

GUIDELINE ANSWERS

PROFESSIONAL PROGRAMME

JUNE 2019

MODULE 2



**THE INSTITUTE OF
Company Secretaries of India**

भारतीय कम्पनी सचिव संस्थान

IN PURSUIT OF PROFESSIONAL EXCELLENCE

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The Guideline Answers contain the information based on the Laws/Rules applicable at the time of preparation. However, students are expected to be well versed with the amendments in the Laws/Rules made upto **six** months prior to the date of examination.

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PROFESSIONAL PROGRAMME EXAMINATION

JUNE 2019

INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

Question 1

M/s ABC Ltd. is a consumer electronics item manufacturing company. The management of the company wants to use advanced IT system solution to enhance its presence in the market. Therefore the company hired a consultancy firm for taking services in the field of using advanced internet technologies and Database solutions. Further, the company wants to upgrade its existing Management Information System (MIS) for better usage of market information and competitive advantage. The top management of the company also want to expand business of the company by entering into e-commerce and m-commerce businesses. Therefore, company needs to take the service of consultant for upgrading the software system of the company using advanced application software. The top and middle management of the company held various meetings with the consultants to arrive at complete restructuring of the IT systems of the company.

Assuming that you are a representative of consultancy firm hired by M/s ABC Ltd., answer the following, in brief :

- (a) What are the requirements that new Database Management System (DBMS) should meet ? (5 marks)*
- (b) List and explain any five examples of application software. (5 marks)*
- (c) Describe the various elements of e-commerce. (5 marks)*
- (d) List the major purpose that will be fulfilled by providing information to all levels of management through a well defined MIS ? (5 marks)*

Answer 1(a)

The DBMS (like Oracle, FoxPro, SQL Server etc.) should meet the following requirements:

1. *Provide data definition facilities :* It should support Data Definition Language (DDL) and provides user accessible catalog Known as Data Dictionary.
2. *Provide facilities for storing, retrieving and updating data :* It should support Data Manipulation Language (DML), so that required data can be inserted, updated, deleted and retrieved.
3. *Supports multiple view of data :* The end user should have the facility of flexible query language so that required information can be accessed easily.
4. *Provides facilities for specifying Integrity constraints :* It should support the

constraints like Primary key, try to insert any incorrect information it should display the error message.

5. *Provide security of data* : It should have the facilities for controlling access to data and prevent unauthorized access and update.
6. *Provide concurrency control mechanism* : It should allow simultaneous access and update of data by multiple users.
7. *Support Transactions* : It should support all the properties of transaction known as ACID properties. It means a sequence of operations to be performed as a whole. In other words all operations are performed or none.
8. *Provide facilities for database recovery* : It should bring database back to consistent state after a failure such as disk failure, faulty program etc.
9. *Provide facilities for database maintenance* : It should support maintenance operations like unload, reload, mass insertion, deletion and validation of data.
10. *Master and transaction file* : A master file stores relatively static data. It changes occasionally and stores all the details of the object.
11. *Support ACID Properties* : DBMS should follow the concepts of Atomicity, Consistency, Isolation, and Durability (normally shortened as ACID) in order to ensure accuracy, completeness, and data integrity. These concepts are applied on transactions, which manipulate data in a database.

Answer 1(b)

Applications software is program that performs common information processing jobs for end users. These do not require advanced level computer skills and allow users to do things like creating text documents, playing video games, listening to music or viewing websites. For example, word processing programs, electronic spreadsheet programs, database management programs, graphics programs, communications programs Example MS word, power point, Chrome, Internet Explorer.

Examples of Some Application Software:

1. *Word Processing Software* : Word processing is the most common applications software. The great advantage of word processing over using a typewriter is that you can make changes without retyping the entire document. Word processors make it easy to manipulate and format documents. Example: MS Word, Word Pad etc.
2. *Spreadsheet Software* : Spreadsheets are computer programs that let people electronically create and manipulate spreadsheets (tables of values arranged in rows and columns with predefined relationships to each other). Spreadsheets are used for mathematical calculations such as accounts, budgets, and statistics and so on. For Example: Excel, Lotus1-2-3 etc.
3. *Database Software* : Database management applications are computer programs that let people create and manipulate data in a database. A database is a collection of related information that can be manipulated and used to sort

information, conduct statistical analyses or generate reports. Example: MS Access, MySQL, Oracle etc.

4. *Presentation Graphic Software* : Allows users to create visual presentation. Example: MS Power Point.
5. *Multimedia Software* : Allows users to create image, audio, video etc. Example: Real Player, Media Player etc.
6. *Accounting Software* : Allows users to do the accounting of the transaction entered into. Examples Tally, Zoho Books, Fresh Books etc.
7. *Mobile Software* : Allows users to carry out various applications through mobile. Examples opera mini, e-buddy etc.

Answer 1(c)

Elements of E-commerce

1. *A product or a service* : In case of E-Commerce, it is virtual product shown on a web site. One can demonstrate multimedia presentation of the product and all its features on the web page itself, which may not be possible in case of physical product of commerce activity.
2. *A place to sell the product* : In the e-commerce case, a website displays the products in all ways & act as a place for E-Commerce.
3. *A way to get customers to visit your website* : In case of E-Commerce search engines and linkages with other web sites play an important role in helping the customers to reach web sites of the e-organizations.
4. *A way to accept orders* : The orders are accepted on the web site itself. On the web pages of the E-commerce companies shopping carts are being provided. One can click on the icon and fill in the shopping card to order items to be purchased and it is accepted by the E-comm. Company as order from the customer.
5. *A way to accept money* : In case of traditional commerce, buyers and sellers are in direct contact with each other. The payments in E-commerce are made using Electronic Fund Transfer in various form using credit cards, smart cards, e-checks, etc. The information of payment is routed through Value Added Networks (VANs) and Payment Gateway Systems, etc.
6. *A fulfilment facility to ship product to customers* : The shipment of the product to the customer is made through third party. The most of the E-commerce companies are having their chain of suppliers in various localities and items are shipped through these suppliers to the customers.
7. *A way to accept returns* : As is the case of commerce, in case of E-commerce all the trading companies have the system of accepting the returns if the goods and services are not to the satisfaction of the customer or not upto the standards/ specifications mentioned in the product catalogue or brochures hosted on the web pages.

8. *A way to handle warranty claims* : Sometimes if the product breaks in the way or some other problems crop up with the product. In such situation, warranty claims are to be honoured as in the case of commerce.
9. *A way to provide customer service* : The main tools of the customer service are E-mail, On-line forms, online knowledge bases and frequently asked questions.

Answer 1(d)

A well-defined MIS provides information to all levels of management for the following purpose.

The integrated approach towards data management will result in avoiding duplication of data, data redundancy and will help to simplify operations.

- To report the organization performance to tax authorities, shareholders, regulatory authorities and other stakeholders such as suppliers and customers etc.
- To prepare future plans for short and long term basis.
- To exercise day-to-day control on various operations in the different functional areas in the organization.
- To allocate different type of resources to different functional areas.
- To allow management by exception.
- To develop database of business partners and to devise procedures to deal with them.
- To develop the training tools for the new recruits in the organization at all levels.
- MIS opens up new vistas for management to make efficient timely decisions on vital operations of the enterprise and major strategic and tactical problem.
- MIS helps organizations to gain substantial economies by reduction of clerical and computational time.

Attempt all parts of either Q. No. 2 or Q. No. 2A

Question 2

- (a) *Comment on the punishment for publishing or transmitting obscene material in electronic form as stated in Information Technology (Amended) Act, 2008.*
- (b) *Why information system is so important in a business management ? Briefly explain how system performance control is a major activity of information system.*
- (c) *What is Network card ? Briefly explain cache memory of the computers.*
- (d) *Explain the operational characteristics of a good software. (4 marks each)*

OR (Alternate question to Q. No. 2)

Question 2A

- (i) *What are the functions and responsibilities of Database Administrator regarding database management ?*
- (ii) *Algorithm is a set of well defined rules for the solution of a problem in finite number of steps. What are the major considerations in design of algorithm ?*

- (iii) *List the major factors on which the success of e-supply chain depends.*
- (iv) *Discuss the impact of computers and MIS on middle level management.*
(4 marks each)

Answer 2(a)

As per Section 67 of the Information Technology (Amendment) Act, 2008 - whoever publishes or transmits or causes to be published or transmitted in the electronic form, any material which is lascivious or appeals to the prurient interest or if its effect is such as to tend to deprave and corrupt persons who are likely, having regard to all relevant circumstances, to read, see or hear the matter contained or embodied in it, shall be punished on first conviction with imprisonment of either description for a term which may extend to three years and with fine which may extend to five lakh rupees and in the event of second or subsequent conviction with imprisonment of either description for a term which may extend to five years and also with fine which may extend to ten lakh rupees.

Answer 2(b)

The importance of information system in a business management is for following reasons

- (a) *An aid in operational excellence* - Businesses can constantly improve their efficiency of their operations in order to achieve higher profitability. They can do this by constantly having the correct amount of stock in store so consumers can always get what they want.
- (b) *New product services and business models* – I.S systems play a major role for businesses in creating new products and services. New business models can be created and these can describe how a company produce, create and sell their products.
- (c) *Helpful in improved decision making* I.S systems make it possible for managers to use real time data when making a decision to therefore make better decisions and not have to waste time looking for information.
- (d) *Customer and Supplier intimacy* – the better services a company provides its consumers with more likely they are to come back to them and as a result the more they will buy off the supplier therefore creating a good relationship with both parties.
- (e) *Necessary for day to day survival*
- (f) *Competitive Advantage* – Companies following strict controls via their Information Systems develop competitive advantage for their rivals
- (g) *Helpful in Cost Management* – Improved decision making helps business cut operational costs like improved production planning, improved inventory planning etc.

An important information system activity is the control of its performance. An information system should produce feedback about its input, processing output and the system is meeting established performance standards. Then appropriate system activities must be adjusted so that proper information products are produced for end users.

Answer 2(c)**Network Card**

A network card also known as Network Interface Controller Card (NIC) is a piece of hardware that allows a computer to connect to a computer network. Network cards are used for both Wired and Wireless networks. Sometimes the network card is integrated on the motherboard. Each network card has a unique number; this is used for addressing. It is called the MAC address.

Cache Memory

Cache is a block of high speed memory where data is copied when it is retrieved from the RAM. It is a high speed memory which computer microprocessors can access more quickly than it can access regular random access memory (RAM). This storage of key instructions enables a performance improvement in the processor.

There are two groups of extremely fast memory chips that allow the computer to operate faster:

1. Internal cache (L1) is built into the CPU, and
2. External cache (L2) resides on the motherboard. The L2 cache is an area of high-speed memory that improves performance by reducing the average memory access time.

Both L1 and L2 store data recently used by the CPU. When the CPU needs data, it first checks the fastest source — L1. If the data is not there, the CPU checks the next-fastest source — L2. If the data still cannot be found, a time-consuming search of the slower RAM is required.

Answer 2(d)

Various Operational Characteristics of good software are:

- (a) *Correctness* : The software should meet all the specifications stated by the customer.
- (b) *Usability/Learnability* : The amount of efforts or time required to learn how to use the software should be less. This makes the software user-friendly even for IT-illiterate people.
- (c) *Integrity* : Software should be integrated with other applications and it should not affect the working of another application.
- (d) *Reliability* : The software should not have any defects. Not only this, it shouldn't fail while execution.
- (e) *Efficiency* : The software should make effective use of the storage space and execute command as per desired timing requirements.
- (f) *Security* : The software shouldn't have ill effects on data / hardware. Proper measures should be taken to keep data secure from external threats.
- (g) *Safety* : The software should not be hazardous to the environment/life.

- (h) *Maintainability* : refers to how easily modifications/changes can be made to the current architecture and correct any shortcomings.
- (i) *Portability* : Porting software to other computer configurations is important for several reasons. Good software products can have a life of 15 years or more, whereas hardware is frequently changed at least every 4 or 5 years. Thus good software can be implemented, over its lifetime, on three or more different hardware configuration.

Answer 2A(i)

The Database Administrator has following responsibilities:

- (a) *Installing and Configuration of Database* : DBA is responsible for installing the database software. He configure the software of database and then upgrades it if needed. There are many database software like oracle, Microsoft SQL and MySQL in the industry so DBA decides how the installing and configuring of these database software will take place.
- (b) Definition of the schema, the architecture of the three levels of the data abstraction, data independence.
- (c) Modification of the defined schema as and when required.
- (d) Definition of the storage structure i.e. access method of the data stored in sequential, or indexed or direct.
- (e) The DBA can be responsible for granting authorization such as creating new user-id, password etc., and also creating the access permissions that each user can or cannot enjoy. DBA is responsible to create user roles, which are collection of the permissions (like read, write etc.) granted and restricted for a class of users.
- (f) Defining the integrity constraints for the database to ensure that the data entered conform to some rules, thereby increasing the reliability of data.
- (g) Creating a security mechanism to prevent unauthorized access, accidental or intentional handling of data that can cause security threat.
- (h) Creating backup and recovery policy. This is essential because in case of a failure the database must be able to revive itself to its complete functionality with no loss of data, as if the failure has never occurred.
- (i) *Tuning Database Performance* : Database performance plays an important role for any business. If user is not able to fetch data speedily then it may loss company business. So by tuning a modifying SQL commands a DBA can improves the performance of database.
- (j) *Managing Capacity Issues* : All the databases have their limits of storing data in it and the physical memory also has some limitations. DBA has to decide the limit and capacity of database and all the issues related to it.

Answer 2A(ii)

Following are the major considerations in the design of algorithms

- (a) An algorithm must have a beginning and an end.

- (b) The non ambiguity requirement for each step of an algorithm cannot be compromised.
- (c) The range of inputs for which an algorithm works has to be specified carefully.
- (d) The same algorithm can be represented in several different ways.
- (e) Several algorithms for solving the same problem may exist.
- (f) Algorithms for the same problem can be based on very different ideas and can solve the problem with dramatically different speeds.
- (g) It must terminate at a reasonable period of time.

Answer 2A(iii)

The success of an e-supply chain depends on the following:

- a. The ability of all supply chain partners to view partner collaboration as a strategic asset. Tight integration and trust among the trading partners generate speed, agility, and lower cost.
- b. A well-defined supply chain strategy. This includes a clear understanding of existing strengths and weaknesses, articulating well-defined plans for improvement, and establishing cross-organizational objectives for supply chain performance.
- c. Information visibility along the entire supply chain. Information visibility refers to the information about inventories at various segments of the chain, demand for products, capacity planning and activation, synchronization of material flows, delivery times, and any other relevant information that must be visible to all members of the supply chain at any given time.
- d. Speed, cost, quality, and customer service. These are the metrics by which supply chains are measured. Consequently, companies must clearly define the measurements for each of these four metrics, together with the target levels to be achieved. The target levels should be attractive to the business partners.
- e. Integrating the supply chain more tightly. An e-supply chain will benefit from tighter integration, both within a company and across an extended enterprise made up of suppliers, trading partners, logistics providers, and the distribution channel.
- f. Use advanced predictive tools and use data to access what the consumers want and to predict the demand instead of piling up inventory. This not only helps in reducing cost but also provide the management and partner's insights to better manage their inventories.

Answer 2A(iv)

The Middle Level Management translates the management objectives into plans, arranges resources to achieve such objectives and goals as laid down by top management. Also it reviews the result of operations performed at the supervisory level. It thus acts as a bridge between the other two levels. The information provided by computer serves only limited purpose to middle management. Such information is quite effective for carrying out an analysis of the operations but has little impact on the formulation of organizational plans.

Potential impact of computers and MIS on middle management level will be significant. It will bring a marked change in the process of decision-making. At this level, most of the decisions will be programmed and thus will be made by the computer, thereby drastically reducing the number of middle level manager's requirement.

For example, In the case of inventory control system, computer will carry records of all items with respect of their purchase, issue and balance. The reorder level, reorder quantity etc. for each item of material will also be stored in computer after its pre-determination.

Under such a system as soon as the consumption level of a particular item of material will touch reorder level, computer will inform for its purchase immediately. The futurists also foresee the computer and the erosion of middle management as the vehicles for a major shift to decentralization.

The new information technology will enable management to view an operation as a single entity whose effectiveness can only be optimized by making decisions that take into account the entity and not the individual parts.

Attempt all parts of either Q. No. 3 or Q. No. 3A

Question 3

- (a) *Explain in detail the various functions performed by DBMS to ensure the integrity and consistency of the data in the database.* (4 marks)
- (b) *What do you understand by a Computer Language ? Explain its different categories.* (4 marks)
- (c) *What are the strategies required to adopt for successful implementation of Intranet in the company ?* (4 marks)
- (d) *Briefly discuss any four characteristics of information required for Supervisory planning.* (4 marks)

OR (Alternate question to Q. No. 3)

Question 3A

- (i) *Explain the acknowledge of receipt of electronic record as per the Information Technology (Amended) Act, 2008.*
- (ii) *In Information Systems what type of information is required by Top Management for strategic decision making ?*
- (iii) *What technology specific factors to be evaluated for viability during the initial assessment phase prior to developing an automation project ?*
- (iv) *Describe the intermediate system security measures for Authentication and Authorisation.* (4 marks each)

Answer 3(a)

A DBMS performs several functions that guarantee the integrity and consistency of the data in the database. Most of these functions are transparent to the users and most can be achieved only through the use of a DBMS.

1. *Data Dictionary Management* : The DBMS stores definitions of the data elements

and their relationships (metadata) in a data dictionary. In turn, all programs that access the data in the database work through the DBMS. The DBMS uses the data dictionary to look up the required data component structures and relationships, thus relieving the programmer from having to code such complex relationships in each program.

2. *Data Storage Management* : The DBMS creates and manages the complex structures required for data storage, thus relieving programmer from the difficult task of defining and programming the physical data characteristics. A modern DBMS provides storage not only for the data, but also for related data entry forms or screen definitions, report definitions, data validation rules, procedural code, structures to handle video and picture formats, etc.
3. *Data Transformation and Presentation* : The DBMS transforms entered data to conform to required data structures. The DBMS formats the physically retrieved data to make it conform to the user's logical expectations.
4. *Security Management* : The DBMS creates a security system that enforces user security and data privacy. Security rules determine which users can access the database which data items each user can access and which data operations (read, add, delete or modify) the user can perform.
5. *Multi-user Access Control* : To provide data integrity and data inconsistency, the DBMS uses sophisticated algorithms to ensure that multiple users can access the database concurrently without compromising the integrity of the database.
6. *Backup and Recovery Management* : The DBMS provides backup and data recovery to ensure data safety and integrity. Recovery management deals with the recovery of the database after a failure such as a bad sector in the disk or a power failure. Such capability is critical to preserving the database's integrity.
7. *Data Integrity Management* : The DBMS promotes and enforces integrity rules, thus minimizing data redundancy and maximizing data inconsistency. The data relationships stored in the data dictionary are used to enforce data integrity. Ensuring data integrity is especially important in transaction-oriented database systems.
8. *Database Access Languages and API* : The DBMS provides data access through a query language. The DBMS also provides application programming interfaces (API) to procedural languages such as COBOL, C, Java, etc. In addition, the DBMS provides administrative utilities used by the DBA and the database designer to create, implement, monitor and maintain the database.
9. *Database Communication Interface* : Current generation DBMSs accept end-user requests via multiple, different network environments. For example, the DBMS might provide access to the database via the Internet through the use of Web browsers such as Internet Explorer, Firefox.

Answer 3(b)

Computer language or programming language is a coded syntax used by computer

programmers to communicate with a computer. Computer language establishes a flow of communication between software programs. The language enables a computer user to dictate what commands the computer must perform to process data.

These languages can be classified into following categories.

1. Machine language
2. Assembly language
3. High level language

Machine Language

Machine language or machine code is the native language directly understood by the computer's central processing unit or CPU. This type of computer language is not easy to understand, as it only uses a binary system, an element of notations containing only a series of numbers consisting of one and zero, to produce commands.

Assembly Level Language

Assembly Level Language is a set of codes that can run directly on the computer's processor. This type of language is most appropriate in writing operating systems and maintaining desktop applications. With the assembly level language, it is easier for a programmer to define commands. It is easier to understand and use as compared to machine language.

High level Language

High Level Languages are user-friendly languages which are similar to English with vocabulary of words and symbols. These are easier to learn and require less time to write. They are problem oriented rather than 'machine' based. Program written in a high-level language can be translated into machine language and therefore can run on any computer for which there exists an appropriate translator.

Answer 3(c)

For effective success of Intranet in a company, one may implement the following strategies:

1. *Include widely used applications and make them simple to use* : Use the intranet to simplify employee's lives. For instance, by putting travel expense reports online, employees do not have to waste time filling out hard-copy reports, making copies for numerous people, and sending them through regular or interoffice mail, which can take days. Instead, they can complete reports and send them to as many people as needed. The recipients receive them in moments.
2. *Secure the system* : Security of intranets is vital. If the information on an intranet is corrupted (such as an inaccurate posting of company job openings) or if a competitor accesses the information (such as pricing policies for different products), it can lead to distrust.
3. *Integrate databases into intranet applications* : Databases are at the heart of intranet applications. The data and information that employees access from the

intranet come from one or more databases. Companies must invest the time and money to build databases that are accurate, complete, and reliable.

4. *Invest in excellent network capacities* : Clearly, networks are essential for the success of intranets. Without a robust network infrastructure, an intranet simply will not be able to function. If the network is frequently down or if the network is too slow, employees will get frustrated and may not use the intranet.
5. *Motivate employees to use the intranet* : Change is not easy. Many people prefer to do things the way always have. To convince people of the benefit of change, intranets must be easy to use with user friendly, intuitive interfaces. Further, companies should give incentives encouraging employees to use the intranet.
6. *Align With Your Business Strategy* : Intranet cannot be regarded as isolated system, it always requires to support the overarching business strategy, and enable each and every one to work towards the common goal.
7. *Employee Focus* : Build and develop content around your employees, having an employee portal or an employee social network is a viable strategy to ensure that users keep coming back and actively use the Intranet
8. *Invest in Training* : Schedule proper training programs for your employees, no matter how intuitive a system may be users may not be able to take full advantage of the system

Answer 3(d)

Characteristics of Information required for Supervisory Planning

1. *Repetitiveness* : The information produced by these systems is usually repetitive in nature at periodic intervals such as daily, weekly, or monthly.
2. *Predictability* : The information they produce usually does not contain any surprises for the manager or the users of the information. These systems produce results at the expected time. For example: People are paid by the system what they are expected to be paid and customers are billed for what they purchased.
3. *Emphasis on the past* : The information generated by the systems usually describes the past. For example: payroll accounting systems describes the work done by the employees in the past for which they are being paid. Invoices describe past sales to customers.
4. *Detailed nature* : The information produced is very detailed. To mention, as an example, pay-checks provide detailed information on the work week of each employee along with all allowances and deductions. Customer invoices describes the details of purchases.
5. *Internal origin* : The data for operational system usually spring entirely from internal sources. That is data for pay-checks come from internal documents of the organization.
6. *Structured form* : The form of the data input and the form of the output produced

by the operational information systems is structured. That is the data on time cards are carefully formatted in identical fashion on each. Or the data on each customer invoice are carefully formatted in identical fashion.

7. *Great accuracy* : The accuracy of the data used as input to such systems and of the output produced by such systems is usually very high. The data input and information output are carefully checked in a variety of ways.

Answer 3A(i)

1. Section 12 of Information Technology (Amendment) Act, 2008 provides where the originator has not agreed that the acknowledgment of receipt of electronic record be given in a particular form or by a particular method, an Acknowledgment may be given by –
 - i. Any communication by the addressee, automated or otherwise; or
 - ii. Any conduct of the addressee, sufficient to indicate to the originator that the electronic record has been received.
2. Where the originator has stipulated that the electronic record shall be binding only on receipt of an acknowledgment of such electronic record by him, then unless acknowledgment has been so received, the electronic record shall be deemed to have been never sent by the originator.
3. Where the originator has not stipulated that the electronic record shall be binding only on receipt of such acknowledgment, and the acknowledgment has not been received by the originator within the time specified or agreed or, within a reasonable time, then the originator may give notice to the addressee stating that no acknowledgment has been received by him and specifying a reasonable time by which the acknowledgment must be received by him and if no acknowledgment is received within the aforesaid time limit he may after giving notice to the addressee, treat the electronic record as though it has never been sent.

Answer 3A(ii)

People in different management levels have different information needs. Top level management includes strategic managers, and directors, who make decisions that affect the entire organization, or large parts of it, and leave an impact in the long run.

Managers at different organizational levels have diverse information requirements. In order to efficiently do their work, must managers diagnose their information needs.

Top management of a company comprises the owners/managing director of a company. They are responsible for taking strategic decisions for a company which has long term bearing on company policies and perspectives. Strategic management is responsible for making strategic plan which is necessary to take the company on growth path. To prepare strategic Plan, Top management is not concerned about day today information of company operations. They do the macro analysis and their decisions are based on macro-analysis. Generally the Strategic Management information needs comprises

- a. Information about market trend- Macro analysis.

- b. Information about Government Policies.
- c. Information about Competitors policies and tactics
- d. Information about Major exceptions in implementing the company policy at tactical/operation level.
- e. Analysis about major happening/event which may have a long term bearing on the strategic decisions of the company.

Answer 3A(iii)

A number of technology-specific factors should be identified and evaluated during this initial assessment phase, including:

- a. The problem(s) to be resolved by the development of a new automated system,
- b. How technology initiatives fit into overall mission and business objectives,
- c. Current or pending legislation that may affect the choice or use of technology,
- d. The state of existing systems within the organization and how they should relate to any new system,
- e. The system of managing materials in agency records offices as well as in the records center,
- f. The nature of any existing or planned records management initiatives within the organization and how they affect or should co-exist with any new system,
- g. The expected benefits resulting from the implementation of an automated system,
- h. How costs will be measured and at what point the costs will outweigh the benefits,
- i. The constraints and limitations of the automation project, including policy, financial requirements and technical skills,
- j. The time and resources required to conduct a feasibility study,
- k. The level of senior management support (it is best to seek a champion for the records system automation project to offer support at senior levels),
- l. The project team members, their roles and responsibilities.

Answer 3A(iv)

Requirements for Authentication and Authorization are:

- (a) *Remove or disable accounts upon loss of eligibility* : Accounts which are no longer needed must be disabled in a timely fashion using an automated or documented procedure.
- (b) *Separate user and administrator accounts* : Administrator accounts must not be used for non-administrative purposes. System administrators must be provisioned with non-administrator accounts for end-user activities, and a separate administrator account that is used only for system-administration purposes.
- (c) *Use unique passwords for administrator accounts* : Privileged accounts must use unique passwords that are not shared among multiple systems. Credentials which are managed centrally, such as the NetID/password combination, are

considered a single account, regardless of how many systems they provide access to.

- (d) *Throttle repeated unsuccessful login-attempts* : A maximum rate for unsuccessful login attempts must be enforced. Account lockout is not required, but the rate of unsuccessful logins must be limited.
- (e) *Enable session timeout* : Sessions must be locked or closed after some reasonable period.
- (f) *Enforce least privilege* : Non-administrative accounts must be used whenever possible. User accounts and server processes must be granted the least-possible level of privilege that allows them to perform their function.
- (g) *Security Audits* : Regular audits of roles assigned to various accounts and access assigned to these users.
- (h) *Security Logs* : Regular logging of user activity in the system and review of activity related to security change and identification of unauthorized attempts to access privileged information.

Question 4

- (a) *List the vital features of Business Systems module of ERP.*
- (b) *Highlight and discuss the specific advantages which gives business value to Enterprise Resource Planning.*
- (c) *Define G2B model of e-Governance. What kind of information is shared through G2B or B2G model ?*
- (d) *Assuming that you are a member of National e-Governance Planning (NeGP) Implementation Committee. Explain the vital elements to be incorporated by you in the approach and methodology for proposed e-Governance application adapted for NeGP.* (4 marks each)

Answer 4(a)

Features of Business Systems module of ERP are the following:

- a. Business forecasting for products groups markets.
- b. Target fixing and allocation by the key parameters.
- c. Business planning in terms of the resources to execute.
- d. Strategy formulation and implementation.
- e. MIS for strategy monitoring and control.
- f. Business modelling for the strategy development and testing.
- g. DSS for resource planning.
- h. Information base management for management applications.

Answer 4(b)**The Business Value of ERP**

At its core, ERP helps employees do their jobs more efficiently by breaking down barriers between business units. More specifically, an ERP solution:

- Gives a global, real-time view of data that can enable companies to address concerns proactively and drive improvements
- Improves financial compliance with regulatory standards and reduces risk
- Automates core business operations such as lead-to-cash, order-to-fulfilment, and procure-to-pay processes
- Enhances customer service by providing one source for billing and relationship tracking.

When you add up these advantages, the value of ERP—particularly cloud ERP—is clear. With an ERP solution, employees have access to accurate information that enables them to make better decisions faster. Not only that, but ERP software helps to eliminate redundant processes and systems, dramatically lowering the cost of doing business overall.

Answer 4(c)

In G2B, the government deals with businesses such as suppliers using the internet and other ICTs. It includes two-way interactions and transactions government to business and business to government. B2G refers to the business selling products and services to government. The B2G initiatives can be transactional such as in licensing, permits, procurement and revenue collection. The objective is to cut red tape, save time, reduce operational costs and to create a more transparent business environment when dealing with the government.

They share information through this model like:-

- Collection of taxes.
- Rejection and approval of patent is also done by this model.
- Payment of all kind of bills and penalty.
- Sharing of all kind of information, rules and data.

Complaints or any kind of dissatisfaction can be shown by this.

Answer 4(d)

Implementation of e-Governance is a highly complex process requiring provisioning of hardware & software, networking, process re-engineering and change management. Based on lessons learnt from the past and the experience from successful e-Governance applications, the approach and methodology adopted for NeGP contains the following elements:

- (i) *Common Support Infrastructure* : NeGP implementation involves setting up of common and support IT infrastructure such as: State Wide Area Networks

(SWANs), State Data Centres (SDCs), Common Services Centres (CSCs) and Electronic Service Delivery Gateways.

- (ii) *Governance* : Suitable arrangements for monitoring and coordinating the implementation of NeGP under the direction of the competent authorities have also been substantially put in place. The programme also involves evolving/ laying down standards and policy guidelines, providing technical support, undertaking capacity building, R&D, etc.
- (iii) *Centralized Initiative, Decentralized Implementation* : e-Governance is promoted through a centralized initiative to the extent necessary to ensure citizen-centric orientation, to realize the objective of inter-operability of various e-Governance applications and to ensure optimal utilization of ICT infrastructure and resources while allowing for a decentralized implementation model. It also aims at identifying successful projects and replicating them with required customization wherever needed.
- (iv) *Public-Private Partnerships (PPP)* : PPP model is adopted wherever feasible to enlarge the resource pool without compromising on the security aspects.
- (v) *Integrative Elements* : Adoption of unique identification codes for citizens, businesses and property is to be promoted to facilitate integration and avoid ambiguity.
- (vi) *Programme Approach at the National and State levels* : For implementation of the NeGP, various Union Ministries/Departments and State Governments are involved. Considering the multiplicity of agencies involved and the need for overall aggregation and integration at the national level, NeGP is being implemented as a programme, with well-defined roles and responsibilities of each agency involved. For facilitating this, appropriate programme management structures have also been put in place.
- (vii) *Facilitator role of DEITY* : DEITY is the facilitator and catalyst for the implementation of NeGP by various Ministries and State Governments and also provides technical assistance. It serves as a secretariat to the Apex Committee and assists it in managing the programme.
- (viii) *Ownership of Ministries* : Under the NeGP, various MMPs are owned and spearheaded by the concerned line Ministries. In case there are any ongoing projects which fall in the MMP category, they would be suitably enhanced to align them with the objectives of NeGP. For major projects like Bharat Nirman, Rural Employment Guarantee Schemes, etc. the line ministries concerned are advised to make use of e-Governance as also automation techniques from the inception stage. States have been given the flexibility to identify a few additional state-specific projects, which are relevant for the economic development of the State.

Question 5

- (a) *A company has appointed marketing professionals at a monthly salary of ₹50,000. At the time of their annual appraisal all these professionals are entitled for an increment in their monthly salary based on their performance to be evaluated on a 100 marks scale as per details given below :*

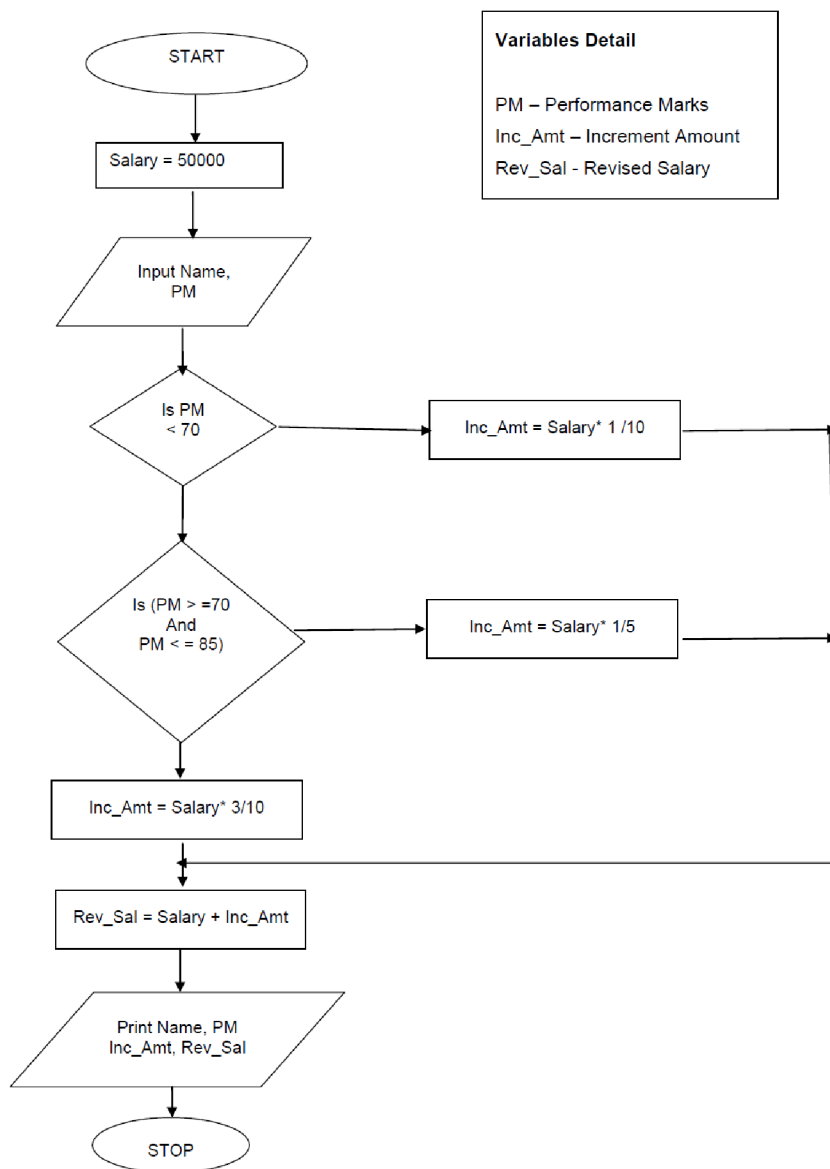
- *Performance marks less than 70, then increment to be 10% of salary*

- Performance marks from 70 to 85, then increment to be 20% of salary
- Performance marks more than 85, then increment to be 30% of salary

Draw a flow chart to print the details like name, performance marks, monthly increment amount and revised salary of one professional.

- (b) Explain various steps to be followed for successful implementation of ERP in a company. (8 marks each)

Answer 5(a)



Answer 5(b)

Implementation of Enterprise Resource Planning (ERP) system is a challenging transition and a rewarding change, if implemented properly. Here is a 10 step framework that walks you through high-level steps that will take you from day 1 of planning to launch. Successful ERP implementation involves the following:

1. *Need Assessment*

The first step in any ERP implementation is to identify the company's needs. Start by finding and documenting the critical business processes, inflection points and key performance indicators (KPI). This will help in pinpoint the right ERP solution, as well as the appropriate specialists needed as we go through this important transition. Remember this is about business processes that support the enterprise. While information technology considerations are important, IT shouldn't be the driver of the analysis.

2. *Hire a Team of Specialists*

Many organizations lack the internal expertise and experience for ERP implementation. One needs to consider hiring or contracting with an experienced professional to guide you through the implementation process. This will prevent a lot of headaches and wasted time, as well as giving the time to focus on other tasks.

3. *ERP System Evaluation and Selection*

Selection of the right ERP solution is one of the most critical steps in the process. The right program depends on the industry, business needs and system preferences. One consideration is whether somebody needs a premise ERP system or a cloud computing ERP system. Many businesses have made the jump to the cloud. That may be the right solution, but understand it's not always the best option. It will depend on specific business requirements and organization's capacity to support the process. ERP consultant can also assist with this decision.

4. *Prepare for Change*

Implementing a new ERP system can be a major change for a company, especially if the company never use done in the past. It's important to stay transparent with the employees about the change and engage them when possible. ERP transitions are as much about changing culture as changing technology.

5. *Data Preparation*

Don't assume that all of the current data can be converted into the new system. Analyse the current data and decide which pieces need to be converted. After the data is all entered into the ERP database (most data bases allow data entry via spreadsheet) one needs to clean it up. Review the information database and weed out anything that you deem unnecessary, like old customers or those who are no longer in business. Data integrity is critical to a successful implementation.

6. *ERP Implementation*

After completing the first five steps, it's time to launch the new system. The ERP consultants have mapped out a specific plan of how to install, configure and optimize the system for working environment. Plans are bound to change

(at least slightly) during this process so always keep your major needs and end goals in mind.

7. *Testing*

While the performance and integrity of ERP systems have come a long way since their introduction in the 90's do not assume everything will execute smooth. System and user acceptance testing is a key phase of the implementation process.

8. *Training & Education*

After your system is configured, you need to train the employees on how to use the new program. Try finding a group that specializes in on sight training to make sure everyone is up to speed. Ensure the IT team has an extra session of training to know how to handle any tech problems that may arise in the future.

9. *Go Live*

Once the system has been configured, tested and your employees have been trained, it's time to go live. One can now safely activate your ERP system. It wouldn't hurt to do another round of testing after launching, just in case.

10. *Ongoing Support*

Unfortunately, one can't just install the ERP system and never touch it again. Advanced ERP implementations require time and attention beyond the initial installation. This includes upgrades to your system and general maintenance.

Question 6

Write short notes on the following :

- (a) *Significance of System Audit*
- (b) *Categories of Cloud Services*
- (c) *Workstation and Personal Computers*
- (d) *Mail Protocols POP3 and SMTP.*

(4 marks each)

Answer 6(a)

Significance of System Audit

For any business (for profit or for non-profit) to survive, it must have an adequate information security system in place. IT audit is important because it gives assurance that the IT systems are adequately protected, provide reliable information to users and properly managed to achieve their intended benefits. Many users rely on IT without knowing how the computers work. A computer error could be repeated indefinitely, causing more extensive damage than a human mistake. IT audit could also help to reduce risks of data tampering, data loss or leakage, service disruption, and poor management of IT systems. Few of important reasons for which system audit is gaining significance are:

- 1. Ensuring the security of information
- 2. Standardization.

3. Improvement in business efficiency.
4. Improved system and process controls.
5. Plan for contingencies and disaster recovery.
6. Evaluating the effectiveness and efficiency related to the use of resources.
7. Reduced risk and enhanced system security
8. Prevention and detection of errors and fraud
9. Building Confidence and Public Reputation

Answer 6(b)

These services are broadly divided into three categories: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS). The name cloud computing was inspired by the cloud symbol that's often used to represent the Internet in flowcharts and diagrams.

1. *Infrastructure-as-a-Service* : It includes Amazon Web Services that provides the customer with virtual server instances and storage, as well as application program interfaces (APIs) that allow the customer to start, stop, access and configure their virtual servers and storage. This model allows a company to pay for only as much capacity as is needed, and bring more online as soon as required. Because this pay-for-what-you-use model resembles the way electricity, fuel and water are consumed, it's sometimes referred to as utility computing.
2. *Platform-as-a-service* : It is defined as a set of software development tools hosted on the provider's infrastructure. Developers create applications on the provider's platform over the Internet. PaaS providers may use APIs, website portals or gateway software installed on the customer's computer. Force.com, (an outgrowth of Salesforce.com) and GoogleApps are examples of PaaS. Developers need to know that currently, there are not standards for interoperability or data portability in the cloud. Some providers will not allow software created by their customers to be moved off the provider's platform.
3. *In the software-as-a-service* : Under this cloud model, the vendor supplies the hardware infrastructure, the software product and interacts with the user through a front-end portal. SaaS is a very broad market. Services can be anything from Web-based email to inventory control and database processing. Because the service provider hosts both the application and the data, the end user is free to use the service from anywhere.

Answer 6(c)**Workstation**

Workstations are powerful, single-user computers. They have the capacity to store and process large quantities of data, but they are only used by one person at a time. However, workstations are typically linked together to form a computer network called a local area network, which means that several people, such as staff in an office, can communicate with each other and share electronic files and data.

A workstation is similar to a personal computer but is more powerful and often comes with a higher-quality monitor. In terms of computing power, workstations lie in between personal computers and mini-computers. Workstations commonly support applications that require relatively high-quality graphics capabilities and a lot of memory, such as desktop publishing, software development and engineering applications.

Workstations are sometimes improperly named for marketing reasons. Real workstations are not usually sold in retail, but this is starting to change; Apple's Mac Pro would be considered a workstation. The movie Toy Story was made on a set of Sun (Sparc) workstations.

Personal computers

Personal computers (PCs), also called microcomputers, are the most popular type of computer in use today. The PC is a small-sized, relatively inexpensive computer designed for an individual user. Today, the world of PCs is basically divided between IBM-compatible and Macintosh-compatible machines, named after the two computer manufacturers. Computers may be called 'desktop' computers, which stay on the desk, or 'laptop' computers, which are lightweight and portable. Organizations and individuals use PCs for a wide range of tasks, including word processing, accounting, desktop publishing, preparation and delivery of presentations, organization of spreadsheets and database management. Entry-level PCs are much more powerful than a few years ago, and today there is little distinction between PCs and workstations.

Answer 6(d)

Mail Protocols POP3 and SMTP

Email requires its own set of protocols and there are a variety, both for sending and for receiving mail. The most common protocol for sending mail is Simple Mail Transfer Protocol (SMTP). When configuring email clients, an Internet address for an SMTP server must be entered. The most common protocol used by PCs for receiving mail is Post Office Protocol (POP). It is now in version 3 so it is called POP3. Email clients require an address for a POP3 server before they can read mail. The SMTP and POP3 servers may or may not be the same address.

Both SMTP and POP3 use TCP for managing the transmission and delivery of mail across the Internet.

FINANCIAL, TREASURY AND FOREX MANAGEMENT

Time allowed : 3 hours

Maximum marks : 100

NOTE : 1. Answer ALL Questions.

2. Tables showing the present value of ₹1 and the present value of an annuity of ₹1 for 15 years are annexed.
3. Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.
4. Working notes should form the part of answer.

Question 1

Comment on the following :

- (a) Financial service industry includes not only the traditional financial intermediaries but also the special purpose financial institutions.
- (b) Negative working capital is a sign that the company may be facing serious financial trouble or bankruptcy.
- (c) Armed with economic and industry forecasts, the analyst looks at the company specific information in fundamental approach of valuation.
- (d) Venture capitalist prefers to invest in 'entrepreneurial business'.

(5 marks each)

Answer 1(a)

Financial services industry encompasses a considerable range and depth of activities and includes not only the traditional financial intermediaries such as commercial banks, insurance companies, mutual funds and unit trusts, Assets Management Company etc. but also includes the special purpose financial institutions like development banks meant for specific sector i.e National Housing Bank, National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI) etc. which provide financial services such as loan, accepting deposits, transferring funds etc. The purpose of creating special purpose financial institutions is to promote growth and development of a specific sector. For example, the purpose for incorporation of National Housing Bank was to provide an impetus to the growth and development of Housing sector in India. In essence, it involves every service industry dealing in transactions of money based services and products.

Answer 1(b)

Generally, negative working capital is a sign that the company may be facing bankruptcy or a serious financial trouble. Under the best circumstances, poor working capital leads to financial pressure on a company, increased borrowing, and late payments to creditor - all of which result in a lower credit rating. A lower credit rating means banks charge a higher interest rate, which can cost a corporation a lot of money over time. Thus, a Company with negative working capital may lack the funds necessary for growth

of the company which may further lead to bankruptcy and financial trouble for the company.

In some rare circumstances, a negative working capital can also be a sign of managerial efficiency in a business with low inventory and accounts receivable (which means they operate on an almost strictly cash basis and convert cash into capital assets).

Answer 1(c)

Armed with the economic and industry forecasts, the analyst looks at the company specific information. Company information is generated internally and externally. The principle source of internal information about a company is its financial statements. Quarterly and annual reports including the income statement, the balance sheet and cash flows must be screened to assure that the statements are correct, complete, consistent, and comparable.

Many popular and widely circulated sources of information about the companies emanate from outside, or external sources. These sources provide supplements to company-generated information by overcoming some of its bias, such as public pronouncements by its officers. External information sources also provide certain kinds of information not found in the materials made available by companies themselves.

Answer 1(d)

Venture capital is a source of financing for new business. Venture capital funds pool investors' cash and loan to finance or provide seed capital to startup firms and small businesses with perceived, long-term growth potential. This is a very important source of funding for startups that do not have access to other forms of capital and it typically entails high risk (and potentially high returns) for the investor.

Venture capitalist prefers to invest in "entrepreneurial businesses". However, this does not necessarily mean small or new businesses, rather, it is more about the investment's aspirations and potential for growth, rather than by current size. Such businesses are aiming to grow rapidly to a significant size. As a rule of thumb, unless a business can offer the prospect of significant turnover growth within five years, it is unlikely to be of interest to a venture capital firm. Venture capital investors are only interested in companies with high growth prospects, which are managed by experienced and ambitious teams who are capable of turning their business plan into a reality.

Attempt all parts of either Q. No. 2 or Q. No. 2A

Question 2

Distinguish between the following :

- (a) Net Present Value and Internal Rate of Return*
- (b) Financial Structure and Capital Structure*
- (c) Systematic Risk and Unsystematic Risk*
- (d) Currency Swap and Interest Rate Swap*

(4 marks each)

OR (Alternate question to Q. No. 2)**Question 2A**

- (i) *Explain essential elements of Forex management.*
- (ii) *Explain direct and indirect benefits of Depository System.*
- (iii) *What are the main determinants of dividend policy in a corporate enterprise ?*
- (iv) *"Treasury manager is required to work in a fast changing and competitive environment." Discuss this statement in the light of tools available to him.*
(4 marks each)

Answer 2(a)**Difference between Net Present Value and Internal Rate of Return**

1. *Interest Rate* : Under the net present value method, rate of interest is assumed as the known factor whereas it is unknown in case of internal rate of return method.
2. *Reinvestment Axiom* : Under NPV method, it is assumed that cash inflows can be re-invested at the discount rate in the new projects. However, in internal rate of return, it is assumed that cash inflows are reinvested at IRR.
3. *Objective* : The net present value method is used to find out the present value of net cash outflow or project surplus whereas IRR method is used to find out the rate at which the net present value is equals to cash outflow of the project.

Answer 2(b)**Difference between Financial Structure and Capital Structure**

1. Capital structure relates to long term capital deployment for creation of long term assets. Financial structure involves creation of both long term and short term assets.
2. Capital structure is the core element of the financial structure. Capital structure can exist without the current liabilities and in such cases; Capital structure shall be equal to the financial structure. But we cannot have a situation where the firm has only current liabilities and no long term capital.
3. The financial structure of a firm is considered to be a balanced one if the amount of current liabilities is less than the capital structure net of outside debt, because in such cases, the long term capital is considered sufficient to pay current liabilities in case of sudden loss of current assets.
4. Components of the capital structure may be used to build up the level of current assets but the current liabilities should not be used to finance acquisition of fixed assets. This would result in an asset liability mismatch.

Answer 2(c)**Difference between Systematic risk and Unsystematic Risk**

<i>S. No.</i>	<i>Basis</i>	<i>Systematic Risk</i>	<i>Unsystematic Risk</i>
1.	Meaning	Systematic risk is the probability of a loss associated with the entire market of the segment.	Unsystematic risk is associated with a specific industry, segment or security.
2.	Nature	It is uncontrollable in nature, since large scale and multiple factors are involved.	Unsystematic Risks is caused due to internal factors which can be controlled or reduced on a relatively short span of time.
3.	Impact	This risk affects a large number of securities in the market due to widespread impact such as interest rate decreases by the apex bank.	This risk will impact the stock/ securities of a particular firm or sector e.g. strike caused by the workers of a cement industry.
4.	Techniques of Control	This risk can be substantially controlled through techniques like hedging and Asset allocation.	This risk can be eliminated through diversification of portfolio.
5.	Categories	This risk is divided in to three categories i.e Interest rate risk, Purchasing power risk and Market risk.	This risk is bifurcated into two broad categories namely business risk and financial risk.

Answer 2(d)**Difference between Currency Swap and Interest Rate Swap**

Currency Swap : The currency swap is an agreement between two parties to exchange (swap) payments or receipts in one currency for payment or receipts in other currency. Suppose, if two entities are trading in currency, the rationale for currency swap between them lies in the fact that one borrower has a comparative advantage in borrowing in one currency, while the other borrower has an advantage in borrowing in another currency.

Interest Rate Swap : An interest rate swap is an agreement whereby one party exchanges one set of interest rate payment for another rate over a time period. The most common arrangement is an exchange of fixed interest rate payment for another rate over a time period. The interest rates are calculated on notional values of principals.

In currency swaps, there is involvement of two currencies while in interest swap only one currency is involved.

Answer 2A(i)**Essential Elements of Forex Management****(a) Management Science**

Forex Management techniques include planning for forex, organization of forex and control of forex. Quite often, we use the terms forex and foreign exchange interchangeably. The planning part includes budgeting for forex, organization refers to utilization of forex and control part focuses on creation of forex reserves.

(b) Generation of forex

Forex is generated from international trade transactions. If the exports of a country are more than the imports, the forex would be accumulated in reserves of the country. Generation of forex is a more difficult proposition because of variation in international trade practices and extent of competition.

(c) Utilisation of forex

Forex management is concerned with use of forex in meeting the requirements of the user group. The utilisation of forex involves identification of suppliers of goods and services, negotiation of terms and conditions of the transaction and culmination of transaction with the exchange of goods and services with forex.

(d) Storage of forex

Forex management involving firm level forex storage could be done through forward purchase contracts or through deposits in foreign currency bank accounts. At the national level, forex storage is done through forex reserves which are held in the form of Gold, Special Drawing Right (SDRs) of IMF and foreign currencies. Actual cost of storage and the opportunity cost should also be kept in mind while storing forex.

Answer 2A(ii)**Benefits of Depository System**

1. *Elimination of bad deliveries* - In the depository environment, once holdings of an investor are dematerialised, the question of bad delivery does not arise i.e. they cannot be held "under objection". In the physical environment, buyer of shares were required to take the risk of transfer and face uncertainty of the quality of assets purchased.
2. *Elimination of all risks associated with physical certificates* - Dealing in physical securities have associated security risks of theft of stocks, mutilation of certificates, loss of certificates during movements through and from the registrars, thus exposing the investor to the cost of obtaining duplicate certificates and advertisements, etc. This problem does not arise in the depository environment.
3. *Immediate transfer and registration of securities* - In the depository environment, once the securities are credited to the investors account on pay out, he becomes the legal owner of the securities. There is no further need to send it to the company's registrar for registration. Having purchased securities in the physical

environment, the investor has to send it to the company's registrar so that the change of ownership can be registered.

4. *Faster disbursement of non cash corporate benefits like rights, bonus, etc.* - Depository system provides for direct credit of non cash corporate entitlements to an investors account, thereby ensuring faster disbursement and avoiding risk of loss of certificates in transit.
5. *Reduction in brokerage by many brokers for trading in dematerialised securities*- Brokers provide this benefit to investors as dealing in dematerialised securities reduces their back office cost of handling paper and also eliminates the risk of being the introducing broker.
6. *Reduction in Paper work* - Reduction in handling of huge volumes of paper and periodic status reports to investors on their holdings and transactions, leading to better controls.
7. *Elimination of problems related to change of address of investor, transmission, etc.* - In case of change of address or transmission of demat shares, investors are saved from undergoing the entire change procedure with each company or registrar. Investors have to only inform their Depository Participants with all relevant documents and the required changes are effected in the database of all the companies, where the investor is a registered holder of securities.
8. *Elimination of problems related to selling securities on behalf of a minor* - A natural guardian is not required to take court approval for selling demat securities on behalf of a minor.

Answer 2A(iii)

Determinants of Dividend Policy

1. *Legal/Regulatory aspects* : Dividend policy of a company is derived by prevailing legal/regulatory regime like Companies Act, LODR provisions etc. The purpose of legal/regulatory restriction is to ensure that the payment of dividend may not cause insolvency.
2. *Financial aspects* : There are financial constraints to Dividend Policy. A firm can pay dividend only to the extent that it has cash to disburse; a firm can't pay dividend when its earnings are in accounts receivables or firm does not have adequate liquidity.
3. *Economic aspects* : Besides, there are economic constraints also. The question arise, does the value of dividend affects the value of the firm. If the answer to it is yes then there must be some optimum level of dividend, which maximises the market price of the firm's stock.
4. *Nature of business conducted by a Company* : A company having a business of the nature which gives regular earnings may like to have a stable and consistent dividend policy. Industries manufacturing consumer/consumer durable items have a stable dividend policy.
5. *Existence of the Company* : The length of existence of the company affects

dividend policy. With their long standing experience, the company may have a better dividend policy than the new companies.

6. *Type of Company Organisation* : The type of company organisation whether a private limited company or a public limited company affects dividend decisions. In a closely held company, a view may be taken towards acquiescence of a conservative policy may be followed but for a public limited company with wide spread of shareholder, a more progressive and promising dividend policy will be the better decision.
7. *Financial Needs of the Company* : Needs of the company for additional capital affects the dividend policy. The extent to which the profits are required to be invested in the company for business growth is the main consideration in dividend decisions. Working capital position of a company is an important condition that affects the dividend policy as no company would declare a dividend to undermine its financial strength and threaten its solvency.
8. *Market Conditions* : Business cycles, boom and depression, affects dividend decisions. In a depressed market, higher dividend declaration are used to market securities for creating a better image of the company. During the boom the company may like to save more, create reserves for growth and expansion or meeting its working capital requirements.
9. *Financial Arrangement* : In case of financial arrangements being entered into or being planned like merger or amalgamation with another company, liberal policy of dividend distribution is followed to make the share stock more attractive.
10. *Change in Government Policies* : Changes in Government Policies particularly those affecting earnings of the company are also taken into consideration in settling dividend decisions. For example, higher rate of taxation will definitely affect company earnings and carry impact on dividend decisions. Besides, fiscal, industrial, labour, industrial policies do affect in different magnitude the dividend decisions of individual corporate enterprises.

Answer 2A(iv)

A treasury manager is required to work in a fast changing and competitive environment. For carrying out his activities, he has to resort to certain tools and techniques. Most of the tools originate from the finance department and as such cannot be considered to be an exclusive prerogative of the treasury department. The following are the tools which are used by the Treasury Manager:

1. *Analytic and planning tools*

In treasury function, planning and budgeting are essential to achieve targets and to keep effective control on costs. Analysis of the data and information is necessary for planning and budgeting.

2. *Zero Based Budgeting (ZBB)*

Another tool of analysing the performance is ZBB wherein each manager establishes objectives for his function and gain agreement on them with top management. Then alternate ways for achieving these targets are defined and

selected. With the help of costs and benefits analysis,. The alternative with the least cost is then selected.

3. *Financial Statement Analysis*

Financial analysis of a company is necessary to help the treasury manager to decide whether to invest in the company. Such analysis also helps the company in internal controls.

4. *Internal Treasury Control*

Internal treasury control is a process of self improvement. It is concerned with flows of funds, cash and credit and all financial aspects of operations. From time to time and on regular basis, the internal treasury control is exercised on financial targets. The financial aspects of operations include procuring of inputs, paying creditors, making arrangement for finance against inventory and receivables. The gaps between inflows and outflows are met by planned recourse to low cost mix of financing.

(Attempt all parts of either Q. No. 3 or Q. No. 3A)

Question 3

(a) *The following data relates to Ribbon Ltd. :*

	₹
Earning Before Interest and Taxes (EBIT)	30,00,000
Profit after Tax	13,50,000
Operating Fixed Costs	22,50,000
Tax Rate	40%

Required :

- Prepare the Income Statement of Ribbon Ltd.*
 - If the company wants to increase its profit after tax by 40%, how much should be the percentage rise in EBIT that is required ? (4 marks)*
- (b) *X Ltd. is considering the following two alternative financing plans :*

	(₹)	
Particulars	Plan I	Plan II
Equity shares @ ₹10 each	8,00,000	8,00,000
12% Debentures	4,00,000	—
Preference shares @ ₹100 each	—	4,00,000
Total	<u>12,00,000</u>	<u>12,00,000</u>

The Earning Before Interest and Tax (EBIT) at indifference point between the plans is ₹4,80,000. Corporate tax rate is 30%. Calculate the rate of dividend on preference shares. (4 marks)

(c) The following data pertains to ABC Ltd. :

Particulars	Amount (₹)
Equity Share Capital (1,00,000 nos.) (Market value)	38,00,000
Preference Share Capital (Book value)	8,00,000
Debentures	50,00,000

Additional Information :

- (i) Equity Share Capital includes the existing 60,000 shares having current market price of ₹ 40 per share and the balance is net proceeds from the new issue in the current year (issue price of the share is ₹ 40; floatation cost per share is ₹ 5). The projected EPS and DPS for the current year are ₹ 8 and ₹ 5 respectively.
- (ii) Dividend on preference shares is 12%.
- (iii) Cost of debentures (pre-tax) is 11%.
- (iv) Market value of preference shares is ₹ 8,50,000.
- (v) Corporate tax rate is 35% and dividend tax rate is 10%.

You are required to compute Weighted Average Cost of Capital (WACC) using market values as weights. (4 marks)

- (d) The Earning per share of a company is ₹16. The market capitalization rate applicable to the company is 12.5%. Retained earnings can be employed to yield a return of 10%. The company is considering a payout of 25%, 50% and 75%. Which of these would maximise the wealth of shareholders as per Walter's model of dividend ? (4 marks)

OR (Alternate question to Q. No. 3)

Question 3A

- (i) A bank is analysing the receivables of Rolly Ltd. in order to identify acceptable collateral for a short-term loan. The company's credit policy is 2/10 net 30. The bank lends 75% on accounts where customers are not currently overdue and where the average payment period does not exceed 10 days past the net period. A schedule of Rolly Ltd. receivables has been prepared and is given below :

Account	Amount (₹)	Days Outstanding	Average Payment Period (in days)
70	50,000	12	20
90	18,000	45	60
110	23,000	22	24

111	4,600	9	10
141	36,000	50	45
161	58,000	16	10
173	28,000	27	48
	2,17,600		

How much will the bank lend on a pledge of receivables, if the bank uses a 10% allowance for cash discount and returns ? (4 marks)

- (ii) Apple Ltd. and Banana Ltd. have been paying a dividend of ₹64 per share each year to their shareholders. Beta coefficient of these two companies is 1.25 and 1.40 respectively. If the risk free return is 6% and market return is 10%, what is the prediction about share price of these two entities ? (4 marks)

- (iii) A portfolio manager has the following five stocks in his portfolio :

Security	No. of Shares	Price/Share (₹)	Beta
A	10,000	50	1.2
B	5,000	20	2.0
C	8,000	25	0.7
D	1,000	100	1.0
E	500	200	1.3

Required :

- (a) Calculate Portfolio Beta.
- (b) If the manager wants to reduce the beta to 0.8, how much of risk free investment should he bring in ? What will be the new portfolio ? (4 marks)
- (iv) A firm purchases 4,000 units of a particular item per annum at ₹40 per unit. Ordering cost is ₹100 per order and inventory carrying cost is 12.5%. Required:
- (a) Determine optimal order quantity.
- (b) If a 3% discount is offered by the supplier for purchase in lot of 1,000 or more, should the firm accept the offer ? (4 marks)

Answer 3(a)

- (i) Earnings after Tax (EAT) = ₹13,50,000

Tax Rate = 40 %

EAT = EBT (1-tax)

EBT = EAT/(1-t) = ₹13,50,000/(1-0.40) = ₹22,50,000

Income Statement of Ribbon Ltd.

	<i>Amount in ₹</i>
Contribution	52,50,000
Less : Fixed Cost	22,50,000
EBIT (A)	30,00,000
Less : Interest (A-B)	7,50,000
EBT (B)	22,50,000
Less : Tax	9,00,000
EAT	13,50,000

Tax= ₹22,50,000 x 40%= ₹9,00,000

(ii) % Change in EBIT on % Change in EAT will be determined by Financial Leverage i.e

$$\begin{aligned} \text{Degree of Financial Leverage} &= \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{Rs. 30,00,000}}{\text{Rs. 22,50,000}} \\ &= 1.33 \end{aligned}$$

For 1.33 % increase in EAT, EBIT should increase by 1 %

For 40 % increase in EAT, EBIT should increase by $40/1.33= 30\%$ (Approx.)

Answer 3(b)

	<i>Amount in ₹</i>	
	<i>Plan I</i>	<i>Plan II</i>
EBIT	4,80,000	4,80,000
Less : Interest @ 12% on 4,00,000	48,000	-
EBT	4,32,000	4,80,000
Less : Tax @ 30%	1,29,600	1,44,000
EAT	3,02,400	3,36,000
Less : Preference Dividend	-	x
		(Assume)
Earning of Equity Shareholders	3,02,400	3,36,000-x
Number of Equity Shares	80,000	80,000

EPS of Plan I is equal
to EPS of Plan II at
Indifference Level

EPS = Earning for Equity
shareholders/No. of equity shares

$$\begin{aligned} \frac{\text{₹}3,02,400}{\text{₹}80,000} &= \frac{3,36,000 - x}{80,000} = 3.78 \\ x &= 33,600 \end{aligned}$$

$$\begin{aligned} \text{Rate of Preference Dividend} &= \\ &= 33600/4,00,000 \\ &= 8.4\% \end{aligned}$$

Alternate Solution

Indifference point is calculated as follows:

$$\begin{aligned} \frac{(\text{EBIT} - \text{Interest}_1)(1-t) - \text{Pref. Dividend}_1}{\text{Number of Equity Shares}_1} &= \frac{(\text{EBIT} - \text{Interest}_2)(1-t) - \text{Pref. Dividend}_2}{\text{Number of Equity Shares}_2} \\ \frac{(\text{Rs. } 4,80,000 - \text{Rs. } 48,000)(1-0.30) - 0}{80,000} &= \frac{(\text{Rs. } 4,80,000 - 0)(1-0.30) - \text{Pref. Dividend}_2}{80,000} \end{aligned}$$

$$\text{₹}3,02,400 = \text{₹}3,36,000 - \text{Pref. Dividend}_2$$

$$\text{Pref. Dividend}_2 = \text{₹}33,600$$

$$\text{Pref. Dividend per share} = \text{₹}33,600/4,000 = \text{₹}8.40$$

$$\text{Rate of Preference Dividend} = 8.4\%$$

Answer 3(c)

- (i) Determination of cost of specific sources

$$\begin{aligned} \text{Dividend Growth Rate; } g &= [\text{EPS} - \text{DPS}(1+t)]/P_0 \\ &= [\text{₹}8 - \text{₹}5(1+0.1)]/40 = 6.25\% \end{aligned}$$

$$\text{Cost of Equity (Existing) } K_e = (D_1/P_0) + g = \text{₹}5/40 + 0.0625 = 18.75\%$$

$$\text{Equity (new issue)} = (\text{₹}5/35) + 0.0625 = 20.54\%$$

- (ii) Cost of Preference Shares (K_p) = (Total Dividends on preference shares + Dividend tax) / Market Value of Preference Shares

$$= [96,000 + 9600]/8,50,000 = 12.42\%$$

- (iii) Cost of Debentures (K_d) = Interest (1-t) = 11 (1-0.35) = 7.15%

$$\text{Alternatively, } \frac{\text{Rs. } 5,50,000 (1-0.35)}{\text{Rs. } 50,00,000} = 0.0715 = 7.15\%$$

Calculation of Weighted Average Cost of Capital

Source of Capital	Cost	Market Value (in ₹)	Total Cost (in ₹)
Equity Capital (existing)	18.75%	24,00,000	4,50,000
Equity Capital (new)	20.54%	14,00,000	2,87,560
Preference Shares	12.42%	8,50,000	1,05,570
Debentures	7.15%	50,00,000	3,57,500
		96,50,000	12,00,630

Weighted Average Cost of Capital

$$K_0 = 12,00,630/96,50,000 = 12.44 \%$$

Answer 3(d)

Shareholder's wealth would be maximized only when the market price (value) per share of common stock of the company is maximized. Walter's Model helps in ascertaining the market price of shares under various payout ratios. The market price of each share under various payout ratio using Walter model:

$$\text{Market Price per share} = \frac{\text{DPS} + r/K_e (\text{EPS} - \text{DPS})}{K_e}$$

Where, DPS = Dividend per share, EPS = Earning per share, r = return on Investment and K_e = Capitalization rate.

D/P ratio

D/P ratio	25%	50%	75%
Market Price per share	$\frac{4 + 0.10/0.125(16 - 4)}{0.125}$	$\frac{8 + 0.10/0.125(16 - 8)}{0.125}$	$\frac{12 + 0.10/0.125(16 - 12)}{0.125}$
	= ₹108.80	= ₹115.20	= ₹121.60

Above result shows that the wealth of the shareholders would be maximized when the company adopts 75% payout ratio.

Answer 3A(i)

Analysis of the receivables of Rolly Ltd. by the bank in order to identify acceptable collateral for a short term loan:

(i) The Rolly Ltd. credit policy is 2/10 net 30.

The bank lends 75 per cent on accounts where customers are not currently overdue

and where the average payment period does not exceed 10 days past the net period i.e. thirty days. From the schedule of receivables of Rolly Ltd., this is observed that Account No. 90 and Account No. 141 are currently overdue and for Account No. 173 the average payment period exceeds 40 days so these accounts does not fulfill the credit eligibility criterion of bank and hence, the Account Nos. 90, 141 and 173 are eliminated for the purpose of calculation of credit. Therefore, the selected Accounts are Account Nos. 70, 110, 111 and 161.

Statement showing the calculation of the amount which the bank will lend on a pledge of receivables if the bank uses a 10 per cent allowances for cash discount and returns

<i>Amount (₹)</i>				
<i>Account No.</i>	<i>Amount (₹)</i>	<i>Allowances for cash discount and returns 10 % of Col. 2</i>	<i>Net Amount (Col 2-Col 3)</i>	<i>Loan amount @ 75 % of Col. 4</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
70	50,000	5,000	45,000	33,750
110	23,000	2,300	20,700	15,525
111	4,600	460	4,140	3,105
161	58,000	5,800	52,200	39,150
Total Loan Amount				91,530

Answer 3A(ii)

Applying CAPM formula, $R_a = R_f + \beta (R_m - R_f)$ where,

R_a = Expected Rate of Return

R_f = Risk free rate of Return

β = Risk Factor

R_m = Market Return

The expected returns of Apple and Banana Ltd. are as under:

	<i>Apple Ltd.</i>	<i>Banana Ltd.</i>
Applying CAPM	$R_a = 6 + 1.25 (10-6)$ = 11 %	$R_a = 6 + 1.4 (10-6)$ = 11.6 %
Prediction about share price (P)	If $K_e = D/P$ Then $P = D/K_e$ = $64/0.11$ = ₹581.82	If $K_e = D/P$ Then $P = D/K_e$ = $64/0.116$ = ₹551.72

Answer 3A(iii)**(a) Computation of Portfolio Beta**

Security	No. of Shares	Market Price of Share	Market Value (in ₹)	W_i	Beta (β)	Portfolio Beta $W_i \times \beta$
A	10,000	50	5,00,000	0.5	1.2	0.60
B	5,000	20	1,00,000	0.1	2.0	0.20
C	8,000	25	2,00,000	0.2	0.7	0.14
D	1,000	100	1,00,000	0.1	1.0	0.10
E	500	200	1,00,000	0.1	1.3	0.13
10,00,000						1.17

Portfolio Beta = 1.17*Alternatively ,*

Security	No. of Shares	Market Price of Share	Market Value (a) (in ₹)	Beta (β) (b)	Product (a) x (b)
A	10,000	50	5,00,000	1.2	6,00,000
B	5,000	20	1,00,000	2.0	2,00,000
C	8,000	25	2,00,000	0.7	1,40,000
D	1,000	100	1,00,000	1.0	1,00,000
E	500	200	1,00,000	1.3	1,30,000
10,00,000					11,70,000

$$\text{Therefore, portfolio beta} = \frac{\text{Product}}{\text{Market Value}} = \frac{11,70,000}{10,00,000} = 1.17$$

(b) Reduce beta to 0.8

Value of the Portfolio

To reduce the beta from 1.17 to 0.8, the portfolio manager may sell off a portion of the portfolio and use the proceeds to buy the risk free securities.

Let the percentage investment in existing Portfolio is W_1 and percentage investment in risk free securities is $1-W_1$

$$\text{Beta of the Portfolio} = (W_1 \times \text{Existing Portfolio } \beta) + [(1-W_1) \times \beta \text{ of } R_f]$$

$$0.8 = 1.17 W_1 + (1 - W_1) 0$$

$$W_1 = 0.8/1.17 = 0.6838$$

Conclusion : This implies that a portfolio consisting of ₹6,83,800 ($0.6838 \times 10,00,000$) invested in the 5 securities above and ₹3,16,200 in R_f investment will have a beta of 0.8.

Alternate Solution

Beta can be reduced replacing High Beta stocks in the portfolio with Risk Free investments, which carry a Beta of Zero

Security	Beta	Proportion (Amt. Invested)	Product
Risk Free Investments	0	x	0
Risky Securities	1.17	1-x	1.17-1.17x
		1	1.17-1.17x

Therefore, portfolio Beta = Product ÷ Amount Invested

$$= \frac{1.17 - 1.17x}{1} = 0.8$$

$1.17 - 1.17x = 0.8 = 31.62\%$ for Risk Free Investments and 68.38 for risky investments. Therefore, amount to be invested in Risk Free Investments is as follows –

(a) Alternative One – Overall Portfolio value is retained at ₹10,00,000

$$\text{Amount to be invested in Risk free Investments} = 31.62 \times ₹10,00,000 = ₹3,16,200$$

$$\text{Therefore, Risky Investments will constitute} = 68.38 \times ₹10,00,000 = ₹6,83,800$$

Answer 3A(iv)

(a) Optimal Order Quantity (EOQ) = $\sqrt{(2 AO/C)}$

$$A = \text{Annual Usage} = 4000 \text{ units}$$

$$O = \text{Ordering Cost per order} = ₹100$$

$$C = \text{Carrying Cost} = 40 \times 12.5\% = ₹5$$

$$\text{EOQ} = \sqrt{(2 \times 4,000 \times 100) / 5} = 400 \text{ units}$$

(b) Calculation of total cost for 400 units (Case 1) and 1000 units (Case 2)

Ordered Quantity	Purchase Price	Ordering Cost	Carrying Cost	Total Cost
400 units (Case 1)	4,000 x ₹40 = ₹ 1,60,000	(4000/400) x 100 = ₹ 1,000	(400/2) x 5 = ₹1,000	₹1,62,000
1,000 units (Case 2)	4,000 x ₹38.8 (after 3 % discount) = ₹ 1,55,200	(4000/1000) x 100 = ₹400	Carrying cost per unit = 38.8 x 0.125 = 4.85 Total carrying cost = (1000/2) x 4.85	₹1,58,025

Since the total cost in case 2 is less than case 1 (existing situation), therefore, firm should accept the offer.

Question 4

- (a) A customer with whom the bank had entered into 3 months forward purchase contract for Swiss Francs 20,000 at the rate of ₹74.25 comes to the bank after two months and requests cancellation of the contract. On this date, the rates prevailing are :

Spot ₹/SF 74.30-74.35

1 month forward ₹/SF 74.45-74.52

If the bank agrees to his request, what is the loss or gain to the customer on cancellation ?

- (b) Mr. Neel holds share of AP Ltd. These shares are currently traded at ₹50. In a year's time, it is expected that it will be either ₹40 or ₹60. Government of India bonds carry interest rate of 8% p.a. What is the value of a call option with an exercise price of ₹52 ?
- (c) An investor buys 500 shares of X Ltd. @ ₹210 per share in the cash market. In order to hedge, he sells 300 futures of X Ltd. @ ₹195 each. Next day, the share price and futures decline by 5% and 3% respectively. He closes his position next day by counter-transactions. Find out his profit or loss.
- (d) Mitsubishi Ltd. is operating in Japan and dealing with Zen Ltd. in India. The payment is due three months from the date of invoice and the invoice value is Yen 108 lakh. At today's spot rate, it is equivalent to ₹66,96,000. It is anticipated that the exchange rate will decline by 10% over the three months period, and in order to protect the Yen payments, the importer proposes to take appropriate action in the foreign exchange market. The three-month forward rate is presently quoted at 1.48 Yen per Rupee. You are required to calculate the expected loss, and to show how it can be hedged by a forward contract ? (4 marks each)

Answer 4(a)

Bank had sold forward Swiss Francs for the customer. Now, bank has to square up the trade buying 1 month forward

Therefore, the rate applicable will = ₹74.25

Outflow on account of square up = ₹74.52

Net outflow to be received from the customer = ₹0.27 per Swiss Francs

Total payment = $0.27 \times 20,000 = ₹5,400$

The cancellation has resulted in loss of ₹5,400 to the customer

Alternative Solution

On the day the customer comes to the bank for cancellation, the bank will enter into a forward contract (same maturity date as that of the original) under which bank will sell 20,000 Swiss Francs @ ₹74.52 (Amount to ₹14,90,400).

On maturity, bank will sell 20,000 Swiss Francs to customer (@ 74.52) for ₹14,90,400 (under the new contract) and purchase of 20,000 Euro from the customer @ ₹74.25 for ₹14,85,000 (under the original contract). Loss to the customer is ₹5,400. (This loss will be recovered from the customer)

Answer 4(b)

Current Price of Share (S_0) = ₹50

Future Price ₹60 (S_1) or ₹40 (S_2); Exercise Price = ₹52

If the stock performs at ₹40, it will lapse at ₹52 and value = 0

If the stock performs at ₹60 and the exercise price is ₹52, then

Call Value (C_1) = ₹60 - ₹52 = ₹8

Call Value (C_2) = 0

No. of calls to be bought = $\frac{S_1 - S_2}{C_1 - C_2} = \frac{60 - 40}{8} = 2.5$

Spot price (S_0) = Present value of lower price + Calls bought $\times C_0$

Where C_0 = Value of Call option today

$$50 = \frac{40 \times 1}{(1.08)} + 2.5 \times C_0$$

$$50 = 37.04 + 2.5 \times C_0$$

Hence, $C_0 = 5.184$

Answer 4(c)**Cash market**

Buying of 500 shares @ ₹210 per share	₹1,05,000
Selling of 500 shares @ 5 % decline = 500 (210-5%)	₹99,750
Loss in Cash market	₹5,250

Future Market

Selling of 300 shares @ ₹195 per share	₹58,500
Buying of 300 shares @ 3 % decline = 300 x (195-3%)	₹56,745
Profit in Future market	₹1,755

Net Loss = ₹5,250 - ₹1,755 = ₹3,495

Answer 4 (d)

Spot Rate = Yen 108,00,000/66,96,000 = 1.613 yen per rupee

Forward Rate= Yen 1.48 per rupee

Expected Rate over three months period = 90% of 1.613 = 1.4517 yen per rupee

Present Cost of 108,00,000 Yen = ₹66,96,000

Total amount Required at 1.4517 yen per rupee (108,00,000 Yen /1.4517) = ₹74,39,554

Forward Rate= Yen 1.48 per rupee

Total Yen Required = Yen 108,00,000

Rupee Commitment under Forward Contract = Yen 108,00,000/1.48 = ₹72,97,297

If expectations were to materialize rupee commitment = ₹74,39,554

If Forward contract is taken then rupee commitment = ₹72,97,297

Difference being excess outflow (or Loss) = ₹ 1,42,257

Thus, by taking Forward Contract, a total loss of ₹1,42,257 can be avoided.

Question 5

(a) Varun Ltd. is evaluating a project whose life will not fall below 2 years, involving production and sale of 2,60,000 units of canned pineapple tins at the selling price of ₹100 per unit. The following cash flows have been estimated :

Particulars	Amount (₹ '000s)		
	Year 0	Year 1	Year 2
Initial Investment	(28,000)		
Variable costs		(8,000)	(8,000)
Cash inflow		26,000	26,000
Net cash flow	(28,000)	18,000	18,000

The cost of capital is 10%. Required :

- (i) Can the project be accepted ?
- (ii) Measure the sensitivity of the project to change in the following variables :
 - (a) Initial Outlay
 - (b) Sales Volume
 - (c) Selling Price
 - (d) Variable Costs
 - (e) Discount Rate.
- (iii) Name the variable to which the project is most sensitive and least sensitive.
(8 marks)

(b) As an Investment manager, you are given the following information :

Investment in equity share of	Expected Return (%)	Standard Deviation (%)	Beta
A Ltd.	22%	40%	0.86
B Ltd.	24%	38%	1.24

The correlation coefficient between the returns of two stocks is 0.72. The standard deviation of the market return is 20%. Required :

- (i) Is investing in B Ltd. better than A Ltd. ?
- (ii) If you invest 70% in A Ltd. and 30% in B Ltd., what is your expected rate of return and standard deviation ?
- (iii) What is the rate of return on market portfolio and what is risk-free rate ?
- (iv) What is beta of portfolio, if weights of A Ltd. and B Ltd. are 70% and 30% respectively ?
(8 marks)

Answer 5(a)

(i)

All calculation in ₹'000s

Calculation of NPV

Year	Cash Flow	PVF @ 10%	PV
0	(28,000)	1.000	(28,000)
1	18,000	0.9091	16,364
2	18,000	0.8264	14,875
Total = 1.7355			NPV=3239

Since NPV is positive, project can be accepted

(ii) Test for Sensitivity

- a. Initial Outlay
- b. Sales Volume
- c. Selling Price
- d. Variable Costs
- e. Discount Rate

a. Initial Outlay

As the NPV is ₹3,239., If initial outlay is to increased by the amount equivalent to NPV i.e ₹3,239 then NPV will become Zero

$$\begin{aligned}\text{Sensitivity (\%)} &= (\text{Change/Base}) \times 100 \\ &= (3,239/28,000) \times 100 = 11.57\%\end{aligned}$$

b. Sales Volume

Let unit sold to get NPV = 0 is x

$$(100x - 8000) 1.7355 - 28,000 = 0$$

$$173.55x - 13,884 - 28,000 = 0$$

$$x = 241.33$$

$$\text{Sensitivity (\%)} = \frac{(260 - 241.33)}{260} \times 100 = 7.18\%$$

c. Selling Price

Let Selling Price = x

$$(260x - 8000) 1.7355 - 28,000 = 0$$

$$x = 92.82$$

$$\text{Sensitivity (\%)} = \frac{(100 - 92.82)}{100} \times 100 = 7.18\%$$

d. Variable Costs

$$\text{PV of variable Cost } (\text{₹}8,000 \times 1.7355) = \text{₹}13,884$$

It can be increased by ₹3,329 (NPV will then be zero)

$$\text{Sensitivity } (\text{₹}3,239 / \text{₹}13,884) \times 100 = 23.33\%$$

e. Discount Rate

The NPV will be zero at IRR. Hence, we need to compute IRR

NPV @ 18% & 20 %

Amount in ₹

Year	Cash Flow	PVF @ 18%	PV@ 18%	PVF @ 20%	PV@ 20%
0	(28,000)	1.000	(28,000)	1.0000	(28,000)
1	18,000	0.8474	15,253	0.8333	14,999
2	18,000	0.7182	12,928	0.6944	12,499
			NPV=181		NPV=502

$$IRR = [18 + \{181 / (181 + 502)\} \times 2] = 18.53\%$$

$$\text{Change} = 18.53 - 10 = 8.53 \%$$

$$\text{Sensitivity} = (8.53 / 10) \times 100 = 85.3 \%$$

Evaluation

- Initial Outlay 11.57%
- **Sales Volume 7.18 %**
- **Selling Price 7.18 %**
- Variable Costs 23.33%
- **Discount Rate 85.30%**

Alternative Solution to 5(a)(ii)

Considering the effect of cost of capital 10%, Sensitivity Analysis of following variables is as under:

a. Initial Outlay

Initial cost increases by 10 %

$$NPV = 18,000 \times 1.7355 - 30,800$$

$$= 439$$

$$\% \text{ change in NPV} = (3239 - 439) / 3239 = 86.45$$

b. Sales Volume

Sales Volume decrease by 10 %

$$NPV = (23,400 - 8,000) \times 1.7355 - 28,000$$

$$= (1273)$$

$$\% \text{ change in NPV} = \frac{3239 - (1273)}{100} \times 100 = 139.3\%$$

c. Selling Price

Selling Price decreases by 10 %

$$\begin{aligned}\text{NPV} &= (23,400 - 8,000) \times 1.7355 - 28,000 \\ &= (1273)\end{aligned}$$

$$\% \text{ change in NPV} = \frac{3239 - (1273)}{100} \times 100 = 139.3\%$$

d. Variable cost

Variable Cost increases by 10 %

$$\text{NPV} = 17,200 \times 1.7355 - 28,000 = 1,850$$

$$\% \text{ change in NPV} = \frac{3239 - 1850}{100} \times 100 = 42.88\%$$

e. Discount Rate

Discount rate increase by 10 %

$$\begin{aligned}\text{NPV} &= 18,000 \times 1.7125 - 28,000 \\ &= 2,825\end{aligned}$$

$$\% \text{ change in NPV} = \frac{3239 - 2825}{3239} \times 100 = 12.78\%$$

Thus, by changing the factor by 10 %, the NPV decreases by

- Initial Outlay 86.45%
- **Sales Volume 139.3 %**
- **Selling Price 139.3%**
- Variable Costs 42.88 %
- **Discount Rate 12.78%**

(iii) The project is most sensitive to sales volume and sales price, and least sensitive to discount rate.

Answer 5(b)

(i) Expected return of B Ltd. is 24% as compared to 22% of A Ltd.

Standard deviation of B Ltd. is 24% as compared to 40% of A Ltd.

In view of the above, A Ltd. has lower return and carried higher risk as compared to B Ltd. Hence, investing in B Ltd. is better than investing in A Ltd. but investing in both A Ltd. and B Ltd. will cause to yield the advantage due to diversification of portfolio.

$$\begin{aligned}
 \text{(ii) } R_{AB} &= (R_A \times W_A) + R_B \times W_B \\
 &= (0.22 \times 0.7) + (0.24 \times 0.3) = 22.6\% \\
 AB &= \sqrt{(R_A W_A)^2 + (R_B W_B)^2 + 2 R_A W_A R_B W_B} \\
 AB &= \sqrt{(0.40^2 \times 0.7^2) + (0.38^2 \times 0.3^2) + (2 \times 0.7 \times 0.3 \times 0.22 \times 0.24 \times 0.38)} \\
 &= \sqrt{(0.16 \times 0.49) + (0.1444 \times 0.09) + 0.0459648} = 0.078 + 0.0112996 \\
 &\quad + 0.0459648 \\
 &= \sqrt{0.1374} = 0.3707 \text{ or } 37.07\%
 \end{aligned}$$

(iii) The risk-free rate will be the same for A and B Ltd. Their rates of return are given as follows:

$$R_A = 22 = R_f + (R_m - R_f) 0.86 \quad \text{(Equation -1)}$$

$$R_B = 24 = R_f + (R_m - R_f) 1.24 \quad \text{(Equation -2)}$$

Subtracting Equation 2- Equation 1

$$R_B - R_A = -2 = (R_m - R_f) (-0.38), \text{ Hence } R_m - R_f = -2/-0.38 = 5.26\%$$

Substituting the value of $R_m - R_f$ in equation 1

$$R_A = 22 = R_f + (5.6) 0.86, \text{ Hence } R_f = 17.48\%$$

$$R_B = 24 = R_f + (5.26) 1.24, \text{ Hence } R_f = 17.48\%$$

$$R_m - 17.48 = 5.26 \text{ Hence, } R_m = 22.74\%$$

$$\begin{aligned}
 \text{(iv) } \beta_{AB} &= (\beta_A \times W_A) + (\beta_B \times W_B) \\
 &= (0.86 \times 0.7) + (1.24 \times 0.3) = 0.974
 \end{aligned}$$

Question 6

From the following information provided, you are required to calculate the working capital requirement for the year for the company. Present your calculation in a Tabular Form :

- | | | |
|--|---|--------------------|
| (i) Annual Sales ₹46.80 lakhs | : | 78,000 units |
| 25% Cash Sales and balance on credit | | |
| (ii) Raw Material Cost | : | 60% of sales value |
| (iii) Labour Cost | : | ₹ 6 per unit |
| (iv) Variable Overheads | : | ₹ 1 per unit |
| (v) Fixed Overheads | : | ₹ 5,00,000 |
| (including ₹1, 10,000 as depreciation) | | |
| (vi) Budgeted stock levels : | | |
| Raw Materials | : | 3 weeks |
| Work-in-progress | : | 1 week |

(Material 100%, Labour and Overheads 50%)

Finished goods : 2 weeks

- (vii) Finished goods will be valued at total cost.
 (viii) Debtors are allowed credit for 4 weeks.
 (ix) Creditors allow 4 weeks credit.
 (x) Wages are paid bimonthly i.e. by the 3rd week and by the 5th week for the 1st & 2nd weeks and the 3rd & 4th weeks respectively.
 (xi) Time lag in payment of overheads : 2 weeks
 (xii) Cash-in-hand required : ₹ 50,000
 (xiii) It is assumed that production is carried on evenly throughout the year and wages and overheads accrue similarly.
 (xiv) Calculation to be based on 52 weeks in a year. (16 marks)

Answer 6

Statement of Costs and price per units

	Amount in ₹
Selling Price : ₹ 46,80,000/78,000 units	60
Raw materials: 60% of ₹60	36
Labour Cost	6
Variable Overheads	1
Fixed Overheads excluding depreciation	
(₹ 5,00,000 - ₹1,10,000)/78,000 units	5
Total Cost excluding depreciation	48

Statement showing Working Capital Requirement

Particulars	Duration (weeks)	Total (units)	Cost per unit (₹)	Total Cost (₹)
Current Assets				
Raw Material	3	4500 ¹	36	1,62,000
Work in progress	1	1500	42 ²	63,000
Finished Goods	2	3000	48	1,44,000
Debtors	4	4500 ³	48	2,16,000
Cash in Hand				50,000
Total (A)				6,35,000

Current Liabilities

Wages Due	2	3000	6	18,000
Creditors	4	6000 ⁴	36	2,16,000
Overheads due	2	3000	6	18,000
Total (B)				2,52,000
Net Working Capital (A-B)				3,83,000

Notes:

1. Element of Cost in units/week = 78,000 units /52 weeks = 1,500 units/week
Raw Material = 1500 units x 3 week = 4500 units
2. Work in Progress: (Raw material) 100% = ₹ 36
Labour and Overhead (50%) = ₹ 6
₹ 42
3. Debtors: 78,000 units x 0.75 x 4/52 = 4500 units
4. Creditors (R.M) 78,000 units x 4/52 = 6000 units

Since, the wages are paid bimonthly, wages due will be for 2 weeks.

Note : The profits are ignored while calculating the working Capital Requirements and it is calculated on cash cost basis. However, it may be calculated on 'Total Approach' Basis subject to the mentioning of assumption as footnote.

TABLE - 1 : PRESENT VALUE OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5%	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303	0.5051	0.4810	0.4580	0.4359	0.4146
6%	0.9434	0.8900	0.8396	0.7921	0.7473	0.7050	0.6651	0.6274	0.5919	0.5584	0.5268	0.4970	0.4688	0.4423	0.4173	0.3932	0.3700	0.3476
7%	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439	0.5083	0.4751	0.4440	0.4150	0.3878	0.3624	0.3378	0.3140	0.2910
8%	0.9259	0.8573	0.7938	0.7350	0.6806	0.6302	0.5835	0.5403	0.5002	0.4632	0.4289	0.3971	0.3677	0.3405	0.3152	0.2905	0.2666	0.2435
9%	0.9174	0.8417	0.7722	0.7084	0.6499	0.5963	0.5470	0.5019	0.4604	0.4224	0.3875	0.3555	0.3262	0.2992	0.2745	0.2502	0.2264	0.2032
10%	0.9091	0.8264	0.7513	0.6830	0.6209	0.5645	0.5132	0.4665	0.4241	0.3855	0.3505	0.3186	0.2897	0.2633	0.2394	0.2160	0.1931	0.1707
11%	0.9009	0.8116	0.7312	0.6587	0.5935	0.5346	0.4817	0.4339	0.3909	0.3522	0.3173	0.2858	0.2575	0.2320	0.2090	0.1865	0.1645	0.1430
12%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066	0.4523	0.4039	0.3606	0.3220	0.2875	0.2567	0.2292	0.2046	0.1827	0.1612	0.1401	0.1194
13%	0.8850	0.7831	0.6931	0.6133	0.5428	0.4803	0.4251	0.3762	0.3329	0.2946	0.2607	0.2307	0.2042	0.1807	0.1599	0.1394	0.1192	0.1000
14%	0.8772	0.7695	0.6750	0.5921	0.5194	0.4556	0.3996	0.3506	0.3075	0.2697	0.2366	0.2076	0.1821	0.1597	0.1401	0.1206	0.1013	0.0825
15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472	0.2149	0.1869	0.1625	0.1413	0.1229	0.1044	0.0863	0.0686
16%	0.8621	0.7432	0.6407	0.5523	0.4761	0.4104	0.3538	0.3050	0.2630	0.2267	0.1954	0.1685	0.1452	0.1252	0.1079	0.0902	0.0730	0.0562
17%	0.8547	0.7305	0.6244	0.5337	0.4561	0.3898	0.3332	0.2848	0.2434	0.2080	0.1778	0.1520	0.1299	0.1110	0.0949	0.0784	0.0624	0.0468
18%	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704	0.3139	0.2660	0.2255	0.1911	0.1619	0.1372	0.1163	0.0985	0.0835	0.0679	0.0527	0.0379
19%	0.8403	0.7062	0.5934	0.4987	0.4190	0.3521	0.2959	0.2487	0.2090	0.1756	0.1476	0.1240	0.1042	0.0876	0.0736	0.0589	0.0445	0.0304
20%	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349	0.2791	0.2326	0.1938	0.1615	0.1346	0.1122	0.0935	0.0779	0.0649	0.0519	0.0392	0.0268
21%	0.8264	0.6830	0.5645	0.4665	0.3955	0.3186	0.2633	0.2176	0.1799	0.1486	0.1228	0.1015	0.0839	0.0693	0.0573	0.0452	0.0334	0.0220
22%	0.8197	0.6719	0.5507	0.4514	0.3700	0.3033	0.2486	0.2038	0.1670	0.1369	0.1122	0.0920	0.0754	0.0618	0.0507	0.0395	0.0285	0.0179
23%	0.8130	0.6610	0.5374	0.4369	0.3552	0.2886	0.2348	0.1909	0.1552	0.1262	0.1026	0.0834	0.0678	0.0551	0.0448	0.0345	0.0242	0.0144
24%	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751	0.2218	0.1789	0.1443	0.1164	0.0938	0.0757	0.0610	0.0492	0.0397	0.0302	0.0207	0.0116
25%	0.8000	0.6400	0.5120	0.4096	0.3277	0.2621	0.2097	0.1678	0.1342	0.1074	0.0859	0.0687	0.0550	0.0440	0.0352	0.0264	0.0176	0.0092

TABLE - 2 : PRESENT VALUE OF AN ANNUITY OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8966	10.3797	10.8448	11.2928	11.7258
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2086	6.8017	7.3601	7.8889	8.3838	8.8527	9.2950	9.7122	10.1052	10.4750	10.8228
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5182	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079	9.4468	9.7634	10.0588
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2064	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595	8.8498	9.1164	9.3616
9%	0.9174	1.7591	2.5313	3.2397	3.8897	4.4859	5.0330	5.5348	5.9952	6.4177	6.8052	7.1607	7.4869	7.7862	8.0607	8.3108	8.5380	8.7434
10%	0.9091	1.7355	2.4869	3.1699	3.7908	4.3553	4.8684	5.3349	5.7590	6.1446	6.4951	6.8137	7.1034	7.3667	7.6061	7.8248	8.0240	8.2058
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2065	6.4924	6.7499	6.9819	7.1909	7.3798	7.5508	7.7059
12%	0.8929	1.6901	2.4018	3.0373	3.6048	4.1114	4.5638	4.9676	5.3282	5.6502	5.9377	6.1944	6.4235	6.6282	6.8109	6.9748	7.1214	7.2528
13%	0.8850	1.6681	2.3612	2.9745	3.5172	3.9975	4.4226	4.7988	5.1317	5.4262	5.6889	5.9176	6.1218	6.3025	6.4624	6.6048	6.7318	6.8458
14%	0.8772	1.6467	2.3216	2.9137	3.4331	3.8887	4.2883	4.6389	4.9464	5.2161	5.4527	5.6603	5.8424	6.0021	6.1422	6.2668	6.3770	6.4744
15%	0.8696	1.6257	2.2832	2.8550	3.3522	3.7845	4.1604	4.4873	4.7716	5.0188	5.2337	5.4206	5.5891	5.7245	5.8474	5.9598	6.0628	6.1574
16%	0.8621	1.6052	2.2459	2.7982	3.2743	3.6947	4.0386	4.3436	4.6065	4.8332	5.0286	5.1971	5.3423	5.4675	5.5755	5.6688	5.7488	5.8164
17%	0.8547	1.5852	2.2086	2.7432	3.1993	3.5892	3.9224	4.2072	4.4506	4.6586	4.8364	4.9884	5.1183	5.2293	5.3242	5.4058	5.4750	5.5330
18%	0.8475	1.5656	2.1743	2.6901	3.1272	3.4976	3.8115	4.0776	4.3030	4.4941	4.6560	4.7932	4.9095	5.0081	5.0916	5.1622	5.2214	5.2704
19%	0.8403	1.5465	2.1399	2.6386	3.0576	3.4098	3.7057	3.9544	4.1633	4.3389	4.4865	4.6105	4.7147	4.8023	4.8759	4.9378	4.9888	5.0298
20%	0.8333	1.5278	2.1065	2.5887	2.9906	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4382	4.5327	4.6106	4.6755	4.7298	4.7744	4.8104
21%	0.8264	1.5095	2.0739	2.5404	2.9260	3.2446	3.5079	3.7256	3.9054	4.0541	4.1769	4.2784	4.3624	4.4317	4.4890	4.5362	4.5744	4.6044
22%	0.8197	1.4915	2.0422	2.4936	2.8636	3.1669	3.4155	3.6183	3.7863	3.9232	4.0354	4.1274	4.2028	4.2646	4.3152	4.3564	4.3890	4.4144
23%	0.8130	1.4740	2.0114	2.4483	2.8035	3.0923	3.3270	3.5179	3.6731	3.7993	3.9018	3.9852	4.0530	4.1082	4.1530	4.1894	4.2180	4.2394
24%	0.8065	1.4568	1.9813	2.4043	2.7454	3.0205	3.2423	3.4212	3.5655	3.6819	3.7757	3.8514	3.9124	3.9616	4.0013	4.0330	4.0584	4.0774
25%	0.8000	1.4400	1.9520	2.3616	2.6883	2.9514	3.1611	3.3289	3.4631	3.5705	3.6584	3.7251	3.7801	3.8241	3.8593	3.8868	3.9074	3.9214

ETHICS, GOVERNANCE AND SUSTAINABILITY

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

PART A

Question 1

- (a) While Microsoft's permanent workers enjoy some of the best corporate treatment, a large of Microsoft's labour pool exists outside this privileged class. This includes the use of perma temp employees (employees employed for years as "temporary" and therefore, without medical benefits), use of forced retention tactics, where departing employees would be sued to prevent departure, as well as more traditional cost saving measures, ranging from cutting medical benefits, to not providing towels in company locker rooms.

Historically, Microsoft has also been accused of overworking from employees, in many cases, leading to burnout within just a few years of joining the company. The company is often referred to as a "Velvet Sweatshop", a term which originated in a 1989 Seattle Times article and later became used to describe the company by some of Microsoft's own employees. This characterization is derived from the perception that Microsoft provides nearly everything for its employees in a convenient place, but in turn takes overworks from them to a point where it would be bad for their (possibly long-term) health. For example, the kitchenettes have free beverages and many buildings include exercise rooms and showers. However, the company has been accused of attempting to keep employees at the company for unreasonably long hours and working them too much.

A US state lawsuit was brought against Microsoft in 1992 representing 8,558 current and former employees that had been classified as "temporary" and "freelance", and became known as Vizcaino v. Microsoft. The Final Settlement came in 2005. The case was decided that such "permatemps" had their jobs defined by Microsoft, worked alongside regular employees doing the same work, and worked for long terms. After a series of court setbacks including three reversals on appeal, Microsoft settled the suit for US \$93 million.

Taking the above facts into consideration, answer the following questions :

- (i) Analyse the responsibility of Microsoft as a moral obligation arising out of business ethics and why was it an unethical business practice ? (5 marks)
 - (ii) "Business ethics and corporate governance of an organization go hand in hand". Elaborate. (5 marks)
- (b) Write short notes on the following :
- (i) How corporate governance is analyzed by Cadbury Committee, U.K. ?

- (ii) *Enumerate the matters not to be dealt with in a Meeting through Video-Conferencing or other Audio Visual means.*
- (iii) *Stakeholder's analysis is a key part of Stakeholder Management. Discuss.*
- (iv) *Discuss the provision related to disclosure of Related Party Transactions (RPTs) in annual report according to Listing Regulations, 2015.*
- (v) *Discuss the provisions of Vigil mechanism under SEBI Listing Obligations and Disclosure Requirements, Regulations, 2015. (2 marks each)*
- (c) *"The Independence of independent directors is one of most debated aspects in Corporate Governance". In the light of this statement, state the criteria for performance evaluation of independent directors as stipulated in the Companies Act, 2013 and listing regulations. (5 marks)*

Answer 1(a)(i)

The act of Microsoft of recruiting perma temp employees was unethical. Human resource management plays a decisive role in introducing and implementing ethical practices in an organisation. Ethics should be a pivotal issue for human resource specialists. The organisations should practice ethical behavior in various ethical issues that arise around the employer - employee relationship, such as the rights and duties issues between the employer and employee. In this case Microsoft failed to fulfill its moral obligation and it exploited the employees. Following are some examples of exploitation.

- *Low Salaries* : Microsoft extracted as much work from temporary employees by giving low salaries and derived the service benefits enjoyed by the permanent employees.
- Employees were compelled to work for long working hours in violation of basic rights.
- The service contract signed by the employees did not allow them to represent their grievances either to the government authorities or to the judiciary.
- *No job security* : The employees were in service for many years as a temporary workers which was against many labour legislations. They were deprived of insurance and other services benefits because of their temporary job position.
- *Discrimination* : Discrimination among the employees doing the same nature of job is also highly unethical.

Answer 1(a)(ii)

Business ethics and corporate governance of an organization go hand in hand. The organization that follows ethical practices in all its activities will, in all probability, follow best corporate governance practices as well.

Corporate governance is meant to run companies ethically in a manner such that all stakeholders including creditors, distributors, customers, employees, the society at large, governments and even competitors are dealt with in a fair manner. Good corporate governance should look at all stakeholders and not just the shareholders alone. Corporate

governance is not something which regulators have to impose on a management, it should come from within.

A business organization has to compete for a share in the global market on its own internal strength, in particular on the strength of its human resource, and on the goodwill of its other stakeholders. While its state-of-the-art technologies and high level managerial competencies could be of help in meeting the quality, cost, volume, speed and breakeven requirements of the highly competitive global market, it is the value-based management and ethics that the organization has to use in its governance. This would enable the organization to establish productive relationship with its internal customers and lasting business relationship with its external customers.

Answer 1(b)(i)

Cadbury Committee defined Corporate Governance as the system by which companies are directed and controlled. Corporate Governance is a system of structuring, operating and controlling a company with the following specific aims –

- Fulfilling long-term strategic goals of owners;
- Taking care of the interests of employees;
- A consideration for the environment and local community;
- Maintaining excellent relations with customers and suppliers;
- Proper compliance with all the applicable legal and regulatory requirements.

Answer 1(b)(ii)

Sec 173 (2) of the Companies Act, 2013 read with Rule 4 of the Companies (Meetings of Board and its Powers) Rules, 2014 prescribes restriction on following matters which shall not be dealt with in any meeting held through video conferencing or other audio visual means:

- the approval of the annual financial statements;
- the approval of the Board's report;
- the approval of the prospectus;
- the Audit Committee Meetings for consideration of financial statements including consolidated financial statements to be approved by the Board.
- the approval of the matter relating to amalgamation, merger, demerger, acquisition and takeover.

Answer 1(b)(iii)

Stakeholder analysis is a key part of stakeholder management. A stakeholder analysis of an issue consists of weighing and balancing all of the competing demands on a firm by each of those who have a claim on it, in order to arrive at the firm's obligation in a particular case. A stakeholder analysis does not preclude the interests of the stakeholders overriding the interests of the other stakeholders affected, but it ensures that all affected will be considered. Doing a stakeholder analysis can:

- draw out the interests of stakeholders in relation to the problems which the

project is seeking to address (at the identification stage) or the purpose of the project (once it has started)

- identify conflicts of interests between stakeholders
- help to identify relations between stakeholders which can be built upon, and may enable in creating synergies
- help to assess the appropriate type of participation by different stakeholders.

Answer 1(b)(iv)

Regulation 34 and Schedule V of SEBI (LODR) Regulations, 2015 provides that annual report shall make disclosures in compliance with the Accounting Standard on "Related Party Disclosures". It is also provided under other disclosures in Corporate Governance Report, that the Listed Entity shall disclose the policy on dealing with Related Party Transactions on its website and a web link thereto shall be provided in the Annual Report.

Regulation 27(2)(a) of SEBI (LODR) Regulations, 2015 provides that details of all material transactions with related parties shall be disclosed quarterly along with the compliance report on corporate governance.

Answer 1(b)(v)

Provisions of Vigil mechanism under Regulation 22, 46 and Schedule V of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015

- The listed entity shall formulate a vigil mechanism for directors and employees to report genuine concerns.
- The vigil mechanism shall provide for adequate safeguards against victimization of director(s) or employee(s) or any other person who avail the mechanism and also provide for direct access to the chairperson of the audit committee in appropriate or exceptional cases.
- The listed entity shall disseminate the details of establishment of vigil mechanism/ Whistle Blower policy.
- The disclosure regarding the details of establishment of vigil mechanism, whistle blower policy, and affirmation that no personnel has been denied access to the audit committee shall be made in the section on the corporate governance of the annual report.

Answer 1(c)

Performance evaluation of independent directors under Section 178 (2) read with Schedule IV of the Companies Act 2013

- The Nomination and Remuneration Committee shall identify persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down, recommend to the Board their appointment and removal and shall specify the manner for effective evaluation of performance of Board, its committees and individual directors to be carried out either by the Board, by the Nomination and Remuneration Committee or by an independent external agency and review its implementation and compliance.

- The performance of the independent directors would have to be done by the entire Board excluding the director to be evaluated.
- On the basis of the report of performance evaluation, the continuance or extension of the term of appointment of the independent director would be determined.

SEBI (LODR) Regulations, 2015 provide following for the performance evaluation of independent directors

- The Nomination Committee shall lay down the evaluation criteria for performance evaluation of independent directors.
- The listed entities shall disclose the criteria for performance evaluation, as laid down by the Nomination Committee, in its Annual Report.
- The performance evaluation of independent directors shall be done by the entire Board of Directors (excluding the director being evaluated).
- On the basis of the report of performance evaluation, it shall be determined whether to extend or continue the term of appointment of the independent director.

Attempt all parts of either Q. No. 2 or Q. No. 2A

Question 2

- As a Company Secretary of Rockfort Ltd., prepare a Board note listing out the items that should be included in the Board Charter.*
- “Good corporate governance practices cannot guarantee corporate success, but the absence of such governance definitely lead to questionable practices and corporate failures, which surface suddenly and massively”. Discuss this statement and highlight the need for business ethics.*
- “Better stakeholders engagement ensures good governance”. Analyse this statement in the context of employees as stakeholders. (5 marks each)*

OR (Alternate question to Q. No. 2)

Question 2A

- Due to mismanagement, a significant number of members of XYZ Company Ltd. have filed a Class Action Suit against the company. Explain the concept and state the emerged claims and powers of acting members in this context.*
- “A good practice is to designate an independent director as a Lead Independent Director”. Elucidate the role of Lead Independent Director according to Companies Act, 2013.*
- “Employees participation in Corporate Governance system can be found in many countries and corporations throughout the world”. In the light of this statement, discuss some of the important examples for ensuring good governance by employees. (5 marks each)*

Answer 2(a)

To,

The Board of Directors

Rockfort Limited

Note on Board Charter

As a good practice companies should have a Board Charter which is intended as a tool to assist directors in fulfilling their responsibilities as Board members. It sets out the respective roles, responsibilities and authorities of the Board and of Management in the governance, management and control of the organization.

Items that should be included in the Board Charter are:

- The Role of the Board.
- The Principal functions and responsibilities of the Board relating to Strategies, Corporate Governance, Financial Management and Relationship with Senior Management.
- The Role of the Chairman, the CEO and the Company Secretary.
- Director's Code of Conduct.
- Conflicts of Interests.
- Related Party Transactions.
- Board Members Qualifications and Skills.
- Board Meetings.
- Delegation of Authority by the Board.
- Role & power of Committees.
- Protocol for media contact and comment.
- Hospitality and Gifts.
- Board Evaluation.
- Director's liability insurance.
- Director Induction.
- Non-Executive Director Remuneration and Reimbursement of expenses.

This is for your information please.

Signed

Company Secretary

Answer 2(b)

Good corporate governance practices cannot guarantee corporate success, but the absence of such governance definitely lead to questionable practices and corporate failures, which surface suddenly and exert a massive impact. Good corporate governance goes beyond rules and regulations that the Government can put in place. It is about the ethics and the values which drive companies in the conduct of their business. Ethics is also the first line of defense against corruption, while law enforcement is remedial and reactive. It is, therefore, all about the trust that is established over time between the companies and their different stakeholders through their ethical business conduct. The need for business ethics may be highlighted in following points –

- Ethical conduct is in the long-term interests of businessmen. A business enterprise that is honest and fair to its customers, employees, and other stakeholders earns their trust and goodwill. It ultimately results in customer satisfaction, healthy competition, industrial growth and high earnings.
- Businesses must balance their desire to maximize profits against the requirements of stakeholders. To address this unique aspect of business, rules are articulated to guide it to earn profits without harming individuals or society as a whole. While referring to business activity profile, Mahatma Gandhi once mentioned that all business entrepreneurs should ask themselves the question whether the activities they are contemplating would be of some use to the common man.
- Ethical business behaviour is not only about good business but about good citizenship as well. Morally conscious businessmen have created names and built great business empires. They serve customers with good quality products at fair prices, treat their employees with great respect, reward their shareholders with good returns and pay their taxes honestly.
- A business organisation that adheres to a code of conduct gains a competitive advantage and builds long term value. On the other hand, unethical practices lead to the ultimate downfall of big organisations too.
- Business can prosper only when a society is stable and peaceful. Unethical practices at times create distrust, disorder and turmoil in society.

Answer 2(c)

Stakeholder engagement is an alliance-building tool. Corporations practice stakeholder engagement in an effort to understand the needs of their stakeholders, create partnerships and to promote dialogue. Stakeholder engagement identifies stakeholders, assesses stakeholder needs, develops stakeholder relations plans and forms alliances with stakeholders.

Better stakeholders' engagement ensures good governance. Stakeholder engagement provides opportunities to further align business practices with societal needs and expectations, helping to drive long-term sustainability and shareholder value. Following are the some important examples of ensuring good governance by employee engagement:

- *Right to consultation* : The employees must be consulted on certain management

decisions. This right increases transparency of management decisions and allows employee opinion to ameliorate the asymmetry of information between management and the market.

- *Right to nominate/vote for supervisory board members*: In many cases employee participation on the board is mandated. This right creates a check and balance system between management and the supervisory board, which in turn creates the perception of greater fairness.
- *Compensation/privatization programs*: These programs make employees holders of shares, thereby empowering employees to elect the board members, which, in turn holds management responsible.
- *Participation in the capital*: Employees may be made partner in the capital contribution. They may be given the shares under the ESOP scheme. This will lead to the improved employee commitment from employees and shareholders.
- *Profit sharing*: The profit-sharing plans should be broad-based for all or most of the employees rather than for executives only. This would encourage employee involvement, improve motivation, improve distribution of wealth and wage flexibility can improve firm performance.
- *Whistle Blower Policy*: A whistle blower is the one who exposes wrongdoing, fraud, corruption or mismanagement in an organization. A whistle blower is a person who publicly complains / discloses the concealed misconduct on the part of an organization or body of people, usually from within that same organisation. Whistle blower may be an employee, former employee, vendor, customer or other stakeholder. Whistle blowers are important stakeholders as they can work as a tool for authorities to get information of deviant behaviour or practices in organizations.

Answer 2A(i)

A class action is a legal proceeding in which shareholders bring suit as a group against the company or its directors or officers and the judgment or settlement received from the suit covers all the shareholders equally. In brief, a class action is a form of lawsuit in which a large group of people collectively bring a claim to court and/or in which a group of defendants is being sued. The biggest advantage of class suits is the economics of aggregation. These lawsuits will also prevent multiplicity of litigations thus, saving the valuable time of the courts and also the valuable time, money and energy of shareholders. The incorporation of the provision of Class Action Suit under the Companies Act, 2013 will certainly usher a new era where investor's interest shall be protected. A class action suit will also be a big relief to small investors, especially for small claims that would be expensive to litigate.

Section 245 of the Companies Act, 2013 gives additional rights to minority shareholders in case of oppression and mismanagement. For companies with a share capital, 100 members or 10% shareholders whichever is less or member(s) holding at least 10% shareholding in the company and for a company without share capital, 1/5th total members can collectively approach the NCLT if they find that the company's affairs are not being managed in its best interests for redressing the situation.

The members of XY Ltd. may exercise their rights if they are of the opinion that the management or conducts of the affairs of the company are being conducted in a manner prejudicial to the interests of the company to prevent:

- (a) the company from committing an act which is ultra vires the articles or memorandum of the company;
- (b) to restrain the company from committing breach of any provision of the company's memorandum or articles;
- (c) to declare a resolution altering the memorandum or articles of the company as void if the resolution was passed by suppression of material facts or obtained by mis-statement to the members or depositors;
- (d) to restrain the company and its directors from acting on such resolution;
- (e) to restrain the company from doing an act which is contrary to the provisions of this Act or any other law for the time being in force;
- (f) to restrain the company from taking action contrary to any resolution passed by the members.
- (g) to claim damages or compensation or demand any other suitable action from or against the
 - company or its directors for any fraudulent, unlawful or wrongful act or omission or conduct or any likely act or omission or conduct on its or their part;
 - the auditor including audit firm of the company for any improper or misleading statement of particulars made in his audit report or for any fraudulent, unlawful or wrongful act or conduct; or
 - any expert or advisor or consultant or any other person for any incorrect or misleading statement made to the company or for any fraudulent, unlawful or wrongful act or conduct or any likely act or conduct on his part;
- (h) to seek any other remedy as the Tribunal may deem fit.

Further they can claim damages or compensation for any misstatement, fraudulent, unlawful or wrongful act from

- the company or its directors
- Auditors and audit company (example: misleading statement in audit report)
- Advisors, Consultants, Experts

Answer 2A(ii)

Internationally, it is considered a good practice to designate an independent director as a lead independent director or senior independent director. The 'OECD Principles of Corporate Governance' advocates such a post with the lead independent director having the authority to chair or call a meeting of all independent directors separately. The UK Corporate Governance Code requires appointment of a lead independent director who

should answer shareholders' queries that are not answered satisfactorily by the Board Chairman or the Management. A lead independent director can also be very important figure in the Board that has two sets of controlling shareholders that are in conflict with each other due to any issue.

Hence, as per global best practices, some of the roles and responsibilities of a lead independent director are:

- to act as an independent chief among all Board members who take proactive role in Board decisions;
- to convene and chair separate meeting of independent directors, whenever necessary;
- to answer shareholders queries that are not satisfactorily answered by the Chairman and Management
- to develop the agenda for and preside at executive sessions of the Board's independent directors;
- Advise the Chairman of the Board as to an appropriate schedule for Board meetings, seeking to ensure that the independent directors can perform their duties responsibly while not interfering with the flow of Company operations;
- Approve with the Chairman of the Board the agenda for Board and Board Committee meetings and the need for special meetings of the Board;
- Advise the Chairman of the Board as to the quality, quantity and timeliness of the information submitted by the Company's management that is necessary or appropriate for the independent directors to effectively and responsibly perform their duties;
- Recommend to the Board the retention of advisors and consultants who report directly to the Board;
- Interviews, along with the chair of the Nominating and Corporate Governance Committee, all Board candidates, and make recommendations to the Nominating and Corporate Governance Committee;
- Assists the Board and Company officers in ensuring better compliance with and implementation of the Governance Guidelines;
- Serves as Chairman of the Board when the Chairman is not present; and
- Serves as a liaison for consultation and communication with shareholders.

Answer 2A(iii)

Employees are one of the important stakeholders. Employees' participation in Corporate Governance can be found in many countries and corporations throughout the world. Better employees' engagement ensures good governance. Following are the some important examples of ensuring good governance by employee engagement:

- *Right to consultation*: The employees must be consulted on certain management decisions. This right increases transparency of management decisions and allows employee opinion to ameliorate the asymmetry of information between management and the market.

- *Right to nominate/vote for supervisory board members* : In many cases employee participation on the board is mandated. This right creates a check and balance system between management and the supervisory board, which in turn creates the perception of greater fairness.
- *Compensation/privatization programs* : These programs make employees holders of shares, thereby empowering employees to elect the board members, which, in turn holds management responsible.
- *Participation in the capital* : Employees may be made partner in the capital contribution. They may be given the shares under the ESOP scheme. This will lead to the improved employee commitment from employees and shareholders.
- *Profit sharing* : The profit-sharing plans should be broad-based for all or most of the employees rather than for executives only. This would encourage employee involvement, improve motivation, improve distribution of wealth and wage flexibility can improve firm performance.
- *Whistle Blower Policy* : A whistle blower is the one who exposes wrongdoing, fraud, corruption or mismanagement in an organization. A whistle blower is a person who publicly complains / discloses the concealed misconduct on the part of an organization or body of people, usually from within that same organisation. Whistle blower may be an employee, former employee, vendor, customer or other stakeholder. Whistle blowers are important stakeholders as they can work as a tool for authorities to get information of deviant behaviour or practices in organizations.

Question 3

- (a) *“UK Stewardship Code, 2012 aims at enhancing the quality of engagement between institutional investors and companies to help improve long-term returns to shareholders and the efficient exercise of governance responsibilities”. In the light of this statement, state briefly the principles of UK Stewardship Code.*
- (b) *“All listed companies having a market capitalization of ₹1,000 crore or more, should mandatorily form an Investor Relation Cell to strengthen Corporate Governance Framework”. Explain the contribution of Sarbanes-Oxley Act in this context.*
- (c) *Discuss the Clarkson Principles of Stakeholders Management. (5 marks each)*

Answer 3(a)

The UK Stewardship Code, 2012 is a part of UK company law concerning principles that institutional investors are expected to follow. The Stewardship Code aims to enhance the quality of engagement between institutional investors and companies to help improve long-term returns to shareholders and the efficient exercise of governance responsibilities. Engagement includes pursuing purposeful dialogue on strategy, performance and the management of risk, as well as on issues that are the immediate subject of votes at general meetings. The Code is addressed in the first instance to firms who manage assets on behalf of institutional shareholders such as pension funds, insurance companies, investment trusts and other collective investment vehicles. Stewardship

aims to promote the long term success of companies in such a way that the ultimate providers of capital also prosper.

The Principles of the Code are –

- i. Institutional investors should publicly disclose their policy on how they will discharge their stewardship responsibilities.
- ii. Institutional investors should have a robust policy on managing conflicts of interest in relation to stewardship which should be publicly disclosed.
- iii. Institutional investors should monitor their investee companies.
- iv. Institutional investors should establish clear guidelines on when and how they will escalate their stewardship activities.
- v. Institutional investors should be willing to act collectively with other investors where appropriate.
- vi. Institutional investors should have a clear policy on voting and disclosure of voting activity.
- vii. Institutional investors should report periodically on their stewardship and voting activities.

Answer 3(b)

ICSI Recommendations to strengthen Corporate Governance Framework has recommended that constitution of Investor Relations Cell should be made mandatory for Listed Companies. The Investor Relations Meet after declaration of financial results should be compulsorily webcast in case of companies having a market capitalization of Rs.1000 Crore or more.

The Sarbanes-Oxley Act of 2002 had significantly increased the importance of investor relations in the financial markets.

- The act had established new requirements for corporate compliance and regulatory governance, with an increased emphasis on accuracy in auditing and public disclosure.
- Notable provisions of the act which apply to investor relations include enhanced financial disclosures and accuracy of financial reports, real-time disclosures, off-balance-sheet transaction disclosures, pro-forma financial disclosures, management assessment of internal controls, and corporate responsibility for financial reports.
- More specifically, Sarbanes-Oxley sections 301, 302, 404, and 802 have been of particular interest to companies improving corporate compliance.

Answer 3(c)

Max Clarkson founded the Centre for Corporate Social Performance and Ethics. Four conferences were hosted by the Centre between 1993 and 1998 which brought together management scholars to share ideas on stakeholder theory. After an introduction

to the stakeholder concept with comments on share owners and the legal and moral duty of managers, following seven principles of Stakeholder Management were framed -

- *Principle 1:* Managers should acknowledge and actively monitor the concerns of all legitimate stakeholders, and should take their interests appropriately into account in decision-making and operations.
- *Principle 2:* Managers should listen to and openly communicate with stakeholders about their respective concerns and contributions, and about the risks that they assume because of their involvement with the corporation.
- *Principle 3:* Managers should adopt processes and modes of behavior that are sensitive to the concerns and capabilities of each stakeholder constituency.
- *Principle 4 :* Managers should recognize the interdependence of efforts and rewards among stakeholders, and should attempt to achieve a fair distribution of the benefits and burdens of corporate activity among them, taking into account their respective risks and vulnerabilities.
- *Principle 5 :* Managers should work cooperatively with other entities, both public and private, to insure that risks and harms arising from corporate activities are minimized and, where they cannot be avoided, appropriately compensated.
- *Principle 6 :* Managers should avoid altogether activities that might jeopardize inalienable human rights (e.g., the right to life) or give rise to risks which, if clearly understood, would be deliberately unacceptable to relevant stakeholders.
- *Principle 7 :* Managers should acknowledge the potential conflicts between (a) their own role as corporate stakeholders, and (b) their legal and moral responsibilities for the interests of stakeholders, and should address such conflicts through open communication, appropriate reporting and incentive systems, and, where necessary, third party review.

The Clarkson Principles of stakeholder management are “meta-principles” that encourage management to embrace specific stakeholder principles and then to implement them in accordance with the norms listed above.

Question 4

- (a) *Your Company is planning to adopt a code of corporate governance based on international best practices. In this connection, Chairman wants to know about the corporate governance framework in South Africa. As a company secretary, prepare a note on Corporate Governance framework in South Africa.*
- (b) *As a strategy CalPERS invests in sick and ailing companies where it employs good governance practices to improvise company's overall performance. CalPERS issued Global principles of accountable Corporate Governance. Give a brief account of any ten core principles of accountable corporate Governance.*
- (c) *You are appointed as wholtime company secretary of a company having a paid-up capital of ₹5 crore. Being the secretary of such a company state the functions of a company secretary as prescribed by the Companies Act, 2013.*
(5 marks each)

Answer 4(a)

To,

The Chairman

----- Limited

Note on Corporate Governance framework in South Africa

The King Committee, a private-sector body comprising of former South African Supreme Court Judge, Mervyn King was formed in 1992, to draft corporate governance guidelines. Four reports have been issued by the King Committee since then –

- (King I), 1994
- (King II), 2002
- (King III), 2009 and
- (King IV) 2016.

King IV requires an “Apply AND Explain” approach to disclosure. This means that application of the principles is assumed and that an explanation is disclosed on the practices that have been implemented and how these support achieving the associated governance principle.

Whilst King IV is voluntary (unless prescribed by law or a stock exchange Listings Requirement) it is envisaged that it will be applicable to all organisations irrespective of their form or manner of incorporation.

Principles of Corporate Governance as provided by King IV Code of Corporate Governance are -

1. The governing body should lead ethically and effectively.
2. The governing body should govern the ethics of the organisation in a way that supports the establishment of an ethical culture.
3. The governing body should ensure that the organisation is and is seen to be a responsible corporate citizen.
4. The governing body should appreciate that the organisation's purpose, its risks and opportunities, strategy, business model, performance and sustainable development are all inseparable elements of the value creation process.
5. The governing body should ensure that reports issued by the organisation enable stakeholders to make informed assessments of the organisation's performance, and its short, medium and long-term prospects.
6. The governing body should serve as the focal point and custodian of corporate governance in the organisation.
7. The governing body should comprise the appropriate balance of knowledge, skills, experience, diversity and independence for it to discharge its governance role and responsibilities objectively and effectively.

8. The governing body should ensure that its arrangements for delegation within its own structures promote independent judgement, and assist with balance of power and the effective discharge of its duties.
9. The governing body should ensure that the evaluation of its own performance and that of its committees, its chair and its individual members, support continued improvement in its performance and effectiveness.
10. The governing body should ensure that the appointment of, and delegation to, management contribute to role clarity and the effective exercise of authority and responsibilities.
11. The governing body should govern risk in a way that supports the organisation in setting and achieving its strategic objectives.
12. The governing body should govern technology and information in a way that supports the organisation setting and achieving its strategic objectives.
13. The governing body should govern compliance with applicable laws and adopted, non-binding rules, codes and standards in a way that supports the organisation being ethical and a good corporate citizen.
14. The governing body should ensure that the organisation remunerates fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long term.
15. The governing body should ensure that assurance services and functions enable an effective control environment, and that these support the integrity of information for internal decision-making and of the organisation's external reports.
16. In the execution of its governance role and responsibilities, the governing body should adopt a stakeholder-inclusive approach that balances the needs, interests and expectations of material stakeholders in the best interests of the organisation over time.
17. The governing body of an institutional investor organisation should ensure that responsible investment is practiced by the organisation to promote the good governance and the creation of value by the companies in which it invests.

This is for your information please.

Signed

Company Secretary

Answer 4(b)

The California Public Employees' Retirement System (CalPERS, System) is the largest U.S. public pension fund. Its mission is to provide responsible and efficient stewardship to deliver promised retirement and health benefits, while promoting wellness and retirement security for members and beneficiaries. The CalPERS Board, through its Investment Committee, has adopted the Global Governance Principles to be adopted by companies and markets – from developed to emerging – in order to establish the foundation

for achieving long-term sustainable investment returns through accountable corporate governance structures.

1. *Sustainability* : Companies and external managers in which CalPERS invests are expected to optimize operating performance, profitability and investment returns in a risk-aware manner while conducting themselves with propriety and with a view toward responsible conduct. CalPERS believes long-term value creation requires the effective management of three forms of capital – Financial, Physical and Human Capital.
2. *Director Accountability* : Directors should be accountable to shareowners, and management accountable to directors. To ensure this accountability, directors must be accessible to shareowner inquiry concerning their key decisions affecting the company's strategic direction.
3. *Transparency* : Operating, financial, and governance information about companies must be readily transparent to permit accurate market comparisons; this includes disclosure and transparency of objective globally accepted minimum accounting standards, such as the International Financial Reporting Standards ("IFRS").
4. *One-share/One-vote* : All investors must be treated equitably and upon the principle of one-share/one- vote.
5. *Proxy Materials* : Proxy materials should be written in a manner designed to provide share owners with the information necessary to make informed voting decisions. Similarly, proxy materials should be distributed in a manner designed to encourage shareowner participation. All shareowner votes, whether cast in person or by proxy, should be formally counted with vote outcomes formally announced.
6. *Code of Best Practices* : Each capital market in which shares are issued and traded should adopt its own Code of Best Practices to promote transparency of information, prevention of harmful labor practices, investor protection, and corporate social responsibility. Where such a code is adopted, companies should disclose to their shareowners whether they are in compliance.
7. *Long-term Vision* : Corporate directors and management should have a long-term strategic vision that, at its core, emphasizes sustained shareowner value and effective management of both risk and opportunities in the oversight of financial, physical, and human capital. In turn, despite differing investment strategies and tactics, shareowners should encourage corporate management to resist short-term behavior by supporting and rewarding long-term superior returns.
8. *Access to Director Nominations* : Shareowners should have effective access to the director nomination process.
9. *Political Stability* : Progress toward the development of basic democratic institutions and principles, including such things as: a strong and impartial legal system; and, respect and enforcement of property and shareowner rights.
10. *Transparency* : Financial transparency, including elements of a free press, is necessary for investors to have truthful, accurate and relevant information.

11. *Productive Labor Practices* : No harmful labor practices or use of child labor. In compliance, or moving toward compliance, with the International Labor Organization (ILO) Declaration on the Fundamental Principles and Rights at Work.
12. *Corporate Social Responsibility – Eliminating Human Rights Violations*: Corporations should adopt maximum progressive practices toward the elimination of human rights violations in all countries or environments in which the company operates. Additionally, these practices should emphasize and focus on preventing discrimination and/or violence based on race, color, religion, national origin, age, disability, sexual orientation, gender identity, marital status, or any other status protected by laws or regulations in areas of a company's operation.
13. *Market Regulation and Liquidity* : Little to no repatriation risk. Potential market and currency volatility are adequately rewarded.
14. *Capital Market Openness* : Free market policies, openness to foreign investors, and legal protection for foreign investors.
15. *Settlement Proficiency/Transaction Costs* : Reasonable trading and settlement proficiency and reasonable transaction costs.
16. *Disclosure* : Companies should adopt corporate reporting guidelines in order to measure, disclose, and be accountable to internal and external stakeholders for organizational performance.
17. *Financial Markets* : Policy makers and standards setters which impact investment portfolio risk and return should promote fair, orderly, and effectively regulated financial markets.

Answer 4(c)

Functions of a Company Secretary

Section 205 of the Companies Act, 2013 prescribes that the functions of the company secretary shall include—

- (a) to report to the Board about compliance with the provisions of this Act, the rules made thereunder and other laws applicable to the company;
- (b) to ensure that the company complies with the applicable secretarial standards;
- (c) to discharge such other duties as prescribed under Rule 10 of the Companies (Appointment and Remuneration of managerial Personnel) Rules, 2014. It includes -
 - To guide the directors of the company regarding their duties, responsibilities and powers
 - To facilitate the convening of meetings
 - To attend Board Meetings, Committee Meetings and General Meetings
Company Secretary acts as a vital link between the company and its Board of Directors, shareholders and other stakeholders and regulatory authorities

- To maintain minutes of the meetings
- To obtain the approvals from Board, General Meeting, Government and other authorities as required
- To represent before various regulators, and other authorities
- To assist the Board in the conduct of affairs of the company
- To assist and advise the Board in ensuring good corporate governance
- To assist and advise the Board in ensuring the compliance of corporate governance requirements and best practices
- To discharge such other duties as specified under the Act or rules
- To discharge such other duties as may be assigned by the Board from time to time

PART B

Question 5

- (a) *XYZ Co. Ltd. is a socially responsible Company. The Board of company ensures that the company will spend on CSR activities in every financial year. Being a company secretary advise the Board what they need to keep in mind regarding expenditure on CSR ?*
- (b) *Discuss the UN Global Compact, a strategic policy initiative in the areas of human rights, labour, environment and anti-corruption. How can companies align with these principles ?*
- (c) *"Government regulations and public policy tend to bring the bare minimum involvement by the corporate towards their corporate responsibilities. Beyond this legal framework initiatives, corporates should come up voluntarily". Explain. (5 marks each)*

Answer 5(a)

The board of XYZ Limited should keep in mind following points regarding expenditure on CSR which have been provided under Section 135 (5) of the Companies Act 2013.

- The Board of every company shall ensure that the company spends, in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy. This amount will be CSR expenditure.
- If the company fails to spend such amount, the Board shall, in its report specify the reasons for not spending the amount.
- The company shall give preference to the local area and areas around it where it operates, for spending the amount earmarked for Corporate Social Responsibility activities.
- Expenditure incurred on specified activities under Schedule VII that are carried

out in India only will qualify as CSR expenditure. Such expenditure includes contribution to the corpus or on projects or programs relating to CSR activities.

- Expenditure incurred in undertaking normal course of business will not form a part of the CSR expenditure. Companies would need to clearly distinguish those activities which are undertaken specifically in pursuance of normal course of business and those that are done incrementally as part of the CSR initiatives.
- Any surplus arising out of CSR activities will not be considered as business profit for the spending company.
- Expenditure incurred by Foreign Holding Company for CSR activities in India will qualify as CSR spend of the Indian subsidiary if, the CSR expenditures are routed through Indian subsidiaries and if the Indian subsidiary is required to do so as per section 135 of the Act.
- The CSR projects or programs or activities that benefit only the employees of the company and their families shall not be considered as CSR activities in accordance with section 135 of the Act.
- Companies may build CSR capacities of their own personnel as well as those of their implementing agencies through institutions with established track records of at least three financial years but such expenditure shall not exceed 5% of total CSR expenditure of the company in one financial year.
- Contribution of any amount directly or indirectly to any political party shall not be considered as CSR activity.

Answer 5(b)

The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption. Corporate sustainability starts with a company's value system and a principled approach to doing business. This means operating in ways that meet fundamental responsibilities in the areas of human rights, labour, environment and anti-corruption. Responsible businesses enact the same values and principles wherever they have a presence.

Trade and industry is an integral part of human society and has a pivotal role to play in this direction. The Global Compact is a policy framework for the development, implementation, and disclosure of sustainability principles and practices designed to establish sustainable business models and markets building, inclusive of global economy.

Companies can align with the UN Global Compact's Ten Principles by incorporating those principles into strategies, policies and procedures, and establishing a culture of integrity. The initiative is voluntary in nature. Some measures to align with these principles are-

- Adopting an established and globally recognized policy framework for the development, implementation, and disclosing environmental, social, and governance policies and practices.
- Sharing best and emerging practices to advance practical solutions and strategies to common challenges.

- Advancing sustainability solutions in partnership with a range of stakeholders, including UN agencies, governments, civil society, labour, and other non-business interests.
- Linking business units and subsidiaries across the value chain with the Global Compact's Local Networks around the world - many of these are operating in developing and emerging markets.
- Accessing the United Nations' extensive knowledge of and experience with sustainability and development issues.
- Utilizing UN Global Compact management tools and resources, and the opportunity to engage in specialized work streams in the environmental, social and governance realms.

Answer 5(c)

The Government has been taking a number of initiatives on the legislative front for encouraging companies to adopt CSR activities like -

- In 2009, the Ministry of Corporate Affairs issued the Corporate Social Responsibility Voluntary Guidelines, 2009 which was a recommendatory initiative to underline that the business sector also needs to take the responsibility of exhibiting socially responsible business practices that ensures the distribution of wealth and well-being of the communities in which the business operates.
- In 2011, MCA released "National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business" to mainstream the subject of business responsibilities. In line with these Guidelines, SEBI mandated inclusion of Business Responsibility Reports ("BR reports") as part of the Annual Reports for listed entities.
- The Companies Act, 2013 introduced the concept of Corporate Social Responsibility in India to the forefront to promote greater transparency and disclosure.

Government regulations and public policy tend to bring the bare minimum involvement by the corporate towards their corporate responsibilities. Beyond this legal framework, corporates should come up voluntarily.

- The CSR policy of the business entity should provide for an implementation strategy which should include identification of projects/activities, setting measurable physical targets with timeframe, organizational mechanism and responsibilities, time schedules and monitoring. Companies may partner with local authorities, business associations and civil society/non-government organizations.
- Companies may influence the supply chain for CSR initiative and motivate employees to contribute their efforts on voluntary basis towards social development.
- Companies may evolve a system of need assessment and impact assessment while undertaking CSR activities in a particular area.
- Independent evaluation may also be undertaken for selected projects/activities from time to time.

- Companies may engage with well-established and recognized programmes/ platforms which encourage responsible business practices and CSR activities. This would help companies to improve on their CSR strategies and effectively project the image of being socially responsible.
- Companies should disseminate information on CSR policy, activities and progress in a structured manner to all their stakeholders and the public at large through their website, annual reports, and other communication media.

Attempt all parts of either Q. No. 6 or Q. No. 6A

Question 6

Write short notes on the following :

- (a) *Corporate Social Responsibility Audit*
- (b) *International Labor Organization (ILO)*
- (c) *Carbon footprint and carbon offsetting*
- (d) *Integrated Reporting and Sustainability Reporting*
- (e) *Business Responsibility Report.* (3 marks each)

OR (Alternate question to Q. No. 6)

Question 6A

- (i) *Organizations should set its goal towards creation of absolute value to the society. Explain the statement elaborating on the key aspects that a company should focus on as a good corporate citizen.*
- (ii) *Discuss the application of Law in the 'principle of absolute liability' payable by an enterprise which is engaged in a hazardous activity that poses a potential threat to the health and safety of employees.*
- (iii) *As the Company Secretary of AA India Limited, you are required by the Chairman to prepare a note for the Board of directors highlighting the available framework for sustainability reporting.* (5 marks each)

Answer 6(a)

Corporate Social Responsibility Audit

Corporate Social Responsibility (CSR) is more than basic legal compliance and is highly connected with and affects organization's bottom line. In order to ascertain the effectiveness of organizations CSR policy, practices and culture, the CSR audit is becoming key. A CSR audit aims at identifying environmental, social or governance risks faced by the organization and evaluating managerial performance in respect of those.

CSR audit aims to give an independent opinion by external auditor, on the extent of alignment of CSR objectives with the business goals and level of managerial commitment and performance with regard to attainment of social responsibility objectives defined by the company's Board. A CSR audit program can cover all or any of the following risks: -

Effectiveness of the operating framework for CSR implementation - Effectiveness of implementation of specific, large CSR projects - Adequacy of internal control and review mechanisms - Reliability of measures of performance - Management of risks associated with external factors like regulatory compliance, management of potential adverse NGO attention, etc.

Answer 6(b)

International Labour Organisation

The International Labour Organisation (ILO) was created in 1919, as part of the Treaty of Versailles that ended World War I, to reflect the belief that universal and lasting peace can be accomplished only if it is based on social justice. The security, humanitarian, political and economic considerations were the driving force behind the creation of ILO. There was keen appreciation of the importance of social justice in securing peace, against a background of exploitation of workers in the industrializing nations of that time. There was also increasing understanding of the world's economic interdependence and the need for cooperation to obtain similarity of working conditions in countries competing for markets. The ILO is the only 'tripartite' United Nations agency that brings together representatives of governments, employers and workers to jointly shape policies and programmes to achieve its defined objectives.

Answer 6(c)

Carbon footprint : A carbon footprint is an estimate of how much carbon is produced to support your lifestyle. Essentially, it measures your impact on the climate based on how much carbon you produce. Factors that contribute to your carbon footprint include travel methods and general home energy usage. Carbon footprints can also be applied on a larger scale to companies, businesses and even countries. The word 'carbon' in the phrase 'carbon footprint' is often used as a short-cut to describe the main greenhouse gases - carbon dioxide, methane and nitrous oxide - in terms of carbon dioxide equivalents.

Carbon offsetting : Carbon offsets are used to reduce the amount of carbon that an individual or institution emits into the atmosphere. Carbon offsets work in a financial system where, instead of reducing its own carbon use, a company can comply with emissions caps by purchasing an offset from an independent organization. The organization will then use that money to fund a project that would reduce carbon in the atmosphere. An individual can also engage himself with this system, and similarly pay to offset his or her own personal carbon usage, instead of or in addition to, taking direct measures such as driving less or recycling.

Answer 6(d)

Integrated reporting is an emerging and evolving trend in corporate reporting, which primarily aims to offer an organization's providers of financial capital with an integrated representation of the key factors that are material to its present and future value creation. Integrated reporters build on sustainability reporting foundations and disclosures in preparing their integrated report. Through the integrated report, an organization provides a concise communication about how its strategy, governance, performance and prospects lead to the creation of value over time. Conceptually, integrated reporting would build on the existing financial reporting model to present additional information about a company's

strategy, governance, and performance. It is aimed at providing a complete picture of a company, including how it demonstrates stewardship and how it creates and sustains value.

Sustainability reporting is a process that assists organizations in setting goals, measuring performance and managing change towards a sustainable global economy one that combines long term profitability with social responsibility and environmental care. Sustainability is the key platform for communicating the organization's economic, environmental, social and governance performance, reflecting positive and negative impacts. The aspects that the organization deems to be material, in response to its stakeholders' expectations and interests, drive sustainability reporting.

Answer 6(e)

In line with 'National Voluntary Guidelines on Social, Environmental and Economical Responsibilities of Business' issued by MCA in 2011, Securities Exchange Board of India decided to mandate inclusion of Business Responsibility Reports ("BR reports") as part of the Annual Reports for listed entities.

As per updated Regulation 34(2)(f) of SEBI (LODR) Regulations, 2015, annual report of the top five hundred listed entities based on market capitalization (calculated as on March 31 of every financial year), shall include business responsibility report describing the initiatives taken by them from an environmental, social and governance perspective, in the format as specified by the Board from time to time: Provided that listed entities other than top five hundred listed companies based on market capitalization and listed entities which have listed their specified securities on SME Exchange, may include these business responsibility reports on a voluntary basis in the format as specified.

Business Responsibility Report is a disclosure of adoption of responsible business practices by a listed company to all its stakeholders. SEBI had also prescribed a format for 'Business Responsibility Report'. It contains a standardized format for companies to report the actions undertaken by them towards adoption of responsible business practices.

Answer 6A(i)

Corporate citizenship is a commitment to improve community well-being through voluntary business practices and contribution of corporate resources leading to sustainable growth. The term corporate citizenship implies the behaviour, which would maximize a company's positive impact and minimize the negative impact on its social and physical environment. It means moving from supply driven to more demand led strategies; keeping in mind the welfare of all stakeholders; more participatory approaches to working with communities; balancing the economic cost and benefits with the social; and finally dealing with processes rather than structures. The ultimate goal is to establish dynamic relationship between the community, business and philanthropic activities so as to complement and supplement each other.

Corporate citizenship is being adopted by more companies who have come to understand the importance of the ethical treatment of stakeholders. As a good corporate citizen, the companies are required to focus on the following key aspects:

- *Absolute Value Creation for the Society* : Organisations should set their goal towards the creation of absolute value for the society. Once it is ensured, a corporate never looks back and its sustainability in the long run is built up.

- *Ethical Corporate Practices* : In the short run, enterprise can gain through non-ethical practices. However those cannot be sustained in the long run. Society denies accepting such products or services.
- *Worth of the Earth through Environmental Protection* : Resources which are not ubiquitous and have economic and social value should be preserved for a long-term use and be priced properly after considering environmental and social costs.
- *Equitable Business Practices* : Corporates should not indulge themselves in unfair means and should create candid business practices, ensuring healthy competition and fair trade practices.
- *Corporate Social Responsibility* : As a Corporate citizen, every corporate is duty bound towards its society wherein it operates and serves.
- *Innovate new technology/process/system to achieve eco-efficiency* : Innovation is the key to success. Risks and crisis can be eliminated through innovation. Learning and innovative enterprise gets a cutting edge over others. These innovative processes bring sustainability if developments are aimed at satisfying human needs, and ensure quality of life, while progressively reducing ecological impact and resource intensity to a level at least in line with earth's estimated carrying capacity.
- *Creating Market for All* : A corporate has to build up its products and services in such a way so as to cater to all segments of customers/consumers. Customer confidence is the essence of corporate success.
- *Switching over from the Stakeholders Dialogue to Holistic Partnership* : A business enterprise can advance its activities very positively if it makes all the stakeholders involved as partners in its progress. It not only builds confidence of its stakeholders, but also helps the management to steer the business under a very dynamic and flexible system.
- *Compliance of Statutes* : Compliance of statutes, rules and regulations and standards set by various bodies ensure good corporate governance and confers societal license upon it to run and operate its business in the society.

Answer 6A(ii)

Application of the Principle of Absolute Liability

- In *M.C. Mehta v. Union of India*, AIR 1987 SC 1086, the Supreme Court sought to make a departure from the accepted legal position in *Rylands v. Fletcher* stating that "an enterprise which is engaged in a hazardous or inherently dangerous activity that poses a potential threat to the health and safety of persons and owes an absolute and non-delegable duty to the community to ensure that no harm results to anyone.
- The principle of absolute liability is operative without any exceptions. It does not admit of the defences of reasonable and due care, unlike strict liability. Thus, when an enterprise is engaged in hazardous activity and results in harm, it is absolutely liable.

- The industries involving hazardous processes generally handle many toxic, reactive, and flammable chemical substances in the plant operations which are potential sources of different types of hazards at the workplace. If these hazards are not managed properly, the safety and health of the exposed population is adversely affected and they become vulnerable to a great risk. The Supreme Court imposed an absolute and non-delegable duty on an enterprise which is engaged in a hazardous or inherently dangerous industry.
- The Supreme Court held that an enterprise which is engaged in a hazardous or inherently dangerous industry which poses a potential threat to the health and safety of the persons working in the factory and residing in the surrounding areas owes an absolute and non-delegable duty to the community to ensure that no harm results to anyone on account of hazardous or inherently dangerous nature of the activity which it has undertaken.
- Further, the Apex Court held that the measure of compensation in these kind of cases must be correlated to the magnitude and capacity of the enterprise so that they certainly have a deterrent effect. The larger and more prosperous the enterprise, the greater must be the amount of compensation payable by it for the harm caused on account of an accident in carrying on of the hazardous or inherently dangerous activity by the enterprise.

Answer 6A(iii)

To,

The Chairman

AA Limited

Note on framework for Sustainability Reporting

Sustainability reporting is a process for publicly disclosing an organization's economic, environmental, and social performance. In line with 'National Voluntary Guidelines on Social, Environmental and Economical Responsibilities of Business' issued by MCA in 2011, Securities Exchange Board of India decided to mandate inclusion of Business Responsibility Reports (BRR) as part of the Annual Reports for listed entities.

As per updated Regulation 34(2)(f) of SEBI (LODR) Regulations, 2015, annual report of the top five hundred listed entities based on market capitalization (calculated as on March 31 of every financial year), shall include business responsibility report describing the initiatives taken by them from an environmental, social and governance perspective, in the format as specified by the Board from time to time: Provided that listed entities other than top five hundred listed companies based on market capitalization and listed entities which have listed their specified securities on SME Exchange, may include these business responsibility reports on a voluntary basis in the format as specified.

Business Responsibility Report (BRR) is a disclosure of adoption of responsible business practices by a listed company to all its stakeholders. SEBI had also prescribed a format for 'Business Responsibility Report'. It contains a standardized format for companies to report the actions undertaken by them towards adoption of responsible business practices.

The BRR framework is divided into five sections:

- *Section A* : General Information about the Organisation – Industry Sector, Products & Services, Markets, other general information
- *Section B* : Financial Details of the Organisation – Paid up capital, Turnover, Profits, CSR (Corporate Social Responsibility) spend.
- *Section C* : Other Details – BR initiatives at Subsidiaries and Supply Chain Partners
- *Section D* : BR Information – Structure, Governance & Policies for Business Responsibility
- *Section E* : Principle-wise Performance – Indicators to assess performance on the 9 Business Responsibility principles as envisaged by the National Voluntary Guidelines (NVGs)

The GRI Sustainability Reporting Framework is another sustainability reporting framework widely adopted by business entities around the world. It comprises of the Sustainability Reporting Guidelines, Sector supplements and Indicator Protocols. Global Reporting Initiative (GRI) launched the fourth generation of its sustainability reporting guidelines: the GRI G4 Sustainability Guidelines (the Guidelines) in 2013. There are two different types of Standard Disclosures:

- *General Standard Disclosures* : The General Standard Disclosures are applicable to all organizations preparing sustainability reports. The General Standard Disclosures are divided into seven parts:
 - a. Strategy and Analysis
 - b. Organizational Profile
 - c. Identified Material Aspects and Boundaries
 - d. Stakeholder Engagement
 - e. Report Profile
 - f. Governance
 - g. Ethics and Integrity
- *Specific Standard Disclosures* : The Guidelines organize Specific Standard Disclosures into three categories - Economic, Environmental and Social. The economic dimension of sustainability concerns the organization's impacts on the economic conditions of its stakeholders and on economic systems at local, national, and global levels. The Social Category is further divided into four sub-Categories, which are Labor Practices and Decent Work, Human Rights, Society and Product Responsibility.

This is for your information please.

Signed

Company Secretary