

GUIDELINE ANSWERS

PROFESSIONAL PROGRAMME

DECEMBER 2017

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.

C O N T E N T S

Page

MODULE 2

1. Information Technology and Systems Audit	1
2. Financial, Treasury and Forex Management	29
3. Ethics, Governance and Sustainability	48

(i)

NOTE: Guideline Answers of the last Sessions may require updation in the light of changes and references given below:

PROFESSIONAL PROGRAMME

UPDATING SLIP

ETHICS, GOVERNANCE AND SUSTAINABILITY

MODULE – 2 – PAPER 3

<i>Examination Session</i>	<i>Question No.</i>	<i>Updatons required in the answers</i>
(1)	(2)	(3)
All Previous Sessions	—	All answers are based on the notified provisions of Companies Act, 2013 and the SEBI (LODR) Regulations, 2015.

PROFESSIONAL PROGRAMME EXAMINATION

DECEMBER 2017

INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

Question 1

An International pharmaceutical company is engaged in manufacturing of several types of medicines at various factories. Each factory sends information on different software and platforms, thus fails to communicate with each other to consolidate the information at one place. In order to solve this problem, the technical advisor of the company recommended the implementation of the ERP solution.

In order to learn more about the ERP solution from the technical advisor, the top management raised following queries before finalising the proposal.

- (a) What are the major modules of the ERP package and their functions. (5 marks)*
- (b) What are various benefits of installing ERP system. (5 marks)*
- (c) What are the limitations in implementation of ERP system. (5 marks)*
- (d) What are the critical success factors for effective implementation of ERP system. (5 marks)*

Suppose you are the technical advisor of the company. Provide the answers of the above queries to the top management to make them to learn more about ERP system.

Answer 1(a)

Following are the major modules of ERP package and their functions. These modules include sales, production, material, finance, and personnel.

<i>Major Modules</i>	<i>Functions</i>
Business	Forecasting, Planning, Goals, Objectives, Targets, Strategy Control, Fixed Assets
Sales	Forecasting, Planning, Sales Budget, Order Processing, Order Execution, Delivery Invoicing, Maintenance
Production	Planning, Order Control, WIP, Quality, Scheduling, Dispatch, Quality Control
Materials	Purchase, Inventory, Stores, Valuation, Analysis, Control, Cost
Finance	Accounting, Funds Mgt., Balance Sheet Processing,

Schedules, Analysis, Control, Management Accounting, Budgeting, Asset Management, General Ledger, Accounts Payable, Cash Reconciliation, Account Receivables, Governance and Risk Management, Travel and Expense Management

Personnel	Human Resource, Payroll, Skill Attendance Inventory, Analysis, Control, Consolidation of Business Operations, Performance, Student Management, Student Lifecycle, Academic Advisement.
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Answer 1(b)

Following are the Benefits of Installing ERP System

1. Integrated Information/Centralised Information Database

The key benefit of implementing ERP is integration. ERP helps in reducing operational costs by coordinating various departments of the organization. The major idea behind ERP is to control accuracy as well as redundancy of data and data entry. This centralized working system is able to replace multiple, disconnected databases with a single system, incorporate different applications and data sources. It also aims to lower help desk support and marketing cost. In addition, this real time application has the capabilities of interfacing internal and external entities. Moreover, ERP is an ideal application to improve the cooperation between departments and employees as well as communication with prospects and customers.

2. Standardization of Processes

A manufacturing company that has grown through acquisitions is likely to find that different units use different methods to build the same product. Standardizing processes and using an integrated computer system can save time, increase productivity, and reduce head count. It may also enable collaborating and scheduling production across different units and sites. Moreover as manufacturers grow, their operations become more and more complex. ERP automates business operations cross-departmentally, providing accurate, real-time information to everyone utilizing the solution. ERP increases efficiency and productivity by helping users navigate complex processes, preventing data re-entry, and improving functions such as production, order completion and delivery. Streamlined, efficient processes throughout.

3. Standardization of Human Resource Information

This is especially useful in a multi-site company. A unified method for tracking employee time and communicating benefits is extremely beneficial, because it promotes a sense of fairness among the workforce as well as streamlines the company as a whole. A large function of HR, as with many other business processes, is data entry and reporting. Reporting without an integrated ERP system, requires pulling data from numerous sources which takes time. This is time that can probably be better spent on more relevant tasks. An ERP module

data, once set up, will be more accessible. This simultaneously makes it easier to enter and pull data together into reports.

4. Effective Management of Repeatable Processes

One of the fundamental objectives of ERP systems are repeatable processes. By creating repeatable processes, management is able to ensure that tasks are done using organization-wide best practices. Employees are able to improve quality by performing tasks the same way each time.

Repeatable processes also reduce the risk of a key employee leaving with his or her knowledge of how a job is done. These types of processes are also easier to change. Because a large number of people are performing the same set of tasks, finding improvements can be easier. Rolling out those changes organization-wide can also be easier.

5. Lower Training Costs

Standardizing these processes also results in lower training costs. Because the processes are the same throughout an organization, training programs that are standardized, reduce overall development costs. By standardizing processes, training can be patterned and optimized to reduce the time spent in training. Reduced time spent in training means less non-productive time.

6. Reduced Inventory Costs

Many ERP systems, especially systems designed for manufacturing industries, are customizable for lean manufacturing or other parts-control management systems. By linking repeatable processes with inventory usage, a manufacturer can maintain lower parts inventories. This is possible because of the integration between processes and ordering. Each time a procedure is executed; inventory levels can be updated in real time. Once a pre-defined level of parts inventory is reached, replacements can be automatically ordered from the supplier.

7. Improved Business Visibility

Depending on how a system is implemented, one objective of an ERP system might focus on business performance and operations visibility. By creating reports based on actual manufacturing tasks, the overall performance of the organization can be more easily analysed and optimized. Things that might require tracking include time it takes to complete tasks, production levels, and production units per units of time and almost any measurable that could help an organization analyse performance.

8. Increased Profits

By optimizing production through process visibility, the cost per production unit can be reduced. Reducing training costs can, again, add to the bottom line. By reducing inventory levels, less money is tied up in non-liquid business resources which increase available cash to allow a company to make faster business decisions.

9. Enhanced and Efficient Technology

This software enhances day to day management activities. It also supports strategic planning that defines objectives for the business. Since it has better data accessibility, top management can also use this tool to make better and

more effective decisions. In addition, ERP system has a capability of eliminating manual activities and streamlining critical business processes for many departments of an organization. The following are some more benefits that improve the efficiency of an ERP system:

10. Easy Reporting

An ERP system improves and customizes reporting. It provides easy technique of generating reports. With better access to data you can generate and manipulate reports anytime you want to.

11. User Friendliness

This robust and user-friendly application easily eliminates problems without over-grown data tables. Moreover, non-technical people can easily access data or information using ERP applications. This handy application also allows you to deal with high volumes because of its real time capability and future based orientation.

12. Easy Data Accessibility

An ERP system enables you to access real time data and increase self-service of critical information. Many ERP vendors are providing mobile functionalities so that you can always remain connected and well-informed in regards your business processes and performance.

13. Increased Security

ERP system not only improves data integrity and security but also enhances the data restrictions, allowing you to keep your customer information and company data safe and secure.

14. Providing Business and Financial Solution

ERP offers the best business and financial solutions for almost every type of organization. By permitting flow of resources and finances into different and vital business activities it enables enterprises to increased efficiencies in its daily operations.

15. Accuracy & Consistency

An ERP enables companies to maintain consistent and accurate data throughout all the departments enabling the complete flow of information to be viewed through a single system. The department heads can see the timing of employees and total work completed. It provides better visibility and helps in improving the performance of the organization.

16. Better Resource Management

This centralized application provides the tools and reporting capabilities to allow management to better allocate valuable resources. This allows decision makers to monitor and take action during crucial times and prevent delays.

For any productive business organization ERP can play a vital role. A successfully implemented centralized ERP system will help in improving alignment of strategies and operations, productivity and insight, financial management and corporate governance. ERP system also enables in reducing costs through

increased flexibility and overall risk. Before implementing ERP system be assured in terms of where and how the organization will benefit, discussion with the potential suppliers of ERP in this regards plays a vital role.

Answer 1(c)

Limitations in Implementation of ERP System are as below:

1. Difficult to Implement in Running Businesses

Implementing an ERP system in a new business can be very effective. Implementing the same system in an older business can be very difficult. All employees must be trained, and there will be significant down time as the business switches all applications over to the new system. Some businesses cannot afford the profit loss this downtime would require. ERP systems also tend to have industry standards for specific types of businesses, and the strict moulds may lower creativity or competitive advantage.

2. Customization is Problematic

Every business has its own requirement and there is no ERP which may be suited for all business's requirement so to implement an ERP system in an organization, first the detailed study about the different processes of a business is done and then various customizations is done to make the ERP suitable for a particular organization requirement. The customization process involves lot of money and resources which works as a limitation to the implementation of an ERP system in an organization.

3. Policy Limitations

ERP systems do not fit the business plans of every enterprise. Often, ERP systems must be customized to allow for specific tasks. Not all ERP systems allow this—depending on the system or company the business uses, it may be against policy to make such drastic changes to the application.

4. Ongoing Support

Support for ERP systems often can be difficult to depend on. Technical response can be adept at dealing with minor problems, but major complications with the ERP systems can be beyond the limited customer service available to businesses.

5. Lack of User Participation in ERP Implementation

The participation of users is very important for successful implementation of ERP projects – So, exhaustive user training and simple user interface might be critical. Moreover involvement of key users at the pre implementation stage and implementation stage is very important and lack of their involvement acts as a limitation for ERP system.

6. Problem of Harmonization of ERP Processes with the Business Processes

Harmonization of ERP systems can be a mammoth task (especially for big companies) and requires a lot of time, planning, and money.

7. Resistance to Change

Implementing ERP system in an organization requires lot of process changes, starting new process etc. In this process, certain people's profile gets redundant and they need to transfer to other processes. Moreover implementing ERP requires people to new the new processes and technologies. All this become a reason of resistance by people which works as a big limitation for ERP implementation.

8. High Annual Charges

Most of the ERP vendors charge large sum of money for annual license renewal that is unrelated to the size of the company using the ERP or its profitability. This acts as a big limitation for an ERP implementation.

9. Cutting Expenses on Training

Success depends on the skill and experience of the workforce, including training about how to make the system work correctly. Many companies cut costs by cutting training budgets. Privately owned small enterprises are often undercapitalized, meaning their ERP system is often operated by personnel with inadequate education in ERP in general. This acts as a big limitation.

10. Dependency on one Vendor/High Switching Cost

Once an ERP system is implemented it becomes a single vendor lock-in for further upgrades, customizations etc. Moreover once a system is established, switching costs are very high for any one of the partners (reducing flexibility and strategic control at the corporate level).

11. Time Consuming

ERP deployment projects are lengthy and are time consuming, projects may take 1 to 3 years to complete and the designed processes may even require further tweaking once implementation is complete

12. Cost savings / ROI may take years to realise

It may take years for the business to realise the benefit of the newly implemented ERP system. The transactional data also takes time to build up and to be accurate for reporting

Answer 1(d)

The following factors are critical in ERP success:

- 1. Top Management Commitment :** The large investments needed to implement ERP ensure that the decisions are invariably taken at the top management level. Unless top management takes a conscious decision to take out the "best" people for an extended period of time (several months) at the cost of "losing the best people" during implementation, ERP has little chance of success. The management commitment involves the management of change.

ERP is likely to turn the organization "upside down" unleashing lots of energy

from vested interests. Unless top management is involved directly, it is impossible for any line manager to face the opposition to such changes.

2. **Business Strategy** : It is important to have a clear cut defined strategy for an organization, what the organization aspires and requires to achieve the future business targets. It is also important that the ERP implementation is in-line with the business strategy and the objectives of the ERP implementation is clear to the business.
3. **Project Scoping** : The core ERP will not satisfy all the organization's requirements. It is also important to have a ERP strategy in place with the modules of ERP being implemented and how the new ERP will integrate with other systems and tools.
4. **Project Team** : It is important to have a full time dedicated project team with a project manager to handle ERP implementation.
5. **Documentation and Project Document Repository** : While it is important to have proper documentation around all phases of an ERP implementation, it is also important to have a systematic project repository in place with details of all documents related to the project.
6. **Resistance to Over-customization** : One reason why many computerization efforts in Indian organizations have not been particularly successful is not having "systems in place". ERP implementation is a golden opportunity to put such "systems in place" however, there is a strong tendency to "do it your way" leading to large-scale customization.
7. **Budget and Financial Commitment** : ERPs are a costly affair and can sometime an implementation overshoot its budget cost. However having a contingency budget can be beneficial in such circumstances.
8. **Elaborate Planning Phase** : Since ERP system implementations are vast in nature hence it is important for a detailed plan to be established and constantly followed and reviewed for necessary amendments.

Alternate Answer 1(d)

Following are the critical success factors for effective implementation of ERP Solutions:

- I. Strong Executive Sponsorship (Upper management is engaged throughout the implementation)
- II. Focused Project and Scope Management.
- III. Minimized/ Eliminate the number of customizations
- IV. Approved Solution Design
- V. User and Subject Matter Expert (SME) participation and Engagement.
- VI. Process Owner Led User Training and Sign Off.
- VII. Documented User Procedures.

- VIII. Targeted Data Migration Strategy
- IX. Thorough System Testing
- X. Knowledge Transfer

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

Question 2

- (a) *What is online shopping ? List its main components.* (4 marks)
- (b) *Explain various steps involved in programming process.* (4 marks)
- (c) *What are the major activities of an information system ? Discuss briefly.* (4 marks)
- (d) *Explain briefly major advantages of agile system.* (4 marks)

OR (Alternate question to Q. No. 2)

Question 2A

- (i) *Discuss classification of computers based on their functions.*
- (ii) *Explain various security measures to handle protected data.*
- (iii) *Explain various functions of CPU.*
- (iv) *List out various tasks performed by compiler in converting source code to object code.* (4 marks each)

Answer 2(a)

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. Customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smartphones.

An online shop evokes the physical analogy of buying products or services at a regular "bricks-and-mortar" retailer or shopping centre; the process is called business-to-consumer (B2C) online shopping. When an online store is set up to enable businesses to buy from other businesses on e-commerce portals, the process is called business-to-business (B2B) online shopping. A typical online store enables the customer to browse the firm's range of products and services, view photos or images of the products, along with information about the product specifications, features and prices.

Online stores typically enable shoppers to use "search" features to find specific models, brands or items. Online customers must have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, an Interact-enabled debit card, or a service such as PayPal, or even a mobile wallet. For physical products (e.g., paperback books or clothes), the e-retailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e-

tailer typically sends the file to the customer over the Internet, for services the designated services are provided to the customer as per the specifications.

Major Components of Online Shopping are:

Product : It represents the commodity or service offered for sale.

Selling Place : It represents the section in a website that is devoted to the selling and ordering of the product.

Accessibility to People : Refers to the degree of ease with which the customers are able to find and finalize the product.

Choice : With the popularity of online shopping and with the introduction of more ecommerce platforms, customers have a wide variety of products available to them

Price comparisons : Comparing and researching products and their prices is easier on online portals.

Placement of Orders : Refers to the process by which customers select the products of their choice. This is often done through online forms that are filled by the customers giving details of the products or by selected the concerned product of their purchase.

Mode of Payment : Refers to the mode through which payment for the products is made including credit cards and debit cards.

Delivery Mechanism : Refers to the provision for the delivering the purchased products to the customers.

Answer 2(b)

Programming Process consists of following steps:

1. Analysing the problem
2. Designing the solution
3. Coding the solution
4. Testing the solution
5. Documenting the solution

Problem Analysis : This is where the clear statement of the problem is stated. A program is simply a list of steps describing to the computer what it should do. A design is simply a higher-level description of those steps. The programmer must be sure that he understands the problem and how to solve the problem. He must know what is expected of the problem, i.e. what the program should do, the nature of the output and the input to consider so as get the output. He must also understand the ways of solving the problem and the relationship between the input and the expected output.

Design : The planning of the solution to the problem in the first stage takes place in this stage. The planning consists of the process of finding a logical sequence of precise steps that solve the problem. Such a sequence of steps is called an algorithm. Every detail, including obvious steps should appear in the algorithm. The three popular methods used to develop the logic plan are: flowcharts, a pseudo code, and a top-down chart.

These tools help the programmer break down a problem into a sequence of small tasks the computer can perform to solve the problem. Planning may also involve using representative data to test the logic of the algorithm by hand to ensure that it is correct.

Coding : Coding is the act of translating the design into an actual program, written in some form of programming language. In other words translation of the algorithm in stage two into a programming language takes place here. The process for writing the program is called coding. The programmer uses the algorithm devised in the design stage along with the choice of the programming language he got from stage three.

Testing and Debugging : The process involves the location and removal of error in the program if any. Testing is the process of checking if the program based on predetermined scenarios and evaluating if the program is working as expected and finding errors in the program, and debugging is the process of correcting errors that are found (An error in a program is called a bug).

Documentation : This is the final stage of program development. It consists of organising all the material that describes the program. The documentation of the program is intended to allow another person or the programmer at a later date, to understand the program. Internal documentation remarks consist of statements in the program that are not executed, but point out the purpose of various parts of the program. Documentation might also consist of a detailed description of what the program does and how to use the program. Other types of documentation are flowchart and pseudo code that were used to construct the program. Although documentation is listed as the last step in the program development cycle, it should take place as the program is being coded.

It is sometimes the first step during program execution because the programmer can use program documentation in developing a new program by just improving on the previous work.

Answer 2(c)

The major activities of an information system are:

1. **Input of Data Resource** : Input of data resources is prime and an important activity of an Information System. In this activity data about business transactions and other events is captured and prepared for processing. In this activity data entry activities such as recording and editing are covered.

For example, data about sales transactions may be recorded on source documents such as paper sales order forms. (A source document is the original formal record of a transaction.) Alternatively, salesperson might capture sales data using computer keyboards or optical scanning devices; they are visually prompted to enter data correctly by video displays. This provides them with a more convenient and efficient user interface, that is, methods of end user input and output with a computer system. Methods such as optical scanning and displays of menus, prompts, and fill-in-the-blanks formats make it easier for end users to enter data correctly into an information system.

2. **Processing of Data into Information** : Data is typically subjected to processing activities such as calculating, comparing, sorting, classifying, and summarizing. These activities organize, analyze and manipulate data, thus converting them

into information for end users. The quality of any data stored in an information system must also be maintained by a continual process of correcting and updating activities.

Example. Data received about a purchase can be (1) added to a running total of sales results, (2) compared to a standard to determine eligibility for a sales discount, (3) sorted in numerical order based on product identification numbers, (4) classified into product categories (such as food and non-food items), (5) summarized to provide a sales manager with information about various product categories and, finally, (6) used to update sales records.

3. **Output of Information Products** : Information in various forms is transmitted to end-users and made available to them in the output activity. The goal of information systems is the production of appropriate information products for end users. Common information products messages, reports, forms, and graphic images, which may be provided by video displays, audio responses, paper products, and multimedia.

For example, sales manager may view a video display to check on the performance of a salesperson, accept a computer-produced voice message by telephone, and receive a printout of monthly sales results.

4. **Storage of Data Resource** : Storage is a basic system component of information systems. Storage is the information system activity in which data and information are retained in an organized manner for later use.

For example, just as written text material is organized into words, sentences, paragraphs, and documents; stored data is commonly organized into fields, records, files, and database. This facilitates its later use in processing or its retrieval as output when needed by users of a system.

5. **Control of System Performance** : 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.

For example, a manager may discover that subtotals of sales amount in a sales report do not add up to total sales. This might mean that data entry or processing procedures need to be corrected.

Answer 2(d)

Following are the major advantages of agile systems

- (1) **Time & Money Saving** : The very first advantage that the company got to see with the Agile Methodology is the saving of time and money. There is less documentation required though documents help to a great deal in verifying and validating the requirements but considering the time frame of the project, this approach leads to focus more on the application rather than documenting the things. Since it is iterative in its form, it tends to have a regular feedback from the end user so that the same can be implemented as soon as possible. And

because all phases of SDLC need to be completed very quickly, there is a transparency to each individual working on the project with the status of each phase.

- (2) **Easy to incorporate Changes** : Another advantage that Agile Methodology offers to other approaches available is that in case there is any Change request or enhancements come in between any phase, it can be implemented without any budget constraint though there needs to be some adjustment in the already allotted time frame which will not be a difficult task for the projects following Agile tactics. Though it is useful for any Programming language or Technology around, it is advisable to make it employ for Web 2.0 or the projects which are new in media.
- (3) **Fast Execution** : Daily meetings and discussions for the project following agile approach can help to determine the issues well in advance and work on it accordingly. Quick coding and testing makes the management aware of the gaps existing in either requirements or technology used and can try to find the workaround for the same.
- (4) **Short Project Life Cycle** : Hence, with the quicker development, testing and constant feedbacks from the user, the Agile methodology becomes the appropriate approach for the projects to be delivered in a short span of time.
- (5) **Close Daily Cooperation** : People and interactions are emphasized rather than process and tools. Agile methodology focuses on close daily cooperation between business people and developers.
- (6) **Iterative Changes** : Last minute change in requirements can be accommodated in the design as well.

Answer 2A(i)

Following is the classification of computers based on their functions:

1. **Servers** : Server usually refers to a computer that is dedicated to providing a service. They don't focus on trying to solve one very complex problem, but try to solve many similar smaller ones. A server is a central computer that contains collections of data and programs. For example, a computer dedicated to a database may be called a "database server". "File servers" manage a large collection of computer files. "Web servers" process web pages and web applications. Many smaller servers are actually personal computers that have been dedicated to providing services for other computers.
2. **Workstations** : Workstations are computers that are intended to serve one user and may contain special hardware enhancements not found on a personal computer.
3. **Information appliances** : Information appliances are computers specially designed to perform a specific user-friendly function —such as playing music, photography, or editing text. The term is most commonly applied to mobile devices, though there are also portable and desktop devices of this class.
4. **Embedded computers** : Embedded computers are computers that are a part of

a machine or device. Embedded computers generally execute a program that is stored in non-volatile memory and is only intended to operate a specific machine or device. Embedded computers are very common. Embedded computers are typically required to operate continuously without being reset or rebooted, and once employed in their task the software usually cannot be modified.

Answer 2A(ii)

Following are the various security measures required to handle protected data:

- (a) **Access control** : Access to protected data must be provided on a least-privilege basis. No person or system should be given access to the data unless required by business process. In such cases where access is required, permission to use the data must be granted by the Data Steward. All accounts and resources with access must be protected by passwords which meet the specified rules. There can be strict rules and protocols which must be enforced by the system
- (b) **Sharing** : Protected data may be shared among the among University employees according to well-defined business process approved by the Data Steward. It may be released publicly only according to well-defined business processes, and with the permission of the Data Steward.
- (c) **Retention** : Protected data should only be stored for as long as is necessary to accomplish the documented business process.
- (d) **Incident Notification** : If there is a potential security incident that may place protected data at risk of unauthorized access, ITS Technology Security Services must be notified.
- (e) **Enable System Logging and Auditing** : All activities for the data access must be logged and recorded. The facilities required to automatically generate, retain, and expire system logs must be enabled.

Answer 2A(iii)

A CPU has four primary functions: fetch, decode, execute, and write back.

- A. **FETCH** : In the first step, the CPU retrieves the instruction that it needs to run from program memory. Each instruction in a program (which contains millions of instructions) is stored at a specific address. The CPU has a program counter, which keeps track of the CPU's position in the program “more specifically, the address of the instruction that the CPU is accessing.
- B. **DECODE** : For this step, it's important to know that no matter what code a program is written in, the compiler for that specific language breaks the code down to Assembly Language. Assembly language is a language that the CPU understands, but may vary between different CPUs. From there on, an “assembler” translates Assembly Language into binary code, which the CPU can manipulate to execute the instructions it is given.
- C. **EXECUTE** : Based on the instructions it is given, the CPU can then do one of three things:
 - (1) Using its Arithmetic Logic Unit (ALU), the CPU can calculate extremely complicated mathematical functions;

- (2) Move data from one memory location to another;
- (3) Jump to different addresses in the program based on decisions made by the CPU itself.

D. WRITE BACK

Typically, each of the actions taken by the CPU produces some sort of output. The CPU takes this output and writes it into the computer's memory. For example, if a program wanted to execute the first item of the list above on two operands, 3 and 5, the output, 8, would be written back into a specific address. However, for the 3rd bullet, the program counter (which, as stated above, is used to keep track of the CPU's progress through a program) simply changes to reflect the start of the next set of instructions.

Answer 2A(iv)

A compiler performs two major tasks:

1. Analysis of the source program
2. Synthesis of the target-language instructions

The main tasks carried out by compilers are:

1. Lexing - break up the text of the program into "tokens". The tokens are the "words" of the programming language, such as identifiers (keywords, variable names, function names, etc.) or operators (=, *, &, etc.).
2. Parsing - convert the sequence of tokens into a parse tree, which is a data structure representing various language constructs: type declarations, variable declarations, function definitions, loops, conditionals, expressions, etc.
3. Optimization - evaluate constant expressions, optimize away unused variables or unreachable code, unroll loops if possible, etc.
4. Translate the parse tree into machine instructions

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

Question 3

Distinguish between the following :

- (a) *Open system and Closed system.*
- (b) *Transaction Processing System and Management Information System*
- (c) *Database and Data warehouse.*
- (d) *Multiprogramming and Multiprocessing.* (4 marks each)

OR (Alternate question to Q. No. 3)

Question 3A

- (i) *Explain an integrated approach for development of MIS.* (4 marks)

- (ii) *Define Data Mining. How it is useful for a future retail firm.* (4 marks)
- (iii) *On the basis of primary job function, define various types of users in the data base system.* (4 marks)
- (iv) *List out various functions performed by DDL.* (4 marks)

Answer 3(a)

<i>Open system</i>	<i>Closed System</i>
1. Open systems refer to systems that interact with other systems or the outside environment.	1. Closed systems refer to systems having relatively little interaction with other systems or the outside environment.
2. Open systems allow users to contribute , manipulate, edit, use, reuse, and sometimes actually create the content or the actual programming of the system	2. Closed system allow users to use the content as is with minimal modification to the actual system or program.
3. Collaborative Approach For example living organisms are considered open systems because they take in substances from their environment such as food and air and return other substances to their environment. Similarly, some organizations consume raw materials in the production of products and emit finished goods and pollution as a result.	3. Discreet Approach A watch is an example of a closed system in that it is a relatively self-contained, self-maintaining unit that has rarely interacts or exchange with its environment.
4. More flexible than closed system Ex : Wordpress, Unix, Facebook, Open Source	4. Rigid and largely impenetrable. Ex: Proprietary Softwares, Web Pages, Library Softwares

Answer 3(b)**Transaction Processing System**

Transaction Processing System are designed to process routine transactions effectively and accurately. Transaction processing systems are an important example of operations support systems that record and process data resulting from business transactions. They process transactions in two basic ways. In batch processing, transactions data are accumulated over a period of time and processed periodically.

In real-time (or online) processing, data are processed immediately after a transaction occurs. For example, point-of-sale (POS) systems at many retail stores use electronic cash register terminals to electronically capture and transmit sales data over

telecommunications links to regional computer centres for immediate (real-time) or nightly (batch) processing. Bank accounting software which capture in the inflow and outflow of money and reconciliation is a scheduled activity.

Management Information System

Management Information System is an organized approach to study the information needs of an organization's management at every level in making operational, tactical and strategic decisions. Its objective is to design and implement procedures, processes and routines that provide suitably detailed reports in an accurate, consistent and timely manner. MIS is mainly concerned with the internal sources of information. It usually takes data from transaction processing system and summarize into a series of management reports. MIS report tend to be used by middle management and operational supervisors.

Managing with information involve gathering the necessary data (crude input or raw material) and processing these data into meaningful information. MIS principal concerns is to facilitate decision making by supplying the information needed in an up-to-date and accurate form

- to the people who need it
- on time
- in a usable form

The basic elements of MIS are clearly articulated in the word itself Management, Information, and System.

- Management: process for planning, organizing, initiating & controlling works on information provided by MIS.
- Information: Processed data.
- System: components which work together to achieve goals.

Answer 3(c)

Database is a collection of related information stored in a structured form in terms of tables so that it makes easier insertion, deletion and manipulation of data. Database consists of tables that contain attributes. Most computer applications (including antivirus softwares, spreadsheets, word- processors etc.) are databases at their core.

Data Warehouse is a database system optimized for reporting and analysis. It generally refers to combination of many different databases across entire enterprises. Once the data entered in the data warehouse, it can be the only loaded, refreshed and accessed for queries. It usually contains historical data derived from transaction data but it can include data from other sources. Data warehousing emphasizes the capture of data from diverse sources for useful analysis and access, but does not generally start from the point-of-view of the end user who may need access to specialized, sometimes local databases.

Answer 3(d)

Multiprocessing	Multiprogramming
1. Multiprocessing refers to processing of multiple processes at same time by multiple CPUs.	1. Multiprogramming keeps several programs in main memory at the same time and execute them concurrently utilizing single CPU.
2. It utilizes multiple CPUs.	2. It utilizes single CPU.
3. It permits parallel processing.	3. Context switching takes place.
4. Less time taken to process the jobs.	4. More Time taken to process the jobs.
5. It facilitates much efficient utilization of devices of the computer system.	5. Less efficient than multiprocessing.
6. Usually more expensive.	6. Such systems are less expensive.

Answer 3A(i)

Integrated approach permits managers at all levels to influence the design of the system. Top management will identify the structure and design of MIS suitable to the concerned department. The design is presented to the lower level management for their views and modification. The lower management is permitted to suggest changes, additions, or deletions and return the design with their suggestions to the top level for approval. The revised design is drawn and evaluated by the top level and sent down again in a modified form for further consideration if required. This is an iterative process. It continues until a final design is achieved, that satisfies the requirement at all levels in the organization.

Answer 3A(ii)

Data Mining is a process of extracting hidden predictive information from large databases. It is a powerful new technology to help companies focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviours, allowing businesses to make proactive, knowledge-driven decisions.

It involves the use of various data analysis tools to discover new facts, valid patterns and relationships in large data sets. Data mining in Future retail group would assist in the following:

- (i) It would help the company in focusing on the most important information in the data warehouses; this could be related to ticket size, sales patterns.
- (ii) It facilitates in extracting meaningful patterns like on which weekday, maximum sales took place.
- (iii) It helps in analysis like which brand is doing better, which product is being sold mostly.
- (iv) It assists in prediction of monthly sales, inventory to be ordered etc.

- (v) It assists in designing marketing, pricing and operational strategies like whether to run discount or loyalty programme etc.
- (vi) It will also help the company in maintain shelf space for its products and have better product placements which can be converted ultimately in to improved sales.

Answer 3A(iii)

Based on the basis of primary job functions, five types of users can be identified in a database system.

- (a) **System Administrators** : They oversee the database system's general operations.
- (b) **Database Administrators** : also known as DBA, manage the DBMS and ensure that the database is functioning properly. The DBA role is sufficiently important in Database Administration and Security.
- (c) **Database Designers** : They design the database structure. They are, in effect, the database architects. If the database design is poor, even the best application programmers and the most dedicated DBA cannot produce a useful database environment.
- (d) **System Analysts and Programmers** : They design and implement the application programs. They design and create the data entry screens, reports and procedures through which end users access and manipulate the database's data.
- (e) **End Users** : They are the people who use the application programs to run the organization's daily operations. For example, clerks, supervisors, managers, etc.

Answer 3A(iv)

Data Description Language (DDL) is used to define the various types of data in the database and their relationship with each other.

Basic functions performed by DDL are given as under:-

- To create tables, files, databases and data dictionaries;
- To specify the storage structure of each table on disk;
- To enforce Integrity constraints on various tables;
- To provide security and authorization information of each table;
- To specify the structure of each table;
- To make overall design of the Database.

Question 4

- (a) *Highlight the significance of system audit.*

- (b) *Classify different controls which are verified by an IS Auditor in a computerised environment.*
- (c) *List out various powers of Cyber Appellate Tribunal.*
- (d) *Explain computer related offences and related penalties as specified in IT Act. (4 marks each)*

Answer 4(a)

The significance of the system audit is sharply highlighted by the way business are changing. 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 4(b)

In a computerised environment, following controls are classified which an IS auditor shall verify:

A. Management Controls

1. Security Policy and Standards
2. Constitution of Steering Committee
3. Business Continuity Planning
4. Systems Development Methodology

B. Operational Controls

1. Monitoring physical assets
2. Ensuring adequate environmental controls such as Air-conditioning (dust, temperature & humidity controls), Power Conditioning (Online UPS functioning all the time with backups, proper earthing)

C. Organizational Controls

1. Defining roles, responsibilities and duties of User Departments and IT Department
2. Defining roles, responsibilities and duties within IT Department – such as developers, operators and administrators

D. Application Controls

1. Each of the Computer Systems and subsystems must have its own set of controls for Inputs, Processing & Outputs. Processing controls should also ensure checks for legal compliance
2. While performing the audit, each of the controls needs to be studied for its existence and adequacy.

Answer 4(c)

For the purposes of discharging their functions under this Act, The Cyber Appellate Tribunal shall have the same powers as are vested in a civil court under the Code of Civil Procedure, 1908, while trying a suit, in respect of the following matters, namely

- (a) Summoning and enforcing the attendance of any person and examining him on oath;
- (b) Requiring the discovery and production of documents or other electronic records;
- (c) Receiving evidence on affidavits;
- (d) Issuing commissions for the examination of witnesses or documents;
- (e) Reviewing its decisions;
- (f) Dismissing an application for default or deciding it ex parte
- (g) Any other matter which may be prescribed

Every proceeding before the Cyber Appellate Tribunal shall be deemed to be a judicial proceeding and the Cyber Appellate Tribunal shall be deemed to be a civil court for the purposes of section 195 and Chapter XXVI of the Code of Criminal Procedure, 1973.

Answer 4(d)

Computer related offences have been defined in section 43 of the Information Technology Act, 2000 which provides that If any person without permission of the owner or any other person who is in-charge of a computer, computer system or computer network, –

- (a) Accesses or secures access to such computer, computer system or computer network or computer resource;
- (b) Downloads, copies or extracts any data, computer data base or information from such computer, computer system or computer network including information or data held or stored in any removable storage medium;
- (c) Introduces or causes to be introduced any computer contaminant or computer virus into any computer, computer system or computer network;
- (d) Damages or causes to be damaged any computer, computer system or computer network, data, computer data base or any other programmes residing in such computer, computer system or computer network;
- (e) Disrupts or causes disruption of any computer, computer system or computer network;
- (f) Denies or causes the denial of access to any person authorized to access any computer, computer system or computer network by any means;
- (g) Provides any assistance to any person to facilitate access to a computer, computer system or computer network in contravention of the provisions of this Act, rules or regulations made there- under;
- (h) Charges the services availed of by a person to the account of another person by tampering with or manipulating any computer, computer system, or computer network,
- (i) Destroys, deletes or alters any information residing in a computer resource or diminishes its value or utility or affects it injuriously by any means;
- (j) Steal, conceals, destroys or alters or causes any person to steal, conceal, destroy or any other computer source code used for a computer resource with an intention to cause damage;

He would be liable to pay compensation to the party so affected and shall be punishable with imprisonment for a term which may extend to life imprisonment or with fine which may extend to one crore or both.

Question 5

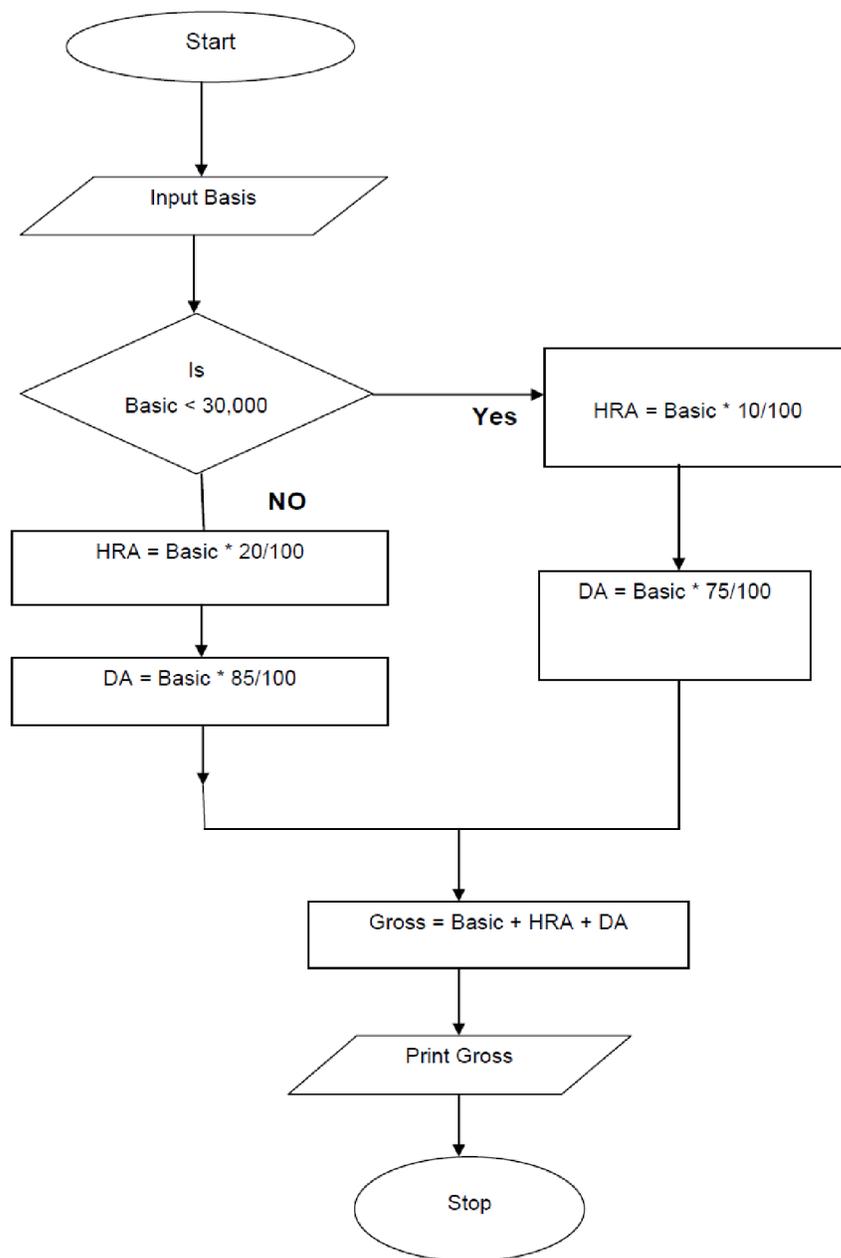
- (a) *If the basic salary is less than Rs. 30,000 then HRA is 10% of basic salary and DA is 75% of basic salary. If the basic salary is equal to or greater than Rs. 30,000 then HRA is 20% and DA is 85% of basic salary. Draw a flow chart to find the gross salary of an employee. (8 marks)*
- (b) *Explain in detail various challenges of information system confronting the managers. (8 marks)*

Answer 5 (a)

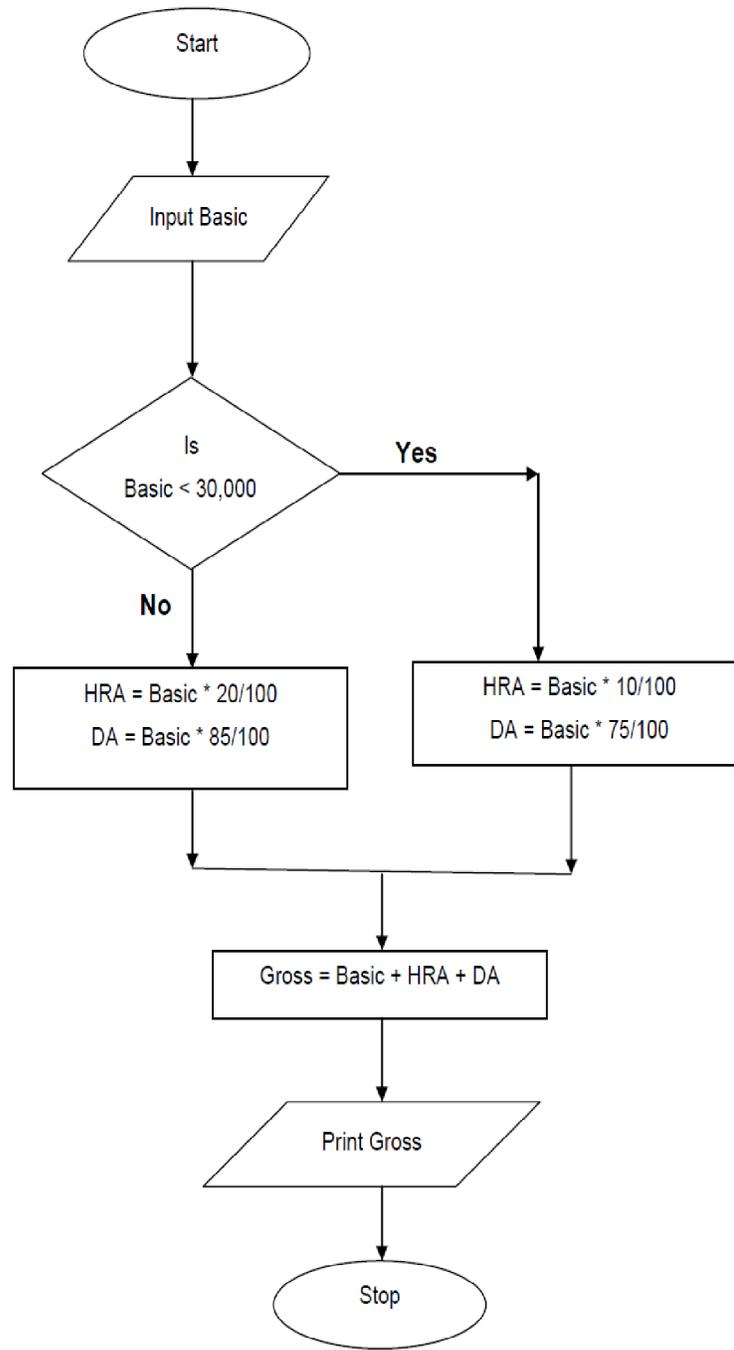
Assumption

Basic Salary = Basic

Gross Salary = Gross



Alternate Answer 5(a)



Answer 5(b)

Although information technology is advancing at a blinding pace, there is nothing easy or mechanical about building and using information systems. There are five major challenges confronting managers:

1. **The Information Systems Investment Challenge** : How can organizations obtain business value from their information systems? Earlier we described the importance of information systems as investments that produce value for the firm. We showed that not all companies realize good returns from information systems investments.

It is obvious that one of the greatest challenges facing managers today is ensuring that their companies do indeed obtain meaningful returns on the money they spend on information systems. It's one thing to use information technology to design, produce, deliver, and maintain new products. It's another thing to make money doing it. How can organizations obtain a sizable payoff from their investment in information systems? How can management ensure that information systems contribute to corporate value?

Senior management can be expected to ask these questions: How can we evaluate our information systems investments as we do other investments? Are we receiving the return on investment from our systems that we should? Do our competitors get more? Far too many firms still cannot answer these questions. Their executives are likely to have trouble determining how much they actually spend on technology or how to measure the returns on their technology investments. Most companies lack a clear-cut decision-making process for deciding which technology investments to pursue and for managing those investments

2. **The Strategic Business Challenge** : What complementary assets are needed to use information technology effectively? Despite heavy information technology investments, many organizations are not realizing significant business value from their systems, because they lack-or fail to appreciate-the complementary assets required to make their technology assets work. The power of computer hardware and software has grown much more rapidly than the ability of organizations to apply and use this technology. To benefit fully from information technology, realize genuine productivity, and become competitive and effective, many organizations actually need to be redesigned. They will have to make fundamental changes in employee and management behaviour, develop new business models, retire obsolete work rules, and eliminate the inefficiencies of outmoded business process and organization structures. New technology alone will not produce meaningful business benefits.
3. **The Globalization Challenge** : How can firms understand the business and system requirements of a global economic environment? The rapid growth in international trade and the emergence of a global economy call for information systems that can support both producing and selling goods in many different countries. In the past, each regional office of a multinational corporation focused on solving its own unique information problems. Given language, cultural, and political differences among countries, this focus frequently resulted in chaos

and the failure of central management controls. To develop integrated, multinational, information systems, businesses must develop global hardware, software, and communications standards; create cross-cultural accounting and reporting structures; and design transnational business processes.

4. **The Information Technology Infrastructure Challenge** : How can organizations develop an information technology infrastructure that can support their goals when business conditions and technologies are changing so rapidly? Many companies are saddled with expensive and unwieldy information technology platforms that cannot adapt to innovation and change. Their information systems are so complex and brittle that they act as constraints on business strategy and execution. Meeting new business and technology challenges may require redesigning the organization and building a new information technology (IT) infrastructure.

Creating the IT infrastructure for a digital firm is an especially formidable task. Most companies are crippled by fragmented and incompatible computer hardware, software, telecommunications networks, and information systems that prevent information from flowing freely between different parts of the organization. Although Internet standards are solving some of these connectivity problems, creating data and computing platforms that span the enterprise – and, increasingly, link the enterprise to external business partners – is rarely as seamless as promised. Many organizations are still struggling to integrate their islands of information and technology.

5. **Ethics and Security** : *The responsibility and control challenge: How can organizations ensure that their information systems are used in an ethically and socially responsible manner? How can we design information systems that people can control and understand?*

Although information systems have provided enormous benefits and efficiencies, they have also created new ethical and social problems and challenges. A major management challenge is to make informed decisions that are sensitive to the negative consequences of information systems as well to the positive ones.

Managers face an ongoing struggle to maintain security and control. Today, the threat of unauthorized penetration or disruption of information systems has never been greater. Information systems are so essential to business, government, and daily life that organizations must take special steps to ensure their security, accuracy, and reliability. A firm invites disaster if it uses systems that can be disrupted or accessed by outsiders, that do not work as intended, or that do not deliver information in a form that people can correctly use. Information systems must be designed so that they are secure, function as intended, and so that humans can control the process. Managers will need to ask: Can we apply high quality assurance standards to our information systems, as well as to our products and services?

Can we build systems with tight security that are still easy to use? Can we design information systems that respect people's rights of privacy while still pursuing our organizations goals? Should information systems monitor

employees? What do we do when an information system designed to increase efficiency and productivity eliminates people's jobs?

Question 6

Write short notes on the following :

- (a) *Core capabilities of Decision Support System.* (4 marks)
- (b) *Characteristics of strong password.* (4 marks)
- (c) *Punishment for Cyber Terrorism as per IT Act, 2000.* (4 marks)
- (d) *Big Data Analytics.* (4 marks)

Answer 6(a)

Core capabilities of DSS are

1. *Representations* : It includes the presentation of the information in the form of graphs, charts, lists, reports, formatted reports, symbols, etc. These results are being used for control mechanism.
2. *Operations* : It includes logical & mathematical manipulation of data. These operations are confined to gathering information, generating statistics, preparing reports, assigning risk and values, generating alternatives using simulation etc.
3. *Memory Aids* : It also provides updating of databases and memory, viewing of data, work spaces, libraries and linkages among libraries and work places.
4. *Control Aids* : It provides the facility to user to control the activity of DSS. It includes a language permitting user control of operations, representations and memory. It also include features such as tutorials, help commands, functions keys, conventions etc.

Answer 6(b)

Characteristics of strong password

- a. Must be at least 8 characters long.
- b. Must not be dictionary or common slang words in any language.
- c. Must include at least 3 of the following 4 characters, in any order: upper case, lower case letters, numbers and special characters.
- d. Do not use < or > sign in your password as both can cause problems in web browsers.
- e. Must be change at least once per year.
- f. Should not match or relate to the username in any manner.

Answer 6(c)

As per 66F of the Information Technology Act, 2000 whoever, – (A) with intent to

threaten the unity, integrity, security or sovereignty of India or to strike terror in the people or any section of the people by –

- (i) Denying or cause the denial of access to any person authorized to access computer resource; or
- (ii) Attempting to penetrate or access a computer resource without authorization or exceeding authorized access; or
- (iii) Introducing or causing to introduce any computer contaminant; and by means of such conduct causes or is likely to cause death or injuries to persons or damage to or destruction of property or disrupts or knowing that it is likely to cause damage or disruption of supplies or services essential to the life of the community or adversely affect the critical information infrastructure specified under section 70,

Or

(B) Knowingly or intentionally penetrates or accesses a computer resource without authorization or exceeding authorized access, and by means of such conduct obtains access to information, data or computer database that is restricted for reasons for the security of the State or foreign relations, or any restricted information, data or computer database, with reasons to believe that such information, data or computer database so obtained may be used to cause or likely to cause injury to the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence, or to the advantage of any foreign nation, group of individuals or otherwise, commits the offence of cyber terrorism shall be punishable with imprisonment which may extend to imprisonment for life.’.

Answer 6(d)

Big Data Analytics : It is the process of examining large amount of data of a variety of types (big data) to uncover hidden patterns, unknown correlations and other useful information. Such information can provide competitive advantage over rival organizations and result in business benefits, such as more effective marketing and increased revenue.

The primary goal of big data analytics is to help companies make their decisions by enabling data scientist and other users to analyse huge volumes of transaction data as well as other data sources that may be left untapped by conventional business intelligence programs. The other data sources may include web server logs and internet click stream data, social media activity reports, mobile phone call detail record and information captured by sensors. Some people exclusively associate big data and big data analytics with unstructured data of that sort, but consulting firms consider transactions and other structured data to be valid from a big data.

Following are some of the numerous benefits of Big Data Analytics:

1. *Cost Reduction* : Big data technologies such as Hadoop and cloud-based analytics bring significant cost advantages when it comes to storing large amounts of data – plus they can identify more efficient ways of doing business.
2. *Faster, Better Decision Making* : With the speed of Hadoop and in-memory

analytics, combined with the ability to analyze new sources of data, businesses are able to analyze information immediately – and make decisions based on what they've learned.

3. *New Products and Services* : With the ability to gauge customer needs and satisfaction through analytics comes the power to give customers what they want.



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.

Question 1

Comment on the following :

- (a) Wealth maximization is a decision criterion and not a goal of a business firm.
- (b) Credit terms to debtors can be relaxed so long as additional cost of investment does not exceed additional contribution.
- (c) There are no benefits to holding securities under the depository system.
- (d) The study and measurement of financial leverage is irrelevant. (5 marks each)

Answer 1(a)

Goals are the missions or basic purpose of a firm. These goals direct the firm's course of action. The firm designs its strategy on the basis of these goals. Again, to support this strategy the firm frames policies in the fields of production, purchase, marketing, finance and so on. The first step in making any decision is to see that it is consistent with the strategy of the business firm and also in line with its policy framework. At this juncture, wealth maximization can be considered as a decision criterion which will enable to ensure that the financial decisions meet the minimum standard of economic performance. Thus the wealth maximisation criterion would simply indicate whether an action undertaken by the management of a firm is economically viable or not.

Answer 1(b)

Receivables mean debt owed to the firm by customers arising from the sale of goods and services in the ordinary course of business. A concern allows credit sales in order to push up its sales volume as it is not always possible to sell goods only on cash basis. Debtors form a substantial part of current assets. Since credit sales assume a significant portion of total sales in several enterprises, the receivable management becomes an area of attention. Goods are sold on credit under specific terms and policies and each of these policies has its own cost and benefits associated with it. The costs which are associated with maintaining debtors are: (1) cost of financing receivables, (2) cost of collection, (3) cost of delinquency/default. Benefits associated with the receivables are growth in sales and the resultant growth in contribution which leads to increase in profits. Hence for managing debtors one should look carefully both at the costs and benefits and make a proper match between them. The firm should carefully evaluate the incremental/additional benefits and costs that result from a change in the receivables or trade credit policy. If Benefits from the change in policy are higher than the cost involved in debtors only then the credit policy can be relaxed.

Answer 1(c)

In the depository system, the ownership and transfer of securities takes place by means of electronic book entries. At the outset, this system rids the capital market of the dangers related to handling of paper. The system provides numerous direct and indirect benefits, like:

1. Elimination of bad deliveries.
2. Elimination of all risks associated with physical certificates.
3. Immediate transfer and registration of securities.
4. Faster disbursement of non cash corporate benefits like rights, bonus, etc.
5. Reduction in brokerage by many brokers for trading in dematerialised securities.
6. 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.
8. Elimination of problems related to selling of securities on behalf of a minor.

Answer 1(d)

The degree of Financial leverage measures the percentage of change in EPS to the percentage change in EBIT. This can be calculated by using the following formula:

$$\text{Degree of Financial Leverage} = \frac{\text{Percentage change in EPS}}{\text{Percentage change in EBIT}}$$

OR

$$\text{Degree of Financial leverage} = \frac{\text{EBIT}}{\text{EBIT} - \text{Interest}}$$

Where - EBIT – Earnings before Interest and tax

EPS – Earnings per share

I – Interest

According to Gitman, Financial leverage is “the ability of a firm to use fixed financial charges to magnify the effects of changes in EBIT on firm’s earnings per share”. In other words, financial leverage involves the use of funds obtained at a fixed cost in the hope of increasing the return to the equity shareholders. Financial leverage locates the correct profitable financial decision regarding capital structure of the company. Financial leverage is thus one of the important devices which is used to measure the fixed cost

proportion with the total capital of the company. If the firm acquires fixed cost funds at a higher cost, then the earnings from those assets, the earning per share and return on equity capital will decrease.

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

Question 2

Distinguish between the following :

- (a) *Transaction risk and translation risk.*
- (b) *Term finance and operating lease finance.*
- (c) *Financial aspect and economic aspect of project appraisal.*
- (d) *Financing decision and dividend decisions.* (4 marks each)

OR (Alternate question to Q. No. 2)

Question 2A

- (i) *What are the points of differences between Net Present Value and Internal Rate of Return approach used for evaluating investment proposals ? Discuss.* (4 marks)
- (ii) *What are the technical factors that affect foreign exchange rate. Discuss.* (4 marks)
- (iii) *Discuss what are the various sources of Permanent Working Capital.* (4 marks)
- (iv) *Discuss the concepts of financial distress and insolvency.* (4 marks)

Answer 2(a)

‘Transaction Risk’ and ‘Translation Risk’

Transaction Risk : Transaction risk refers to the potential change in the value of a foreign currency denominated transaction due to changes in the exchange rate. Credit purchases and sales as well as borrowing and lending denominated in foreign currencies and uncovered forward contracts are some examples of transaction exposure. Transaction exposure basically covers the following:

- (a) *Rate Risk :* It occurs (a) when there is mismatch of maturities and borrowings and (b) In foreign exchange, it results in net exchange positions
- (b) *Credit Risk :* A situation when borrower is not in a situation to pay
- (c) *Liquidity Risk :* Less chances of receiving payments.

Translation Risk : It is also called accounting exposure. It refers to and deals with the probability that the firm may suffer a decrease in assets value due to devaluation of foreign currency even if no foreign exchange transaction has taken place. The risk is particularly relevant for the companies, which have subsidiaries in other countries. Due to translation exposure the values of assets, liabilities, expenses and profits of foreign subsidiaries may change. Two related decision areas are involved in translation exposure management, (a) Managing balance sheet items to minimize the net exposure & (b) Deciding how to hedge against this exposure.

Answer 2(b)

<i>Term Finance</i>	<i>Operating Lease Finance</i>
1. The fixed financial cost is interest.	1. The fixed financial cost is lease rent.
2. Interest is generally cheaper than lease rental	2. This is normally higher than the cost of interest.
3. Repayment is of the loan amount plus interest at a predetermined amortization schedule	3. The repayment obligation is of lease rent
4. In case of term finance the funds can be used for any asset subject to the agreement terms.	4. The lease rentals are paid only for the specific leased asset.
5. It increases financial leverage.	5. It increases operating leverage.
6. Depreciation can be claimed on funded assets.	6. Depreciation cannot be claimed on leased assets.
7. The assets financed become the borrower's property.	7. The assets financed remain the property of lessor.

Answer 2(c)**Financial aspect of project appraisal**

Financial Appraisal of a project is most important for a banker. The primary aim of financial analysis is to determine whether the project satisfies the investment criteria of generating acceptable level of profitability. The project should be able to service the debt and ensure expected returns to the investor. The important aspects which are examined while conducting financial appraisal are investment outlay, means of financing, projected financial statements, viability and profitability, break-even point analysis, sensitivity analysis and risk analysis.

Economic aspect of project appraisal

The objective of economic appraisal is to examine the project from the entire economy's point of view to determine whether the project will improve the economic welfare of the country. Economic appraisal is traditionally not conducted in banks or financial institutions. It is generally conducted by agencies like the World Bank and the development agencies of the Government for the projects having huge investment and profound implication for the economy. Examples of the projects where economic analysis is conducted are big dams, forestry projects and big industrial projects.

Answer 2(d)**Financing decisions and Dividend decisions**

Financing decision involves evaluation of the company's financial needs and raises the appropriate type of capital that best fits those needs. It is concerned with determining the appropriate proportion of equity and debt so as to obtain optimum capital structure.

The firm's capital structure is considered optimum when the market value of shares is maximized. Therefore financial decision making is concerned more and more with the questions as to how cost of funds be measured, projects requiring usage of capital be evaluated, or how far the financing policy influences cost of capital or should corporate funds be committed to or withheld from certain purposes and how the expected returns on projects be measured.

Dividend decision is another major area of financial management wherein the finance manager decides whether the firm should distribute all profits or retain them or distribute a portion and retain the balance. This decision depends on whether the company or its shareholders are in the position to better utilise the funds, and to earn a higher rate of return on funds.

Answer 2A(i)

The Net present value and Internal rate of return, two widely used methods are the species of the same genus i.e. discounted cash flow method, yet they are different from each other on various points. The broad point of difference between the two is as follows:

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* : The presumed rate of return for the reinvestment of intermediate cash flows is the firm's cost of capital when NPV is used, while it is the internal rate of return under the IRR method. So the net present value method is more reliable than internal rate of return method for ranking two or more projects.
3. *Objective* : The net present value method is a method to select/accept the projects which have positive net present value. On the other hand, internal rate of return method attempts to find out the rate of interest which is maximum to repay the invested fund out of the cash inflows.

Answer 2A(ii)

The various technical factors that affect exchange rates are as under:

- (a) *Capital Movement* : The phenomenon of capital movement affecting the exchange rate has a very recent origin. Huge surpluses of petroleum exporting countries due to sudden spurt in the oil prices could not be utilised by these countries for home consumption entirely and needed to be invested elsewhere productively. Movement of these petro dollars, started affecting the exchange rates of various currencies. Capital tended to move from lower yielding to higher yielding currencies and as a result the exchange rates moved.
- (b) *Relative Inflation Rates* : It was generally believed until recently that one prima-facie direction for exchange rates to move was in the direction adjusted to compensate the relative inflation rates. The underlying reasoning behind this conviction was that a relatively high rate of inflation reduces a country's competitiveness in international markets and weakens its ability to sell in foreign markets. This will weaken the expected demand for foreign currency (increase

in supply of domestic currency and decrease in supply of +++foreign currency). But during 1981-85 period exchange rates of major currencies did not confirm the direction of relative inflation rates. The rise of the dollar persistently for such a long period discredited this principle.

- (c) *Exchange rate policy and intervention* : Exchange rates are also influenced in no small measure by expectation of changes in regulation relating to exchange markets and official intervention. Official intervention can smoothen an otherwise disorderly market but it is also the experience that if the authorities attempt half-heartedly to counter the market sentiments through intervention in the market, ultimately more steep and sudden exchange rate swings can occur.
- (d) *Interest rates* : An important factor for movements in exchange rates in recent years has been difference in interest rates; i.e. interest differential between major countries. In this respect the growing integration of the financial markets of major countries, the revolution in telecommunication facilities, the growth of specialized asset managing agencies, the deregulation of financial markets by major countries, the emergence of foreign exchange trading etc. having accelerated the potential for exchange rates volatility.

Answer 2A(iii)

Sources of permanent working capital are the following:

- (a) Owner's funds are the main source. Sale of equity stock or preference stock could provide a permanent working capital to the business with no burden of repayment particularly during short period. These funds can be retained in the business permanently. Permanent working capital provides more strength to the business.
- (b) Another source of permanent working capital is bond financing but it has a fixed maturity period and ultimately repayment has to be made. For repayment of this source, company provides sinking funds for retirement of bonds issued for permanent working capital.
- (c) Term loan from banks or financial institutions has the same characteristics as the bond financing of permanent working capital.
- (d) Short-term borrowing can also be a source of working capital finance on permanent basis.

Answer 2A(iv)

The affairs of a firm should be managed in such a way that the total risk-business as well as financial-borne by equity holders is minimized and is manageable, otherwise, the firm would obviously face difficulties. If cash inflow is inadequate the firm will face difficulties in payment of interest and repayment of principal. If the situation continues long enough, a time will come when the firm would face pressure from creditors. Failure of sales can also cause difficulties in carrying out production operations. The firm would find itself in a tight spot. Investors would not invest further. Creditors would recall their loans. Capital market would heavily discount its securities. Thus, the firm would find itself in a situation called distress. It may have to sell its assets to discharge its obligations

to outsiders at prices below their economic values i.e., resort to distress sale. So when the sale proceeds are inadequate to meet outside liabilities, the firm is said to have failed or become bankrupt or (after due processes of law are gone through) insolvent. So in general, insolvency occurs subsequent to a period of financial distress.

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

Question 3

(a) The following figures are provided to you for ABC Ltd. :

Net Profit before Tax = ₹ 17,50,000

The company has 1,00,000 no. of equity shares of face value ₹10 fully paid up.

The current market price of the equity shares is ₹85 per share.

The Income Tax @ 30% apply to company.

What will be that P/E ratio for the company ? (4 marks)

(b) A company has to choose from two mutually exclusive project proposals A and B, which require cash outlays of ₹ 8,35,000 and ₹ 9,00,000 respectively. The current yield on government bonds is 7% and this is used as risk free rate. The expected net cash flows from the two projects are as under :

Year end	Project A	Project B
1	₹3,60,000	₹4,05,000
2	₹3,50,000	₹3,60,000
3	₹2,50,000	₹3,50,000

Which of these projects should be accepted ? (4 marks)

(c) The net sales of ABC Ltd. is ₹30 crore. Earnings before interest and tax of the company as a percentage of net sales is 15%.

The capital employed comprise of :

Equity- ₹12 crore

13% cumulative pref. shares 5 crore

Debentures @ 15% ₹6 crore

Calculate operating leverage of the company given that combined leverage is 3. (4 marks)

(d) PQR Ltd. issues commercial paper for ₹3 crore on 90 days maturity in December at an interest rate of 11.50 p.a.

Calculate the net amount received by the company on issue of commercial paper of ₹3 crore ? (4 marks)

OR (Alternate question to Q. No. 3)**Question 3A**

- (i)
- The following rates appear in Foreign Exchange Market :*

	Spot Rate	2 Month Forward Rate
₹/1 US Dollar	₹ 64.00/₹ 64.20	₹ 64.70/₹ 65.00

- (a) *How many US Dollars a Firm will have to sell to get ₹64.70 million after 2 months ?*
- (b) *How many rupees the firm will be required to pay to obtain US Dollar 2,00,000 in the spot market ?*
- (c) *Assuming that the firm has US Dollars 50,000, how many rupees the firm will obtain in exchange for the US Dollars ?*
- (d) *Are forward rate at premium or discount ? Show the percentages also.*
- (ii) *XYZ Ltd. has 25,000 outstanding shares at current market price of ₹100. It belongs to a risk class with capitalisation rate of 20%. The company expects to earn a net profit of ₹5,00,000 during a year. What will be the price of share if dividend is not paid ?*
- (iii) *The share of WMZ Ltd. is at market price of ₹120. Put option with a strike price of ₹130 is priced at ₹15 :*
- (i) *What is the intrinsic value of option*
- (ii) *What is the time value of option.*
- (iv) *The following projected figures are available for Ritu, Ltd., a trading concern for the year 2017-18*

Sales ₹ 27,00,000	Purchases ₹18,70,000	
	(₹)	
	1-4-2017	31-3-2018
Inventory	3,00,000	3,40,000
Debtors	3,40,000	2,60,000
Creditors	1,80,000	1,40,000

All sales and purchases are on credit and assume 365 days in a year.

Compute the cash operating cycle in days. (4 marks)

Answer 3(a)**Calculation of P/E Ratio**

	(₹)
Net profit before tax	17,50,000
Less: Tax @ 30%	5,25,000
Net Profit after tax	<u>12,25,000</u>

$$\begin{aligned} \text{EPS} &= \text{Net profit after taxes/ no. of equity share} \\ &= 12,25,000/1,00,000 \\ &= ₹ 12.25 \end{aligned}$$

Market price of share (MPS) = ₹ 85

P/E Ratio = market price per share/ earnings per share = ₹ 85/₹ 12.25 = 6.94

Answer 3(b)

Appraisal of projects

Project A

Year End	Cash flow (₹)	P.V. Factor @7%	P.V (₹)
1	3,60,000	0.9346	3,36,456
2	3,50,000	0.8734	3,05,690
3	2,50,000	0.8163	2,04,075
			<u>8,46,221</u>
		Less : cash outlay	<u>(8,35,000)</u>
		NPV	<u>11,221</u>

Project B

Year End	Cash flow (₹)	P.V. Factor @7%	P.V (₹)
1	4,05,000	0.9346	3,78,513
2	3,60,000	0.8734	3,14,424
3	3,50,000	0.8163	2,85,705
			<u>9,78,642</u>
		Less: cash outlay	<u>(9,00,000)</u>
		NPV	<u>78,642</u>

Decision : As the NPV of Project B is higher, therefore Project B is preferable.

Answer 3(c)

Calculation of operating leverage

	₹ in crore
EBIT (15% of ₹ 30 crores)	4.50
Less : Interest on debt (@ 15% on ₹ 6 crores)	0.9
EBT	<u>3.60</u>
Preference dividend @ 13% of ₹ 5 crores	0.65

PP–FTFM–December 2017 38

$$\begin{aligned}\text{Degree of Financial leverage} &= \text{EBIT}/(\text{EBIT} - \text{Interest} - \text{Preference dividend}) \\ &= ₹ 4.50 \text{ crores} / (\text{₹ } 4.50 \text{ crores} - \text{₹}0.9 \text{ crores} \\ &\quad - \text{₹ } 0.65 \text{ crores}) \\ &= ₹ 4.50 \text{ crores} / ₹ 2.95 \text{ crores} = 1.525\end{aligned}$$

$$\begin{aligned}\text{Combined leverage} &= \text{DOL} \times \text{DFL} \\ \text{DOL} &= \text{Combined leverage} / \text{DFL} \\ &= 3 / 1.525 = 1.967\end{aligned}$$

Answer 3(d)

Interest calculation

Interest rate = 11.50% p.a.

$$\text{Therefore interest rate for 90 days} = \frac{11.50 \times 90}{365} = 2.836\%$$

Interest received on commercial paper will be:

$$\begin{aligned}&= 2.836 / (100 + 2.836) \times ₹ 3 \text{ crores} \\ &= ₹ 8,27,337\end{aligned}$$

$$\begin{aligned}\text{Therefore net amount received at the time of issue} &= ₹ 3 \text{ crore} - ₹ 8,27,337 \\ &= ₹ 2,91,72,663\end{aligned}$$

Answer 3A(i)

- (a) No. of US Dollars a firm will sell to get ₹ 64.70 million after 2 months
= ₹ 64.70 million / 64.70 = 1 million US Dollars
- (b) Rupees the firm will be required to pay to obtain US Dollar 2,00,000 in the spot market
Cost of \$ 2,00,000 = \$ 2,00,000 × 64.20 = ₹ 1,28,40,000
- (c) Amount obtained in exchange of \$ 50,000 = 50,000 × 64 = ₹ 32,00,000
- (d) Forward rates are at premium as forward rate is higher than the spot rate
Bid premium = $(64.70 - 64) / 64 \times (12/2) \times 100 = 6.56\%$
Ask premium = $(65 - 64.20) / 64.20 \times (12/2) \times 100 = 7.48\%$

Answer 3A(ii)

When dividend is not paid

Given:

$$\text{Current market price } (P_0) = ₹ 100$$

$$\text{Capitalization rate} = 20\%$$

Dividend per share = 0

Market price of share at the end of the year (P_1)

$$P_0 = \frac{D_1 + P_1}{1 + K_e}$$

$$100 = (0 + P_1) / (1 + 0.20)$$

$$P_1 = ₹ 120$$

Answer 3A(iii)

(i) Intrinsic value of option = Strike price – Stock price = ₹ 130 – ₹ 120 = ₹ 10

(ii) Time value of option = Premium – Intrinsic value = ₹ 15 – ₹ 10 = ₹ 5

Answer 3A(iv)

Cash operating cycle period (in days) = Stock turnover period + debtor conversion period – creditors deferred period

$$\begin{aligned} \text{Stock turnover period} &= (\text{Average Inventory} / \text{cost of goods sold}) \times 365 \\ &= \{(\text{Opening inventory} + \text{closing inventory})/2\} / (\text{opening stock} \\ &\quad + \text{purchases} - \text{closing stock}) \times 365 \\ &= \{(3,00,000 + 3,40,000)/2\} / (3,00,000 + 18,70,000 - 3,40,000) \\ &\quad \times 365 \\ &= 64 \text{ days} \end{aligned}$$

$$\begin{aligned} \text{Debtor conversion period} &= \text{Average debtors} / \text{Annual credit sales} \times 365 \\ &= \{(\text{opening debtors} + \text{closing debtors})/2\} / \text{Annual credit} \\ &\quad \text{sales} \times 365 \\ &= \{(3,40,000 + 2,60,000)/2\} / 27,00,000 \times 365 \\ &= 41 \text{ days} \end{aligned}$$

$$\begin{aligned} \text{Creditors deferral period} &= (\text{Average creditors} / \text{Annual credit purchase}) \times 365 \\ &= \{(\text{opening creditor} + \text{closing creditor})/2\} / \text{Annual credit} \\ &\quad \text{purchase} \times 365 \\ &= \{(1,80,000 + 1,40,000)/2\} / 18,70,000 \times 365 \\ &= 31 \text{ days} \end{aligned}$$

Cash Operating cycle period (in days) = 64 days + 41 days – 31 days = 74 days

Question 4

(a) "A" Ltd. issues ₹1,000 optionally convertible debentures at a coupon of 12% convertible into 50 equity shares on a date exactly 5 years before maturity. The date for optional conversion has come. The shares are quoting at ₹25. Investors expect 10% p.a. return on a 5 years debenture. Will you suggest conversion ?

(b) In Delhi Ltd. the following data is available for one of the A class items of inventory :

Annual usage 1000 units

Ordering cost ₹400

Carrying cost 40%

Unit cost ₹20

Which of the following strategies being considered would you advise. Give detailed working in support of your answer :

(i) Place 4 orders of equal size every year

(ii) Place an order for 500 units at a time and avail a discount of 10% on the cost of items.

(c) Explain the statement "Higher the return the higher will be the risk".

(d) "Bank lending must necessarily be based on principles that reflect the concerns of the depositors." Comment. (4 marks each)

Answer 4(a)

$$\begin{aligned} \text{Market value of shares} &= \text{No. of shares} \times \text{market price} \\ &= 50 \times ₹ 25 = ₹ 1250 \end{aligned}$$

Fair value of debentures:

$$\text{Annual interest payment} = \text{FV} \times \text{coupon rate} = ₹ 1,000 \times 0.12 = ₹ 120$$

$$\text{Principal repayment} = ₹ 1,000$$

Years to go = 5 years

YTM = 10%

	Yield	PV	
PV of interest	$PVAF_{10\%, 5}$	3.7908×120	₹ 455
PV of principal repayment	$PVF_{10\%, 5}$	$0.6209 \times 1,000$	₹ 621
Fair market price			<u>₹ 1076</u>

Since the market value of shares is more than the fair value of the debentures therefore conversion is suggested.

Answer 4(b)

Given

Annual usage (A) = 1,000 units

Ordering cost (B) = ₹ 400

Carrying cost (C) = ₹ 20 * 40% = ₹ 8

Strategy I: Place 4 orders of equal size i.e. 250 units each every year.

Ordering cost = $4 * ₹ 400 = ₹ 1600$

Inventory carrying cost = $(\text{Order size}/2) * C = (250/2) * 8 = ₹ 1,000$

Cost of 1,000 units = $1000 * ₹ 20 = ₹ 20,000$

Total cost = $₹ 1,600 + ₹ 1,000 + ₹ 20,000 = ₹ 22,600$

Strategy II: Place an order of 500 units at a time

No. of orders = $1,000/500 = 2$ orders

Ordering cost = $2 * ₹ 400 = ₹ 800$

Cost of 1000 units = $1000 * \{₹ 20 - (0.10 * ₹ 20)\} = ₹ 18,000$

Inventory carrying cost = $(\text{Order size}/2) * C = (500/2) * (₹ 18 * 40\%) = ₹ 1,800$

Total cost = $₹ 800 + ₹ 18,000 + ₹ 1,800 = ₹ 20,600$

Decision : As the total cost in case of Strategy II is less than Strategy I, therefore Strategy II is recommended.

Answer 4(c)

Higher return should be expected by those who are willing to bear higher risk. If any investor is not willing to go for higher risk, he should invest in risk-free securities like government securities and should not expect higher returns. There are two parts of return from investment – risk free return and risk premium. It is the premium that enhances the return from investment. Risk premium is the function of risk. It changes in the direct proportion to risk. Total risk is the summation of systematic risk and unsystematic risk. As per Capital Asset Pricing Model (CAPM), unsystematic risk can be diversified away but systematic risk, on the other hand cannot be diversified away without cost. In other words, investors need to be compensated by a certain risk premium for bearing systematic risk. As per CAPM,

$$E(R_i) = R_f + [E(R_m) - R_f] \beta_1$$

Where

$E(R_i)$ is expected return

R_f is risk free rate

$E(R_m)$ is Expected return on market portfolio

β is systematic risk coefficient

Expected Return $E(R_i) =$ Risk-free rate of return (R_f) + Risk premium specific to asset i

In this way, if an investor is expecting higher return, he must be ready to take higher risk.

Answer 4(d)

To lend, banks depend largely on deposits from the public. Banks act as custodian of public deposits. Since the depositors require safety and security of their deposits, want to withdraw deposits whenever they need and also adequate return, bank lending

must necessarily be based on principles that reflect these concerns of the depositors. These principles include: safety, liquidity, profitability, and risk diversion.

(1) *Safety*

Banks need to ensure that advances are safe and money lent out by them will come back. Since the repayment of loans depends on the borrowers' capacity to pay, the banker must be satisfied before lending that the business for which money is sought is a sound one.

(2) *Liquidity*

To maintain liquidity, banks have to ensure that money lent out by them is not locked up for long time by designing the loan maturity period appropriately.

(3) *Profitability*

To remain viable, a bank must earn adequate profit on its investment. This calls for adequate margin between deposit rates and lending rates. In this respect, appropriate fixing of interest rates on both advances and deposits is critical. Unless interest rates are competitively fixed and margins are adequate, banks may lose customers to their competitors and become unprofitable.

(4) *Risk diversification*

To mitigate risk, banks should lend to a diversified customer base. Diversification should be in terms of geographical location, nature of business etc.

Question 5

- (a) *Compute the requirement of Working Capital of a company from the following information provided :*

Sales for current year ₹ 25,00,000

There will be increase in sales by 40% in the next year

Gross Profit 20% on sale

Creditor purchase 1/4th of Cost of Goods Sold

Average collection period = 60 days

Average payment period = 60 days

Inventory Holding Period = 90 days (On the basis of Cost of Goods Sold)

Cash and Bank Balance 2% of Sales

(for calculation 1 year to be taken $12 \times 30 = 360$ days). (8 marks)

- (b) *An equipment costing ₹4,00,000, with a life of 4 years, can be leased for 4 years for payment of ₹1,20,000 per year at the end of the year. Alternatively, there is an option to borrow ₹4,00,000 and buy the equipment. The borrowed fund will carry interest @ 6 per cent payable on the outstanding balance at the close of each year.*

The principal borrowed sum is to be repaid in 4 equal instalments

Depreciation to be considered at 25% per cent on the original cost per annum.

Corporate tax to be considered at 30% for this exercise. A fair return of 10% after tax is expected on the business.

Present your choice with comparative analysis.

(8 mark)

Answer 5(a)

Working Notes:

Cost of goods sold

	₹
Sales	25,00,000
Expected increase	<u>10,00,000</u>
Sales for next year	35,00,000
Less: Gross profit @ 20% of sales	<u>(7,00,000)</u>
Cost of goods sold (COGS)	28,00,000
Credit purchase = 1/4th of ₹ 28,00,000 = ₹ 7,00,000	

Computation of Working capital

<i>CURRENT ASSETS</i>	₹
Debtors = sales * 60/360 = 35,00,000 * 60/360	5,83,333
Inventory = COGS * 90/360 = 28,00,000 * 90/360	7,00,000
Cash at bank = 2% of 35,00,000	70,000
Total current assets (A)	<u>13,53,333</u>
<i>CURRENT LIABILITIES</i>	
Creditors = credit purchase * 60/360 = 7,00,000 * 60/360	1,16,667
Total current liabilities (B)	<u>1,16,667</u>
WORKING CAPITAL (A) – (B)	12,36,666

Answer 5(b)

Alternative 1- To lease the equipment

<i>End of year</i>	<i>Annual payment (₹)</i>	<i>Tax saving @ 30%</i>	<i>Net cash</i>	<i>PVF @ 10%</i>	<i>Present value (₹)</i>
1	1,20,000	36,000	84,000	0.9091	76,364
2	1,20,000	36,000	84,000	0.8264	69,418
3	1,20,000	36,000	84,000	0.7513	63,109
4	1,20,000	36,000	84,000	0.6830	57,372
					<u>2,66,263</u>

Alternatively, PV of outflow under lease can be calculated as follows:

Particulars	(₹)
Lease rent per year	1,20,000
Less: Tax @ 30%	(36,000)
After Tax Rent	84,000
PVAF (10%, 4 Years)	3.1699
PV of Outflow	2,66,272

Alternative 2 - To borrow money and own the equipment

End of year	Principal borrowed outstanding	Annual payment	Interest payable	Depre-ciation	Tax saving @ 30% on interest and depreciation	Net cash	PVF @ 10%	Present value
0	4,00,000	Nil	–	–	Nil	Nil	Nil	Nil
1	3,00,000	1,24,000	24,000	1,00,000	37,200	86,800	0.9091	78,910
2	2,00,000	1,18,000	18,000	1,00,000	35,400	82,600	0.8264	68,261
3	1,00,000	1,12,000	12,000	1,00,000	33,600	78,400	0.7513	58,902
4	Nil	1,06,000	6,000	1,00,000	31,800	74,200	0.6830	50,679
								2,56,752

Decision : As the present value of borrowing the money and buying the equipment is less than present value of leasing the equipment, therefore the equipment should be bought from borrowed funds.

Question 6

BG Co.'s present annual sales amount to ₹36 lakhs at ₹12 per unit. Variable cost are 6 per unit and fixed cost amount to ₹2.50 lakhs per annum. Company presently offers credit period of one month to its customers. It is proposed to extend credit period to 2 months and 3 months. The following are the estimates of the results likely to be obtained by change of credit terms :

Credit Policy	1 month	2 months	3 months
Increase in sales %		10	25
% of Bad Debts to Sales	1	2	5

Fixed costs will increased by ₹1,00,000 annually after any increase in sales above 20% over the present level.

The company requires a pre-tax return on investment of 20% for the level of risk involved. What will the most rewarding credit policy for the company ?

(16 marks)

Answer 6**Statement showing effect of various credit policies**

	Present policy (1 month credit)	Alternative-1 (2 months credit)	Alternative - 2 (3 months credit)
A. Sales			
(i) Present sales (in units)	3,00,000	3,00,000	3,00,000
Increase in sales (in units)	-	30,000	75,000
Total (in units)	3,00,000	3,30,000	3,75,000
(ii) Sales @ ₹12/ unit (in ₹)	36,00,000	39,60,000	45,00,000
B. Variable cost			
@ ₹ 6 per unit	18,00,000	19,80,000	22,50,000
Gross margin (in ₹)	18,00,000	19,80,000	22,50,000
C. Fixed cost (in ₹)	2,50,000	2,50,000	3,50,000
D. Net margin	15,50,000	17,30,000	19,00,000
E. Invested in receivables (in ₹) (variable cost + fixed cost) * no. of months' credit/12	1,70,833	3,71,667	6,50,000
F. Expected return @ 20% receivables (in Rs.)	34,167	74,333	1,30,000
G. Bad debt to sales (in ₹)	36,000	79,200	2,25,000
H. Net profit (D-F-G) (in ₹)	14,79,833	15,76,467	15,45,000

Decision : Credit policy of 2 months gives maximum profit. Hence, this is most rewarding credit policy for the company.

TABLE - 1 : PRESENT VALUE OF RUPEE ONE

RATE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
21%	0.8264	0.6830	0.5645	0.4665	0.3855	0.3186	0.2633	0.2176	0.1799	0.1486	0.1228	0.1015	0.0839	0.0693	0.0573
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
23%	0.8130	0.6610	0.5374	0.4369	0.3552	0.2888	0.2348	0.1909	0.1552	0.1262	0.1026	0.0834	0.0678	0.0551	0.0448
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
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

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

RATE	YEAR	YEAR	YEAR	YEAR														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15	15	15
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7884	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986	10.3797			
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2098	6.8017	7.3601	7.8869	8.3838	8.8527	9.2950	9.7122			
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5152	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079			
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2054	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595			
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			
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			
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2055	6.4924	6.7499	6.9819	7.1909			
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			
13%	0.8850	1.6681	2.3612	2.9745	3.5172	3.9975	4.4226	4.7988	5.1317	5.4262	5.6869	5.9176	6.1218	6.3025	6.4624			
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			
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	5.5831	5.7245	5.8474			
16%	0.8621	1.6052	2.2459	2.7982	3.2743	3.6847	4.0386	4.3436	4.6065	4.8332	5.0286	5.1971	5.3423	5.4675	5.5755			
17%	0.8547	1.5852	2.2096	2.7432	3.1993	3.5892	3.9224	4.2072	4.4506	4.6586	4.8364	4.9884	5.1183	5.2293	5.3242			
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			
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			
20%	0.8333	1.5278	2.1065	2.5887	2.9806	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4382	4.5327	4.6106	4.6755			
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			
22%	0.8197	1.4915	2.0422	2.4936	2.8636	3.1669	3.4155	3.6193	3.7863	3.9232	4.0354	4.1274	4.2028	4.2646	4.3152			
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			
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			
25%	0.8000	1.4400	1.9520	2.3616	2.6893	2.9514	3.1611	3.3289	3.4631	3.5705	3.6564	3.7251	3.7801	3.8241	3.8593			

ETHICS, GOVERNANCE AND SUSTAINABILITY

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

PART — A

Question 1

- (a) *Apex Pharmaceuticals Company Ltd. is a well reputed multinational company dealing in manufacturing and marketing of life saving drugs and formulations. Company's Research and Development (R & D) Department is actively engaged in development and formulations of new drugs in general and life saving drugs in particular. While experimenting with a chemical molecule, R & D department sees the possibility that a molecule may be developed into a drug that may prove very helpful in the treatment of a rare, painful and life threatening genetic disease, for which no effective drug is available at present in the market, but which afflicts to only one child in one million. However, development of the drug will require investment of huge sum of investors' money of the company, despite the drug may not have saleability.*

The R & D department of the company brings this to the notice of Mr. Ram, who is the CEO of the company.

Taking the above facts into consideration, answer :

- (i) *What dilemma Mr. Ram is facing ?*
- (ii) *As a CEO, in place of Mr. Ram, how you would have acted in such situation? (5 marks each)*
- (b) *Answer the following :*
- (i) *"An action is considered good if its consequences are good." Explain.*
- (ii) *"Ethical climate provides employees to obey and adhere to the rules and authority." Explain.*
- (iii) *Discuss Steward Theory of Corporate Governance.*
- (iv) *Should there be an induction programme for Directors ? Discuss.*
- (v) *"Stakeholder is any group of individuals which can effect or is affected by the organization." What are the types of stakeholders ? (2 marks each)*
- (c) *"How does better stakeholder engagement enables good governance." Discuss. (5 marks)*

Answer 1(a)(i)

Dilemma is a situation that requires a choice between options that are or seem equally unfavourable or mutually exclusive. By definition, an ethical dilemma involves the need to choose from among two or more morally acceptable courses of action, when

one choice prevents selecting the other; or, the need to choose between equally unacceptable alternatives. A dilemma could be a right vs. wrong situation in which the right would be more difficult to pursue and wrong would be more convenient. Easier dilemmas involve a 'right' versus 'wrong' answer; whereas complex ethical dilemmas involve a decision between a right and another right choice.

Keeping of the fact of the case, it can be said that Mr. Ram is certainly in dilemma. Here in this case, Mr. Ram is required to choose between carrying out the development of a drug for a rare, painful and life threatening disease which afflict to only one in a million and the action of spending huge sum of shareholder's money. As one can see, both are positive and ethically right choices. As a socially responsible person, he has to think in terms of eliminating a serious but at the same time he must be careful in dealing with shareholder's money. Thus, it is a classic case of ethical dilemma.

Answer 1(a)(ii)

As CEO in place of Mr. Ram, I would have opted the following course of action to resolve this ethical dilemma.

1. Defining the problem clearly;
2. Getting the collection of the statistical data across the globe, the previous history of such type of genetic disease and probable cause of its spreading in the coming time;
3. Searching and developing all possible options available;
4. Evaluating each available option carefully in term of pros and cons of each of them;
5. Taking the senior management (Board of Directors, etc.) in confidence and keep them apprising of the situation;
6. Comparing positive and negative consequences of each option;
7. Choosing the best available action keeping resources and other prevailing situations of the company in mind; and
8. Properly implementing the decision taken and keeping the follow-up of the same.

Answer 1(b)(i)

The statement, "an action is considered good if its consequences are good", is based on the theme of Teleological theory of ethics. The theory holds that end or consequences of an act determine whether the act is good or bad. Rightness of actions is determined solely by their good consequences. Teleological approach is also known as consequential ethics.

Answer 1(b)(ii)

Adherence to rules and authority is basically ethics in compliance. An ethical climate in an organisation ensures that compliance with law is fuelled by a desire to abide by the laws. Ethical organizations create an environment that is trustworthy, making employees willing to rely on company's policies, ability to take decisions and act on those decisions. Thus, ethical climate provides employees to obey and adhere to the rules and authority.

Answer 1(b)(iii)

The word 'steward' means a person who manages another's property or estate. Here, the word is used in the sense of guardian in relation to a corporation. The Steward Theory of Corporate Governance is value based. Managers and employees are to safeguard the resources of corporation and its property and interest when the owner is absent. They are like a caretaker. They have to take utmost care of the corporation. They should not use the property for their selfish ends. This theory makes use of the social approach to human nature.

Answer 1(b)(iv)

Yes, induction programme is must for directors. Directors must have a broad understanding of the area of operation of the company's business, corporate strategy and challenges being faced by the Board. A formal on-boarding program for new directors would be most helpful in getting new board members up to speed quickly and enabling them to contribute sooner. It involves building rapport, trust and credibility with the other directors so that the new director is accepted by and can work with fellow directors.

Answer 1(b)(v)

The stakeholders may be classified into Primary and Secondary Stakeholders:

- **Primary stakeholders** are those whose continued association is absolutely necessary for a firm's survival; these include employees, customers, investors, and shareholders, as well as the governments and communities that provide necessary infrastructure.
- **Secondary stakeholders** do not typically engage in transactions with a company and thus are not essential for its survival; these include the media, trade associations, and special interest groups.

Answer 1(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 promote dialogue. Stakeholder engagement identifies stakeholders, assesses stakeholder needs, develops stakeholder relations plans and forms alliances with stakeholders.

Stakeholder engagement provides opportunities to further align business practices with societal needs and expectations, helping to drive long-term sustainability and shareholder value. Stakeholder engagement helps the organization, to compete in an increasingly complex and ever-changing business environment, while at the same time bringing about systemic change towards sustainable development.

Stakeholder engagement leads to increased transparency, responsiveness, compliance, organizational learning, quality management, accountability and sustainability. Stakeholder engagement is a central feature of sustainability performance. In nutshell, the stakeholder's engagement ensures good governance.

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

Question 2

- (a) *"Companies showing commitment to ethical conduct consistently outperform in comparison to those which do not show." Comment.*
- (b) Discuss provisions of the companies Act, 2013 with regard to vigil mechanism.
- (c) A meeting of Board of Directors of Ashoka Business Corporation Ltd. is held on 30th June, 2017 at its registered office, 1, Ashoka Marg New Delhi, in which board considered and approved company's financial statement for the F/Y ending 31st March, 2017 and made declaration of 20% dividends on its equity shares. You being the Company Secretary, draft the minutes of Board meeting.
(5 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

- (i) *"Secretarial Audit is a process to check compliance with provisions of all applicable laws and rules/regulations/procedures." Elaborate and discuss provisions of the Companies Act, 2013 with regard to Secretarial Audit.*
- (ii) *How the institutional investors assess the health of a company before making the investment decision ?*
- (iii) *Discuss the rationale behind composition of Board Committees.*
(5 marks each)

Answer 2(a)

More and more companies have begun to recognize the relation between business ethics and financial performance. Companies displaying a "clear commitment to ethical conduct" consistently outperform those companies that do not display an ethical conduct. Adherence of business ethics results in the following benefits -

1. Attracting and retaining talent

The ethical climate matters a lot to the employees. A company that adheres to ethical values and dedicatedly takes care of its employees is rewarded with equally loyal and dedicated employees. Talented people like to offer their services on continuous basis in such organisations which adhere to ethical values.

2. Investor loyalty

Investors are concerned about ethics, social responsibility and reputation of the company in which they invest. Investors are becoming more and more aware that an ethical climate provides a foundation for efficiency, productivity and profits.

3. Customer satisfaction

Customer satisfaction is a vital factor of a successful business strategy. Repeated purchases/ orders and an enduring relationship with mutual respect

are essential for the success of the company. Ethical conduct towards customers builds a strong competitive position for the company.

4. Regulators

Regulators eye companies functioning ethically as responsible citizens. The regulator need not always monitor the functioning of the ethically sound company.

Further, any organisation that acts within the confines of business ethics not only earns profit but also gains reputation publicly.

Answer 2(b)

The Companies Act, 2013 [Sub-sections (9) and (10) of Section 177 read with Rule 7 of Companies (Meetings of Board and its Powers) Rules, 2014] contains following provisions w.r.t. vigil mechanism -

1. Every listed company and the companies belonging to the following class or classes shall establish a vigil mechanism for their directors and employees to report their genuine concerns or grievances-
 - (a) The companies which accept deposits from the public;
 - (b) The companies which have borrowed money from banks and public financial institutions in excess of fifty crore rupees.
2. The vigil mechanism shall provide for adequate safeguards against victimisation of persons who use such mechanism and make provision for direct access to the chairperson of the Audit Committee or the director nominated to play the role of Audit Committee, as the case may be, in appropriate or exceptional cases.
3. The details of establishment of such mechanism shall be disclosed by the company on its website, if any, and in the Board's report.
4. The companies which are required to constitute an audit committee shall oversee the vigil mechanism through the committee and if any of the members of the committee have a conflict of interest in a given case, they should recuse themselves and the others on the committee would deal with the matter on hand.
5. In case of other companies, the Board of directors shall nominate a director to play the role of audit committee for the purpose of vigil mechanism to whom other directors and employees may report their concerns.
6. In case of repeated frivolous complaints being filed by a director or an employee, the audit committee or the director nominated to play the role of audit committee may take suitable action against the concerned director or employee including reprimand.

Answer 2(c)

Minutes of the _____ (Serial Number of the Meeting) Meeting of the Board of Directors of Ashoka Business Corporation Ltd., held on Friday, the 30th June 2017 at _____ (Time of Commencement) at Registered Office of the Company i.e. 1, Ashoka Marg, New Delhi.

PRESENT:

- A Chairman
- B Director
- C Director
- E Managing Director

IN ATTENDANCE:

- X Company Secretary

INVITEES:

- Y Chief Financial Officer

1. Chairman for the Meeting

Mr A being the Chairman of the Board chaired the Meeting.

2. Leave of absence

Leave of absence from attending the Meeting was granted to and who expressed their inability to attend the Meeting to the Company Secretary owing to their preoccupation.

3. Quorum

The business before the Meeting was taken up after having established that the requisite quorum was present.

4. Minutes of the previous Board Meeting

The Minutes of the Meeting of the Board of Directors of the company held on at, as circulated along with the agenda, were noted by the Board.

5. Minutes of the Committee Meetings

The Minutes of the Meeting of the Committee(s) held on, as circulated along with the agenda, were noted by the Board.

6. Financial Statements

The draft balance sheet as at 31st March 2017, the statement of profit and loss for the year ended 31st March 2017 and the cash flow statement for the year ended 31st March 2017 of the Company were placed before the Board for its approval.

Mr. Y made a detailed presentation to the Board on the financial statements. The Chairman of the Audit Committee confirms that there were no adverse remarks/observations of auditor on financial statements.

The Board, after discussion, passed the following Resolution:

“RESOLVED THAT pursuant to the provisions of Section 134 of the Companies

Act, 2013, the Financial Statements for the year ended 31st March 2017 comprising the Balance Sheet as at 31st March 2017, Statement of Profit and Loss for the year ended 31st March 2017 alongwith the Notes to the Financial Statements and Cash Flow Statement derived from the Financial Statement for the year ended 31st March 2017, as recommended by the Audit Committee at its meeting held on ___May 2017 be and are hereby approved.

RESOLVED FURTHER THAT the Balance Sheet as at 31st March 2017, the Statement of Profit & Loss for the year ended 31st March 2017 and the Cash Flow Statement derived from the Accounts for the year ended 31st March 2017 be and are hereby signed on behalf of the Board by Mr. _____ (DIN:), Director, Mr. _____ Managing Director (DIN:), Mr. _____, Chief Financial Officer and Mr. _____, Company Secretary.”

The meeting was adjourned for receipt of Auditors’ Report. Thereafter, the Statutory Auditor submitted his report on the Financial Statement for the year ended 31st March 2017 and the meeting resumed. The Board noted that there were no qualification / adverse remarks in the said Report and after deliberation passed the following Resolution :

“RESOLVED THAT the Annual Financial Statements of the Company for the year ended 31st March 2017, as approved by the Board and the Auditors’ Reports thereon, be presented to the shareholders for adoption.”

7. Dividend

The payment of Dividend for the year ending 31st March 2017 was considered on the basis of the audited Financial Statements of the company for the period from 1st April 2016 to 31st March 2017. The Directors opined that there were adequate profits/free reserves to permit payment of Dividend.

The Board, after discussion, recommended payment of final dividend @20% per equity share and passed the following Resolution:

“RESOLVED THAT pursuant to the provisions of Section 123 of the Companies Act, 2013 and the rules made thereunder, final Dividend @ 20% amounting to Rs. per equity share is and hereby recommended to be paid on all equity shares, out of the profits of the company for the year ending 31st March 2017, after providing for depreciation in accordance with the provisions of the Companies Act, 2013, whose names appear in the Register of Members of the company on the of (date).

RESOLVED FURTHER THAT the transfer books and the Register of Members be closed from the of to the of (dates), both days inclusive, for the purpose of payment of such dividend.

RESOLVED FURTHER that the Dividend Distribution Tax shall be borne by the Company.”

8. Opening of a Bank Account for payment of Dividend

The Board passed the following resolution for opening a bank account for the purpose of payment of Dividend:

“RESOLVED THAT a Bank Account be opened in the name and style of ‘Ashoka Business Corporation Ltd. - Dividend’ (Bank Account) with the for payment of Dividend for the financial year ending 31st March 2017.

RESOLVED FURTHER THAT the said Bank be and is hereby authorised to honour cheques / bank advices etc. drawn, accepted or made on behalf of the company and to act on any instruction(s) so given concerning the said Account by any two of the following signatories:

.....

RESOLVED FURTHER THAT the said Bank be and is hereby authorised to change the name and style of the Bank Account to ‘Ashoka Business Corporation Ltd. - Unpaid Dividend’ on and from

RESOLVED FURTHER THAT the authorised signatories be and are hereby authorised, in the manner stated above, to give instructions to the said Bank to close the Bank Account on disbursement of the Dividend.

RESOLVED FURTHER THAT the authorised signatories be and are hereby authorised, in the manner stated above, to sign and execute such documents, letters etc., as may be required by the said Bank.”

9. Conclusion of the Meeting

There being no other business, the Meeting concluded at (Time) with a vote of thanks to the Chair.

Date

.....Chairman

Place

Entered on

(to be initialled by the Company Secretary)

Answer 2A(i)

Secretarial Audit is a process to check compliance with the provisions of all applicable laws and rules/regulations/procedures, maintenance of books, records etc., by an independent professional to ensure that the company has complied with the legal and procedural requirements and also followed due processes.

In terms of Section 204(1) of the Companies Act, 2013 read with Rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, every listed company and a public company having a paid up share capital of Rs. 50 crore or more; or having a turnover of Rs. 250 crores or more shall annex with its Board's report a secretarial audit report given by a company secretary in practice. Secretarial Audit Report is required to be provided in the format prescribed in Form MR-3.

It shall be the duty of the company to give all assistance and facilities to the company secretary in practice, for auditing the secretarial and related records of the company.

The Board of Directors, in their report made in terms of sub-section (3) of Section

134, shall explain in full any qualification or observation or other remarks made by the company secretary in practice in his secretarial audit report.

Penalty for non-compliance : If a company or any officer of the company or the company secretary in practice, contravenes the provisions of this section, the company, every officer of the company or the company secretary in practice, who is in default, shall be punishable with fine which shall not be less than one lakh rupees but which may extend to five lakh rupees.

Answer 2A(ii)

Institutional investors use different tools to assess the health of Company before investing resources in it. Some of the important tools are discussed as under:

1. **One-to-one meetings** : The meetings between institutional investors and companies are extremely important as a means of communication between the two parties, and a tool to assess the health of companies. Company usually arrange such meeting with its largest institutional investors and not with other investors.
2. **Voting** : The right to vote can be seen as fundamental tool for some element of control by shareholders. The institutional investors can register their views by postal voting, or, vote electronically where this facility is available. By voting, institutional investors can build pressure on management of the corporation. Most of the large institutional investors now have a policy of trying to vote on all issues which may be raised at their investee company's AGM.
3. **Focus lists** : A number of institutional investors have established 'focus lists' whereby they target underperforming companies and include them on a list of companies which have underperformed a main index. After being put on the focus list, the companies often receive unwanted, attention of the institutional investors who may seek to change various directors on the board.
4. **Corporate governance rating systems** : With the increasing emphasis on corporate governance across the globe, it is perhaps not surprising that a number of corporate governance rating systems have been developed. Some institutional investors have developed corporate governance rating systems. A corporate governance rating could be a powerful indicator of the extent to which a company currently is adding, or has the potential to add in the future, shareholders value.

Answer 2A(iii)

Board committees are pillars of corporate governance. The board constitutes various committees, statutory as well as non-statutory, as a means of improving board effectiveness and efficiency where more focused, specialized and technically oriented discussions are required. Committees prepare the ground work for decision making and report at the subsequent board meetings. Further, committees enable better management of the board's time and allow in-depth scrutiny and focused attention.

Committees allow the board to handle larger number of issues with greater efficiency by having experts focusing on specific matters. Committees review information in greater detail and provide the board with an objective and independent insight into board's functioning and judgment.

Greater specialization and intricacies of modern board work is one of the reasons for increased use of board committees. Some advantages of committees include:

- (i) Responsibilities are shared;
- (ii) More members become involved;
- (iii) Specialized skills of members can be used to best advantage;
- (iv) Inexperienced members gain confidence while serving on the committee; and
- (v) Matters may be examined in more detail by a committee.

Question 3

- (a) *You are the Company Secretary of ABC Ltd., the turnover of your company as per last audited financial statement has crossed Rs. 100 crore. As per requirement of Section 177 (i) of the Companies Act, 2013 your company is required to constitute an Audit Committee. Board of Directors of the company has asked you to draft the composition of audit committee.*

Keeping in view the provisions of Companies Act, 2013 and Listing Obligations and Disclosure Requirement (LODR), 2015 prepare a note for the composition of audit committee. (5 marks)

- (b) *"Unit and unless risks are properly managed they may cause severe loss to the business." In the context of this, discuss what steps you would like to take for the proper management of the risks of your business. (5 marks)*

- (c) *Discuss recommendations of Ganguli Committee on Corporate Governance specifically applicable to Public Sector Banks. (5 marks)*

Answer 3(a)

The constitution of Audit Committee is mandated under the Companies Act, 2013, and the SEBI (Listing Obligations and Disclosure Requirements (LODR)) Regulations, 2015.

Section 177(1) of the Companies Act, 2013 read with Rule 6 of the Companies (Meetings of Board and its Powers) Rules, 2014 provides that every listed company and all public companies with a paid up capital of Rs 10 crores or more, or having turnover of Rs 100 crores or more, or having in aggregate outstanding loans or borrowing debenture or deposits exceeding Rs 50 crores or more shall constitute an Audit Committee.

Section 177(2) of the Companies Act, 2013 provides that Audit Committee shall consist of a minimum of three directors and the majority of directors shall be independent directors. The Act further provides that majority of members of Audit Committee including its Chairperson shall be persons with ability to read and understand the financial statement.

Regulation 18(1) of the SEBI (LODR) Regulations, 2015 also provides that Audit Committee shall consist of a Minimum three directors as members. Two-thirds (2/3rd) of the members shall be independent directors and all members of Audit Committee shall be financially literate and at least one member shall have accounting or related financial management expertise. The chairperson of the Audit Committee shall be an independent director and company secretary shall act as its secretary.

Draft Resolution for the appointment of Audit Committee

“**RESOLVED THAT** pursuant to the provisions of Section 177 of the Companies Act, 2013, Regulation 18(1) of the SEBI (LODR) Regulations, 2015 and Article No. _____ of the Articles of Association of the Company, the Board hereby constitute the Audit Committee consisting of the following directors of the company:

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>	<i>Position in the committee</i>
1.	Mr. X	Director (Independent Director)	Chairman
2.	Mr. Y	Director (Independent Director)	Member
3.	Ms. Z	Managing Director	Member

RESOLVED FURTHER THAT the Audit Committee shall have the terms of reference in accordance with the provisions of Section 177 of the Companies Act, 2013 and Regulation 18(1) of the SEBI (LODR) Regulations, 2015.

RESOLVED FURTHER THAT the quorum of Audit Committee shall either be two members or one third of the members of the audit committee, whichever is greater, with at least two independent directors.”

Answer 3(b)

Risks, if not managed properly may cause severe damage to the organisations and therefore almost all organisations develop sequential process to deal with risks. The steps every business should take for the proper management of risk of business are as under:

1. **Identification of risk** : It is the first phase of the risk management process. The origin/source of the risk is identified.
2. **Assessment of risk** : After identifying the origin of the risk the second step is assessment of the risk. A business organisation faces various threats and vulnerabilities that may affect its operation or the fulfilment of its objectives. Therefore, the quantum and severity of risk involved is assessed.
3. **Analysing and evaluating the risk** : It is the third step where the risk is analysed and evaluated. The risk analysis involves thorough examination of the risk sources, its positive and negative consequences, the likelihood of the consequences that may occur and the factors that affect them and assessment of any existing controls or processes that tend to minimize negative risks or enhance positive risks.
4. **Handling of risk** : The ownership of risk should be allocated. The persons concerned when the risk arises, should document it and report it to the higher ups in order to have the early measures to get it minimized. Risk may be handled in the following ways:
 - (i) Risk Avoidance;
 - (ii) Risk Retention/absorption – it may be active or positive;

- (iii) Risk Reduction;
- (iv) Risk Transfer.

5. Implementations of decision : The last step in the risk management process is the implementation of the decision. It is recommended to the Board or the organization to use various alternatives of tackling the risks. After getting it approved, initiate measures to implement it.

Answer 3(c)

To introduce corporate governance best practices in the banking sector, the Reserve Bank of India constituted a Consultative Group in November 2001 under the Chairmanship of Dr. A. S. Ganguly, which submitted its report in April 2002. The Ganguly Committee made some recommendations on Corporate Governance in banks.

The recommendations of the Ganguly Committee on Corporate Governance specifically applicable to Public Sector Banks are as under:

- (i) *Information flow* : In order to improve manner in which the proceedings are recorded and followed up in public sector banks, they may initiate measures to provide the following information to the board:
 - A summary of key observations made by the directors which should be submitted in the next board meeting.
 - A more detailed recording of the proceedings which will clearly bring out the observations, dissents, etc. by the individual directors which could be forwarded to them for their confirmation.
- (ii) *Company Secretary* : The Company Secretary has important fiduciary and Company Law responsibilities. The Company Secretary is the nodal point for the Board to get feedback on the status of compliance by the organisation in regard to provisions of the Company Law, listing agreements, SEBI regulations, shareholder grievances, etc. In view of the important role performed by the Company Secretary vis-à-vis the functioning of the Boards of the banks, as also in the context of some of the public sector banks having made public issue it may be necessary to have Company Secretary for these banks also. Banks should therefore consider appointing qualified Company Secretary as the Secretary to the Board and have a Compliance Officer (reporting to the Secretary) for ensuring compliance with various regulatory/accounting requirements.

Question 4

- (a) *Discuss provisions relating to prior intimation of Board meeting to Stock Exchange as per SEBI (LODR) Regulations, 2015. (5 marks)*
- (b) *"Corporate governance is needed to create a corporate culture of transparency, accountability and disclosure", comment. (5 marks)*
- (c) *"In certain cases Reserve Bank of India can appoint chairman or managing director of a banking company." In the context of this discuss the provisions of Banking Regulation Act, 1949 with regard to appointment of Chairman of the banking company. (5 marks)*

Answer 4(a)

Regulation 29 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 provides that the listed entity shall give prior intimation to stock exchange about the meeting of the board of directors in the following manner-

- A. At least two working days in advance**, excluding the date of the intimation and date of the meeting in which any of the following proposals is due to be considered-
- proposal for buyback of securities.
 - proposal for voluntary delisting by the listed entity from the stock exchange(s).
 - fund raising by way of further public offer, rights issue, American Depository Receipts/ Global Depository Receipts/ Foreign Currency Convertible Bonds, qualified institutions placement, debt issue, preferential issue or any other method and for determination of issue price. Provided that intimation shall also be given in case of any annual general meeting or extraordinary general meeting or postal ballot that is proposed to be held for obtaining shareholder approval for further fund raising indicating type of issuance.
 - declaration/ recommendation of dividend, issue of convertible securities including convertible debentures or of debentures carrying a right to subscribe to equity shares or the passing over of dividend.
 - the proposal for declaration of bonus securities where such proposal is communicated to the board of directors of the listed entity as part of the agenda papers. Provided that in case the declaration of bonus by the listed entity is not on the agenda of the meeting of board of directors, prior intimation is not required to be given to the stock exchange(s).
- B. At least five days in advance** excluding the date of the intimation and date of the meeting in which the proposal w.r.t. financial results viz. quarterly, half yearly, or annual, as the case may be, is due to be considered (the intimation shall include the date of such meeting of the board of directors also).
- C. At least eleven working days** before any of the following proposal is placed before the board of directors -
- any alteration in the form or nature of any of its securities that are listed on the stock exchange or in the rights or privileges of the holders thereof.
 - any alteration in the date on which, the interest on debentures or bonds, or the redemption amount of redeemable shares or of debentures or bonds, shall be payable.

Answer 4(b)

Corporate Governance is needed to create a corporate culture of transparency, accountability and disclosure. It refers to compliance with all the moral & ethical values, legal framework and voluntarily adopted practices. Corporate Governance is needed for the following:

- (a) Corporate Performance** : Improved governance structures and processes

ensure quality decision-making, encourage effective succession planning and enhance the long-term prosperity of companies.

- (b) **Enhanced Investor Trust** : Investors consider corporate governance as important as financial performance when evaluating companies for investment. Investors who are provided with high levels of disclosure and transparency are likely to invest openly in those companies.
- (c) **Better Access to Global Market** : Good corporate governance system attracts investment from global investors, which subsequently leads to greater efficiencies in the financial sector.
- (d) **Combating Corruption** : Companies that are transparent, and have sound system that provide full disclosure of accounting and auditing procedures, allow transparency in all business transactions, provide environment where corruption would certainly fade out.
- (e) **Easy Finance from Institutions** : Evidences indicate that well-governed companies receive higher market valuations. The credit worthiness of a company can be trusted on the basis of corporate governance practiced in the company.
- (f) **Enhancing Enterprise Valuation** : Improved management accountability and operational transparency fulfil investors' expectations and confidence on management and corporations, and in return, increase the value of corporations.
- (g) **Reduced Risk of Corporate Crisis and Scandals** : Effective Corporate Governance ensures efficient risk mitigation system in place.
- (h) **Accountability** : Investor relations are essential part of good corporate governance. Investors directly/ indirectly entrust management of the company to create enhanced value for their investment. Good Corporate Governance practices create the environment whereby Boards cannot ignore their accountability to these stakeholders.

Answer 4(c)

Section 10BB of the Banking Regulation Act, 1949, deals with power of Reserve Bank of India (RBI) to appoint chairman of banking company. The provisions are as under:

- (1) Where the office, of the Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director of a banking company is vacant, the Reserve Bank may, if it is of opinion that the continuation of such vacancy is likely to adversely affect the interest of the banking company, appoint a person, eligible under sub-section (4) of Section 10B to be so appointed, to be the Chairman of the banking company and where the person so appointed is not a director of such banking company, he shall, so long as he holds the office of the Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director, be deemed to be a director of the banking company.
- (2) The Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director so appointed by the Reserve Bank shall be in the whole-time employment of the banking company and shall hold office for such period not

exceeding three years, as the Reserve Bank may specify, but shall, subject to other provisions of this Act, be eligible to re-appointment.

- (3) The Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director so appointed by the Reserve Bank shall draw from the banking company such pay and allowances as the Reserve Bank may determine and may be removed from office only by the Reserve Bank.
- (4) Save as otherwise provided in this section, the provisions of Section 10B shall, as far as may be, apply to the Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director appointed by the Reserve Bank under sub-section (1) as they apply to the Chairman of the Board of Directors appointed on a whole-time basis or a Managing Director appointed by the banking company.

PART – B

Question 5

- (a) *"Modern business organizations are giving higher attention on discharging their social responsibilities." Elaborate and discuss the factors which led to increasing attention being devoted to CSR by these organizations. (5 marks)*
- (b) *Why sustainability is considered an imperative in the present age ? (5 marks)*
- (c) *What are the Millennium Development Goals established following the UN Millennium Summit, 2000. (5 marks)*

Answer 5(a)

It is true that modern organisations have become more social responsibility conscious in comparison to old or traditional organisation and they are paying higher attention towards the discharge of their social responsibility. One of the possible reasons is that these organisations has realised that it is in their own interest to discharge social responsibility.

Many factors influencing Corporate Social Responsibility (CSR), some of them are as under:

- (i) Globalization coupled with focus on cross-border trade, multinational enterprises and global supply chains is increasingly raising CSR concerns relating to Human Resource Management practices, environmental protection, and health and safety, among other things.
- (ii) Governments and Intergovernmental bodies, such as the United Nations, the Organisation for Economic Co-operation and Development and the International Labour Organization have developed compacts, declarations, guidelines, principles and other instruments that outline social norms for acceptable conduct.
- (iii) Advances in communication technology are making it easier to track corporate activities and disseminate information about them.
- (iv) Consumers and investors are showing increased interest in supporting responsible business practices and are demanding more information on how companies are addressing risks and opportunities related to social and environmental issues.

- (v) Citizens in many countries are making it clear that corporations should meet standards of social and environmental care, no matter where they operate.
- (vi) There is increasing awareness of the limits of government legislative and regulatory initiatives to effectively capture all the issues that corporate social responsibility addresses.
- (vii) Businesses are recognizing that adopting an effective approach to CSR can reduce risk of business disruptions, open up new opportunities, and enhance brand and company reputation.
- (viii) The legislative requirements prescribing mandatory spending on CSR.

Answer 5(b)

Sustainability is interchangeably used for the term 'sustainable development'. It can be defined as a 'strategy' by which businesses and communities approach growth, economic development, or even their daily activities in a manner that either preserves or improves their environment and / or quality of life.

Sustainability is an emerging megatrend and is a measure of good corporate governance. Over the years, environmental issues have steadily encroached on businesses' capacity to create value for the customers, shareholders, and other stakeholders. Globalized workforces and supply chains have created environmental pressures and attendant business liabilities. The rise of new world powers has intensified competition for natural resources (especially oil) and added a geopolitical dimension to sustainability. "Externalities", such as carbon dioxide emissions and water use are fast becoming materials—meaning that investors consider them central to a firm's performance and stakeholders expect companies to share information about them.

These forces are magnified by escalating public and governmental concern about climate change, industrial pollution, food safety, and natural resource depletion, among other issues. Consumers in many countries are seeking out sustainable products and services or leaning on companies to improve the sustainability of traditional ones.

Further, fuelling this mega trend, thousands of companies are placing strategic bets on innovation in energy efficiency, renewable power, resource productivity, and pollution control.

Thus, it can be concluded that the top management of an organisation can no longer afford to ignore sustainability as a central factor in their companies' long-term competitiveness.

Companies are the main contributors to economic, social and environmental well-being. Corporate activities are vital in the present and will have serious bearing on the future. Therefore, corporate sustainability is imperative for the long-term sustainable development of the economy and society.

Answer 5(c)

The Millennium Development Goals (MDGs) were eight international development goals that had been established following the UN Millennium Summit of the United Nations (UN) in 2000 following the adoption of the United Nations Millennium Declaration.

All 191 United Nations members stated at that time, and at least 22 international organizations, had committed to help achieve the following MDGs by the year 2015:

1. To eradicate extreme poverty and hunger;
2. To achieve universal primary education;
3. To promote gender equality and empower women;
4. To reduce child mortality rates;
5. To improve maternal health;
6. To combat HIV/AIDS, malaria, and other diseases;
7. To ensure environmental sustainability; and
8. To develop a global partnership for development.

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

Question 6

Discuss the following :

- (a) *Triple Bottom Line Approach of CSR.*
- (b) *Global Compact Self Assessment Tools.*
- (c) *Carbon Offsetting.*
- (d) *Standard and Poor's ESG India Index.*
- (e) *The 2030 Agenda for Sustainable Development.* (3 marks each)

OR (Alternate question to Q. No. 6)

Question 6A

- (i) *Corporate Citizenship is a commitment to improve community well being through voluntary practices. Comment.*
- (ii) *Discuss fundamentals principles of sustainable development.*
- (iii) *Green Washing.*
- (iv) *Statement of forest principle.*
- (v) *UK's Corporate Manslaughter and Corporate Homicide Act, 2007.* (3 marks each)

Answer 6(a)

Triple Bottom Line is a phrase coined in 1994 by John Elkington. The concept of the Triple Bottom Line proposed that business goals are inseparable from the society and environment within which they operate. The Triple Bottom Line (TBL) is made up of "Social, Economic and Environmental" aspect and is indicated by the 'People, Planet, Profit' phrase.

'People' (Human Capital) pertains to fair and beneficial business practices towards labour and the community and region in which a corporation conducts its business.

'Planet' (Natural Capital) refers to sustainable environmental practices. The 'Profit' is bottom line shared by all customers. It is the reflection of lasting economic impact the organisation has on its business activities and that too after meeting all costs that would protect society and environment.

Answer 6(b)

The Global Compact Self Assessment Tool is an easy-to-use guide designed for use by companies of all sizes and across sectors committed to upholding the social and environmental standards within their respective operations. The tool consists of 45 questions with a set of three to nine indicators for each question. It consists of a 'management section' and four other sections, comprising of human rights, labour, environment and anti-corruption that relate to the principles of the UN Global Compact. The tool is in line with the UN Guiding Principles on Business and Human Rights.

Answer 6(c)

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)

Standard & Poor's ESG India index provides investors with exposure to a liquid and tradable index of 50 of the best performing stocks in the Indian market as measured by environmental, social and governance parameters. The index employs a unique and innovative methodology that quantifies a company's ESG practices and translates them into a scoring system which is then used to rank each company against their peers in the Indian market. Its quantitative scoring system offers investors complete transparency.

The creation of the index involves a two step process, the first of which uses a multi-layered approach to determine an 'ESG' score for each company. The second step determines the weighting of the index by score. Index constituents are derived from the top 500 Indian companies by total market capitalizations that are listed on National Stock Exchange of India Ltd. (NSE).

Answer 6(e)

'The 2030 Agenda for Sustainable Development' is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. The 17 Sustainable Development Goals (SDGs) and 169 targets demonstrate the scale and ambition of this new universal Agenda. The SDGs, also known as Global Goals were adopted on 25 September 2015 by Heads of State and Government at a special UN summit. The SDGs were built on the premise of Millennium Development Goals (MDGs) and complete what MDGs did not achieve. SDGs recognize that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection. The Goals and targets will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet.

Answer 6A(i)

Yes, it is correct to say that corporate citizenship is a commitment to improve community well-being through voluntary business practices and contribution of corporate resources leading to sustainable growth. Corporate citizenship involves the social responsibility of businesses and the extent to which they meet legal, ethical and economic responsibilities, as established by shareholders. 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.

Answer 6A(ii)

The fundamental principles of sustainable development as agreed by the world community are as under:

- (i) *Principle of Intergenerational Equity* : Need to preserve natural resources for the future generations.
- (ii) *Principle of Sustainable Use* : Use of natural resources in a prudent manner without or with minimum tolerable impact on nature.
- (iii) *Principle of Equitable Use or Intergenerational Equity* : Use of natural resources by any state / country must take into account its impact on other states.
- (iv) *Principle of Integration* : Environmental aspects and impacts of socio-economic activities should be integrated so that prudent use of natural resources is ensured.

Answer 6A(iii)

Green washing is a form of corporate misrepresentation where a company presents a green public image and publicize green initiatives that are false or misleading. A company might release misleading claims or even true green initiatives while privately engaging in environmentally damaging practices. Companies try to take advantage of the growing public concern and awareness for environmental issues by promoting an environmentally responsible image. Green washing is used by companies to win over investors (especially those interested in socially responsible investing), create competitive advantage in the marketplace, and convince critics that the company is well-intentioned.

Answer 6A(iv)

The Statement of Forest Principles (also known as Rio Forest Principles) is the informal name given to the Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (1992), a document produced at the United Nations Conference on Environment and Development, informally known as the Earth Summit.

The guiding objective of these principles is to contribute to the management, conservation and sustainable development of forests, and to provide for their multiple and complementary functions and uses.

Answer 6A(v)

The Corporate Manslaughter and Corporate Homicide Act, 2007 of United Kingdom introduced offence, prosecuting companies and other organisations where there has

been a gross failing, throughout the organisation, in the management of health and safety measures having fatal consequences.

Under this Act, prosecutions are of the corporate body, and not of the individuals, but the liability of directors, board members or other individuals under health and safety law or general criminal law, will remain unaffected.
