process (for example, by shareholders), grant date is the date on which that approval is obtained.

**Example (i) on grant date: [Grant of share options subject to approval of shareholders]:** On 1st July, 2019, X Ltd. offered new share options to employees of the company but this share option was subject to the approval by the shareholders. The shareholders approved the grant of share options on 1st August, 2019. What is the grant then?

The grant date is the date on which the shareholders approved the grant of share options i.e.1st August, 2019.

**Example (ii) on grant date [Approval of the general meeting obtained but the approval of counterparty not obtained]:** X Ltd. has initiated a share-based payment arrangement in its Board meeting and directed the supervisors to communicate the agreement to the employees. Determine the grant date under the following three cases:

Employees have not yet given his/her consent either implicitly or explicitly even though the company has taken the approval of the agreement in the general meeting;

Though the approval of the agreement in the general meeting has been granted, the grant date cannot be determined since the employees have not given their consent.

## Date of Receipt of Goods and Services

Determination of date on which goods and services are received is critical, as the company is required to recognise employee stock compensation expense on the date of receipt of goods and services. The date of receipt of goods and services may not be the same as grant date, if the goods or services are received prior to the grant date.

For example, on 1st January, 2013 an entity advises employees of the terms of a share award designed to reward performance over the three years ended 31st December, 2015. The award is subject to board's approval, which is given on 1st March, 2013. In this case, grant date is 1st March, 2013. However, the cost of the award would be recognized over the three year period beginning 1st January, 2013, since the employees would have effectively been rendering service for the award from that date.

## Important Concepts of Accounting for Share-Based Payments

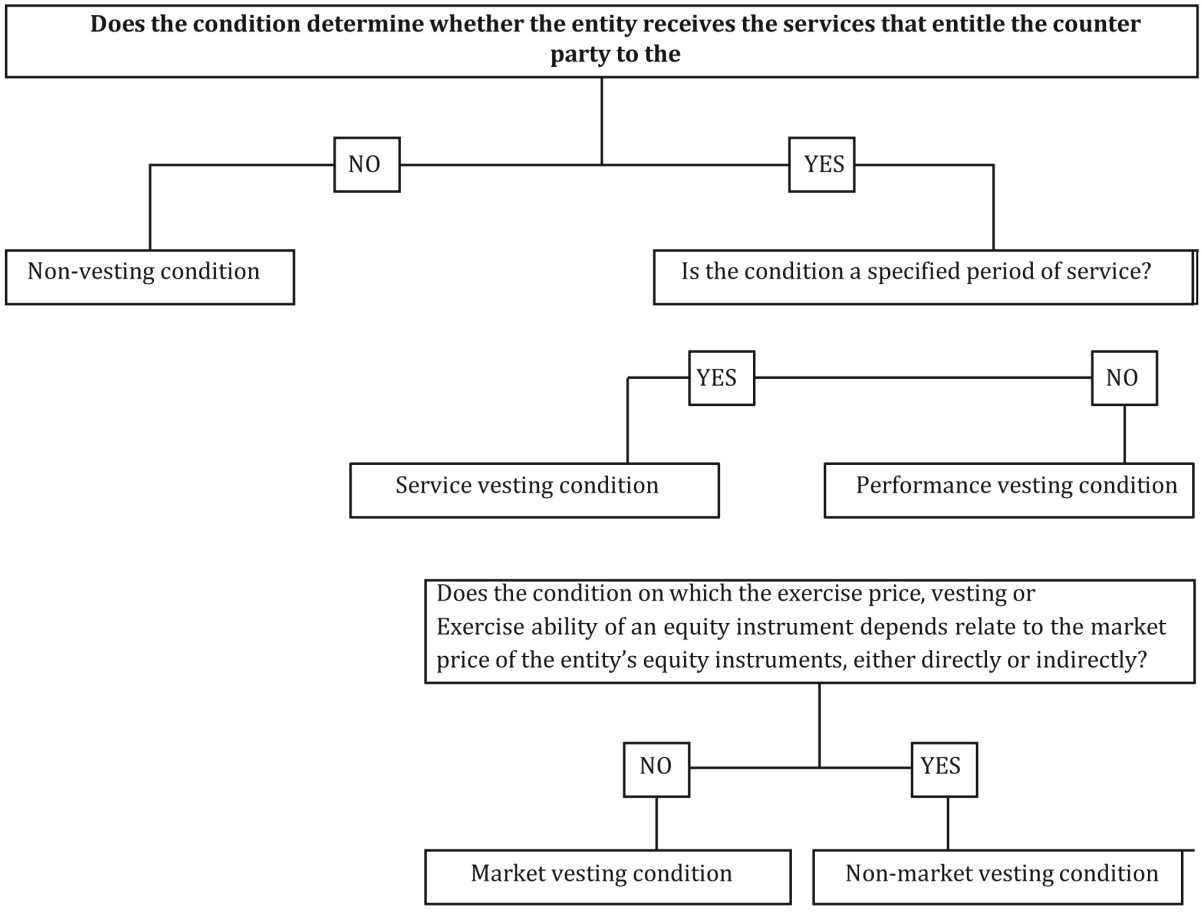
### Vesting and non-vesting conditions

A share-based payment award generally vests upon meeting specified conditions, such as service conditions (time-based) or performance conditions (e.g., achieving a specified EBITDA target).

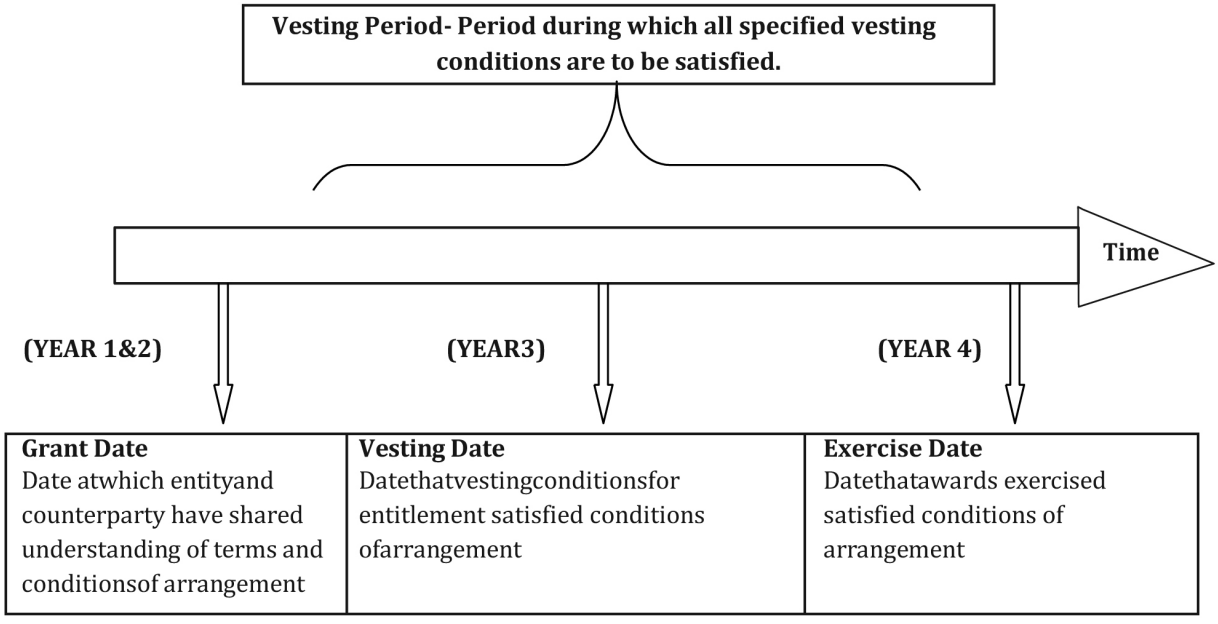
Under IND AS 102, the nature of the condition affects the timing of when the expense is recognized, and in some cases, the measurement of the expense.

In addition, if a condition is not met, whether or not the entity may reverse the previously recognized compensation expense depends on the nature of the condition that was not met. Therefore, the classification of a condition is a critical step in accounting for share-based payments.

**Classification of Conditions to Receive Share-Based Payments :**



## Timeline of A Share Option Award




**Example: Vesting Period - Award with service condition only**

If an employee remains in service for at least three years from the grant date of the award, the employee can exercise the options at any time after the end of three years and on or before ten years from the grant date of the award. The fair value of the award at the grant date, ignoring the effect of the vesting condition, is Rs. 3,00,000.

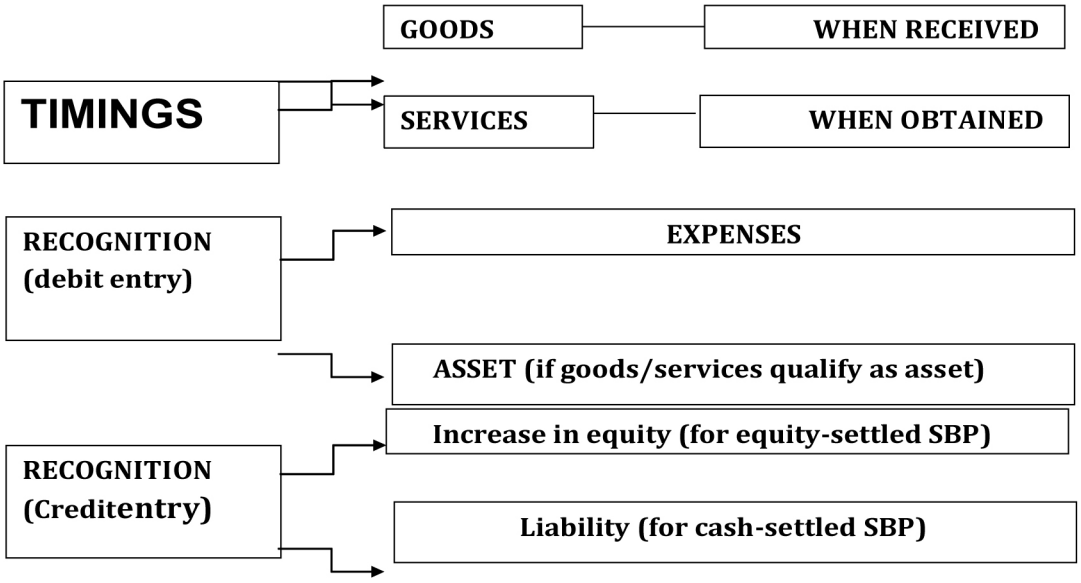
For this award, the vesting period is three years, the exercise period is seven years, and the life of the option is ten years.

The requirement to remain employed is a (vesting) service condition. The entity recognizes an expense of Rs.1,00,000 a year for three years, with a corresponding increase in equity. If the employee leaves at the start of year three, the entity reverses the cumulative expense previously recognized (i.e., Rs. 2,00,000) in the current year.

## Overview of Equity and Cash Settled - Measurement

| Counterparty | Measurement basis | Initial Measurement date | Recognition date | Subsequent Measurement Basis and date |
|---|---|---|---|---|
| **Equity Settled Awards** | | | | |
| Employee | Fair value of equity instruments awarded | Grant date | Date goods or services received | No remeasurement |
| Non-employee | Fair value of goods or services received | Date goods or services received | | |
| **Cash Settled Awards** | | | | |
| Employee | Fair value of Liability | Grant date | Date goods or services received | Re-measurement of fair value at each reporting date. |
| Non-employee | Fair value of Liability | Date goods or services received | | |

## Recognition Principle




## Examples of impact of various conditions

**Example: Award with market condition only**

**Illustration 1.**

An entity granted share options to a director on the condition that the market price of the related shares increases by at least 15% each year over the next five years. At the end of year five, this target was not met.

**Solution:** The entity cannot reverse the expense recognized in the current or previous years and cannot revise the grant date fair value since the condition is market-based.

**Example: Award with non-vesting condition only**

**Illustration 2.**

An entity grants share options to a director on the condition that the director does not compete with the reporting entity for a period of at least three years. The fair value of the award at the date of grant, including the effect of the 'non-compete' clause, is Rs. 150,000.

**Solution:** The 'non-compete' clause is a non-vesting condition, because the entity does not receive any services. On the grant date, the entity immediately recognizes a cost of Rs. 150,000, as the director is not providing any future services. The entity cannot reverse the expense recognized, even if the director goes to work for a competitor and loses the share options, because the condition is a non-vesting condition.

**Example: Comprehensive example on various conditions**

X Ltd. has issued 100 shares to each of its 1,000 employees under a share-based payment plan subject to the following conditions:

(a) The employees have to serve the company for 3 years; (b) EBITDA of the company should be Rs. 85 lakhs in 3 years; (c) Share price of the company shall be Rs. 275 in 2 years; and (d) Employees have to serve for additional 5 months from the end of 3 years but will have no impact on vesting of the rights at the end of 3rd year.

The various kinds of conditions in this case are as under:

3 years to remain in service is a service condition. This condition will be considered in the calculation of the expected number of shares which will satisfy the conditions attached.

EBIDTA is a non-market condition. Hence, this will also be considered in the calculation of the number of shares which will satisfy the condition attached.

Share price is one of the market related conditions and hence will be considered in the calculation of the fair value of the equity instruments granted for initial recognition (equity and cash settled) and at subsequent dates (in case of cash settled).

Additional 5 months service requirement does not have any impact on the eligibility to get the share-based payment. This is a non-vesting condition and will be considered in the calculation of the fair value of the SBP.

**Example - Cash-settled awards**

An entity grants 100 cash-settled awards to each of its 500 employees, on condition that the employees remain in its employment for the next three years. Cash is payable at the end of three years based on the share price of the entity's shares on such date.

Year 1 - 35 employees leave. The entity estimates that 60 additional employees will leave during years 2 and 3 (i.e., the award will vest for 405 employees). The share price at year-end is Rs. 40.

Year 2 - 40 employees leave and the entity estimates that 25 additional employees will leave during year 3 (i.e., the award will vest for 400 employees). The share price at year-end is Rs. 50.

Year 3 - 22 employees leave, so that the award vests for 403 employees. The share price at year-end is Rs. 52.

The entity recognizes the cost of this award as follows:

| Year | Calculation of liability | Liability | Expense for Period |
|---|---|---|---|
| 1 | 405employees x 100awards x Rs40 x 1/3 | 5,40,000 (Cr) | 5,40,000 (Dr) |
| 2 | 400employees x 100awards x Rs50 x 2/3 | 13,33,333 (Cr) | 7,93,333 (Dr) |
| 3 | 403employees x 100awards x Rs52 x 3/3 | 20,95,600 (Cr) | 7,62,267 (Dr) |

Entry at the end of 3rd year (Final cash settlement)

| | | |
|---|---|---|
| Liability A/c | Dr | 20,95,600 |
| To Cash | Cr | 20,95,600 |

## Share-Based Payment Awards with a Cash Alternative

The accounting differs depending on whether the choice rests with the counterparty or the entity.

If counterparty has the right to choose the mode of settlement, then treat the award as a compound award. Split into a liability component (the counterparty's right to demand settlement in cash) and an equity component (the counterparty's right to demand settlement in shares). Once split, the entity accounts for the two components separately.

If entity has to choose then entity shall determine whether it has a present obligation to settle in cash treat the whole award as cash settled and account award as a liability or else account for the transaction as equity settled.

## Modification, Cancellation or Settlement

**Modifications:**

Entity to recognize, the minimum services received measured at the grant date at fair value of the equity instruments granted, unless those equity instruments do not vest because of failure to satisfy a vesting condition (other than a market condition) that was specified at grant date. This applies irrespective of any modifications to the terms and conditions on which the equity instruments were granted, or a cancellation or settlement of that grant of equity instruments.

The entity shall also recognize the effects of modifications that increase the total fair value of the share-based payment arrangement or are otherwise beneficial to the employee.

**Cancellation or Settlement:**

If a grant of equity instruments is cancelled or settled during the vesting period:

- Entity shall recognize immediately the amount that otherwise would have been recognized for services received over the remainder of the vesting period.
- Any payment made to the employee on the cancellation or settlement shall be accounted for as a deduction from equity, except to the extent that the payment exceeds the fair value of the equity instruments granted, measured at the repurchase date.
- If new equity instruments are granted to the employee and entity identifies the new equity instruments granted as replacement equity instruments for the cancelled equity instruments, the entity shall account for in the same way as a modification of the original grant of equity instruments.

**Example 1 [Modifications-Equity-settled share-based payment-Reduction in the option exercise price]:** Tata Capital Ltd. issued 50 share options to each of its 500 employees on 1st April, 2019 on the condition that the employees have to remain in employment for a minimum period of 3 years. The fair value of the option given was arrived at Rs. 129. The following are the details related to the share-based payment plan:

| Year | Details |
|---|---|
| 2019-20 | 30 employees left and further 35 employees are expected to leave.<br>Share options are re-priced (as the market value of the shares has fallen) as the fair value fell to Rs. 50. After re-pricing, they are now worth Rs. 80 and hence, the expense is expected to increase by Rs. 30. |
| 2020-21 | 15 employees left and further 18 employees are expected to leave. |
| 2021-22 | 20 employees left. |

How will the modification/re-pricing be accounted for?

**Ans:**

The re-pricing has been done at the end of year 1 i.e. on 31st March, 2020 and hence, the increased expense would be spread over the next 2 years equally i.e. equally over the years 2020-21 and 2021-22.

Total increased value due to modification is Rs. 30 per option and hence, half weight will be given each year over 2020-21 and 2021-22.

**Statement showing the impact of modification of the terms and conditions**

| Particulars | 2019-20 | 2020-21 | 2021-22 |
|---|---|---|---|
| (a) Number of employees | 500 | 500 | 500 |
| (b) Number of employees actually left | (30) | (45) | (65) |
| (c) Number of employees expected to leave | (35) | (18) | - |
| (d) Net number of employees (a-b-c) | 435 | 437 | 435 |
| (e) Number of options per employee | 50 | 50 | 50 |
| (f) Fair value per option | 129 | 129 | 129 |
| (g) Total fair value (d x e x f) | 28,05,750 | 28,18,650 | 28,05,750 |
| (h) Period weight | 1/3 | 2/3 | 3/3 |
| (i) Modification | - | 30 | 30 |
| (j) Expense (original) | 9,35,250 | 9,43,850 | 9,26,650 |
| (k) Modification | Nil | 3,27,750 | 3,24,750 |
| | | (437 x 50 X Rs.30 x ½) | (435 x 50 x Rs. 30 x 2/2)-3,27,750 |

**Example 2 [Cancellation-equity settled share-based payment]:** Tata Consultancy Services (TCS) Ltd. issued on 1st April, 2019 1,000 share options in all to its 10 directors at an exercise price of Rs. 100 for each share. However, TCS Ltd. imposed a condition on the directors for this eligibility that they will have to be in the employment of the company for ***the next three year***.

At the time of the grant of the options on 1.4.2019, the following estimates have been made:

| | |
|---|---|
| Estimated fair value of the option | Rs.130 |
| Expected number of directors to be entitled to options | 8 |

During the year 2 i.e. during 2020-21, there was some problem in the company and the management took a decision to cancel the scheme immediately. During this year, it was further estimated as under:

| | |
|---|---|
| Fair value of the option at the time of cancellation | Rs.90 |
| Market price of the share at the time of cancellation | Rs.99 |

A compensation was paid to the directors for cancellation and there were only 9 directors currently in employment. At the time of cancellation, it was agreed to pay Rs. 95 per option to each of the 9 employees.

How will the cancellation be recorded?

**Ans:**

**Statement showing the computation of expenses for the years and compensation amount**

| Expense to be booked | Year 1 (2019-20) | Year 2 (2020-21) | Remarks |
|---|---|---|---|
| (a) Number of directors expected to be eligible | 8 | 9 | - |
| (b) Fair value per option | 130 | 130 | - |
| (c) Number of options | 1,000 | 1,000 | - |
| (d) Total fair value (a x b x c) | 10,40,000 | 11,70,000 | Full amount as it is cancelled |
| (e) Expense weightage | 1/3 | 2/2 | - |
| (f) Expense for the year | 3,46,667 | 8,23,333 | Remaining amount as it is cancelled |

| | | | |
|---|---|---|---|
| Cancellation compensation: | | | |
| (a) Number of directors | | | 9 |
| (b) Compensation per option | | | 95 |
| (c) Number of options | | | 1,000 |
| (d) Total compensation (a x b x c) | | | 8,55,000 |

**Working Notes**

**(i) Calculation of the amount to be deducted from equity**

| | |
|---|---|
| (a) Number of directors at the time of cancellation | 9 |
| (b) Fair value of option at the date of cancellation | Rs.9 |
| (c) Number of options for all the directors | 1,000 |
| (d) Total fair value of options at the date of cancellation (a x b x c) | Rs. 8,10,000 |

**Statement showing the calculation of the amount to be transferred to profit or loss in the year 2020-21**

| | |
|---|---|
| (a) Total cancellation compensation | Rs. 8,55,000 |
| (b) Total amount to be deducted from equity | Rs. 8,10,000 |
| (c) Balance to be transferred to profit or loss (a-b) | Rs. 45,000 |

**Disclosures:**

IND AS 102 Requires Entities to disclose the following:

- The type and scope of agreements existing during the reporting period.
- Description of agreements (settlement methods, vesting conditions, etc.).
- The number and weighted-average exercise price of share options by category (outstanding at the beginning of the reporting period and at the end of the reporting period, granted, vested, exercised and forfeited, expired and outstanding at the end of the reporting period).
- Average share price of exercised options.
- Range of exercise prices and remaining contractual life of options outstanding at the end of the reporting period.
- Valuation method used to estimate the fair value of the awards (model and input values, etc.).
- The impact on the income statement (i.e., total expense) and the financial position (e.g., carrying amount of liabilities) of share-based payment awards.

## Comparison between Ind AS 102 and ICAI Guidance Note on ESOPs

Similarities between Ind AS 102 and ICAI guidance note (GN): The basic concepts underlying the Ind AS 102 and ICAI guidance note are the same. Both require the entity to recognize the value of share-based payment awards in the financial statements when services are received which is determined at the grant date for equity settled share-based payment issued to employees. The share-based payment awards are an integral component of a total compensation package and thus, an entity should recognize an expense for share-based payment awards just as it does for cash compensation.

**Key differences between Ind AS 102 and ICAI GN**

The following are the key differences between the two:

| Ind AS 102 | ICAI GN |
|---|---|
| **Scope** | |
| Ind AS 102 applies to both employees and non-employees share-based payments. | The ICAI guidance note is limited in its scope as it covers accounting for only employees share-based payments. Non-employee share-based payments are covered by other Accounting Standards e.g. AS 10 "Property, Plant and Equipment". |
| **Identification of equity settled V. cash-settled plans** | |
| The identification of equity settled and cash-settled plans is based on the ***entity's obligation under the plan***. An equity settled share- based payment transaction is defined as the share-based payment transaction in which the entity (a)receives goods or services as consideration for its own equity instruments (including shares or shares options); or (b) receives goods or services but has no obligation to settle the transaction with the supplier. A cash-settled share- based payment transaction is a share-based payment transaction in which the entity acquires goods or services by incurring a liability to transfer cash or other assets to the supplier of those goods or services for amounts that are based on the price (or value) of the equity instruments (including shares or shares options) of the entity or another group entity**. For example**, let us assume that an entity is required to transfer equity share(s) of its parent to its employees for the services. As per the ESOP, the obligation to transfer the share is on the entity and not its parent. In this case, the ESOP plan is treated as cash-settled because the parent's shares are not the entity's own equity instruments. However, if the obligation to transfer shares is with the parent, the ESOP plan is treated as equity settled for the entity. | The identification of equity settled and cash settled plan is based on the ***employee's entitlement*** as against the entity's obligation under the plan. Equity settled plan is a plan under which the employees receive the shares. Under cash settled plan, the employees receive cash based on the price or value of the enterprise's shares. **For example**, let us assume that an entity is required to transfer the equity shares of its parent to its employees for the services received. Since, the employees get shares, the plan is likely to be treated as equity settled. ***This is irrespective of whether the obligation to transfer the shares is on the parent or on the entity.*** |
| **Measurement** | |
| For equity settled share-based payment transactions, an entity measures the goods or services received **directly** at the fair value of the goods or services received if the fair value of the goods or services received can be estimated reliably. If the fair value of the goods or services received cannot be measured reliably, the entity measures the fair value of the goods or services received indirectly by reference to the fair value of the equity instruments granted. For example, the fair value of the employee services cannot be reliably estimated. In the case of transactions with the employees, the fair value of the equity instruments must be used except in extremely rare cases, where it is not possible to measure this fair value reliably in which case, the intrinsic value of the equity instruments may be used. Transactions with the employees are measured at the date of the grant whereas those with the non-employees are measured at the date on which the goods or services are received.<br>For cash settled share-based payment transactions, an entity measures the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the entity remeasures the liability at each reporting date and at the date of settlement, with any change in fair value recognized in profi or loss. | The guidance note is similar to the Ind AS 102 except that an entity is permitted to use the intrinsic value method as an alternate to the fair value method for measuring the employee share-based payment. However, the entity using the intrinsic value method is required to give the fair value disclosures. |

| Unidentifiable goods or services | |
|---|---|
| The entity measures the unidentifiable goods or services received (or to be received) as the difference between the fair value of the share-based payment and the fair value of the identifiable goods or services received (or to be received). The entity measures the unidentifiable goods or services received at the grant date. However, for cash settled transactions, the liability is remeasured at the end of each reporting period until it is settled. | There is no specific guidance on accounting for unidentifiable goods or services |
| **Graded vesting** | |
| An entity needs to determine the vesting period for each portion of the option separately and amortize the compensation cost of each such portion on a straight-line basis over the vesting period of that portion. The option to recognize the expense over the service period for the entire award period is not available. | The ICAI guidance note provides the following two options in this regard:<br>-Determine the vesting period for each portion of the option separately and amortize the compensation cost of each such portion on a straight-line basis over the vesting period of that portion.<br>The amount of the employee compensation cost is accounted for and amortized on a straight-line basis over the aggregate vesting period of the entire option (i.e. over the vesting period of the last separately vesting portion of the option. However, the amount of the employee compensation cost recognized at any date should at least equal the fair value or the intrinsic value, as the case may be, of the vested portion of the option at that date. |
| **Group and treasury share transactions** | |
| Ind AS 102 deals with various issues arising from such transactions. It requires the subsidiary whose employees receive such compensation, to measure the services received from its employees as per Ind AS 102 with a corresponding increase in equity as a contribution from the parent.<br>Ind AS 102 also clarifies the accounting for group cash settled share-based payment transactions in the separate (or individual) financial statements of an entity receiving the goods or services when another group entity or shareholders has the obligation to settle the award. | Detailed guidance on issues arising from such transactions is not available. The common practice is that the entity whose employees receive such compensation does not account for any compensation cost because it does not have any settlement obligation. |

## LESSON ROUND-UP

- Equity-settled share-based payment transactions in which the entity receives goods or services and as consideration for equity instruments of the entity.
- Cash-settled share-based payment transactions in which the entity receives goods or services and
- incurs a liability based on the price (or value) of the entity's shares.
- Grant date is defined as "the date on which the Company and employees agree to the terms of an
- employee share-based payment plan.
- SBP arrangement is an agreement between the entity (or another group entity or any shareholder of any group entity) and another party that entitles the other party to receive.

## TEST YOURSELF

1. What is SBP? And what is the Scope of SBP?
2. What is Grant Date and how it is determined?
3. How the date of receipt of Goods & Services impact Grant Date?
4. How recognition principle works in Ind AS 102?
5. What is modification, cancellation or settlement?
6. How Ind AS 102 is different from IGAAP?

# Lesson 22 Methods of Valuation

***Key Concepts One Should Know***

- Discounted cash flow
- Net Asset Value
- P/E Ratio
- CAPM
- Systematic risk
- Arbitrage Pricing Theory
- Economic value added
- Market value added
- Shareholders value added

## *Learning Objectives*

**To understand the:**

- Different methods of valuation
- Valuation as per Discounted Cash Flow Method
- Fair Market Value
- Capitalization of earning method
- Economic Value Added
- Shareholders Value Added
- Market Value Added

## *Lesson Outline*


- Methods of Valuation
- Discounted Cash Flow Model
- Asset Approach
- Earning-Based Model
- Measuring Cost of Equity CAPM
- An indicator of systematic risk
- Arbitrage Pricing Theory
- Economic Value Added
- Market Value Added
- Shareholder Value Added
- Equity Valuation Multiple
- Fair Market Value
- LESSON ROUNDUP
- TEST YOURSELF

## INTRODUCTION

Valuation of any asset provides its true value or worth. An investor is always interested in knowing the intrinsic value or fair value of securities before taking any investment decision. Therefore, the valuation of securities becomes an integral part of security analysis.

Valuation of securities can be based on accounting information (such as book value or liquidation value) or on the basis of discounted cash flow value.

Most financial decisions, such as the purchase of assets or procurement of funds, affect the firm's cash flows in different time periods. For example, if a fixed asset is purchased, it will require an immediate cash outlay and will generate cash flows during many future periods. Similarly, if the firm borrows funds from a bank or from any other source, it receives cash now and commits an obligation to pay interest and repay principal in future periods.

Cash flows become logically comparable when they are appropriately adjusted for their differences in timing and risk.

The recognition of the time value of money and risk is extremely vital in financial decision making. If the timing and risk of cash flows is not considered, the firm may make decisions which may allow it to miss its objective of maximising the owners' welfare. The welfare of owners would be maximised when net wealth or net present value is created from making a financial decision. What is net present value? It is a time value concept.

## METHODS OF VALUATION

### (1) DISCOUNTED CASH FLOW MODEL (DCF)

This model calculates the value of an equity share as the total present value of all future expected cash inflow. The present value is calculated by using some appropriate discount rate or required rate of return on equity(Ke). This is the minimum required rate of return from the viewpoint of the prospective investor. The intrinsic value of share is also termed as the theoretical value of fair price. The actual price may be different from the intrinsic value of the share giving rise to investible opportunities. If market price is lower than its intrinsic value, then the share is undervalued or underpriced in the market. Such a share is a good buy. On the other hand, if the market price is greater than its intrinsic value, the share is overvalued or overpriced in the market. Such a share is not a good buy.

There can be two cases under DCF technique for valuation of an equity share:

#### (i) WHEN HOLDING PERIOD IS PRE-DECIDED OR FINITE

An investor may decide to hold the share for a particular period of time; hence be would be selling it at some price at the end of the investment period. For the sake of simplicity here we can assume that the expected dividends every year and selling price at the end of holding period can be estimated in advance.

#### (a) ONE YEAR HOLDING PERIOD

When an investor wants to hold the share only for one year and tries to determine its fair price, he needs to make an estimate of year end dividend and selling price. Given these two, the fair value can be estimated using discounting rate(i.e., required rate of return from equity shares).

$$Po = D1 + P1/1+ Ke$$

Where

Po = Present value of share (Fair value) D1 = Expected year end dividend

P1 = expected year end selling price Ke = Required rate of return

**Illustration 1.**

An investor wants to invest in the equity shares of XYZ Ltd for one year. The company is expected to declare a dividend of Rs 2 per share. Further a leading security analyst has projected the year end target price of this company's share at Rs 120. Do you think the stock is a good buy now at Rs. 100? Assume that the required rate of return is 10%.

**Solution.**

D1 = Rs 2

P1 = Rs 120

Ke = 10%

Po = D1 + P1/1+ Ke

= 2 + 120 / 1+ 0.10

= Rs 110.9

= Rs 111

Therefore, the fair price of share is Rs. 111. The investor should buy it at a current price of Rs 100.

**(b) MULTIPLE YEARS HOLDING PERIOD**

In such a case we need to calculate the total of present value of all expected future dividends and at the end of holding period the expected selling price.

Po = D x PVFA(Ke, n) + Pn x PVF (Ke, n)

Where

D = Expected dividend

Pn = Expected selling price at the end of period n

**Illustration 2.**

An investor wants to invest in XYZ Ltd for five years. The company is expected to declare a dividend of Rs. 2 at the end of every year for five/ years. Further a leading analyst has projected the expected price of this company's shares after five years would be Rs. 150. Do you think the stock is a good buy at Rs. 110 now? Assume that the required rate of return is 10%.

**Solution:**

D1 = D2= D3= D4 = D5 = Rs 2 P5 = Rs 150

Ke = 10%

Po = D x PVFA(Ke, n) + Pn x PVF (Ke, n)

= 2 (PVFA 10%, 5) + 150 (PVF 10%, 5)

= 2 (3.791) + 150(0.621)

= 100.73

Therefore, the fair price pf the equity share is Rs. 100.73. The investor should not buy it at a current price of Rs. 110.

## (2) ASSET APPROACH

An asset-based approach is a kind of business valuation that focuses on a company's net asset value (NAV), or the fair market value of its total assets minus its total liabilities, to determine what it would cost to recreate the business. There is some room for interpretation in the asset approach in terms of deciding which of the company's assets and liabilities to include in the valuation, and how to measure the worth of each.

The asset-based approach is best used when a business is non operating or has been generating losses, and the company's focus is holding investments or real estate. The adjusted net asset method is commonly used for estimating the value of the business. The difference between the fair market value of the company's total assets and the fair market value of its total liabilities determines the fair market value of the business. This technique also includes the value of all of the business' intangible assets and liabilities, such as goodwill and pending litigation.

In this cost-based approach, the primary emphasis is placed upon the fair market value of the assets and liabilities of a business. As a result, this approach uses various methods that consider the value of individual assets and liabilities including intangible assets. The most well-known method in this approach relies upon the reported balance sheet assets and liabilities generally termed as book value. It should be recognized, however, as book-value concept. Assets are reported in accordance with various accounting conventions that may or may not accurately reflect fair market value.

Asset based method focuses on determining the value of net assets from the perspective of equity share valuation. What should the basis of assets valuation be, is the central issue of this approach.

It should be determined whether the assets should be values at book, market, replacement or liquidation value. Net assets = (Total assets - Total external liabilities)

The value of net assets so arrived at is also known as net worth or equity shareholders funds. Net assets per share = (Net assets / number of equity shares issued and remains outstanding). **It is further classified into :**

**(a) NET ASSET VALUE**

The total value of the assets of a company less its liabilities is the net asset value. For the purpose of valuation, the usual thing to do is to divide the net assets by number of shares to get the net assets per share. This is the asset value which belongs to each share in the same way as the price-earning ratio measures the profit per share.

Net asset value is useful for shares valuation in sectors where the company value comes from the held assets rather than the stream of profit that was generated by the company business. The examples are property companies and investment trusts. Both are convenient ways wherein the investors can buy diversified bundles of the assets they hold.

The assets' value can be obtained at book value or at market price and used depending on the circumstances and the sector. Some assets need to be excluded. One example of this is the tangible book value of NAV.

**(b) PRICE TO BOOK MULTIPLE METHOD**

The application of this method is similar to that of the P/E multiple method. Since the book value of equity is essentially the amount of equity capital invested in the firm, this method measures the market value of each dollar of equity invested.

This method can be used for

- companies in the manufacturing sector which have significant capital requirements.
- companies which are not in technical default (negative book value of equity).

The Price/Book Value Multiple of Comparable Company is arrived as follows:

| |
|---|
| Step 1- Weighted Average Market Price |
| Step 2- Divide by: Value per share as per Net Assets Value |
| Step 3- Price/Book Value Multiple |

## (3) EARNING-BASED MODEL

Ideally, business valuation should be related to the firm's potential of future earnings or cash flow generating capacity. The earnings approach is essentially guided by this economic proposition.

The income-based method of valuations is based on the premise that the current value of any business is a function of the future value that an investor can expect to receive from purchasing all or part of the business. In other words, the value of the business must be related to the profits it will earn, and the cash it will generate in the future.

**It includes:**

## Capitalization of Earning Method

The capitalization method basically divides the business expected earnings by the so-called 'capitalization rate'. The idea is that the business value is defined by the business earnings and the capitalization rate is used to relate the two. This method is more appropriate when it appears that a company's current operations are indicative of its future operations, assuming of course, a normal growth rate. Under this method a stable level of earnings is divided by the capitalization rate in order to arrive at an operating value for the entity. Where net earnings are being capitalized, the capitalization rate is the net earnings discount rate less the average sustainable growth rate.

$$\text{Value} = \frac{\text{Net Operating Income}}{\text{Capitalization Rate}}$$

Capitalization rate = discount rate – growth rate

## Price Earning (P/E) Ratio method

The P/E ratio (also known as the P/E multiple) is the method most widely used by finance managers, investment analysts and equity shareholders to arrive at the market price of an equity share.

The application of this method primarily requires the determination of earnings per equity share.

EPS = Net earnings available to equity shareholders during the period ÷ number of equity shares outstanding during the period.

The EPS has to then be multiplied by the P/E ratio to arrive at the market price of equity share (MPS).

MPS = EPS x P/E ratio

**Illustration**

In the current year, a corporate firm has reported a profit of Rs. 65 lakh, after paying taxes @ 35 percent. On close examination, the analyst ascertains that the current year's income includes; (i) extraordinary income of Rs 10 lakh and (ii) extraordinary loss of Rs. 3 lakh. Apart from existing operations, which are normal in nature and are likely to continue in the future, the company expects to launch a new product in the coming year.

Revenue and cost estimates in respect of the new product are as follows:

| | Rs. (lakh ) |
|---|---|
| Sales | 360 |
| Material cost | 15 |
| Labour cost ( additional ) | 10 |
| Allocated fixed costs | 5 |
| Additional fixed costs | 8 |

From the above information determine the market price per equity share ( based on future earnings). For this purpose, you are provided the following date:

(i) The company has 1,00,000 11% Preference shares of Rs. 100 each, fully paid-up.

(ii) The company has 4,00,000 Equity shares of Rs.100 each, fully paid-up.

(iii) P/E ratio is 8 times.

**Solution:**

**Determination of Market Price of Equity Share**

| | Rs. |
|---|---|
| Future maintainable profits after taxes | 78,00,000 |
| Less: preference dividends (1,00,000 x Rs 11) | 11,00,000 |
| Earnings available to equity shareholders | 67,00,000 |
| Divided by number of equity shares | 4,00,000 |
| Earnings per share (Rs 67 lakh / 4 lakh | 16.75 |
| Multiplied by P/E ratio ( number of times ) | 8 |
| Market price per share ( Rs 16.75 x 8 ) | 134 |

## (4) MEASURING COST OF EQUITY

The measurement of cost of capital of equity is the most typical and conceptually a difficult exercise. The reason being, there is no coupon rate in case of equity shares. Further, there is no commitment to pay equity dividend and it is the sole discretion of the directors to pay or not to pay dividend or to decide at what rate the dividend should be paid to the equity shareholders. Moreover, the equity shareholders are the last claimant on the profits of the company. Therefore, it is often said that the equity shares have no cost of capital as such. But it is not true. Like all other sources, it also has a cost.

The investors will invest the funds in the form of equity share capital of a firm, only if they expect a return from the firm, which will compensate them for surrendering their money as well as the risk they would undertake. The rate of discount at which the expected dividends are discounted to determine their present value is known as cost of equity share capital.

In case of equity share, the cost is to be viewed in the opportunity framework. The investor has provided funds to the firm to receive the combined return of dividends and appreciation in market value.

## (A) CAPITAL ASSET PRICING MODEL (CAPM)

The relationship between risk and return established by the security market line is called the capital asset pricing model. It was developed in mid-1960s by three researchers, William Sharpe, John Lintner and Jan Mossin independently. It is basically a simple linear relationship. The higher the value of beta, the higher would be the risk of the security, therefore, the larger would be the return expected by the investors. In other words, all securities are expected to yield returns commensurate with their riskiness as measured by β. This relationship is valid not only for individual securities, but is also valid for all portfolios, whether efficient or not.

CAPM shows how risky assets are priced in efficient capital market. It helps in the prediction of expected return on security or portfolio. The expected return determined through CAPM can be used to find out whether a security is earning more or less than expected return. From investment point of view an investor should select securities which provide higher return than the one expected by CAPM.

Total risk of a security comprises two components.

### (i) Systematic Risk or Non-Diversifiable Risk

Systematic risk is the risk which is caused by factors beyond the control of specific company, such as general factors in the market, GDP, inflation, interest rates, tax policy, government policy, etc. These factors affect all the companies and cause variability in their returns. Systematic risk cannot be reduced by holding an efficiently diversified portfolio. Therefore, systematic risk is that part of total risk which cannot be eliminated by diversification.

Systematic risk of a security is indicated by beta coefficient (β). β captures the sensitivity of a security's return with respect to market return.

## (ii) Unsystematic Risk or Diversifiable Risk

It is that part of total risk which is diversifiable. It is caused by factors which are within the control of a specific company, such as management, operational efficiency, labour conditions and financial leverage. The sources of unsystematic risk are business risk and financial risk. Securities which are less than perfectly and positively correlated can be combined together to diversify away unsystematic risk.

It can be observed that unsystematic risk can be reduced to zero in an efficiently diversified portfolio; hence the only relevant risk in such a portfolio is systematic risk.

As per CAPM there is a linear and positive relationship between expected return and systematic risk measured by β. CAPM is used to estimate expected return from a security or portfolio. β measures the sensitivity of a security's returns to the return of market portfolio. Some securities are less sensitive while others are more. Hence β of diff erence securities and portfolios are also difference Moreover, as discussed earlier unsystematic risk of a security can be diversifi away, hence investor will not receive any return or risk premium for bearing unsystematic risk. The investor will receive risk premium only for the systematic risk identifi by β.

## Assumptions of CAPM

The capital asset pricing model is based on certain explicit assumptions regarding the behavior of investors. The assumptions are:

(a) Investors make their investment decisions on the basis of risk- return assessments measured in terms of expected returns and standard deviations of returns.

(b) The purchase or sale of a security can be undertaken in infinitely divisible units.

(c) Purchase and sales by single seller cannot affect prices. This means that there is perfect competition where investors determine prices by their actions.

(d) There are no transaction costs.

(e) There are no personal income taxes

(f) The investor can lend or borrow any amount of funds desired at a rate of interest equal to the rate for riskless securities.

(g) The investor can sell short any amount of any shares.

(h) Investors share homogeneity of expectations.

**CAPM is stated as below**

$E(Ri) = Rf + (E(RM) – Rf) \beta$

Where

E(Ri) = expected rate of return from a security

Rf = Risk free return

E(RM) = expected return on market portfolio β = beta factor of security

**As per CAPM**

Expected Return = Risk Free Rate + Market Risk Premium x Systematic

Risk Expected Return = Risk Free Rate + Risk Premium

Expected Return = Reward for Time + Reward for Risk

Risk premium of a return can be calculated as the product of Market Risk premium and Systematic risk of a security.

Thus, we can say that the expected return from a security depends upon the following three factors:

(a) Risk free rate of return: This is the pure time value of money. It is the compensation an investor must get just for time without any assumption of risk.

(b) Market risk premium or the market price for risk: This is the reward an investor must get for bearing one unit of market risk or systematic risk.

(c) Amount of systematic risk indicated by β: This is the relative amount of systematic risk in a security. The higher the systematic risk, the higher will be the expected return.

It must be noted that risk free rate of return and market risk premium will be common for all the securities. Hence, the only factor that causes difference in expected return across various securities is β factor or systematic risk. The higher the systematic risk, the greater will be the expected return from that security.

## Uses of CAPM

It is used to determine the expected or required rate of return from a security. Two important uses of CAPM are:

(a) In wealth management industry, CAPM is used to find out securities which are underpriced or overpriced; so that a prospective investor can make investment in underpriced security and an existing investor can sell overpriced securities.

(b) In capital budgeting decision in Financial Management, we calculate Weighted Average Cost of Capital (WACC) as the appropriate discount rate. An important component of WACC is cost of equity. CAPM is used to determine the cost of equity which is nothing but the required rate of return.

## Limitations of CAPM

CAPM is a popular model for asset pricing or determination of expected return. However, it is criticized on following grounds:

(a) It is based on many simplified and unrealistic assumptions. In real life, securities are not infinitely divisible, there are transaction costs and taxes, unlimited lending and borrowing is not possible at a same risk free rate.

(b) The estimation of β factor is not a simplified task. We may calculate β using historical data. But past β values may not be valid in future. Hence β is not constant overtime. Hence any estimation error in β factor will result in incorrect estimation of expected return.

## Current Validity of CAPM

The CAPM is generally appealing at an intellectual level, as it is logical and rational. Although its basic assumptions arise some doubts in the minds of the investors. Investment analyst have been creative in adapting CAPM for this use. The following points about CAPM should be noted:

(a) By focusing on the market risk, it makes the investors think about the riskiness of assets in general. It provides the basic concepts and these are of fundamental value.

(b) It is useful for the selection of securities and portfolios. Securities with higher returns are considered to be undervalued and attract buys. Overvalued securities, whose returns are lower than the normal return, are suitable for sale.

(c) In the CAPM, it is believed that investors consider only market risk. Given the estimate of risk free rate, beta of the firm and required market rate of return, one can find out the expected return from firm's security. This expected return can be used as an estimate of the cost of retained earnings.

(d) Historical data regarding the market return, risk free rate of return and beta vary differently for different periods. The various methods used to estimate these inputs also affect the beta value. Since the inputs cannot be estimated precisely, the expected return determined through the CAPM model is also subject to criticisms.

## B: AN INDICATOR OF SYSTEMATIC RISK

In an efficiently diversified portfolio, i.e., Market Portfolio, there is no unsystematic risk. All unsystematic risks have been diversified. Hence, the total risk of market portfolio comprises systematic risk. It implies that as per CAPM, the only risk which is priced in the market is systematic risk and not unsystematic risk.

β is an indicator of systematic risk of a security. It measures the sensitivity of a security's return with respect to market return. It is an index or a number which shows whether a security is less sensitive or more sensitive to market return. The more sensitive (or responsive) a security's return is to market return, the higher will be the value of β.

- If a security has β< 1 then it is less responsive to changes in market returns.
- If a security has β> 1 then the security is more responsive to changes in market returns.
- A risk free asset is not responsive to changes in market returns and hence the β of a risk free asset is always 0.
- The β of market portfolio is always 1. This is because here we are relating market portfolio with itself, and therefore it must be 1.

β of a security can be calculated as $\beta = \frac{Cov(S,M)}{\sigma M2}$

where

Cov (S, M) = covariance between returns of security S and market return σM2 = variance of market returns or simply market variance

Both σ and β are measures of risk. But they are also different and capture different measures of risks. Standard deviation is the indicator of total risk, whereas beta is an indicator of systematic risk.

**Illustration 3.**

Following information is available in respect of a security G and the market portfolio M

| Probabilities | Security G | Market portfolio M |
|---|---|---|
| 0.3 | 10 | 12 |
| 0.4 | 12 | 15 |
| 0.5 | 14 | 16 |

Find out β of security G.

**Solution:**

| Pi | G | M | PiG | PiM | Pi(G- exp G)2 | Pi(M– exp M)2 | Pi ( G - exp G) (M- exp M) |
|---|---|---|---|---|---|---|---|
| 0.3 | 10 | 12 | 3 | 3.6 | 1.2 | 2.7 | 1.8 |
| 0.4 | 12 | 15 | 4.8 | 6 | 0 | 0 | 0 |
| 0.5 | 14 | 18 | 4.2 | 5.4 | 1.2 | 2.7 | 1.8 |
| | | | ∑= 12 | ∑=15 | ∑= 2.4 | ∑= 5.4 | ∑= 3.6 |

Mean Return of G = 12% Mean market return = 15% Variance of G = 2.4 Variance of M = 5.4 Covariance = 3.6

β = Cov / Market variance

= 3.6 / 5.4 = 0.67

**Illustration 4.**

You are given the following information about two securities P and Q

| Security | P | Q |
|---|---|---|
| Actual return (%) | 12 | 23 |
| B | 0.6 | 1.6 |

Risk free rate is 7% and expected return on market portfolio is 17%. Do you think securities P and Q are efficiently priced in market.

**Solution:**

Return as per CAPM

$E(Ri) = Rf + (E(RM) – Rf) \beta$

Expected return from P = 7 + (17 -7)(0.7) = 15%

Expected return from Q = 7 + (17- 7)(1.6) = 23%

Since actual return of Q is same as expected return under CAPM, therefore, security Q is efficiently priced. The actual return of P is lower than the expected return under CPM, therefore, it is inefficiently priced.

**Illustration 5.**

The risk free rate is 4.5 % , return on broad market index is 17% and beta of security L is 1.1. Find out the expected return from the security if the actual return provided is 20%.

If expected return of security S is 22.5%, what must be its beta if it is correctly priced in the market.

**Solution:**

Using CAPM

$E(R) = Rf + (E(RM) – Rf) \beta$

Expected Return on L = 4.5 + (17 – 4.5) (1.1) = 18.25%

Hence the expected return from security L is 18.25%. if the actual return is 20%, the security L is under priced in the market.

Now, for security S

E(Rs) = 22.5%.

If it correctly priced then

22.5 = 4.5 + (17 – 4.5) (β)

β = 1.44

Hence the beta of security must be 1.44 if it is correctly priced in the market.

**Illustration 6.**

The risk free rate is 6%, return on a broad market index is 18%. The actual return provided by the security is 20%. What must be its beta if the security is'

(a) Correctly priced in the market

(b) Overpriced in the market

(c) Under priced in the market

**Solution:**

Using CAPM

$E(R) = Rf + (E(RM) - Rf)\ \beta$

(a) When security is correctly priced its actual return must be same as its expected return as per CAPM

Therefore,

$20 = 6 + (18 - 6)\ (\beta)$

$\beta = 1.167$

(b) When security is overpriced it means that its expected return as per CAPM is higher than the actual return. Hence beta of security must be higher than 1.167 as calculated above.

(c) When security is underpriced it means that its expected return as per CAPM is lower than the actual return. Hence, beta of security must be lower than 1.167 as calculated above.

## (B) ARBITRAGE PRICING THEORY

Arbitrage refers to the process of earning profit by taking advantage of different pricing for the same asset. The process generates risk-free profit. In the security market, it involves selling a security at a high price and the simultaneous purchase of the same security at a relatively lower price. Since the profit earned through arbitrage is risk free, investors have the incentive to undertake whenever the opportunity rises. In general, some investors indulge more in this type of activity than others. However, the buying and selling activities of arbitrageur reduces and eliminates the profit margin, bringing the market price to an equilibrium level.

Arbitrage Pricing Theory (APT) is a general theory of asset pricing that holds that the expected return of a financial asset can be modeled as a linear function of various macro-economic factors or theoretical market indices, where sensitivity to changes in each factor is represented by a factor-specific beta coefficient. The model-derived rate of return will then be used to price the asset correctly—the asset price should equal the expected end of period price discounted at the rate implied by the model. If the price diverges, arbitrage should bring it back into line.

In the APT context, arbitrage consists of trading in two assets – with at least one being mispriced. The arbitrageur sells the asset, which is relatively too expensive, and uses the proceeds to buy one which is relatively too cheap.

Under the APT, an asset is mispriced if its current price diverges from the price predicted by the model. The asset price today should equal the sum of all future cash flows discounted at the APT rate, where the expected return of the asset is a linear function of various factors, and sensitivity to changes in each factor is represented by a factor-specific beta coefficient.

A correctly priced asset here may be in fact a synthetic asset - a portfolio consisting of other correctly priced assets. This portfolio has the same exposure to each of the macroeconomic factors as the mispriced asset. The arbitrageur creates the portfolio by identifying correctly priced assets (one per factor plus one) and then weighting the assets in a way that portfolio beta per factor is the same as for the mispriced asset.

When the investor has bigger the asset and short the portfolio is smaller (or vice versa), he has created a position which has a positive expected return (the difference between asset return and portfolio return) and which has a net-zero exposure to any macroeconomic factor and is therefore risk free (other than for firm specific risk). The arbitrageur is thus in a position to make a risk-free profit:

The APT along with the Capital Asset Pricing Model (CAPM) is one of two influential theories on asset pricing. The APT differs from the CAPM in that it is less restrictive in its assumptions. It allows for an explanatory (as opposed to statistical) model of asset returns. It assumes that each investor will hold a unique portfolio with its own particular array of betas, as opposed to the identical "market portfolio". In some ways, the CAPM can be considered a "special case" of the APT in that the securities market line represents a single-factor model of the asset price, where beta is exposed to changes in value of the market.

The APT was a revolutionary model because it allows the user to adapt the model to the security being analyzed. And as with other pricing models, it helps the user decide whether a security is undervalued or overvalued and

so he or she can profit from this information. APT is also very useful for building portfolios because it allows managers to test whether their portfolios are exposed to certain factors.

APT may be more customizable than CAPM, but it is also more difficult to apply because determining which factors influence a stock or portfolio takes a considerable amount of research. It can be virtually impossible to detect every influencing factor much less determine how sensitive the security is to a particular factor. But getting "close enough" is often good enough; in fact studies have found that four or fi factors will usually explain most of a security's return: surprises in inflation, GNP, investor confidence and shifts in the yield curve.

The Arbitrage pricing theory based model aims to do away with the limitations of one-factor model (CAPM) that different stocks will have different sensitivities to different market factors which may be totally different from any other stock under observation. In layman terms, one can say that not all stocks can be assumed to react to single and same parameter always; hence the need to take multifactors and their sensitivities.

Additionally, the APT can be seen as a "supply-side" model, since its beta coefficients reflect the sensitivity of the underlying asset to economic factors. Thus, factor shocks would cause structural changes in assets' expected returns, or in the case of stocks, in firms' profitabilities.

On the other hand, the capital asset-pricing model is considered a "demand side" model. Its results, although similar to those of the APT, arise from a maximization problem of each investor's utility function, and from the resulting market equilibrium (investors are considered to be the "consumers" of the assets).

The APT formula is:

E(rj) = rf + bj1RP1 + bj2RP2 + bj3RP3 + bj4RP4 + ... + bjnRPn

where:

E(rj) = the asset's expected rate of

return rf = the risk-free rate

bj = the sensitivity of the asset's return to the particular

factor RP = the risk premium associated with the particular factor

As the formula shows, the expected return on the asset/stock is a form of linear regression taking into consideration many factors that can affect the price of the asset and the degree to which it can affect it, i.e., the asset's sensitivity to those factors.

If one is able to identify a single factor which singly affects the price, the CAPM model shall be sufficient. If there are more than one factors affecting the price of the asset/stock, one will have to work with a two-factor model or a multifactor model depending on the number of factors that affect the stock price movement for the company.

## Effect of Arbitrage on the Price

To buy stock A and B the investor has to sell stock C. The buying pressure on stock A and B would lead to increase in their prices. Conversely, selling of Stock C will result in fall in the price of stock C. At lower price, there would be a rise in the expected return of stock C.

For example, if stock C at the price of Rs. 100 per share earns 12% return, at Rs 80 the return would be 12/80 x 100 = 15%. At the same time, return rates would decline in stock A and B with the rise in price. This buying and selling activity will continue until all arbitrage possibilities are eliminated. At this juncture, an approximate linear relationship arises between expected returns and sensitivities.

## Arbitrage Pricing Theory Assumptions

- The theory is based on the principle of capital market efficiency, and hence assumes all market participants trade with the intention of profit maximization.
- It assumes no arbitrage exists and if it occurs participants will engage to benefit out of it and bring back the market to an equilibrium level.

- It assumes markets are frictionless, i.e., there are no transaction costs, no taxes, short-selling is possible and an infinite number of securities is available.

## Arbitrage Pricing Theory Benefits

- APT model is multifactor. So, the expected return is calculated taking into account various factors and their sensitivities that might affect the stock price movement. Thus, it allows selection of factors that affect the stock price largely and specifically.
- APT model is based on arbitrage free pricing or market equilibrium assumptions which to a certain extent result in a fair expectation of the rate of return on the risky asset.
- APT based multifactor model places emphasis on the covariance between asset returns and exogenous factors, unlike CAPM. CAPM places emphasis on the covariance between asset returns and endogenous factors.
- APT model works better in multiperiod cases as against CAPM which is suitable for single period cases only.
- APT can be applied to the cost of capital, and capital budgeting decisions.
- The APT model does not require any assumption about the empirical distribution of the asset returns, unlike CAPM which assumes that stock returns follow a normal distribution system. Thus APT is a less restrictive model.

## Arbitrage Pricing Theory Limitations

- The model requires short-listing of factors that impact the stock under consideration. Finding and listing all factors can be a difficult task and runs a risk of some or the other factor being ignored. Also, the risk of accidental correlations may exist which may cause a factor to become substantial impact provider or vice versa.
- The expected returns for each of these factors will have to be arrived at, which depending on the nature of the factor, may or may not be easily available always.
- The model requires calculating sensitivities of each factor which again can be an arduous task and may not be practically feasible.

The factors that affect the stock price for a particular stock may change over a period of time. Moreover, the sensitivities associated may also undergo shifts which need to be continuously monitored making it very difficult to calculate and maintain.

Arbitrage Pricing Theory-based models are built on the principle of capital market efficiency and aim to provide decision makers and participants with estimates of required rate of return on the risky assets. The required rate of return arrived using the APT model can be used to evaluate, if the stocks are overpriced or underpriced. Empirical tests conducted in the past have resulted from APT as a superior model over CAPM in many cases. However, in several cases, it has arrived at similar results as CAPM model, which is relatively simpler in use.

## Comparison between the CAPM and the APT

APT may be informative from medium to long term, but are not considered to be accurate in the short term. The CAPM, on the other hand, is a snapshot, and appears to be more accurate in the short term than it is in the long term.

The APT focuses on risk factors rather than assets, so it has an advantage over the CAPM in that it does not have to create an equivalent portfolio to assess risk.

The CAPM assumes that there is a linear relationship between the assets, whereas the APT assumes that there is a linear relationship between risk factors. This means that where there no linear relationship exists, the models are unable to adequately predict the outcomes.

However, both the CAPM and the APT make relatively unrealistic assumptions in that assets are freely available and desirable, there are no costs incurred in the acquisition of assets and that all investors tend to think alike and come to the same conclusions. This seems intuitively contradictory, as the most successful investors are likely to be those who are able to spot potential which has remained unnoticed by the market as a whole. Indeed, when all investors do think alike, a 'bubble' can be created which inflates the asset price and downplays the risks inherent in the asset. In this circumstance, assessing the risk of an asset based on the mood of the market is likely to be far more risky than can be predicted by either the CAPM or the APT. Theoretically, therefore, it could be argued that using a CAPM or APT analysis is likely to increase the propensity for 'bubbles' to emerge, as they are using static predictions of behaviour by investors.

## (5) ECONOMIC VALUE ADDED

A concept critical in evaluating the performance of any business is economic value added. In generic terms, value added refers to the additional or incremental value created by an activity or a business venture. Economic value added is a refinement of this concept – it measures the economic rather than accounting profit created by a business after the cost of all resources including both debt and equity capital have been taken into account.

Economic value added (EVA) is a financial measure of what economists sometimes refer to as economic profit or economic rent. The difference between economic profit and accounting profit is essentially the cost of equity capital – an accountant does not subtract a cost of equity capital from the computation of profit, so in fact an accountant's measure of income or profit is in essence the residual return to that equity capital since all other costs have been deducted from the revenue stream. In contrast, an economist charges for all resources in his computation of profit – including an opportunity cost for the equity capital invested in the business – so an economist's definition and computation of the profit is net above the cost of all resources.

### How to Calculate Economic Value Added (EVA)

Note that, as in the traditional computation of earnings, interest on debt capital is subtracted from operating earnings (Earnings before Interest and Taxes (EBIT)) to obtain net income Then, an opportunity cost on equity capital is subtracted to obtain EVA. The opportunity cost on equity capital is computed as the equity or net worth of the business times a rate of return that reflects the rate required by investors in the business. This required rate is in reality an opportunity cost measured by the rate of return that could be obtained on equity funds if they were invested elsewhere. A positive EVA means the firm is generating a return to invested capital that exceeds the direct (i.e., interest) and opportunity cost of that invested capital; a negative EVA means that the firm did not generate sufficient returns to cover the cost of its debt and equity capital.

The tables below give as view for how to calculate 'Economic Value Added (EVA)'

| | |
|---|---|
| Earnings before Interest and Taxes (EBIT) | xxx |
| Less : Interest | xxx |
| Net Income | xxx |
| Less : Cost of Equity Capital | xxx |
| Economic Value Added (EVA) | xxx |

**Expressed as a formula:**

EVA = "Net Operating Profit after Taxes" – (Equity Capital X % Cost of Equity Capital).

**Illustration 7.**

**Balance Sheet of ABC Limited as at 31st March, 2017**

| **I. EQUITY AND LIABILITIES** | **Rs.** |
|---|---|
| **1. Shareholder's Funds** | |
| Equity | 40,00,000 |
| **2. Non-Current Liabilities** | |
| Long Term Debt | 60,00,000 |
| **3. Current Liabilities** | |
| (a) Account Payables | 2,08,000 |
| (b) Bank Overdrafts | 4,84,000 |
| **TOTAL** | **1,06,92,000** |
| **II ASSETS** | |
| **1. Non-current assets** | |
| (a) Fixed Assets | 1,00,00,000 |
| **2. Current Assets** | |
| **(a) Inventories** | |
| (i) Raw Material | 86,400 |
| (ii) Finished Goods | 1,71,360 |
| (b) Account receivable | 4,29,300 |
| (c) Cash | 4,940 |
| **TOTAL** | **1,06,92,000** |

**Statement of Profit of ABC Limited**

| | |
|---|---|
| Sales | 28,62,000 |
| Less: Operating Expenses | 11,48,400 |
| EBIT | 17,13,600 |
| Less: Tax Expenses | 6,85,440 |
| NOPAT | 10,28,160 |

The average rate of return on similar types of companies is 20% while risk free return is 12.5%. Rate of return as charged by bank is 18% and the tax rate is 40%.

Calculate Economic Value Added.

**Solution.**

**Step 1: Calculation of Capital Employed**

| | |
|---|---|
| Equity | 40, 00,000 |
| Long Term Debt | 60, 00,000 |
| Bank Overdrafts | 4,84,000 |
| Total capital employed | 1,04,84,000 |

**Step 2: Calculation of Weighted Average Cost of Capital (WACC)**

| | *Amount* | *Expected Return* |
|---|---|---|
| Equity | 40,00,000 | 8,00,000 |
| Long Term Debt | 60,00,000 | 4,50,000 |
| Bank Overdrafts | 4,84,000 | 52,272 |
| Total capital employed | 1,04,84,000 | 13,02,272 |

WACC = 13,02,272/1,04,84,000

= 12.42%

**Step 3:**

Economic Value Added = NOPAT - Weighted average cost of capital* Capital Employed

= Rs 10,28,160 - Rs 13,02,272

= Rs 2,74,112

## What insight does EVA provide about financial performance of a business?

First, like any financial measure, the trend may be more valuable than the absolute value of EVA. Even if EVA is positive, a declining EVA suggests that financial performance is deteriorating over time, and if this trend continues EVA will become negative and financial performance unacceptable. A negative EVA indicates that the firm is not compensating its capital resources adequately, and corrective action should be considered if this negative EVA persists over time.

## Corrective action to improve EVA

1. First, operating performance with respect to operating profit margins or asset turnover ratios could be improved to generate more revenue without using more capital.
2. Second, the capital invested in the business might be reduced by selling under-utilized assets; this strategy will simultaneously improve operating performance through a higher asset turnover ratio, as well as a reduced capital charge against those earnings because of a reduced debt or equity capital investment.
3. Third, redeploy the capital invested to projects and activities that have higher operating performance than the current projects or investments are exhibiting.
4. And fourth, if the business is not highly leveraged, change the capital structure by substituting lower cost debt for higher cost equity. Although this last strategy will decrease net income because of the higher interest cost, it will improve the EVA of the business because the total cost of debt and equity is reduced, and EVA measures the value created after all costs of capital (debt and equity) have been taken into account.

## Advantages of EVA Analysis

1. In various cases, company pay bonuses to the employees on the basis of EVA generated. Since a higher EVA implies higher bonuses to the employees, it motivates the employees for to work hard for generating higher revenue.
2. Using EVA , company can evaluate the projects independently and hence decide on whether to execute the project or not.
3. It helps the company in monitoring the problematic areas and hence taking corrective actions to resolve those problems.
4. Unlike accounting profit, such as EBIT, Net Income and EPS, EVA is based on the idea that a business must cover both the operating costs as well as the capital costs and hence it presents a better and true picture of the company to the owners, creditors, employees, shareholders and all other interested parties.
5. It also helps the owners of the company to identify the best person to run the company effectively and efficiently.

However, there are some disadvantages of EVA like it is difficult to compute and also it does not take into account inflation into its calculation. Therefore, company should take into account above advantages and disadvantages before deciding whether to implement EVA or not.

## (6) MARKET VALUE ADDED

Value-based management and shareholder value analysis have been popular concepts since find, but with the change of time newer related concepts such as MVA have started getting importance.

Market value added is the difference between the company's market and book value of shares. According to Stern Stewart, if the total market value of a company is more than the amount of capital invested in it, the company has managed to create shareholder value. If the market value is less than capital invested, the company has destroyed shareholder value.

Market Value Added = Company's total Market Value – Capital Invested

With the simplifying assumption that market and book value of debt are equal, this is the same as Market Value Added = Market Value of equity – Book value of equity

Book value of equity refers to all equity equivalent items like reserves, retained earnings and provisions. In other words, in this context, all the items that are not debt (interest bearing or non-interest bearing) are classified as equity.

Market value added (MVATM) is identical in meaning with the market-to-book ratio. The difference is only that MVA is an absolute measure and market-to-book ratio is a relative measure. If MVA is positive, that means that market-to-book ratio is less than one. According to Stewart Market value added tells us how much value the company has added to, or subtracted from, its shareholders investment. Successful companies add their MVA and thus increase the value of capital invested in the company. Unsuccessful companies decrease the value of the capital originally invested in the company. Whether a company succeeds in creating MVA or not, depends on its rate of return. If a company's rate of return exceeds its cost of capital, the company will sell on the stock market with premium compared to the original capital. On the other hand, companies that have rate of return smaller than their cost of capital sell with discount as compared to the original capital invested in. The company. Whether a company has positive or negative MVA depends on the rate of return compared to the cost of capital.

Market value added can also be defined in relation to Economic Value Added (EVATM). EVA measures whether the operating profit is enough compared to the total cost of capital employed.

Stewart defines EVA as the surplus of Net Operating Profit after Taxes (NOPAT) after adjusting for capital cost, where NOPAT = Profit after depreciation and taxes but before interest costs and Capital Cost = Weighted average cost of capital X capital employed or

EVA = (ROI – WACC) x Capital employed.

He further defines the connection between EVA and MVA as: Market Value Added = Present Value of All future EVA by increasing EVA, a company increases its market value added or in other words increases the difference between company's value and the amount of capital invested in it.

The relationship of MVA with EVA has its implication on valuation. By rearranging the formula, market value of equity can be defined as:

Market value of equity = Book value of equity + Present value of all future EVA.

## (7) SHAREHOLDER VALUE ADDED (SVA)

Shareholder Value Added (SVA) represents the economic profits generated by a business above and beyond the minimum return required by all providers of capital. "Value" is added when the overall net economic cash flow of the business exceeds the economic cost of all the capital employed to produce the operating profit. Therefore, SVA integrates financial statements of the business (profit and loss, balance sheet and cash flow) into one meaningful measure.

The SVA approach is a methodology which recognizes that equity holders as well as debt financiers need to be compensated for the bearing of investment risk. The SVA methodology is a highly flexible approach to assist management in the decision-making process. Its applications include performance monitoring, capital budgeting, output pricing and market valuation of the entity.

### Benefits of Adopting SVA

To create value, management must have an understanding of the variables that drive the value of the business. An organization cannot act directly on value. It has to act on factors it can influence, such as client satisfaction, cost, capital expenditures, the debt / equity mix and so forth. Through an understanding of these drivers of value, management is able to establish a consistent dialogue, both internally and with the shareholders, regarding what needs to be accomplished to create value.

The benefits of moving towards SVA include:

1. Overall, value-based performance measures will result in greater accountability for the investment of new capital, as well as for the use of existing investments.
2. Organization will have the opportunity to apply a meaningful private sector benchmark to evaluate performance.
3. Managers will be provided with an improved focus on maximizing shareholder value.

### Drawbacks of Adopting SVA

1. A limitation in the use of SVA as a performance measure is that, by nature, it is an aggregate measure. In order to analyze the underlying causes of any changes in calculated value between years, it is necessary to fully comprehend the value drivers and activities specific to a given firm.
2. There may be certain enterprises which are subject to any degree of price regulation then it may not be possible for the management to adjust output prices to achieve a commercial return in response to upward movements in input prices. Such a situation may result in SVA being reduced even though there may have been no decrease in overall efficiency.
3. Similarly, a reduction in direct Government funding would result in a decrease in SVA.
4. Combined with the use of traditional accounting measures, a thorough knowledge of the value drivers of the business will assist in determining the underlying causes of fluctuations in the value added measure.
5. Again, the use of SVA is not a substitute for detailed analysis of business drivers, rather it is an additional measurement tool with an economic foundation.

## (8) EQUITY VALUATION MULTIPLES

Equity price-based multiples are most relevant where investors acquire minority positions in companies. Care should be used when comparing companies with very different capital structures. Different debt levels will affect equity multiples because of the gearing effect of debt. In addition, equity multiples will not explicitly take into account balance sheet risk.

| Multiple | Definition | Advantages | Disadvantages |
|---|---|---|---|
| P/E ratio | Share price / Earnings per share (EPS).<br>EPS is net income/weighted average no of shares in issue.<br>EPS may be adjusted to eliminate exceptional items (core EPS) and/ or outstanding dilutive elements (fully diluted EPS). | • Most commonly used equity multiple.<br>• Data is availability in abundance. | • EPS can be subject to differences in accounting policies and manipulation.<br>• Unless adjusted, can be subject to one-off exceptional items.<br>• Cannot be used if earnings are negative. |
| Price / cash earnings | Share price / earnings per share plus depreciation amortization and changes in non-cash provisions. | • Cash earnings are a rough measure of cash flow.<br>• Unaffected by differences in accounting for depreciation. | • Incomplete treatment of cash flow.<br>• Usually used as a supplement to other measures if accounting differences are material. |
| Price/ book ratio | Share price / book value per share. | • Can be useful where assets are a core driver of earnings such as capital-intensive industries.<br>• Most widely used in valuing financial companies, such as banks, because banks have to report accurate book values of their loans and deposits, and liquidation value is equal to book value since deposits and loans are liquidated at same value as the reported book values. | • Book values for tangible assets are stated at historical cost, which is not a reliable indicator of economic value.<br>• Book value for tangible assets can be significantly impacted by differences in accounting policies. |
| PEG ratio | Prospective PE ratio/ prospective average earnings growth. | • Most suitable when valuing high growth companies. | • Requires credible forecasts of growth<br>• Can understate the higher risk associated with many high-growth stocks. |

| | | | |
|---|---|---|---|
| Dividend yield | Dividend per share / share price. | • Useful for comparing cash returns with types of investments.<br>• Can be used to establish a floor price for a stock. | • Dependent on distribution policy of the company.<br>• Yield to investor is subject to differences in taxation between jurisdictions.<br>• Assumes the dividend is sustainable. |
| Price / Sales | Share price / sales per share. | • Easy to calculate.<br>• Can be applied to loss making firms.<br>• Less susceptible to accounting differences than other measures. | • Mismatch between nominator and denominator in formula (EV/Sales is a more appropriate measure).<br>• Not used except in very broad, quick approximations. |

Among all the multiples, the most commonly used is Price-Earning multiple. Fair price or intrinsic value of a share can be calculated on the basis of P/E multiplier.

$$P/E = \frac{\text{Current Price per share}}{\text{EPS}}$$

There are three approaches for determining the P/E ratio for a company.

**(i) Average P/E Ratio**

In this approach one may calculate average P/E ratio of the company using historical P/E ratios. When historical P/E ratios are not highly fluctuating then mean may be used to calculate average, otherwise median P/E ratio is a good estimate of the expected P/E ratio.

**(ii) Using Regression Analysis**

We may also relate a firm's historical P/E ratio to market P/E ratio overtime using time series regression analysis. The estimated relationship will be in the form of:

PEi = 1 + b PEM

Where

PEi = P/E ratio of firm i

PEM = P/E ratio of market index b = slope coefficient

**(iii) Relate P/E Ratio of a Company to its Broad Determinants**

A number of research studies have been conducted to determine the factors affecting P/E ratio of a company. These determinants are growth in earnings, risk, dividend policy, etc. As per Whitebeck Kisor (1963) model the following relationship is obtained.

P/E = 8.2 + 1.5 (Earning growth rate) + 0.067 (D/P ratio) – 0.20 (S.D in growth rate).

As per this model, higher growth, higher dividend and lower risk leads to higher P/E ratio.

**Illustration 8.**

The relevant details of the company are:

Annual Turnover = Rs 50,00,000

Operating Profit = 20%

Equity share capital = Rs 20,00,000 (FV Rs 100)

Capital Reserve = Rs 5,00,000

12% Preference share capital = Rs 20,00,000

10% Term Loans = Rs 10,00,000

12 % debentures = Rs 10,00,000

Tax Rate = 30%

Dividend Payout Ratio = 50%

P/E Ratio = 30

Find out:

(a) EPS

(b) Dividend per share

(c) Market price

(d) Earning yield

(e) Dividend yield

**Solution:**

Sales = Rs 50,00,000

| | |
|---|---|
| Operating Profit | 10,00,000 |
| Less: Interest on loan | (1,00,000) |
| Interest on Debentures | (1,20,000) |
| Profit before tax | 7,80,000 |
| Less: Tax @ 30% | (2,34,000) |
| Profit after tax | 5,46,000 |
| Less: Preference Dividend | (2,40,000) |
| Profit for Equity shareholders | 3,06,000 |
| No. of equity shares | 20,000 |

$$EPS = \frac{\text{Profit for equity shareholders}}{\text{No. of equity shares}}$$

$$= \frac{3,06,000}{20,000}$$

$$= 5.30$$

DPS = 50% of 15.30 = 7.65

Market Price = P/E ratio x EPS = 30 x 15.30 = 459

Earning Yield = EPS / Market Price

= 15.30 / 459 = 3.33%

Dividend Yield = DPS / Market Price

= 7.65 / 459 = 1.67

**Illustration 9.**

A management consulting company is expecting to pay a dividend of Rs. 12 per share at the end of the year. The dividends have been growing @ 10% per annum and this growth rate is expected to continue. The equity capitalization rate is 12%. Assume that the share is fairly priced in the market. Find out the implicit P/E ratio if the EPS of the company is Rs. 20.

**Solution:**

Share is fairly priced in the market

implies that market price = intrinsic value Hence, Intrinsic Value = 12 / (0.12 – 0.10)

= Rs. 600

Therefore, the current market price of share is Rs. 600 Now, P/E ratio = Market Price / EPS

= 600 / 20

= 30

Hence, the implicit P/E ratio is 30

**Illustration 10.**

DCL Ltd is expected to declare a dividend of Rs. 5 at the end of the current year. The earnings of the company are growing at 10% p.a. Find out the intrinsic value of the share if the required rate of return is 15%. If the current market price is equal to the intrinsic value then what is the expected price after one year? If an investor buys the share now and sells it after one year after receiving dividends what is his dividend yield and holding period return.

**Solution:**

D1 = 5

g = 10%

intrinsic value (Po) = D1 / Ke – g

= 5 / 0.15 - 0.10

= Rs 100

If the market price is same as intrinsic value of Rs 100, then after one year the price will be P1 = D2 / Ke – g

Since, D2 = D1(1 + g) we can calculate P1 as below P1 = Po (1 + g)

= 100 (1.10)

= 110

Now, after one year the investor will get a dividend of Rs 5 and would be able to sell the share at Rs 110.

Hence, Dividend Yield = 5 / 100 = 5%

Capital Gain Yield = (110 – 100) / 100

= 10%

Holding Period Return = (5 + 10 ) / 100

= 15%

## (9) FAIR MARKET VALUE (FMV)

Fair market value (FMV) is, in its simplest expression, the price that a person reasonably interested in buying a given asset would pay to another person why is reasonably interested in selling it at market place. To establish FMV, it must be assumed that prospective buyers and sellers are reasonably knowledgeable about the asset, that they are behaving in their own best interests, and they are free of undue pressure to trade, and a reasonable time period is given to them for completing the transaction.

Book value is the price paid for a particular investment or asset. Fair market value, on the other hand, is the current price at which that same asset can be sold. Book value and fair market value can work together to help

investors determine how much they stand to gain or lose by selling off assets.

This method is an average of the values obtained on earning basis and net asset basis. This method attempts to minimize the demerits of earning basis as well as net asset basis method.

$$\text{Value per share} = \frac{\text{Value as per Earning basis + Value as per Net Asset basis}}{2}$$

**Illustration 11.**

From the following information and the balance sheet of A Ltd as on 31st March, 2017 find the value of its equity shares by fair value method :

(a) Buildings are now worth Rs. 3,50,000.

(b) Profits of last three years have shown an annual increase of Rs 50,000. The annual transfer to reserve is 25% of the net profit.

(c) Preference shares are preferred as to capital and dividend.

(d) Normal rate of return expected is 15%.

**A Ltd.**

**Balance Sheet as on 31st March, 2017**

| **I. Equity and Liabilities** | **Amount (Rs.)** |
|---|---|
| 1000, 8% preference shares of Rs 100 each, fully paid up 4,000 , equity shares of Rs 100 each, fully paid up | 1,00,000 |
| Reserves Surplus | 4,00,000 |
| Balance | 1,50,000 |
| on 01.04.16 80,000 Add: | |
| Surplus for 4,30,000 2016 -17 | 5,10,000 |
| (before transfer to reserves) | 48,000 |
| Creditors | 12,08,000 |

| **II. Assets** | **Amount (Rs.)** |
|---|---|
| Building | 70,000 |
| Furniture | 3,000 |
| | 4,50,000 |
| Stock (Market Value) | 3,35,000 |
| Investments at cost (Face Value Rs 4,00,000) | 2,80,000 |
| Debtors | 60,000 |
| Bank | 10,000 |
| Preliminary expenses | 12,08,000 |

**Solution:**

**Intrinsic Value Method**

| | Rs. |
|---|---|
| Buildings | 3,50,000 |
| Furniture | 3,000 |
| Stock | 4,50,000 |
| Investments | 3,35,000 |
| Debtors | 2,80,000 |
| Bank | 60,000 |
| Total Assets | 14,78,000 |
| Less: Creditors | 48,000 |
| **Net Assets** | **14,30,000** |
| Less: Preference shareholders | 1,00,000 |
| **Amount available** | **13,30,000** |

**For Equity**

Value per share = 13,30,000 / 4,000

= 332.50

**Yield Method**

| | |
|---|---|
| Profit for 16-17 | 4,30,000 |
| Add: Expected increase | 50,000 |
| | 4,80,000 |
| Less: Transfer to Reserves | 1,20,000 |
| Available profits | 3,60,000 |
| Less: Preference Dividend | 8,000 |
| Profit available for Equity dividend | 3,52,000 |

Return on Equity = $\frac{3,52,000 / 4,00,000}{} \times 100$

= 88%

Value per share = Rate of dividend expected / NRR x paid up value of share

= 88 / 15 x 100

= Rs 586.67

**Fair market value**

$= \frac{\text{Rs } 332.50 + \text{Rs } 586.67}{2}$

= Rs 459.58

## LESSON ROUND-UP

- Valuation of any asset provides its true value or worth.
- Discounted Cash Flow Model calculates the value of an equity share as the total present value of all future expected cash inflows. The present value is calculated by using some appropriate discount rate or required rate of return on equity (Ke). This is the minimum required rate of return from the viewpoint of the prospective investor.
- An asset-based approach is a type of business valuation that focuses on a company's net asset value (NAV), or the fair-market value of its total assets minus its total liabilities, to determine what it would cost to recreate the business.
- Net asset value is useful for shares valuation in sectors where the company's value comes from the held assets rather than the stream of profit that was generated by the company business.
- The investors will invest the funds in the form of equity share capital of a firm, only if they expect a return from the firm, which will compensate them for surrendering the funds as well as the risk undertaken. The rate of discount at which the expected dividends are discounted to determine their present value is known as cost of equity share capital.
- CAPM shows how risky assets are priced in efficient capital market. It helps in the prediction of expected return on security or portfolio. The expected return determined through CAPM can be used to find out whether a security is earning more or less than expected return. From investment point of view an investor should select securities which provide higher return than the one expected by CAPM.
- As per CAPM there is a linear and positive relationship between expected return and systematic risk measured by β.
- β is an indicator of systematic risk of a security. It measures the sensitivity of a security's return with respect to market return. It is an index or a number which shows whether a security is less sensitive or more sensitive to market return.
- Under the APT, an asset is mispriced if its current price diverges from the price predicted by the model.
- The APT along with the capital asset pricing model (CAPM) is one of two influential theories on asset pricing.
- Economic value added (EVA) is a financial measure of what economists sometimes refer to as economic profit or economic rent.
- Market value added is the difference between the company's market rate and book value of shares. According to Stern Stewart, if the total market value of a company is more than the amount of capital invested in it, the company has managed to create shareholders' value. If the market value is less than capital invested, the company has destroyed shareholders' value.
- Shareholder Value Added (SVA) represents the economic profits generated by a business above and beyond the minimum return required by all providers of capital. The SVA approach is a methodology which recognizes that equity holders as well as debt financiers need to be compensated for the bearing of investment risk.
- Book value is the price paid for a particular investment or asset. Fair market value, on the other hand, is the current price at which that same asset can be sold.

## TEST YOURSELF

1. What do you mean by Economic Value Added. How is EVA related to valuation?
2. Write a short note on
   (a) CAPM
   (b) Systematic Risk
   (c) APT
3. What do you mean by diversification? Does it reduce the risk of an investment? Explain with an example.
1. Differentiate between CAPM and APT.
2. If the risk-free return is 7%, expected return on BSE Sensex is 16% and risk measurement by standard deviation of BSE Index is 8%, how would you construct an efficient portfolio to produce an expected return of 12% and what would be its risk? (*Ans : 4.44%* )
6. The risk-free rate is 6%, return on a broad market index is 19%, the actual return provided by the security is 20%. What must be its beta if the security is
   (a) Correctly priced in the market
   (b) Overpriced in the market
   (c) Underpriced in the market (a. 1.08 b. >1.08 c. <1.08)
7. An investor wants to invest in XYZ Ltd for five years. The company is expected to declare a dividend of Rs 2 at the end of every year for five/ years. Further a leading analyst has projected the expected price of this company's shares after five years would be Rs 150. Do you think the stock is a good buy at Rs 110 now. Assume that the required rate of return is 10%.
8. A security has a standard deviation of 5%. The correlation coefficient of the security with the market is 0.70 and market standard deviation is 4%. The return from the government securities is 10% and from market portfolio is 15%. What is the required return on the security. (Ans : 14.375%)

**EXECUTIVE PROGRAMME**

# CORPORATE AND MANAGEMENT ACCOUNTING

# EP-C&MA

**WARNING**

It is brought to the notice of all students that use of any malpractice in Examination is misconduct as provided in the explanation to Regulation 27 and accordingly the registration of such students is liable to be cancelled or terminated. The text of regulation 27 is reproduced below for information:

"27. Suspension and cancellation of examination results or registration.

In the event of any misconduct by a registered student or a candidate enrolled for any examination conducted by the Institute, the Council or any Committee formed by the Council in this regard, may suo motu or on receipt of a complaint, if it is satisfied that, the misconduct is proved after such investigation as it may deem necessary and after giving such student or candidate an opportunity of being heard, suspend or debar him from appearing in any one or more examinations, cancel his examination result, or registration as student, or debar him from re-registration as a student, or take such action as may be deemed fit.

# EXECUTIVE PROGRAMME

## CORPORATE AND MANAGEMENT ACCOUNTING

## PRACTICE TEST PAPER

*(This test paper is for practice and self study only and not to be sent to the Institute)*

*Time allowed: 3 hours* *Maximum Mark: 100*

1. A person who owes money to the business is a _____.
   (a) Debtor
   (b) Creditor
   (c) Investor
   (d) Promoter
2. The amount set apart from profit for future is known as_____.
   (a) Capital account
   (b) Reserve
   (c) Depreciation account
   (d) Cash at bank
3. Which accounting concept treats a business separately from its owner?
   (a) Going concern concept
   (b) Money measurement concept
   (c) Accounting period concept
   (d) Accounting entity concept
4. Assets held for a short period are called _____.
   (a) Fixed assets
   (b) Current assets
   (c) Contingent assets
   (d) None of the above
5. _____ is an activity concerned with recording and classifying financial data related to business operation in order of its occurrence.
   (a) Book-keeping
   (b) Budgeting
   (c) Costing
   (d) Management accounting
6. The following is not an advantage of Double entry system:
   (a) It prevents and minimizes frauds.
   (b) The trial error prepared doesn't disclose certain types of errors

(c) helps in decision making

(d) Easy for Government to calculate tax.

7. Wages account is an example of:

(a) Personal account

(b) Real account

(c) Nominal account

(d) None of the above

8. Following is not a method of preparation of Trial balance:

(a) Compound method

(b) Balance method

(c) Total method

(d) Fair value method

9. Contingent Liabilities must be shown under_____.

(a) Current Liabilities & Provisions

(b) By way of foot note only

(c) Miscellaneous Expenditure

(d) not shown

10. "Substance of any transaction should be considered while recording them & not only the legal form," is the statement which holds true for :

(a) Disclosure of accounting policies

(b) Substance over form

(c) Both of the above

(d) None of the above

11. Different organisations from same industry should select accounting policies _____.

(a) As per the provisions of the Companies Act

(b) As per the Auditing & Assurance Standards

(c) On a uniform basis from one concern to another and from one accounting period to another

(d) On non-uniform basis from one concern to another and from one accounting period to another

12. The Companies Act, 2013 provides that the Balance Sheet of a Company shall be in the prescribed form given in:

(a) Part I of Schedule III

(b) Part II of Schedule III

(c) Part III of Schedule III

(d) Part I of Schedule II

13. The Companies Act, 2013 provides that the Profit & loss Account of a Company shall be in the prescribed form given in:

(a) Part I of Schedule III

(b) Part II of Schedule III

(c) Part III of Schedule III

(d) Part I of Schedule II

14. Section _____ of the Companies Act, 2013 governs the preparation and presentation of financial statements of a company.

(a) 140

(b) 135

(c) 129

(d) 110

15. A balance sheet has two parts to it, i.e. I. Equity and Liabilities and II._____.

(a) Shareholder's fund

(b) Trade receivables

(c) Inventories

(d) Assets

16. Reserves and Surplus is a part of :

(a) Current liabilities

(b) Shareholders Fund's

(c) Non-current assets

(d) Current assets

17. Which of the following would be considered an internal user of the financial statement?

(a) Shareholder

(b) Creditor

(c) Debtor

(d) Finance Manager

18. A fixed rate of dividend is paid on _____.

(a) Equity shares

(b) preference shares

(c) debentures

(d) Term loans

19. Who has a right to vote in the meeting of shareholders?

(a) Equity shareholders

(b) Preference share holders

(c) Debenture holders

(d) Creditors

20. The maximum amount of capital a company can issue is called_____.

(a) Issued capital

(b) Paid up capital

(c) Authorized capital

(d) Called up capital

21. Shares of a company can be issued_____:

(a) at par

(b) at premium

(c) at discount

(d) any of the above

22. On allotment of shares, the following entry is passed in the books of accounts:

(a) Bank a/c Dr.

To Share application a/c

(b) Share application a/c Dr.

To Share Capital a/c

(c) Share application a/c Dr.

To Bank a/c

(d) Bank a/c Dr.

To Call-in-advance a/c

23. The securities Premium accounts must be shown as "Securities premium reserve" separately on the liability side of the balance sheet under the head_____.

(a) Current assets

(b) Non-current assets

(c) Reserves and Surplus

(d) Current liabilities

24. The Journal entry passed when shares are issued to promoters of the company in lieu of the services provided by them during the incorporation of company is:

(a) Share application account Dr.

To share capital a/c

(b) Goodwill a/c Dr.

To Share capital a/c

(c) Sundry asset a/c Dr.

To Promoters a/c

(d) Profit and loss a/c Dr.

To Interest on calls in advance

25. Preliminary expense is a _____asset.

(a) Current

(b) Fixed

(c) Tangible

(d) Fictitious

26. A Ltd. purchased a building worth Rs. 99,00,000 and issued 12% Debentures of Rs. 100 each at a premium of 10%. What will be the amount of premium?

    (a) Rs. 8,00,000

    (b) Rs. 9,90,000

    (c) Rs. 9,00,000

    (d) Rs. 10,00,000

27. Forfeited shares can be issued at:

    (a) par

    (b) premium

    (c) discount

    (d) any of the above

28. According to section 68(1) of the Companies Act, 2013, a company may purchase its own shares or other specified securities out of –

    (a) its free reserves

    (b) the securities premium account

    (c) the proceeds of the issue of any shares or same kind of other specified securities

    (d) Any of the above

29. When a company purchases its own shares out of the free reserves or securities premium account, a sum equal to the nominal value of the shares so purchase shall be transferred to the _____.

    (a) Debenture redemption reserve account

    (b) Capital redemption reserve account

    (c) Profit and loss account

    (d) Contingent liability

30. The company shall maintain a register of shares or other securities which have been bought back in form No._____.

    (a) CRA 3

    (b) SH 10

    (c) SH 8

    (d) PR 5

31. No issue of bonus shares shall be made by-

    (a) Its free reserves

    (b) the securities premium account

    (c) capitalizing reserves created by revaluation of assets

    (d) the capital redemption reserve account

32. Issue of debentures can be for:

    (a) for cash

    (b) for consideration other than cash

    (c) as collateral security

    (d) all of the above

33. A Ltd. issued 10,000, 10% Debentures of Rs. 100 each at a discount of 10%. The entire amount is payable on application. Applications were received for 12,000 debentures. The amount which should be credited to debenture account will be_____.

    (a) 12,00,000

    (b) 10,00,000

    (c) 9,00,000

    (d) 10,80,000

34. On 01.01.2017, Arav Ltd. had outstanding in its books 1,000, 12% debentures of Rs.100 each. The interest is payable on 30th June and 31st December. In accordance with the deed, the directors acquired in the open market debentures for immediate cancellation as follows:

    1st March 2017- Rs. 10,000 debentures @ Rs. 98 (Cum–interest)

    1st August 2017- Rs. 20,000 debentures @ Rs. 100.25 (Cum-interest)

    1st November 2017- Rs. 5,000 debentures @ Rs. 98.50 (Ex–interest)

    On the basis of above information calculate the amount transferred to Capital Reserve as on 31.12.2017?

    (a) 600

    (b) 725

    (c) 700

    (d) 625

35. R Ltd. purchased a machinery worth Rs. 1,20,000 and building worth Rs. 2,00,000 from D Ltd. for an agreed purchase consideration of Rs. 3,00,000 to be satisfied by the issue of 3,000, 10% debentures of Rs. 100 each. Calculate the amount to be transferred to Capital reserve a/c.

    (a) 10,000

    (b) 20,000

    (c) 30,000

    (d) 40,000

36. When is Debenture interest payable?

    (a) Is payable only in case of profit

    (b) Accumulates in case of losses

    (c) Is payable after the payment of dividend

    (d) Is payable before the payment of dividend on shares

37. Own debentures purchased in open market can used for the following:

    (a) for immediate cancellation

    (b) for investment in the form of own debentures

    (c) Both of the above

    (d) None of the above

38. A special resolution passed at general meeting of the company authorizing buy back of shares is not required when:

    (a) The buy back is 10% or less of the total paid up equity capital and free reserves of the company.

    (b) Buy back has been authorized by the board by means of a resolution passed at its meeting.

(c) Both of the above

(d) None of the above

39. A company may buy back its shares or other specifies securities by the following method(s):

(a) From the existing shareholders or other specified security holders on a proportionate basis through the tender offer

(b) From open market through book-building process or stock exchange

(c) From odd lot holders, provided no offer of buy back for 15% or more of the paid up capital and free reserves of the company shall be made from the open market

(d) Any of the above

40. The Escrow account under Regulation 9(xi) of SEBI (Buy back of Securities) Regulations, 2018 does not includes:

(a) Cash deposited with a scheduled commercial bank

(b) bank guarantee in favour of the merchant banker

(c) Deposit of acceptable securities with appropriate margin, with the merchant banker

(d) Deposits of acceptable securities with appropriate margin, with the company

41. For unlisted companies issuing debentures on private placement basis, the DRR will be ____of the value of outstanding debentures.

(a) 25%

(b) 30%

(c) 40%

(d) 50%

42. Following is not a method of redemption of debentures:

(a) By payment in lumpsum

(b) By payment in Instalments

(c) By purchase in open market

(d) By conversion into short term loans

43. The following information pertains to X Ltd. : Equity share capital called up Rs.5,00,000; Calls in arrear Rs. 40,000 ; Calls in advance Rs. 25,000 ; Proposed dividend 12%. The amount of dividend payable will be:

(a) Rs.50,000

(b) Rs.55,200

(c) Rs.46,000

(d) Rs.43,500

44. Financial Statements are used by:

(a) Investors

(b) Creditors

(c) Regulators

(d) All of the above

45. Financial statements that are issues for the time periods smaller than one year are called:

    (a) Annual statements

    (b) Interim statements

    (c) Both of the above

    (d) None of the above

46. _____prescribes the basis for presentation of general purpose financial statement to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities.

    (a) Ind AS 1

    (b) Ind AS 2

    (c) Ind AS 3

    (d) Ind AS 4

47. According to Section 197 of the Companies Act, 2013, the total managerial remuneration payable by a public company to its directors, including managing director and whole time director, and its manager in respect of any financial year shall not exceed _____ of the net profits of that company for that financial year except that the remuneration of the directors shall not be deducted from the gross profits.

    (a) 10%

    (b) 11%

    (c) 12%

    (d) 14%

48. A company may pay a sitting fee to a director for attending meetings of the Boards or Committees thereof, such sum as may be decided by the Board of Directors thereof which shall not exceed Rs._____ per meeting of the board.

    (a) One lakh

    (b) Two lakh

    (c) Five lakh

    (d) Ten lakh

49. Every company having net worth of Rs._____ shall constitute a Corporate social responsibility committee of the Board.

    (a) Rs. 100 crore or more

    (b) Rs. 200 crore or more

    (c) Rs. 500 crore or more

    (d) Rs. 1000 crore or more

50. The Corporate social Responsibility committee shall consist of _____directors, out of which atleast _____ director(s) shall be independent director(s).

    (a) three or more; two

    (b) two or more; one

    (c) four or more; two

    (d) three or more; one

51. The Board of Directors of the company, who has to form a Corporate Social Responsibility Committee, shall make sure that the company spends in every financial year, minimum _____% of the average net profits made during the 3 immediately preceding financial years as per the CSR policy.

    (a) 1

    (b) 2

    (c) 5

    (d) 10

52. With respect to CSR Reporting, The board's report referring to any financial year initiating on or after the 1st day of April 2014 shall include_____.

    (a) Monthly report on CSR

    (b) Annual report on CSR

    (c) Quarterly report on CSR

    (d) Bi-monthly report on CSR

53. As per section 2(76) of the Companies Act, 2013 the term Related party w.r.t public company means: A public company in which a director or manager is a director or holds along with his relative more than ___% of his paid up share capital.

    (a) 5%

    (b) 3%

    (c) 2%

    (d) 10%

54. Financial Statements are prepared by transferring the account balances on the adjusted _____to a set of financial statement templates.

    (a) Income Statement

    (b) Statement of Shareholder's Equity

    (c) Trial Balance

    (d) Statement of Cash flow

55. If any person contravenes the provisions of the section 197 of the Companies Act, 2013, he shall be punishable with fine. What is the minimum fine that people have to pay?

    (a) Ten Thousand Rupees

    (b) One Lakh Rupees

    (c) Five Lakh Rupees

    (d) Two Lakh rupees

56. A/An_____ is an explanation that is required by the audit team on certain points that they may have identified during an audit.

    (a) Audit query

    (b) Related party

    (c) Segment reporting

    (d) Economic value added

57. Financial Analysis is one of the important tool for investor for analysis. Which of the following statement/s does not support above statement?

    (a) Past performance analysis is a good indicator of future performance

    (b) Future Trends can always be correctly predicted

    (c) Investor read financial statement either to study the current situation or to forecast the future performance.

    (d) None of the above

58. Which section of the Companies Act, 2013 covers definition of Holding Company?

    (a) Section 2 (47)

    (b) Section 2 (46)

    (c) Section 2 (48)

    (d) Section 2 (49)

59. A company in which only the majority of shares (more than 50%) are owned by the holding company, it is said to be _____

    (a) Wholly owned subsidiary company

    (b) Partly owned subsidiary

    (c) Joint venture company

    (d) Minority company

60. Subsidiary can be member of its Holding Company if : (i) When subsidiary is a legal representative of deceased member of holding Company; (ii) When subsidiary is concerned in shares as trustee.

    (a) Only (i)

    (b) Only (ii)

    (c) Both of the above

    (d) None of the above

61. If Total capital of subsidiary is Rs.3,00,000 and out of this Rs.2,40,000 is owned by Holding. What is the amount of minority interest if outside shareholder % is 20%.

    (a) Rs. 2,40,000

    (b) Rs. 60,000

    (c) Rs. 48,000

    (d) None of the above

62. Profit on revaluation of Assets to be shown as_____in the Consolidated Balance Sheet.

    (a) General Reserve

    (b) Capital Reserve

    (c) Goodwill

    (d) None of the above

63. On 30 June 2017, two-third of the shares of S Ltd. (with a total capital of Rs.48,00,000) was acquired by H Ltd. the Balance Sheet of S Ltd. showed a debit balance of Rs.24,00,000 on 1st January 2017 and a credit balance of Rs.14,40,000 on 31 December 2017. The investment by H Ltd. in shares of S Ltd. is Rs.36,00,000. Calculate the cost of control or capital reserve.

    (a) Rs.7,20,000

    (b) Rs. 6,20,000

    (c) Rs.3,60,000

    (d) Rs.1,80,000

64. What is the full form of CARO?

    (a) Company Account's Repository Order

    (b) Company Account's Reports Order

    (c) Company Auditor's Report Order

    (d) Company Assets Revaluation Order

65. A simplified financial statement that shows how much wealth has been created by a company is called_____.

    (a) Economic value added

    (b) Value added statement

    (c) Profit and loss statement

    (d) Income statement

66. SVA stands for:

    (a) Shareholder Value Arrear

    (b) Shareholder Value Added

    (c) Security Value Added

    (d) None of the above

67. Requirements of Auditor's report is covered under which section of Companies Act, 2013?

    (a) Section 144

    (b) Section 143

    (c) Section 142

    (d) Section 145

68. Cash payments to and on behalf of employees is an example of:

    (a) Cash flow from Operating activities

    (b) Cash flow from Investing activities

    (c) Cash flow from Financing activities

    (d) None of the above

69. Which of the following is NOT a cash outflow for a firm-

    (a) Dividends

    (b) Proceeds from issuance of share capital

    (c) Amortisation of preliminary expenses

    (d) Interest payments

70. In case of a Financial enterprise, Interest received on Debentures held as Investment is:
    (a) Operating activity
    (b) Investing activity
    (c) Financing activity
    (d) None of the above
71. Which of the following results into increase in working capital-
    (a) Decrease in current liabilities
    (b) Decrease in current assets
    (c) Goods sold on credit
    (d) Tax paid
72. AS 7 issued by ICAI deals with:
    (a) Disclosure of accounting policies
    (b) Revenue recognition
    (c) Construction contracts
    (d) Government grants
73. GAAP stands for:
    (a) Generally accepted accounting principles
    (b) Generally accumulated adherence policy
    (c) Generally accounting adherence policy
    (d) Generally assisted accounting principles
74. _____ are set of accounting standards notified by the Ministry of Corporate affairs which are converged with International Financial Reporting Standards.
    (a) International Accounting Standards
    (b) Indian Accounting Standard
    (c) Indian Auditing Standard
    (d) International Auditing Standards
75. IASB stands for:
    (a) Indian Accounting Standard Board
    (b) International Auditing Standard Board
    (c) International Accounting Standard Board
    (d) International Assurance Service Board
76. Financial Reporting Council is an organisation of which country?
    (a) The USA
    (b) The UK
    (c) Australia
    (d) Canada

77. Under Phase IV of adoption of Ind AS, all NBFCs whose net worth is more than or equal to _____ but less than_____ shall have Ind AS mandatorily applicable to them from April 1, 2019.

(a) Rs. 250 crore; Rs. 500 crore

(b) Rs. 300 crore; Rs. 600 crore

(c) Rs. 100 crore; Rs. 500 crore

(d) Rs. 400 crore; Rs. 800 crore

78. Ind AS 113 deals with:

(a) Fair value Measurement

(b) Joint arrangements

(c) Financial Instruments

(d) Insurance Contract

79. _____ is regarded as a specialized branch of accounting which involves classification, accumulation, assignment and control of costs.

(a) Costing

(b) Cost Accounting

(c) Cost Accountancy

(d) Cost

80. Primary packaging material is an example of:

(a) Direct material

(b) Indirect material

(c) Direct expenses

(d) Indirect expenses

81. Which of the following is the social purpose of Cost Audit ?

(a) Detection and correction of abnormal losses

(b) Detection of errors and frauds

(c) Determination of inventory valuation

(d) Pinpointing areas of inefficiency and mismanagement for the benefit of shareholders and consumers

82. Which section of me Companies Act, 2013 deals with audit of cost accounting records?

(a) Section 158

(b) Section 148

(c) Section 168

(d) Section 139

83. What is the General information attached in the Annexure to Cost Audit Report ?

(a) Distribution of Earnings

(b) Cost Accounting Policy

(c) Details of Industry Specific Operating Expenses

(d) Reconciliation of Indirect taxes

84. From the following calculate production for the 4th quarter

Units sold

Q1 12000

Q2 15000

Q3 16500

Q4 18000

Opening units 10,000 and closing units 12500. Production is 2/3 of current requirement and 1/3 of next month requirement.

(a) 12000 units

(b) 20500 units

(c) 18500 units

(d) 18000 units

85. A _____ is a booklet specifying the objectives of an organisation in relation to its spending strategy.

(a) Budgetary control

(b) Budget manual

(c) Key factor

(d) Budget Controller

86. Monsoon is an example of key factor in which of the following industry?

(a) Motor car

(b) Aluminium

(c) Electro-optics

(d) Hydro power generation

87. Which of the following is also known as Working capital ratio:

(a) Current ratio

(b) Liquid ratio

(c) Debtor turnover ratio

(d) Cash reserve ratio

88. Current ratio is 2.5:1 and Liquid ratio is 1:1. Stock is Rs. 60,000. Calculate Current liability

(a) Rs. 40,000

(b) Rs. 60,000

(c) Rs. 1,00,000

(d) Cannot be determined

89. From the following information calculate Net profit ratio:

Gross profit is 1/4th of cost and sales is Rs. 2,00,000

Indirect expenses is Rs. 12,000

(a) 19%

(b) 20%

(c) 14%

(d) 25%

90. Selling price of a product is Rs.32/ unit. Variable Cost ratio is 50%. Fixed Cost is Rs.96,000. Units Sold are 10,000. Calculate Margin of safety in percentage.

(a) 40%

(b) 60%

(c) 50%

(d) cannot be determined

91. If sales in an organisation is Rs. 1,00,000. Fixed cost is Rs. 12,000 and profit is Rs. 8000, thus PV ratio is:

(a) 80%

(b) 8%

(c) 20%

(d) 12%

92. Selling price of a product X is Rs. 40

Variable cost is Rs. 8

Fixed Production cost Rs. 2

Fixed selling cost Rs. 2

Budget production and sales units are 12,000. Calculate break even units for product X.

(a) 2222 units

(b) 1500 units

(c) 1875 units

(d) 4615 units

93. Following is NOT an objective of Activity based costing (ABC):

(a) Activity based costing is a two stage product costing method.

(b) The cost pools in the two-stage approach now accumulate product related cost.

(c) It is based on the concept that products consume activities and activities consume resources.

(d) None of the above

94. Activity based costing assigns costs to products by tracing expenses to _____.

(a) products

(b) sales

(c) activities

(d) profits

95. Following is NOT an advantage of effective Management reporting system:

(a) Improves decision making

(b) improves responsiveness to issue

(c) Improves efficiency of resources

(d) None of the above

96. Ind AS 33 deals with
    (a) Earning per share
    (b) Financial Instrument Presentation
    (c) Fair value measurement
    (d) None of the above
97. With reference to Ind AS 102, what does SBP stands for?
    (a) Share based payment
    (b) Share based proportion
    (c) Sum based payment
    (d) Shareholder based pricing
98. The relationship between risk and return established by the security market line is called _____.
    (a) Earning based model
    (b) Arbitrage pricing theory
    (c) Economic value added
    (d) Capital asset pricing model
99. Value of share based on earning basis method is calculated as:
    (a) (Possible rate of dividend/Normal rate of dividend)* paid up value per share
    (b) (Normal rate of dividend/Possible rate of dividend)* paid up value per share
    (c) (Normal rate of dividend/Dividend per share)* paid up value per share
    (d) None of the above
100. X purchased business from Y on 30th June, 2017. Profit earned by Y for the preceding years ending on 31st December every year were- 2014 – Rs. 41,000 , 2015-Rs. 40,000 and 2016 – Rs. 42,000.

    It was ascertained that profits of 2015 included a non- recurring item of Rs. 1500 and profit of 2016 was reduced by Rs. 2000 due to an extraordinary loss on account of theft. The annual premium was Rs. 200 per annum. X at the time of purchasing the business, was employed with Rama Bros and was getting Rs. 500 p.m. he intends to replace the manager who at the present is getting Rs. 350 p.m. the goodwill is calculated at 2 years purchase of the average profits. Calculate the goodwill of the business.
    (a) Rs. 84,000
    (b) Rs. 78,334
    (c) Rs. 75,455
    (d) Rs. 85,445

## Answer Key

| | | | | | |
|---|---|---|---|---|---|
| 1 | a | 36 | d | 71 | b |
| 2 | b | 37 | c | 72 | c |
| 3 | d | 38 | c | 73 | a |
| 4 | b | 39 | d | 74 | b |
| 5 | a | 40 | d | 75 | c |
| 6 | b | 41 | a | 76 | b |
| 7 | c | 42 | d | 77 | a |
| 8 | d | 43 | b | 78 | a |
| 9 | b | 44 | d | 79 | b |
| 10 | b | 45 | b | 80 | a |
| 11 | c | 46 | a | 81 | d |
| 12 | a | 47 | b | 82 | b |
| 13 | b | 48 | a | 83 | b |
| 14 | c | 49 | c | 84 | c |
| 15 | d | 50 | d | 85 | b |
| 16 | b | 51 | b | 86 | d |
| 17 | d | 52 | b | 87 | a |
| 18 | b | 53 | c | 88 | a |
| 19 | a | 54 | c | 89 | c |
| 20 | c | 55 | b | 90 | a |
| 21 | d | 56 | a | 91 | c |
| 22 | b | 57 | b | 92 | c |
| 23 | c | 58 | b | 93 | b |
| 24 | b | 59 | b | 94 | c |
| 25 | d | 60 | c | 95 | d |
| 26 | c | 61 | b | 96 | a |
| 27 | d | 62 | b | 97 | a |
| 28 | d | 63 | a | 98 | d |
| 29 | b | 64 | c | 99 | a |
| 30 | b | 65 | b | 100 | b |
| 31 | c | 66 | b | | |
| 32 | d | 67 | b | | |
| 33 | b | 68 | a | | |
| 34 | d | 69 | c | | |
| 35 | b | 70 | a | | |