

GUIDELINE ANSWERS

PROFESSIONAL PROGRAMME

JUNE 2016

MODULE 2



**THE INSTITUTE OF
Company Secretaries of India**

IN PURSUIT OF PROFESSIONAL EXCELLENCE
Statutory body under an Act of Parliament

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

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(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>Updating required in the answer</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
All Previous Sessions	—	All answers are based on the notified provisions of Companies Act, 2013 and the provisions of Companies Act, 1956 which are still in force and SEBI (LODR) Regulations, 2015.

PROFESSIONAL PROGRAMME EXAMINATION

JUNE 2016

INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

Question 1

- (a) Describe the 'digital signature certificate'. Under what conditions digital signature may be suspended by the certifying authority ? Explain. (5 marks)
- (b) "Information is useful for managers." List various levels of management who need information. What factors affect the information needs of management ? (5 marks)
- (c) Briefly describe the components of database systems. (5 marks)
- (d) What are the steps for writing a good and easily understood computer program? (5 marks)

Answer 1(a)

Digital Signature Certificates (DSC) are the digital equivalent (that is electronic format) of physical or paper certificates. It is a technique used to validate the authenticity and integrity of a message, software or digital document. Digital certificates can be presented electronically to prove one's identity, to access information or services on the Internet or to sign certain documents digitally and offer inherent security.

As per sub section (1) of Section 37 of the Information Technology Act, 2000, Certifying Authority which has issued a Digital Signature Certificate may suspend such Digital Signature Certificate, subject to the provisions of sub-section (2), of the Act:

- (a) on receipt of a request to that effect from the subscriber listed in the Digital Signature Certificate; or any person duly authorised to act on behalf of that subscriber;
- (b) if it is of opinion that the Digital Signature Certificate should be suspended in public interest.

A Digital Signature Certificate shall not be suspended for a period exceeding fifteen days unless the subscriber has been given an opportunity of being heard in the matter. [Section 37(2)]

Further, on suspension of a Digital Signature Certificate under Section 37, the Certifying Authority shall communicate the same to the subscriber. [Section 37(3)]

Answer 1(b)

Information is facts provided or learned about something or someone and is processed from the data. For any manager, information is the key for an organization's success as it

plays a crucial role in decision making at all levels. Managers at different organizational levels make different types of decisions, control different types of processes, and thus have different information needs. In order to efficiently do their work, managers must diagnose their information needs.

The different levels of management who need information are:

1. Top Level or Strategic Managers
2. Middle Level or Tactical Managers
3. Bottom Level or Operational Managers

There are various factors which affects the information needs. Some of them are explained below:

1. *Management Hierarchy* : Management Hierarchy plays an important role in deciding the information need of a user.
2. *Purpose of seeking information* : The information needs also depend on the purpose of seeking information.
3. *Role in the Organization* : Information need of a person also depend on the role of the concerned user. The information needs of different stakeholder in the organization will be different.
4. *Industry Attributes* : Need for information can also be governed by the market/ product which the organization deals in.

Answer 1(c)

The term 'Database' refers to an organization of components that define and regulate the collection, storage, management and use of the data within a database environment. It is composed of the five major parts:

1. *Hardware* : Hardware refers to all of the system's physical devices. Example: computers, storage devices, printers, network devices etc.
2. *Software* : Software is encoded information or computer instructions. Example: system software and application software.
3. *People* : People include all users of the database system. Example: System administrator, end user, programmer, database administrator etc.
4. *Procedures* : Procedures are the instructions and rules that govern the design and use of the database system.
5. *Data* : Data covers the collection of facts stored in the database. It is the raw material from which information is generated.

Answer 1(d)

The steps for writing good, easily understood, and useful computer programs are:

1. *Problem Analysis* : The programmer must be sure that he understands the problem and how to solve it. He must begin with clear objective of the program, the nature of the output and the input to consider for getting the desired output.

2. *Design* : The programmer must find out a logical sequence of precise steps that solve the problem i.e. algorithm. It help the programmer break down a problem into a sequence of small tasks the computer can perform to solve the problem. It may also involve using representative data to test the logic of the algorithm by hand to ensure that it is correct.
3. *Coding* : 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 to code the program. The program should be precise, free from unnecessary variables and executable.
4. *Testing and Debugging* : Testing is the process of checking, if the program is working as expected and finding errors in the program. Debugging is the process of correcting errors that are found (An error in a program is called a bug.). The process involves the location and removal of error in the program, if any.
5. *Documentation* : This stage 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. Although documentation is listed as the last step in the program development cycle, it should take place as the program is being coded.

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

Question 2

- (a) "The Information Technology Act, 2000 does not apply to certain documents or transactions." Explain. (4 marks)
- (b) List out the disadvantages of database management systems. (4 marks)
- (c) What is 'm-commerce' ? Describe its future prospects in India. (4 marks)
- (d) What are the critical success factors for ERP implementation ? Explain. (4 marks)

OR (Alternate question to Q.No. 2)

Question 2A

Distinguish between the following :

- (i) 'Tactical management' and 'operational management'.
- (ii) 'Hardware' and 'software'.
- (iii) 'Primary storage' and 'secondary storage'.
- (iv) 'Relational DBMS' and 'object-oriented DBMS'. (4 marks each)

Answer 2(a)

As per Section 1(4) of Information Technology Act, 2000, nothing in this Act applies to documents or transactions specified in the First Schedule by way of addition or deletion

of entries thereto. The following documents and transactions are specified in the First Schedule of the Act:

- (a) A negotiable instrument (other than a cheque) as defined in section 13 of the Negotiable Instruments Act, 1881;
- (b) A power-of-attorney as defined in section 1A of the Powers-of-Attorney Act, 1882;
- (c) A trust as defined in section 3 of the Indian Trusts Act, 1882;
- (d) A will as defined in clause (h) of section 2 of the Indian Succession Act, 1925 including any other testamentary disposition by whatever name called;
- (e) Any contract for the sale or conveyance of immovable property or any interest in such property;
- (f) Any such class of documents or transactions as may be notified by the Central Government in the Official Gazette.

Answer 2(b)

Disadvantages of Database Management System (DBMS) are:

1. High initial investment in hardware, software, training and installation facilities.
2. Data Conversion is very large and cumbersome task in case of installing/upgrading new DBMS.
3. DBMS is highly complex and require specific training of users.
4. Database management systems require technical staff to maintain them and keep them running. Example Database Administrators (DBA), Application Programmers.
5. While centralization reduces duplication, the lack of duplication requires that the database be adequately backed up so that in the case of failure the data can be recovered. This increases the potential severity of security breaches and disruption of the operation of the organization because of downtimes and failures.
6. While data security system is a boon for using DBMS, it must be very robust. If someone can bypass the security system then the database would become open to any kind of mishandling.
7. Regular backups are to be kept to avoid failure. Taking backup is a lengthy process and the computer system cannot perform any other job at this time.

Answer 2(c)

M-commerce i.e. Mobile-commerce is a term that is used to refer the growing practice of conducting financial and promotional activities with the use of a wireless handheld device like cell phones, personal digital assistants and other hand held devices.

Mobile Commerce has gained increasing acceptance amongst various sections of the society and India has a huge opportunity for mobile commerce. India has witnessed an exponential growth last year especially in verticals like lifestyle and classifieds. This is the first time a majority of Indians are getting connected to the internet. They are discovering products at costs that are lower than they've never seen before, and they are getting products that were not available in their market before. The major areas that are witnessing boost in the usage of m-commerce technologies include m-entertainment, m-

retailing, m-banking, m-marketing. Further, practically every sector – from banking to retail and government to healthcare is having prospects under m-commerce. Since, mobile financial services build a cornerstone of Mobile Commerce; they are also bound to grow further in terms of various sub-applications in the form of innovative mobile payment, mobile banking, mobile accounting, mobile brokerage and mobile financial information etc.

Answer 2(d)

The following factors are critical in ERP success:

1. *Top Management Commitment* : 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.
2. *Change Management Strategy* : The management commitment involves the management of change. Unless top management is involved directly, it is impossible for any line manager to face the oppression to such changes.
3. *Business Strategy* : 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.
4. *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.
5. *Project Team* : It is important to have a full time dedicated project team with a project manager to handle ERP implementation.
6. *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.
7. *Resistance to over-customization* : ERP implementation is a golden opportunity to put such “systems in place” thus tendency to “do it my way” leading to large-scale customization must be avoided.
8. *Budget and Financial Commitment* : ERP is a costly affair and can sometime an implementation overshoot its budget cost. Thus, having a contingency budget can be beneficial in such circumstances.

Answer 2A(i)

Sr. No.	Tactical Management	Operational Management
1	It is at the Middle level of management hierarchy.	It is at the lower level of management hierarchy.
2	It receive strategic orders from strategic management as general directives.	Lower management deals with decisions related to day-to-day activities.

<i>Sr. No.</i>	<i>Tactical Management</i>	<i>Operational Management</i>
3	It develops tactics or short term strategies having medium term impact to meet those strategic directives.	It makes decisions concerning a narrow time span.
4	The decision making at this level is semi structured.	Generally, the decisions at this level are structured in nature.
5	Example : Decision to run discount schemes in the Delhi NCR stores by Pantaloons Retail to achieve annual sales target is an example of decision made by tactical management.	Example: Decision by a Big Bazaar store to stock up its weekly inventory of FMCG is an example of decision made by operational management.

Answer 2A(ii)

<i>Sr.No.</i>	<i>Basis of Difference</i>	<i>Hardware</i>	<i>Software</i>
1.	Definition	Hardware refers to the tangible parts of computer.	Software refers to the instructions or programs that tell the hardware what to do.
2.	Examples	CPU, CD-ROM, monitor, printer, video card etc.	QuickBooks, Adobe Acrobat, Internet Explorer etc.
3.	Types	Input, storage, processing unit, control unit, and output devices.	System software, Application software.
4.	Interdependency	Hardware starts functioning once software is loaded.	To deliver its set of instructions is installed on hardware.

Answer 2A(iii)

<i>Sr.No.</i>	<i>Primary Storage</i>	<i>Secondary Storage</i>
1	These are semi conductor memories.	These are magnetic and optical memories.
2	They are characterized as volatile random access memories (RAM) or non-volatile memories (ROM).	They are non-volatile.
3	They contain program and data that is currently being used by micro processor.	These are used for bulk storage.
4	These memories are fast enough to interact with the microprocessor.	Slower than primary memories.
5	These are also known as Main Memory .	These are also known as Backup or Auxiliary Memory. E.g. Tapes, Floppies, Hard Discs.

Answer 2A (iv)

<i>Basis of Distinction</i>	<i>Relational Data Base Management System (RDBMS)</i>	<i>Object-Oriented Data Base Management System (OODBMS)</i>
Meaning & structure	It is based on the relational model and data is stored in the form of related tables.	It provides support for object classes, class properties and method inheritance by sub classes and their objects.
Data handling	It contains a fundamental construct of sets or records designed to handle structured data.	It supports modeling and creation of data and objects and can be used to handle unstructured data.
Complex data handling	RDBMS do not have enough efficiency in storing or handling large and complex data such as images, digital audio and video.	OODBMS was developed to overcome the limitations of RDBMS in handling large and complex data.
Examples	Oracle, Sybase, Ingress, Informix, Microsoft SQL Server, and Microsoft Access.	Gemstone, Versant, Object Store EyeDB.
User friendliness	It is easy for users to create /access and extend data in RDBMS.	Using OODBMS can be complex due to the object oriented technology.

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

Question 3

- Compact disc (CD) and digital video disc (DVD) have equal sizes, but they differ in their storage capacity. Explain. (4 marks)*
- Name and explain the different types of database. Which database will you use for analysing the marketing strategies of a company ? (4 marks)*
- What is a utility software ? Can it be used by any kind of users (people) ? Also, explain 'data synchronization' utility. (4 marks)*
- Which factors would you consider in selecting an ERP vendor and ERP system? (4 marks)*

OR (Alternate question to Q.No. 3)

Question 3A

- (i) *Discuss the factors relevant for evaluation of management information system (MIS).* (4 marks)
- (ii) *What suggestions will you recommend for successful implementation of e-governance in the country ?* (4 marks)
- (iii) *What is business continuity plan ? Why is it important ?* (4 marks)
- (iv) *Distinguish between 'top-down' and 'bottom-up' approach to MIS development.* (4 marks)

Answer 3(a)

A Compact Disc (CD) is a type of optical disc used to store digital data. It could be used to store computer files, audio files, MPEG videos etc. A CD usually holds a maximum of 74-80 minutes of sound or 650-700 megabytes of data. A Digital Versatile Disc or a Digital Video Disc (DVD) on the other hand is an optical disc capable of storing up to 4.7 GB of data, more than six times of what a CD can hold. DVDs are often used to store movies at better quality. DVDs can also have interactive menus and bonus features such as deleted scenes and commentaries. It can have one or two sides, and one or two layers of data per side; the number of sides and layers determines how much it can hold.

The data on CDs as well as DVDs is recorded in a spiral that starts at the center of the disc. CDs are made from a single layer of polycarbonate with an aluminum recording layer on the top of the disc while DVDs are made from two thin layers of polycarbonate with an aluminum recording layer between the polycarbonate layers. DVDs hold more data because they have a longer spiral to record data.

Answer 3(b)

Database could be classified into various types based on their structure, usage, ownership etc., various types of databases based on their usage are:

1. *Flat-file databases* : These are simplest databases that store data in the form of rows and columns. These are commonly used for both basic programming as well as highly-scalable multi-user websites.
2. *Analytic databases (OLAP- On Line Analytical Processing)* : These are primarily static, read-only databases which store archived, historical data used for analysis.
3. *Operational databases (OLTP- On Line Transaction Processing)* : These are used to manage more dynamic bits of data. Operational databases allows the user to modify that data (add, change or delete data). These types of databases are usually used to track real-time information.

Other types of databases could be relational database, object oriented database, hierarchal database, document oriented database, external database, distributed database etc.

For analyzing marketing strategies, a company may use analytic and operational databases in the following manner:

1. *Operational database* : It could be used to keep track of how many items have been sold and when the company will need to reorder stock. This will thus assist in analyzing the product wise marketing performance in the real time.
2. *Analytic database* : It could be used to keep track of sales records over the last ten years and use that data to analyze marketing strategies in relationship to demographics.

Answer 3(c)

Utility software is system software designed to help analyze, configure, optimize or maintain a computer. It usually focuses on how the computer infrastructure (including the computer hardware, operating system, application software and data storage) operates.

Due to the focus on how the computer infrastructure operates, utility software is often technical and targeted at people with an advanced level of computer knowledge.

Data synchronization utilities establish consistency among data from a source to target data storage and vice versa. There are branches of this type of utility:

- (a) *File synchronization utilities* : They maintain consistency between two sources and may be used to create redundancy or backup copies. These are also used to help users carry their digital music, photos and video in their mobile devices.
- (b) *Revision control utilities* : These are intended to deal with situations where more than one user attempts to simultaneously modify the same file.

Answer 3(d)

Some of the factors to be considered while selecting an Enterprise Resource planning (ERP) vendor and ERP system are:

1. *Implementation cost* : Implementing ERP involves high cost, thus, comparing the cost involved in in-house implementation of ERP vis-à-vis outsourcing the same to any particular vendor is significant.
2. *Critical Success Factor of the Vendor and ERP* : Some ERP vendors began by developing manufacturing software; others entered the field via a robust human resources package, or a data warehouse solution. Thus, understanding business needs and product's and vendor's relative strengths is essential for better selection.
3. *Functional Specifications & Customizations* : The ERP must suit the needs of the business. Further, the vendor should be ready to customize the same to fit the needs of the business as far as possible.
4. *Vendor's track record* : The track record of the vendor is also an important factor as the ERP solution and the vendor should come with a pedigree of successful implementations in the similar industry.
5. *Support Capabilities* : Be sure to evaluate the company's customer-support capabilities. The company must find out whether the vendor offers 24/7 customer

support, international support, and a Web-based help desk along with post implementation support.

6. *Flexibility* : ERP is a long-range investment. A flexible system will grow with the company, accommodating new specifications as they emerge. Flexibility is also crucial in the implementation phase, to ensure that the ERP can be aligned with existing business needs and achieve integration.
7. *Time to Implement* : Implementation can be a daunting prospect when company-wide integration is at stake. Check the rollout time proposed by the vendor for a particular ERP. An efficient rollout minimizes the costs and disruption associated with conversion. A speedy, vendor-supported implementation process also promotes user buy-in and a faster return on investment.

Answer 3A(i)

An effective MIS should be capable of meeting the information needs of its executives in future as well. To maintain this capability, evaluation of MIS and timely action thereof is required. The evaluation of MIS could take into account the following factors:

1. Flexibility of the system to meet any expected and unexpected information requirement in future.
2. Ascertaining the views of the users and the designers about the capabilities and deficiencies of the system.
3. Guiding the appropriate authority about the steps to be taken to keep the effectiveness of MIS alive.
4. Ability of MIS to provide timely information.

Answer 3A(ii)

E-governance has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. For ensuring successful implementation of e-governance in the country, following suggestions could be recommended :

1. *Create literacy and commitment to e-governance at high level* : The most important requirement is of training program to create IT literacy and awareness among policy makers in e-governance, politicians and IT task force members regarding the benefits of the e-governance. The training program needs to be focus on the requirements of the policy makers at the top.
2. *Conduct Usability Surveys for assessment of existing e-governance projects*: There seems to be a considerable divergence in the extent of implementation of the concept of e-governance. A few States have leapfrogged into a digital era whereas a few are yet to start with any initiative. It is, therefore, not possible to come up with a single framework for implementation of e-Governance applicable to all states and the Central Government. Therefore an e-readiness exercise should be carried out in all states and Government departments to understand their level of acceptability of the e-governance.
3. *Implementation of pilot projects and replicating the successful ones* : The pilot

projects taken in various states should be accessed for their achievement levels. The successful projects should be replicated over the nation with members drawn from the implementing team.

4. *Follow the Best Practices in e-governance* : The study of best practices will bring forward the efficient practices being followed in some states, nationally and internationally.
5. *Build National resource Database of e-governance projects* : This would allow to instantly ascertain whether any such project has already been implemented anywhere in the country. So that the lead-time to implement projects can be reduced substantially.
6. *Have clearly defined Interoperability policy*: The e-governance architecture needs to ensure that the components are scalable and adaptable to the future requirements.
7. *Manage and Update content efficiently and regularly* : Content is the 'heart' of any IT project. The process of content development encompasses a whole range of activities starting with a comprehensive study of the system and identification of the objectives. It ends up with delivery of the intended benefits to the citizens or other users of the IT System thus, all the data needs to be updated and relevant.
8. *Address the security challenges* : In e-governance project, a substantial amount of documentation is done. Only authorized people could get into the network and access the information. An understanding of the information security technology and the need for its implementation is key for safer, secured and smooth implementation of e-governance initiatives.

Answer 3A(iii)

Business Continuity Plan (BCP) is a formal plan, or integrated set of plans, designed to enable key business processes to continue in operation following a major system failure or disaster. Essential ingredients include the identification of key business processes, adequate system backups and a workable continuity strategy. BCP not only covers systems/processes but may also include people who are a part of the process and have key insights to keep the business process functioning.

Business Continuity Planning (BCP) is a very important aspect of Information Systems (IS). It encompasses all aspects that can result in usage discontinuity. It is important as it:

1. Ensures continuity of operations and service delivery
2. Ensures supply chain security and order fulfillment
3. Helps mitigate business risks and financial exposures
4. Provides compliance benefits
5. Helps the organization / business to be more resilient.

Answer 3A(iv)

<i>Sr. No.</i>	<i>Top down approach</i>	<i>Bottom up approach</i>
1	The development of MIS under this approach begins by defining the objectives of the organization, and the constraints under which it operates.	The development of information system under this approach starts from the identification of life stream systems which are essential for the day-to-day business activities.
2	Top management takes the initiative in formulating major objectives, strategies and policies.	It is the supervisory management who identifies the life stream systems for which MIS may be developed.
3	The MIS is more consistent with the systems approach and is also viewed as a total system, which is fully integrated.	The MIS is developed through an orderly process of transition, building upon transaction processing sub-system and may not be fully integrated.
4	This approach only concentrates on implementation and day-to-day development of system.	Under this approach management does not interfere in the day-to-day development of system.

Question 4

- (a) *Discuss key strengths of using ERP in an organisation.* (4 marks)
- (b) *How can electronic data interchange (EDI) provide significant benefits to an organisation ? Explain.* (4 marks)
- (c) *What are the basic systems security measures ? Explain.* (4 marks)
- (d) *What is 'data mining' ? How does it help organisations in taking considered and knowledge driven decisions ?* (4 marks)

Answer 4(a)

The key strengths of using ERP in an organization are:

1. ERP provides support for imbibing best business practices in the business operations.
2. An ERP system eliminates repetitive processes and greatly reduces the need to manually feed the data. The system also streamlines business processes and makes it easier and efficient for companies to collect data.
3. ERP enables implementation of the practices with a view to enhance productivity.
4. It empowers the organization to standardize the business process and thus reduce wastage of resources.
5. Instead of having data distributed throughout a number of separate databases, all information is located in a single location. Data is thus kept consistent and up-to-date.

6. It helps in transforming the enterprise functions to be agile, cost-effective and focused on supporting the business objectives.
7. It facilitates the organization in making prompt and effective management decisions.
8. It allows organization in providing better customer service thus helps in gaining competitive advantage.

Answer 4(b)

Electronic Data Interchange (EDI) is the transmission of documents from one computer to another over a network. Some of the benefits of EDI are:

1. It removes the manual keying of key business documents such as Orders, Invoices, Acknowledgments and Dispatch and thus significantly benefits the organization by reducing the labour costs, eliminating human keying errors, faster document processing, instant document retrieval and removal of reliance on the postal service.
2. It reduces paper work and thus marginalizes inherent disadvantages of paper-based transactions such as: cost of stationery and printer consumables, document storage costs, postage cost etc.
3. Electronic documents can be delivered far more quickly than their paper counterparts, thus the turnaround time from order to delivery can be reduced.
4. Electronic documents when printed are much easier to read than copies faxed or generated on multipart stationery by impact printers.
5. Batches of electronic documents are usually sequentially numbered; therefore missing documents can easily be identified, not causing companies to wade through piles of paper.

Answer 4(c)

System security refers to techniques for ensuring that data stored in a computer cannot be read or compromised by any individuals without authorization. Basic System Security Measures apply to all systems regardless of the level of their System Classification and must meet certain basic parameters like:

1. *Password Protection* : Systems must be configured to require that all accounts and resources must be protected by passwords which meet certain requirements like maximum and minimum character limit, must include alphabet, number and special character, must be changed at least once per year etc.
2. *Software Updates* : Systems must be configured to automatically update operating system software, server applications (web server, mail server, database server, etc.), client software (web browsers, mail clients, office suites, etc.), and malware protection software (antivirus, anti-spyware), etc.
3. *Firewall* : Systems must be protected by a firewall that allows only those incoming connections necessary to fulfill the business need of that system.
4. *Malware Protection*: Systems must have antivirus and anti-spyware software installed and it must be configured to automatically scan and update.

Answer 4(d)

Data mining is a process of extracting hidden information from large databases. It involves the use of various data analysis tools to discover new facts, valid patterns and relationships in large data sets.

Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. For a commercial business, the discovery of previously unknown statistical patterns or trends can provide valuable insight into the function and environment of their organization. Further, it could assist an organization in taking considered and knowledge driven decisions in the following manner:

- (i) It facilitates in extracting meaningful patterns;
- (ii) It helps in analysis about which product or service is having better performance
- (iii) It assists in planning and prediction
- (iv) It assists in designing marketing, pricing and operational strategies.
- (v) It also helps in understanding various other factors such as consumer behavior, product performance, market predictions, performance of advertising campaigns, shelf space allocations etc.

Question 5

- (a) *Explain the term 'world wide web' (www.). What are the features of the world wide web ?* (8 marks)
- (b) *What are the various challenges before stakeholders with regard to evolution of e-governance in India ? Discuss.* (8 marks)

Answer 5(a)

The World Wide Web (www), is also a system of interlinked hypertext documents, accessed via the Internet. It provides a standard method for exchanging and publishing information on the internet and could be accessed through web browsers which display web pages of embedded graphics and HTML/ XML encoded text. The term World Wide Web and internet are often used interchangeably.

Features of World Wide Web :

1. *Medium of Publishing Information* : The www is a medium for publishing information on the internet in an easy to use form. If we take the analogy of television then internet would be equivalent to the broadcasting equipment such as mast and transmitter and World Wide Web to the content of different T.V. programmes.
2. *Easy retrieval of Information* : The amount of information available on the Internet has become so large that it is difficult to search for specific information. The www makes retrieval easy and quick.
3. *Easy Navigation of Documents* : The www act as a search tool that helps find and retrieve information from a Web site using links to other sites and documents.

4. *Linking of Documents* : Hypertext is identified by underlined text and a different color usually. It makes links within the same document or to other documents.
5. *Helpful in sharing information* : The www is intended to help people share information resources, and services with the widest possible community of users.
6. *Use of Protocol* : The www has HyperText Transfer Protocol (HTTP) which acts as an interface between a Web Client Software.

Answer 5(b)

E-governance is basically the application of Information and communications Technology to the processes of Government functioning in order to bring about 'Simple, Moral, Accountable, Responsive and Transparent' (SMART) governance. In India, it has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. Some of the issues in e-governance in India are:

1. *Lack of IT literacy and awareness regarding benefits of e-governance* : There is general lack of awareness regarding benefits of e-governance as well as the process involved in implementing e-governance projects. Moreover a majority of users especially in rural parts of country lack the basic skill sets to use an IT enabled system.
2. *Underutilization of existing ICT infrastructure* : To a larger extent, the computers in many departments are used for the purpose of word processing only, resulting in the underutilization of the computers in terms of their use in data processing capacities for supporting management decisions.
3. *Attitude of Employees* : Employees often derive their sustenance from the fact that they are important repositories of data and any initiative to e-governance may harm them. Thus, any effort to implement e-governance or bringing out the change in the system is often met with resistance from the employees.
4. *Lack of coordination between Government Department and Solution developers*: At present the users do not contribute enough to design the solution architecture. Consequently, the solution developed and implemented does not address the requirements of an e-governance project effectively and hence does not get implemented.
5. *Resistance to re-engineering of departmental processes* : There is resistance in almost all the departments at all the levels. Additionally there is lack of expertise of departmental MIS executives in exploiting data mining techniques, updation and collection of real time content onto website etc.
6. *Lack of Infrastructure for sustaining e-governance projects on national level*: Often there is lack of infrastructure to support e-governance initiatives of government departments. Further, infrastructure creation is not guided by a uniform national policy, but is dependent on the needs of individual officers championing a few projects.

7. *Language Divide* : The local dialect of communication for a majority of population still remains the regional language or Hindi. They are not too familiar with English which still remains the most prevalent medium of interacting with any IT based application. This barrier however is slowly diminishing with government initiatives to publish the portals in Hindi and local languages as well.
8. *Population* : India is the second largest country in terms of population. It put forth challenges like establishing unique person identities, reaching the last mile, addressing challenges posed by diverse culture etc.

Question 6

- (a) *What kind of security measures must be applied to intermediate systems, i.e., medium criticality and high criticality systems ? Explain. (8 marks)*
- (b) *What type of network would you like to set-up in your organisation for communicating non-sensitive but useful information among employees such as corporate news, details of health insurance, product pricing, in-house training programmes, etc. ? Give justification for your answer. State the strategies for the success of recommended network. (8 marks)*

Answer 6(a)

The intermediate system security measures define the security measures that must be applied to medium criticality and high criticality systems. These could be applied in the manner:

1. Mandating authentication and authorization requirements:
 - (a) *Remove or disable accounts upon loss of eligibility* : Accounts which are no longer needed must be disabled in a timely fashion using an automated or documented procedure.
 - (b) *Separate user and administrator accounts* : Administrator accounts must not be used for non administrative purposes. System administrators must be provisioned with non-administrator accounts for end-user activities, and a separate administrator account that is used only for system-administration purposes.
 - (c) *Use unique passwords for administrator accounts* : Privileged accounts must use unique passwords that are not shared among multiple systems. Credentials which are managed centrally, such as the NetID/password combination, are considered a single account, regardless of how many systems they provide access to.
 - (d) *Throttle repeated unsuccessful login-attempts* : A maximum rate for unsuccessful login attempts must be enforced. Account lockout is not required, but the rate of unsuccessful logins must be limited.
 - (e) *Enable session timeout* : Sessions must be locked or closed after some reasonable period.
 - (f) *Enforce least privilege* : Non-administrative accounts must be used whenever possible. User accounts and server processes must be granted the least-possible level of privilege that allows them to perform their function.

2. Follow audit and accountability procedures:
 - (a) Synchronize system clock: The system clock must be synchronized to an authoritative time server at least once per day.
 - (b) Enable system logging and auditing: The facilities required to automatically generate, retain, and expire system logs must be enabled.
 - (c) Follow an appropriate log retention schedule: System logs must be retained for 30-90 days and then destroyed unless further retention is necessary due to legal, regulatory, or contractual requirements.
 - (d) Audit successful logins and failed attempts: Generate a log message whenever a user successfully logs in or whenever a user attempts to log in without success.
 - (e) Audit when a system service is started or stopped: Generate a log message when a system service is started or stopped.
 - (f) Audit serious, unusual errors and resource exhaustion errors: Generate a log message when a serious or unusual error occurs, such as crashes and when a resource exhaustion error occurs, such as an out-of-memory error or an out-of-disk error.
 - (g) Audit permissions changes: Generate a log message when the permissions of a user or group are changed.
 - (h) Include appropriate correlation data in audit events: For each audit event logged be sure to include sufficient information to investigate the event, including related IP address, timestamp, hostname, username, application name, and/or other details as appropriate.
3. Configuration and Maintenance:
 - (a) Security partitioning: Systems may share hardware and resources only with other systems that have similar security requirements, regardless of their Criticality classification. Systems which share similar security requirements have user communities of similar size and character, similar firewall profiles, and similar technical requirements.
 - (b) Follow vendor hardening guidelines: This document cannot be comprehensive for all systems available. Follow basic vendor recommendations to harden and secure systems.
 - (c) Disable vendor default accounts and passwords: Many systems come with default accounts which are publicly known. These accounts should be disabled.
 - (d) Disable all unnecessary network services: Processes and services which are not necessary to complete the function of a system must be disabled.
4. Additional Requirements:
 - (a) Report potential security incidents: Potential security incidents must be reported.
 - (b) Security review: During the design of the technical architecture, a review of the system must be requested.
 - (c) Vulnerability assessment: Before system deployment, a vulnerability assessment must be requested.

- (d) Physical access: The system must reside in a locked facility, to which only authorized personnel have access.
- (e) Documentation: Create and maintain documentation summarizing the business process, major system components, and network communications associated with a system.

Answer 6(b)

Intranet may be set up in the organisation for communicating non-sensitive but useful information among employees using e-mail and web-publishing.

Intranet is a private network accessible only by authorised employees, contractors and customers. It allows prompt availability of information to company and users and is less expensive means of communication to remain in touch with employees and other stakeholders located in scattered offices.

For effective success of Intranet in a company, following strategies could be implemented:

1. *Include widely used applications and make them simple to use* : Use the intranet to simplify employee's lives. For instance, by putting expense reimbursements and leave records on-line, employees do not have to waste time filling out hard-copy reports, making copies for numerous people.
2. *Secure the system* : Security of intranets is vital. If the information on an intranet is corrupted or if a competitor accesses the information it may lead to chaos and business threat.
3. *Integrate databases into intranet applications* : Databases are at the heart of intranet applications. The data and information that employees access from the intranet come from one or more databases. Companies must invest the time and money to build databases that are accurate, complete, and reliable.
4. *Invest in excellent network capacities* : Clearly, networks are essential for the success of intranets. Without a robust network infrastructure, an intranet simply will not be able to function. If the network is frequently down or if the network is too slow, employees will get frustrated and may not use the intranet.
5. *Motivate employees to use the intranet* : Many people prefer to do things in the manner they used to do, however, it is essential to convince people of the benefit of change. Companies may train the employees or give them incentives for using the intranet.

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.

Question 1

Comment on the following :

- (a) *The main function of a treasury manager is management of funds efficiently.*
 - (b) *Working capital of a firm depends upon the length of its operating cycle.*
 - (c) *Dividend and growth are conflicting goals to each other.*
 - (d) *Speculation is the prime reason for foreign exchange rate fluctuations.*
- (5 marks each)*

Answer 1(a)

Treasury Management is an activity associated with managements of cash and funds in an organisation. While managing the funds the treasury manager seeks to fulfill the objectives like:

1. *Availability of funds in right quantity :* It is the duty of the treasury manager to ensure that after the funds have been arranged for day to day functioning of the unit; he also has to ensure that the funds are just adequate for the requirements neither more nor less.
2. *Availability of funds at right time :* Timely availability of funds smoothens the operations of the firm and brings about certainty to the quantum of inflows that would be available at a particular point in time.
3. *Deployment of Funds in right quantity :* In this regard, the treasury manager ensures that the right quantity of funds is deployed for various expense heads, parking of short-term funds and investing surplus funds.
4. *Deployment of funds at right time :* Timely deployment ensures that the funds are not left idle for the shortest span of time.
5. *Profiting from availability and deployment :* Once the funds have been sourced and deployed in correct measure, it results in avoidance of special and extraordinary costs, interests and the like. With costs being in control, surplus funds emerge from the system which is deployed profitably either as long term investments or as short-term parking tools. Both ways, the net result for the firm is an addition to profits.

Answer 1(b)

The length of operating cycle is a major determinant of working capital requirement of a firm. Operating cycle is the time that elapses between the cash outlay for procurement of raw material and the cash realisation by the sale of finished goods and realisation of sundry debtors. Operating cycle concept is important for management of cash and management of working capital because the longer the operating cycle the more financial resources the company needs. Therefore, the management has to remain cautious that the operating cycle should not become too long.

Requirement of working capital over the operating cycle period could be used for short-term, medium term as well as long-term. The company can work out its working capital needs for different periods through cash budget which is key part of working capital planning. To prepare such a budget operating cycle parameters are of great use as estimation of future sales level, time and amount of funds flowing into business, future expenditure and costs all can be made with least difficulty to help the main target. Then, operating cycle help in assessing the needs of working capital accurately by determining the relationship between debtors and sales, creditors and sales and inventory and sales. Even requirement of extra working capital can be guessed from such estimate.

Answer 1(c)

Dividend is the reward of capital whereas growth is the life of the firm. Both dividend and growth are desirable but are conflicting goals to each other. Dividend policy determines what portion of earnings will be paid out to stock holders and what portion will be retained in the business to finance long-term growth. Dividend constitutes the cash flow that accrues to equity holders whereas retained earnings are one of the most significant sources of funds for financing the corporate growth. This position is quite challenging for the finance manager and necessitate the need to establish a dividend policy in the firm which will evolve a pattern of dividend payments having no adverse effects on future actions of the firm. In the light of the question, the formulation of the dividend policy poses many problems. On the one hand theory would seem to dictate that the firm should retain all funds which can be employed at a higher rate than the capitalization rate; on the other hand, stock-holders preference must be considered.

Answer 1(d)

Speculation or the anticipation of the market participants many a times is the prime reason for exchange rate movements. The total foreign exchange turnover worldwide is many a time the actual goods and services related turnover indicating the grip of speculators over the market. Those speculators anticipate the events even before the actual data is out and position themselves accordingly to take advantage when the actual data confirms the anticipations. The initial positioning and final profit taking make exchange rates volatile.

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

Question 2

Distinguish between the following :

(a) 'Capital structure' and 'financial structure'.

- (b) 'Systematic risk' and 'unsystematic risk'.
- (c) 'Net present value' and 'internal rate of return'.
- (d) 'Commodity derivatives' and 'financial derivatives'. (4 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

- (i) Capital asset pricing model is based on certain critical assumptions. Mention any four assumptions.
- (ii) Define the following tools with respect to option derivatives :
 - (a) Delta
 - (b) Gamma
 - (c) Theta
 - (d) Vega.
- (iii) State the activities undertaken by merchant bankers.
- (iv) Describe the role of information technology in treasury management. (4 marks each)

Answer 2(a)

'Capital Structure' and 'Financial Structure'

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

Answer 2(b)

'Systematic risk' and 'Unsystematic risk'

Systematic risk is also known as "market risk" or "un-diversifiable risk", is the uncertainty inherent to the entire market or entire market segment. On the other hand, controllable, internal factors which are peculiar to a particular industry or firm/(s) are known as unsystematic risk.

In this way economic, political and sociological changes are sources of systematic risk. For example, if an economy moves into recession or if there is a political upheaval, it will cause the prices of nearly all the securities, whether bond or equity to decline.

Conversely, unsystematic risk is the portion of the total risk that is unique to a firm or industry. It may be because of change in management, labour strikes which will impact the returns of only specific firms which are facing the problem.

Firms with high systematic risk tend to be those whose sales, profits and stock prices follow the general trend in the level of economic or stock market activity. These may include companies that deal in basic industrial goods like automobile manufactures.

Higher proportion of unsystematic risk are found in firms producing non durable consumer goods. Examples include suppliers of telephone, power and food stuffs.

Answer 2(c)

‘Net present value’ and ‘Internal rate of return’

The net present value (NPV) and internal rate of return (IRR), two widely used method for making capital budgeting decisions are the species of the same genre i.e. Discounted cash flow method, yet they are different from each other on various points.

The broad points of difference between the two are as follows:

1. *Computation* : In the NPV method the difference between the present value of cash inflows and present value of cash outflows is computed as the net benefit by the project. IRR is defined as the discount rate that makes NPV= 0.
2. *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.
3. *Reinvestment Axiom* : The conflict between NPV and IRR rule in the case of mutually exclusive project situation arises due to re-investment rate assumption. NPV rule assumes that intermediate cash flows are reinvested at discount rate and IRR assumes that they are reinvested at rate equal to the proposal's IRR itself. The assumption of NPV rule is more realistic than the IRR method.
4. *Objective* : The net present value method looks to ascertain the amount which can be invested in a project so that its expected yield will exactly match to repay this amount with interest at the market rate. 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 2(d)

‘Commodity derivatives’ and ‘financial derivatives’

Derivatives as a tool for managing risk first originated in the Commodities markets. They were then found useful as a hedging tool in financial markets as well. The basic difference between commodity and financial futures is in the nature of underlying instrument, though the basic concept remains the same. However there are some features, which are very peculiar to commodity derivative markets. In the case of financial derivatives, most of these contracts are cash settled whereas in case of commodity derivative

settlement is in cash as well as by physical delivery. Even in the case of physical settlement, financial assets are not bulky and do not need special facility for storage. Due to the bulky nature of the underlying assets, physical settlement in commodity derivatives creates the need for warehousing. Similarly, the concept of varying quality of asset does not really exist as far as financial underlyings are concerned. However in the case of commodities, the quality of the asset underlying a contract can vary largely. This becomes an important issue to be managed.

Answer 2A(i)

Assumptions of CAPM

Capital asset pricing model (CAPM) helps to work out the required rate of return required by investor in the form of equity investment. It establishes a linear relationship between the required rate of return of a security and its beta.

CAPM model is based on certain assumptions:

1. Market efficiency : the capital market efficiency means that share prices reflect all available information.
2. Risk aversion and mean variance optimization : investors are risk averse. They evaluate a security's return and risk in terms of expected return and variance or standard deviation respectively. They prefer the highest expected return for a given level of risk. This implies that the investors are mean variance optimizers and they form efficient portfolios.
3. Homogenous expectations : all investors have the same expectations about expected returns and risks of securities.
4. Single time period : all investors' decisions are based on a single time period.
5. Risk-free rate : all investors can lend and borrow at a risk-free rate of interest.
6. There exist no taxes whether personal or corporate.
7. Transaction in securities is without any transaction cost.

Answer 2A(ii)

- (a) *Delta* : An options delta is used to measure the anticipated percentage of change in the premium in relation to a change in the price of the underlying security.
- (b) *Gamma* : Gamma measures the expected change in the delta factor of an option when the value of the price of the underlying security rises.
- (c) *Theta* : The theta derivative attempts to measure the erosion of an option's premium caused by the passage of time. It is designed to predict the daily rate of erosion of the premium.
- (d) *Vega* : Vega is concerned with the volatility factor of the underlying stock. Vega measures the amount by which the premium will rise when the volatility factor of the stock increase.

Answer 2A(iii)

The various services offered by merchant bankers include: corporate counselling; project Counselling and pre-investment studies; capital re-structuring; credit syndication

and project finance; issue management and underwriting; portfolio management; non-resident investment counselling and management; acceptance credit and bill-discounting; advising on mergers, amalgamations and take-overs, arranging off-shore finance; fixed deposit brokering; and relief to sick industries.

Thus merchant bankers undertake the following activities:

- (a) Managing of public issue of securities;
- (b) Underwriting connected with the public issue management business;
- (c) Managing/Advising on international offerings of debt/equity i.e. GDR, ADR, bonds and other instruments;
- (d) Private placement of securities;
- (e) Primary or satellite dealership of government securities;
- (f) Corporate advisory services related to securities market including takeovers, acquisition and disinvestment;
- (g) Stock broking;
- (h) Advisory services for projects;
- (i) Syndication of rupee term loans;
- (j) International financial advisory services.

Answer 2A(iv)

With the ever increasing pace of change to regulation, compliance and technology in the financial sector, treasury has increasingly become a strategic business partner across all areas of the business, adding value to the operating divisions of the company. The information technology is playing a major role in effective treasury management which is discussed below:

1. Automate repetitive tasks

Technology today is being leveraged to automate repetitive tasks such as data gathering, accounting, bank polling, portfolio tracking and reporting.

2. Implement internal controls

To ensure compliance with rule and regulations, sound and effective internal controls must be implemented through sound system of Information technology.

3. Time saver and fraud & error detection Methodology

This best practice is a great time saver, especially when it's time to close the books. Through the treasury management system, all repetitive transactions are automatically tagged with the correct instructions. Most companies using a treasury management system get 90-95% of their transactions automatically tagged accurately without any manual intervention.

4. Forecast cash flows

By this system effective forecast is possible especially cash flow.

5. *Communicate with operating units*

Operating units must be involved while building forecasts to ensure incorporation of all the necessary and up-to-date information. Management gets latest and updated information.

6. *Choose a Web-based treasury management system*

The full benefits of technology without unnecessary costs or delays may be achieved by selecting a web-based treasury management system.

7. *Rethink treasury processes*

Reassessing of the treasury workstation at transparent intervals help to evaluate processes and identify how they can/should be revised to maximise efficiencies.

8. *Pay for performance*

The proper and effective use of information technology in treasury operation increases the efficiency and effectiveness of corporate officers across the treasury, investor relations, corporate finance and corporate communication function.

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

Question 3

- (a) Net profit before tax of Acumen Ltd. is ₹17,50,000. The company has 1,00,000 equity shares of face value ₹10 each, fully paid-up. Current market price of the shares is ₹85 per share. Income-tax @ 30% applies to the company. Compute the P/E ratio for the company. (4 marks)

- (b) Zoya Ltd. has obtained capital from the following sources and the specific costs are given against them :

Type of capital	Book value (₹ in lakh)	Market value (₹ in lakh)	Cost of capital (%)
Debentures	4	3.8	5
Preference shares	1	1.1	8
Equity shares	6	9.0	13
Retained earnings	2	3.0	9
Total	<u>13</u>	<u>16.9</u>	

You are required to calculate weighted average cost of capital using —

- (i) Book value weight; and
- (ii) Market value weight. (4 marks)
- (c) Equity shares of Shril Ltd. are being currently sold for ₹450 per share. Both the call option and put option for a 3-month period are available for a strike price of ₹485 at a premium of ₹15 per share and ₹10 per share respectively. Naresh, an investor, wants to create a straddle position in this share. Find out his net pay-off at expiration of the option period, if the share price on that day happens to be ₹450 or ₹525. (4 marks)

- (d) Following details are available to you for two companies, Beauty Ltd. and Pretty Ltd. :

	Beauty Ltd.	Pretty Ltd.
Internal rate of return (%)	15	10
Capitalisation rate (%)	15	10
Earnings per share (₹)	12	10
Cash dividend per share (₹)	5	2
Calculate the value of an equity share for the companies. (4 marks)		

OR (Alternate question to Q.No. 3)

Question 3A

- (i) Aalia Ltd. has two alternative projects under consideration. Project-A requires a capital outlay of ₹ 1,60,000 and Project-B needs ₹ 1,80,000. Both are estimated to provide a cash flow for five years; Project-A : ₹45,000 per year and Project-B: ₹58,000 per year. The cost of capital is 10%. Show which project is preferable from the view point of net present value. (4 marks)
- (ii) Priyanka Ltd. has 25,000 shares outstanding at current market price of ₹100 per share. It belongs to a risk class with capitalisation rate of 20%. The company expects to earn a net profit of ₹5,00,000 during the year. What will be the price per share if dividend is not paid ? (4 marks)
- (iii) A manufacturing firm has credit sales of ₹ 360 lakh and its average collection period is 30 days. The financial controller estimates bad-debt losses at around 2% of credit sales. The firm spends ₹1,40,000 annually on debtors' administration. This cost comprises of telephone and internet bills along with salaries of staff members.

A factoring firm has offered to buy the firm's receivables. The factor will charge 1% commission and will pay an advance against receivables on an interest @ 15% p.a. after withholding 10% as reserve.

What should the firm do ? Assume 360 days in a year. (8 marks)

Answer 3(a)

	₹
Net profit Before tax	17,50,000
Less: tax @ 30%	5,25,000
Profit after tax	<u>12,25,000</u>
Earnings per share (EPS)	= ₹ 12,25,000/1,00,000 = ₹ 12.25
Market price per share (MPS)	= ₹ 85
P/E Ratio = MPS/EPS	= ₹85/₹12.25 = 6.94

Answer 3(b)(i) *Calculation of WACC using book value weights*

Source of capital	Amount (W)	Cost (X)	Weighted cost (XW)
Debentures	4,00,000	0.05	20,000
Preference shares	1,00,000	0.08	8,000
Equity shares	6,00,000	0.13	78,000
Retained earnings	2,00,000	0.09	18,000
ΣW	<u>13,00,000</u>		ΣXW <u>1,24,000</u>

$$WACC = \Sigma XW / \Sigma W * 100 = 9.54\%$$

(ii) *Calculation of WACC using market value weights*

Source of capital	Amount (W)	Cost (X)	Weighted cost (XW)
Debentures	3,80,000	0.05	19,000
Preference shares	1,10,000	0.08	8,800
Equity shares	9,00,000	0.13	1,17,000
Retained earnings	3,00,000	0.09	27,000
ΣW	<u>16,90,000</u>		ΣXW <u>1,71,800</u>

$$WACC = \Sigma XW / \Sigma W * 100 = 10.17\%$$

Answer 3(c)

A straddle position means that the investor will buy the call option as well as the put options and pay the premium on both options.

The net pay off position may be found as follows:

$$\text{Total premium paid} = ₹15 + ₹10 = ₹25$$

If share price happens to be ₹450 then call option will not be exercised

$$\text{Net pay off} = \text{Pay off on put option} - \text{Premium paid}$$

$$= (₹485 - 450) - 25 = ₹10$$

If share price happens to be Rs. 525 then put option will not be exercised

$$\text{Net pay off} = \text{pay off on call option} - \text{premium paid}$$

$$= (₹525 - ₹485) - 25 = ₹15$$

So the investor will be benefitted whether price is less than or more than the strike price on the expiry of date.

Answer 3(d)

Using Walter Model:

$$P = \frac{D + \frac{r}{k} (E - D)}{k}$$

Where P is price per share

D is dividend per share

E is earnings per share

r is Internal rate of return

k is capitalization rate

Applying the above formula for two companies

Beauty Ltd.

$$P = \frac{5 + \frac{0.15}{0.15} (12 - 5)}{0.15}$$

$$P = ₹ 80$$

Pretty Ltd.

$$P = \frac{2 + \frac{0.10}{0.10} (10 - 2)}{0.10}$$

$$P = ₹ 100$$

Answer 3A

(i) *Calculation of NPV*

Years	CFAT in ₹		PV Annuity factor @ 10%	Total PV in ₹	
	A	B		A	B
1-5	45,000	58,000	3.7908	1,70,586	2,19,866
			Less : cash outlay	(1,60,000)	(1,80,000)
			NPV	<u>10,586</u>	<u>39,866</u>

As per NPV criterion, Project B will be selected.

(ii) Using Modigliani-Miller Dividend Irrelevancy Model

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

Where, P_0 is prevailing market price of the share

P_1 is the market price of the share at the end of period one

D_1 is the dividend to be received at the end of period one

K_e is the capitalization rate

$$100 = \frac{P_1 + 0}{1 + 0.20}$$

$$P_1 = ₹120$$

(iii) Average level of receivables = ₹ 360 lakh * 30/360 = 30 lakh

Evaluation of the offer	₹
Factoring commission @ 1% of 30 lakh	30,000
Reserve @ 10% of 30 lakh	3,00,000
Total (i)	<u>3,30,000</u>
Thus the amount available for advance is	
Average level of receivables	30,00,000
Less: total (i) above	<u>(3,30,000)</u>
	<u>26,70,000</u>
Less : Interest @ 15% p.a. for 30 days (26,70,000 * 15% * 30/360)	<u>(33,375)</u>
Net amount of advance available	<u><u>26,36,625</u></u>
<i>Evaluation of Factoring proposal</i>	
Cost to the firm:	
Factoring commission 30,00,000 * 1/100 * 360/30	3,60,000
Interest charges 33,375 * 360/30	<u>4,00,500</u>
Total cost	<u><u>7,60,500</u></u>
Firm's savings on taking factoring services:	
Cost of credit administration	1,40,000
Cost of bad debts losses 0.02 * 360 lakh	<u>7,20,000</u>
Total savings	<u><u>8,60,000</u></u>

Net benefit to the firm = savings – cost = ₹8,60,000 – ₹7,60,500 = ₹99,500.

The firm should accept the factoring proposal.

Question 4

(a) A company is considering selective inventory control using the following data :

Item No.	Units	Unit Cost (₹)
1	6,000	4.00
2	61,200	0.05
3	16,800	2.10
4	3,000	6.00
5	55,800	0.20

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6	22,680	0.50
7	26,640	0.65
8	14,760	0.40
9	20,520	0.40
10	90,000	0.10
11	29,940	0.30
12	24,660	0.50

Arrange the data for presentation to management for implementation of ABC technique of inventory management. (4 marks)

- (b) Kareena Softwares, a technology firm, has three divisions with the following characteristics :

Division	Beta	Market Value (₹ in lakh)
Personal computers	1.40	120
Software	1.90	160
Computer mainframes	1.00	260
Total		<u>540</u>

You are required to answer the following —

- (i) What is beta of the equity of the firm ?
(ii) What would happen to the beta of equity if the firm divested itself of its software business ?

If you were asked to value the software business for the divestiture, which beta would you use in your valuation ? Restrict calculations to two decimal points.

(4 marks)

- (c) Briefly describe the determinants of dividend policy. (4 marks)

- (d) Discuss the measures of financial viability of a project. (4 marks)

Answer 4(a)

Statement showing ABC Analysis of Inventory

Item	Units	% of total units	Unit cost (₹)	Total cost (₹)	% of Total cost	Classi- fication
3	16,800	4.52	2.10	35,280	21.43	A
1	6,000	1.61	4.00	24,000	14.58	
4	3,000	0.81	6.00	18,000	10.94	
7	26,640	7.16	0.65	17,316	10.52	
		14.10%			57.47%	
12	24,660	6.63	0.50	12,330	7.49	B
6	22,680	6.10	0.50	11,340	6.89	

Item	Units	% of total units	Unit cost (Rs.)	Total cost (Rs.)	% of Total cost	Classi- fication
5	55,800	15.00	0.20	11,160	6.78	B
10	90,000	24.19	0.10	9,000	5.47	
11	29,940	8.05	0.30	8,982	5.46	
9	20,520	5.51	0.40	8,208	4.99	
		65.48%			37.08%	
8	14,760	3.97	0.40	5,904	3.59	C
2	61,200	16.45	0.05	3,060	1.86	
		20.42%			5.45%	

Answer 4(b)

(i) Calculation of Beta

$$\begin{aligned}
 & 1.40 * (120 \text{ lakh}/540 \text{ lakh}) + 1.90 * (160 \text{ lakh}/540 \text{ lakh}) + 1.00 * (260 \text{ lakh}/540 \text{ lakh}) \\
 & = 0.31 + 0.56 + 0.48 \\
 & = 1.35
 \end{aligned}$$

(ii) If firm divests itself of software business and pay out cash in form of dividend:

$$\begin{aligned}
 \text{Beta} &= 1.40 * (120 \text{ lakh}/380 \text{ lakh}) + 1.00 * (260 \text{ lakh}/380 \text{ lakh}) \\
 &= 0.44 + 0.68 \\
 &= 1.12
 \end{aligned}$$

If they keep the cash in the firm then

$$\begin{aligned}
 \text{Beta} &= 1.40 * (120 \text{ lakh}/540 \text{ lakh}) + 0 * (160 \text{ lakh}/540 \text{ lakh}) + 1.00 * (260 \text{ lakh}/540 \text{ lakh}) \\
 &= 0.31 + 0 + 0.48 \\
 &= 0.79
 \end{aligned}$$

(iii) To value the software business for the divestiture use 1.90, the beta for the software division.

Answer 4(c)

Determinants of dividend policy are:

1. *Legal constraints* : As regards cash dividend policy several legal constraints bear upon it – a firm may not pay a dividend which will impair capital. Dividend must be paid out of firm's earnings/current earnings. Contract/ Agreements for bonds/loans may restrict dividend payments. The purpose of legal restriction is to ensure that the payment of dividend may not cause insolvency.

2. *Financial constraint* : There are financial constraints to Dividend Policy. A firm can pay dividend only to the extent that it has cash to disburse; a firm can't pay dividend when its earnings are in account receivables or firm does not have adequate liquidity.
3. *Economic Constraints* : Besides, there are economic constraints also. When the value of dividend affects the value of the firm then there must be some optimum level of dividend, which maximises the market price of the firm's stock.
4. *Nature of Business Conducted by a Company* : A company having a business of the nature which gives regular earnings may like to have a stable and consistent dividend policy.
5. *Period of Existence of the Company* : The length of existence of the company affects dividend policy. Companies having long standing experience may have a better dividend policy than the new companies.
6. *Type of Company / Organisation* : The type of company/organisation whether a private limited company or a public limited company affects dividend decisions.
7. *Market Conditions* : Business cycles, boom and depression, affects dividend decisions. In a depressed market, higher dividend declaration are used to market securities for creating a better image of the company. During the boom the company may like to save more, create reserves for growth and expansion or meeting its working capital requirements.
8. *Financial Arrangement* : In case of financial arrangements being entered into or being planned like merger or amalgamation with another company, liberal policy of dividend distribution is followed to make the share stock more attractive.
9. *Change in Government Policies* : Changes in Government Policies particularly those affecting earnings of the company are also taken into consideration in settling dividend decisions. For example, higher rate of taxation, fiscal policy, industrial policy etc.

Answer 4(d)

The primary aim of financial analysis is to determine whether the project satisfies the investment criteria of generating acceptable level of profitability. Therefore the project should be financially viable. The measure for financial viability are Net present value, Benefit cost ratio and Internal rate of return.

1. *Net Present Value (NPV)* representing wealth creation by the Project, is calculated by taking the discounted sum of the stream of cash flows during the project life

In symbolic terms we can express NPV of a project as under:

$$NPV = \frac{C_1}{(1+r)} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_n}{(1+r)^n} - \text{Investment}$$

Where C = Cash Flows for different periods, r = Discount Rate

In other words, NPV represents the difference between the present value of the cost and benefit streams.

A project is considered viable if the NPV is positive at a given discount rate and vice-versa. When two or more mutually exclusive projects are being appraised, the project with the highest NPV should be selected. Among the discounted techniques, NPV is considered the most important parameter for assessing viability.

2. *Benefit Cost ratio (BCR)* is the ratio of discounted value of benefit and discount value of cost. It can be expressed as under:-

$$BCR = \frac{\text{Summation of discounted value of Benefits}}{\text{Summation of discounted value of Costs}}$$

The project is viable when BCR is one or more than one and is unviable when it is less than one.

3. *Internal rate of return (IRR)* represents the returns internally generated by the project. This is also the rate which makes the net present value equal to 0. 'Interpolation Method' could be used for finding out the exact IRR by the following formula.

$$\text{Exact IRR by interpolation method} = L + \frac{(H - L) \times (\text{NPV at L})}{[(\text{NPV at L}) - (\text{NPV at H})]}$$

Where, IRR = Internal Rate of Return; L = Lower discount rate where NPV was positive; H = Higher discount rate at which NPV was negative.

The project is considered viable if the IRR is more than the acceptable rate for the entrepreneur which could be the opportunity cost for his funds.

Question 5

- (a) *Alliance Ltd. having annual sales of ₹80 lakh extends 30 days credit period to its debtors. The variable cost is estimated at 80% on sales and fixed costs are ₹8 lakh. The company intends to change the credit policy for which the following information is given :*

<i>Credit policy</i>	<i>Average collection period (days)</i>	<i>Annual sales (₹ in lakh)</i>
A	45	86
B	60	90
C	75	92

Rate of return (pre-tax) required on investment is 20%.

You are required to assess the most profitable policy with the help of incremental approach. Calculations may be restricted to two decimal points. Assume 365 days in a year. (8 marks)

- (b) *Joy Ltd. is supplying goods worth US \$1,00,000 to a US importer and the amount is payable after 4 months time. The current spot rate of US \$ is ₹57.68. It is expected that the rupee will appreciate in the next 4 months and would be*

quoted at ₹56.84. The importer accepts to pay immediately if 2% cash discount is offered by Joy Ltd. The current borrowing rate is 8% per annum. Advise the course of action. (8 marks)

Answer 5(a)

Evaluation of Proposed credit policies

Amount in Lakh ₹				
Credit policy	Present	A	B	C
Period (days)	30	45	60	75
Annual sales	80	86	90	92
Variable cost (80% on sales)	64	68.8	72	73.6
Fixed cost	8	8	8	8
Total cost	72	76.8	80	81.6
Profit (annual sales- total cost)	8	9.2	10	10.4
Incremental profit (A)	-	1.2	2	2.4
Average Investment in Debtors	$72 \times 30 / 365$ = 5.92	$76.8 \times 45 / 365$ = 9.47	$80 \times 60 / 365$ = 13.15	$81.6 \times 75 / 365$ = 16.77
Incremental investment in debtors as compared to present level	-	3.55	7.23	10.85
20% of Incremental investment (B)	-	0.71	1.45	2.17
Excess return i.e. (A-B)	-	0.49	0.55	0.23

Policy B having average collection period of 60 days yields the maximum profit and thus is most profitable.

Answer 5(b)

(i) If payment is received at the end of 4 months:

	₹
\$1,00,000 * ₹56.84	56,84,000
Less : Opportunity cost of Interest lost \$1,00,000 * ₹57.68 * 98/100 * 8/100 * 4/12	1,50,737
Net amount	55,33,263

(ii) If payment is received immediately, after allowing a cash discount of 2%:

$$\$98,000 * ₹57.68 = ₹56,52,640$$

Advice : The net gain if amount received immediately is ₹1,19,377 (₹56,52,640 - ₹55,33,263). Hence, it is advised to ask the importer to pay immediately after deducting 2% cash discount.

Question 6

Himalaya Ltd. approached their banker for working capital requirement. The bank has agreed to sanction the same by retaining margins as under :

<i>Raw materials</i>	<i>18%</i>
<i>Work-in-progress</i>	<i>30%</i>
<i>Finished goods</i>	<i>20%</i>
<i>Debtors</i>	<i>10%</i>

Following projections are available :

<i>Estimate</i>	<i>₹</i>
<i>Annual sales</i>	<i>18,00,000</i>
<i>Cost of production</i>	<i>14,40,000</i>
<i>Raw materials purchased</i>	<i>9,35,000</i>
<i>Monthly expenditure</i>	<i>50,000</i>
<i>Anticipated opening stock of raw materials</i>	<i>1,80,000</i>
<i>Anticipated closing stock of raw materials</i>	<i>1,55,000</i>
<i>Inventory norms</i>	
<i>Raw material</i>	<i>2 months</i>
<i>Work-in-progress</i>	<i>15 days</i>
<i>Finished goods</i>	<i>1 month</i>

The firm enjoys a credit of 15 days on its purchases and allows one month credit on its supplies. On sales orders, the company has received an advance of ₹2,50,000.

You are required to calculate —

- (a) Working capital required by the company; and*
- (b) Working capital limits likely to be approved by the banker.*

State your assumptions, if any.

(16 marks)

Answer 6**Calculation of monthly consumption of raw material, monthly sales and monthly cost of production**

<i>Raw material</i>	<i>₹</i>
<i>Opening stock + purchases (1,80,000 + 9,35,000)</i>	<i>11,15,000</i>
<i>Less : Closing stock</i>	<i>1,55,000</i>
<i>Annual consumption</i>	<i>9,60,000</i>
<i>Monthly consumption i.e. 9,60,000/12</i>	<i>80,000</i>
<i>Monthly sales 18,00,000/12</i>	<i>1,50,000</i>
<i>Monthly cost of production 14,40,000/12</i>	<i>1,20,000</i>

Calculation of working capital required by Himalaya Ltd.

	₹
Raw material- 2 months consumption: $80,000 \times 2$	1,60,000
Work in progress - 15 days of cost of production $1,20,000/2$	60,000
Finished goods - 1 month cost of production	1,20,000
Sundry debtors - 1 month sales	1,50,000
Expenditure for 1 month	50,000
Total working capital	5,40,000
Less : Creditors - 15 days purchases: $9,35,000/12 \times 0.5$	(38,958)
Less : Advance received on sales order	(2,50,000)
Net working capital required by the company	<u>2,51,042</u>

Working capital limits set by bankers

	₹	₹
Raw material- 2 months consumption	1,60,000	
Less : 18% margin	(28,800)	1,31,200
Work in progress - 15 days cost of production	60,000	
Less : 30% margin	(18,000)	42,000
Finished goods- 1 month cost of production	1,20,000	
Less : 20% margin	(24,000)	96,000
Sundry debtors - 1 month sales	1,50,000	
Less : 10% margin	(15,000)	1,35,000
For expenses	Nil	Nil
Total limit likely to be approved by the bank		<u>4,04,200</u>

TABLE - 1 : PRESENT VALUE OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	YEAR
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	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986		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	5.2064	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	6.2065	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	2.9906	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4392	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) *Infowin Ltd. has been pioneer in corporate governance practices. The Board is comprised of appropriate mix of independent and executive directors to separate Board functions of governance and management. The Board comprises of fifteen members with seven executive directors and eight independent directors. Responsibilities of the Chairman, CEO (Chief Executive Officer) and COO (Chief Operating Officer) have been clearly defined and they have to make periodic presentations before the Board on their responsibilities, targets and performance. The Board is responsible for selection of new directors and it delegates the selection of the new Board members to the Nomination and Remuneration Committee. The Nomination and Remuneration Committee recommends to the Board the induction of any new Board member. The Board also regularly works with the Chairman, CEO and the COO to determine the plans of internal succession of these posts in case of any emergency. The Board meets to review the quarterly results, discusses issues related to the company's financial performance and the shareholders' interests. The independent directors are always kept up to date with the information regarding the company by the Board through separate meetings arranged at regular intervals. The Board currently has five committees namely, Audit Committee, Nomination and Remuneration Committee, Stakeholders Relationship Committee, Corporate Social Responsibility Committee and Investment Committee. The COO and CEO deal with interaction of the Board with the clients, employees, institutional investors, the government and press. The risk management is dealt with by the Board with the help of the Audit Committee.*

In light of the above, you are required to answer the following questions :

- (i) How do independent directors on the Board help Infowin Ltd. to formulate best business policies ?*
 - (ii) What are the different committees formed as part of corporate governance of Infowin Ltd. and what role do these committees play ? (5 marks each)*
- (b) *Briefly comment on the following statements :*
- (i) Ethical conduct is in the long-term interest of business.*
 - (ii) Well defined and implemented risk management policy has many potential advantages to an organisation.*

- (iii) *Independent Board is essential for sound corporate governance.*
- (iv) *An 'ethical dilemma' involves a situation, when a person is indecisive as to what is right and what is wrong.*
- (v) *Institutional investors have a crucial role to play in ensuring good corporate governance.* (2 marks each)
- (c) *"Corporate Boards are also involved in women empowerment." Comment.* (5 marks)

Answer 1(a)(i)

In the given case, out of fifteen directors in the company, eight are independent directors. The responsibilities of chairman, CEO, COO, CFO are clearly defined and they are required to make presentations to the board on their responsibilities, targets and performances.

Independent directors are known to bring an objective view in board deliberations. They also ensure that there is no dominance of one individual or special interest group or the stifling of healthy debate. They act as the guardians of the interest of all shareholders and stakeholders, especially in the areas of potential conflict of interest. Independent Directors bring a valuable outside perspective to the deliberations. They contribute significantly to the decision-making process of the Board. In addition, they can play an important role in areas where the interest of management, the company and shareholders may converge such as executive remuneration, succession planning, changes in corporate control, audit function etc.

Independent directors are required because they perform the following important role:

- (i) Balance the often conflicting interests of the stakeholders.
- (ii) Facilitate withstanding and countering pressures from owners.
- (iii) Fulfil a useful role in succession planning.
- (iv) Act as a coach and mentor for their full time colleagues.
- (v) Provide independent judgment and wider perspectives.

Thus, the presence of independent director on the board of Infowin Ltd. will lead to greater transparency in company's dealings and formulation of best policies.

Answer 1(a)(ii)

The Board of Infowin Ltd. has constituted following five committees to play effective role in the defined areas. These committees with their respective role are given below-

- (i) *Audit Committee* : The role of the Audit Committee includes oversight of the company's financial reporting process, disclosure of its financial information, review of financial statements, Recommendation for appointment, remuneration and terms of appointment of auditors of the company, Approval of payment to statutory auditors, internal controls and risk management etc.
- (ii) *Nomination and Remuneration Committee* : Identifying persons who are qualified

to become Directors and who may be appointed in senior management in accordance with the criteria laid down; recommend to the Board their appointment and removal; carry out evaluation of every Director's performance; formulate the criteria for determining qualifications, positive attributes and independence of a Director and recommend to the Board a policy, relating to the remuneration for the Directors, KMP and other employees.

- (iii) *Stakeholders Relationship Committee* : Specifically to look into the redressal of grievances of shareholders, debenture holders and other security holders.
- (iv) *Corporate Social Responsibility Committee* : Formulate and recommend to the Board, a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII, recommend the amount of expenditure to be incurred on the activities to be undertaken by the company as specified in Schedule VII, monitor the implementation of the CSR policy from time to time and institute a transparent monitoring mechanism for implementation of the CSR projects or programs or activities undertaken by the government.
- (v) *Investment Committee* : For laying down an overall investment policy and operational framework for the investment operations etc.

Answer 1(b)(i)

Ethical conduct is in the long-term interests of business. A business enterprise that is honest and fair to its customers, employees, and other stakeholders earns their trust and goodwill. It ultimately results in customer satisfaction, healthy competition, industrial growth and high earnings. Businesses must balance their desire to maximise profits against the requirements of stakeholders.

Answer 1(b)(ii)

Properly implemented risk management policy has many potential advantages to an organization in the form of:

- Better informed decision making - for example in assessing new opportunities;
- Less chances of major problems in new and ongoing activities; and
- Increased likelihood of achieving corporate objectives.

Risk management is the culmination of decision taken to improve corporate governance.

Answer 1(b)(iii)

Independent Board is essential for sound corporate governance. An independent board is constituted by appointing independent directors in the Board. Independence of directors would ensure that there are no actual or perceived conflicts of interest. It also ensures that the Board is effective in supervising and, where necessary, challenging the activities of management. The Board needs to be capable of assessing the performance of managers with an objective perspective. Accordingly, the majority of Board members should be independent of both the management team and any commercial dealings with the company for ensuring good governance.

Answer 1(b)(iv)

An ethical dilemma involves a situation that makes a person question what is the 'right' or 'wrong' thing to do. Dilemma is a situation that requires a choice between options that are or seem equally unfavorable or mutually exclusive. It 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. These dilemmas can be highly complex and difficult to resolve. Easier dilemmas involve a 'right' versus 'wrong' answer; whereas, complex ethical dilemmas involve a decision between a right and another right choice.

Answer 1(b)(v)

Most of the reports on corporate governance have emphasized on the role of institutional investors in promoting good corporate governance. The Kumar Mangalam Birla committee on corporate governance emphasizes that the institutional shareholders can play effective role in the corporate governance system of a company because of following reasons-

- Institutional shareholders have acquired a large stake in equity share capital of listed companies.
- They have a special responsibility given the weightage of their votes and have a bigger role to play in corporate governance as retail investors look upon them for positive use of their voting rights.

Answer 1(c)

The corporate boards are involved in promoting women empowerment. Woman directors can play a significant role in board room quality decision making. The Companies Act 2013 has taken a positive step in this direction by providing for mandatory appointment of women director on corporate boards. Section 149(1) of the Companies Act 2013 provides that certain classes of companies must have at least one woman director. Rule 3 of the Companies (Appointment and Qualification of Directors) Rules, 2014 specifies following classes of Companies-

- every listed company
- other public companies having a paid-up share capital of Rs. 100 crore or more or turnover of Rs. 300 crore or more.

Regulation 17(1) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations 2015 provides that the composition of board shall have an optimum combination of executive and non-executive directors with at least one woman director.

Moreover, the Companies Act 2013 has also made it mandatory for companies to include activities related to women empowerment and gender equality in its CSR activities. Thus, India Inc has woken up to the need of taking women seriously in board rooms.

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

Question 2

Elucidate the following :

- (a) *Reputational risk management.*
- (b) *Best practices in ethics programme*
- (c) *Corporate excellence through governance.* (5 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

- (i) *You are Company Secretary of a listed company. You have been asked to prepare report on corporate governance to be included in the annual report of the company. Briefly explain the major contents of such report.* (5 marks)
- (ii) *What do you mean by 'related party transaction' ? What are the provisions of listing agreement related to monitoring of related party transactions ?* (5 marks)
- (iii) *What do you understand by 'internal control' ? What are its components ?* (5 marks)

Answer 2(a)

Reputation is the trust that an organization has gained over the years by the products, services, brands it has provided to the society.

Reputation Risk is the risk arising from negative perception on the part of customers, counterparties, shareholders, investors, debt-holders, market analysts, other relevant parties or regulators that can adversely affect a bank's ability to maintain existing, or establish new, business relationships and continued access to sources of funding (eg through the interbank or securitisation markets). Reputation lost will damage brand value, share price, strategic relationship, regulatory relationship, recruitment / retention.

Components : Reputational risk is multidimensional and reflects the perception of other market participants. The components of Reputation Risk Management are:

- Management of Reputation risk
- Preparation for Reputations Crises
- Handling of Reputation Crises

Management of Reputational Risk : For managing the reputation risk, the following principles are worth noting:

- Integration of risk while formulating business strategy.
- Effective board oversight.
- Image building through effective communication.
- Promoting compliance culture to have good governance.

- Persistently following up the Corporate Values.
- Due care, interaction and feedback from the stakeholders.
- Strong internal checks and controls
- Peer review and evaluating the company's performance.
- Quality report/ newsletter publications
- Cultural alignments

Answer 2(b)

Best Practices in Ethics Programme : Business should act ethically to protect their own interest and the interests of the business community, keep their commitment to society to act ethically, meet stakeholders expectations, prevent harm to the general public, build trust with key stakeholder groups, protect themselves from abuse by unethical employees and competitors, protect their own reputations, protect their own employees and create an environment in which workers can act in ways consistent with their values. Examples of some of the best practices in ethics programme are given below-

- Staff training, evaluations of compliance systems, appropriate funding and staffing of the corporate ethics office, and effective protection to employees who "blow the whistle" on perceived actions which are contrary to the spirit and/or letter of the code.
- Annual training on the ethical code of conduct is a good practice. Many corporations establish independent "help lines" where employees can seek guidance when they are faced with an ethical dilemma, or when they encounter any unethical conduct in the workplace.
- Establishing a regular review system to ensure that the codes are dynamic, and are updated in the light of new developments.
- Every member of the Board of Directors should be required to sign the Code of Ethics, and pledge that she/he will never support a Board motion to suspend the Code.
- All outside law firms and auditing firms that consult to publicly listed corporations should be required to sign statements noting that they understand and accept the corporation's Code of Ethics.

Thus, the best practices in ethics programme is that businesses should act ethically to protect their own interest and the interests of the business community, keep their commitment to society to act ethically, meet stakeholders exceptions, prevent harm to the general public, build trust with key stakeholder groups, protect themselves from abuse from unethical employees and competitors, protect their own reputations, protect their own employees and create an environment in which workers can act in ways consistent with their values.

Answer 2(c)**Corporate excellence through governance**

Corporate excellence refers to a transformation from the status of a good company

to the status of a great company. The essence of corporate excellence is to have a competitive advantage over other firms in the industry. Corporate excellence is about developing and strengthening the management system and process of a company to improve performance and create value for stakeholders. Corporate governance is the one and only route to achieve corporate excellence. It provides a structure through which the objectives of a company are set and how they are achieved and monitored. Good governance practice enhances the efficiency of corporate sector and helps achieving excellence in all areas in the organization.

In November 2000, a Task Force on Corporate Excellence set up by the then Dept of Company Affairs produced a report containing a range of recommendations for raising governance standards among all companies in India. It also suggested the setting up of a Centre for Corporate Excellence. It suggested the higher delineation of independence criteria, minimization of interest conflict potential, directorial commitment and accountability through fewer and more focused board and committee membership, meaningful and transparent accounting and reporting, improved annual report along with more detailed filing with regulatory authorities, and greater facilitation for informed participation using the advances in converging information and communications technologies, setting up of an independent, Autonomous Centre for Corporate Excellence to accord accreditation and promote policy research and studies, training and education, etc., in the field of corporate excellence through improved corporate governance. introducing formal recognition of Corporate Social Responsibility, clear distinction between two basic components of governance in terms of policy making and oversight, responsibilities of the board of directors, and the executive and implementation responsibilities of corporate management comprising of the managing director and his or her team of executives including functional directors, apply the highest and toughest standards of corporate governance to Listed companies etc.

- Monitoring the Performance
- Inculcate Moral Values and Principles in Business
- Fair and Equitable Treatment of Shareholders
- Transparency and Full Disclosures
- Fair and Equitable Treatment of Employees and Workers
- Strong Internal Control
- Reduce Misconduct and Frauds
- Satisfied Customers etc.

Answer 2A(i)

The major contents of Corporate Governance Report of a listed company as prescribed by SEBI (LODR) Regulations, 2015 includes following-

- (1) A brief statement on listed entity's philosophy on code of governance.
- (2) Board of directors:
 - composition and category of directors (e.g. promoter, executive, non-executive, independent nonexecutive,

- nominee director - institution represented and whether as lender or as equity investor);
 - attendance of each director at the meeting of the board of directors and the last annual general meeting;
 - number of other board of directors or committees in which a directors is a member or chairperson;
 - number of meetings of the board of directors held and dates on which held;
 - Disclosure of relationships between directors inter-se;
 - number of shares and convertible instruments held by non-executive directors;
 - web link where details of familiarisation programmes imparted to independent directors is disclosed.
- (3) Audit committee:
- brief description of terms of reference;
 - composition, name of members and chairperson;
 - meetings and attendance during the year.
- (4) Nomination and Remuneration Committee:
- brief description of terms of reference;
 - composition, name of members and chairperson;
 - meeting and attendance during the year;
 - performance evaluation criteria for independent directors.
- (5) Remuneration of Directors:
- all pecuniary relationship or transactions of the non-executive directors vis-à-vis the listed entity shall be disclosed in the annual report;
 - criteria of making payments to non-executive directors. alternatively, this may be disseminated on the listed entity's website and reference drawn thereto in the annual report;
 - disclosures with respect to remuneration
- (6) Stakeholders' Grievance Committee:
- name of non-executive director heading the committee;
 - name and designation of compliance officer;
 - number of shareholders' complaints received so far;
 - number not solved to the satisfaction of shareholders;
 - number of pending complaints.
- (7) General Body Meetings:
- location and time, where last three annual general meetings held;
 - whether any special resolutions passed in the previous three annual general meetings;
 - whether any special resolution passed last year through postal ballot – details of voting pattern;

- person who conducted the postal ballot exercise;
- whether any special resolution is proposed to be conducted through postal ballot;
- procedure for postal ballot.

(8) Means of communication:

- quarterly results;
- newspapers wherein results normally published;
- any website, where displayed;
- whether it also displays official news releases; and
- presentations made to institutional investors or to the analysts.

(9) General shareholder information:

- annual general meeting - date, time and venue;
- financial year;
- dividend payment date;
- the name and address of each stock exchange(s) at which the listed entity's securities are listed and a confirmation about payment of annual listing fee to each of such stock exchange(s);
- stock code;
- market price data- high, low during each month in last financial year;
- performance in comparison to broad-based indices such as BSE sensex, CRISIL Index etc;
- in case the securities are suspended from trading, the directors report shall explain the reason thereof;
- registrar to an issue and share transfer agents;
- share transfer system;
- distribution of shareholding;
- dematerialization of shares and liquidity;
- outstanding global depository receipts or american depository receipts or warrants or any convertible instruments, conversion date and likely impact on equity;
- commodity price risk or foreign exchange risk and hedging activities;
- plant locations;
- address for correspondence.

(10) Other Disclosures:

- disclosures on materially significant related party transactions that may have potential conflict with the interests of listed entity at large;
- details of non-compliance by the listed entity, penalties, strictures imposed on the listed entity by stock exchange(s) or the board or any statutory authority, on any matter related to capital markets, during the last three years;

- details of establishment of vigil mechanism, whistle blower policy, and affirmation that no personnel has been denied access to the audit committee;
- details of compliance with mandatory requirements and adoption of the non-mandatory requirements;
- web link where policy for determining 'material' subsidiaries is disclosed;
- web link where policy on dealing with related party transactions;
- disclosure of commodity price risks and commodity hedging activities.

Answer 2A(ii)

Regulation 2(1) (zc) of SEBI (LODR) Regulations, 2015, defines related party transaction. It means a transfer of resources, services or obligations between a listed entity and a related party, regardless of whether a price is charged and a "transaction" with a related party shall be construed to include a single transaction or a group of transactions.

Provisions of SEBI (LODR) Regulations, 2015 related to monitoring of related party transactions- Regulation 23 of LODR provides that:

1. The listed entity shall formulate a policy on materiality of related party transactions and on dealing with related party transactions.
2. All related party transactions shall require prior approval of the audit committee.
3. Audit committee may grant omnibus approval for related party transactions proposed to be entered into by the listed entity subject to the following conditions-
 - (a) the audit committee shall lay down the criteria for granting the omnibus approval in line with the policy on related party transactions of the listed entity and such approval shall be applicable in respect of transactions which are repetitive in nature;
 - (b) the audit committee shall satisfy itself regarding the need for such omnibus approval and that such approval is in the interest of the listed entity;
 - (c) The omnibus approval shall specify:
 - (i) the name(s) of the related party, nature of transaction, period of transaction, maximum amount of transactions that shall be entered into,
 - (ii) the indicative base price / current contracted price and the formula for variation in the price if any; and
 - (iii) such other conditions as the audit committee may deem fit

provided where the need for related party transaction cannot be foreseen and aforesaid details are not available, audit committee may grant omnibus approval for such transactions subject to their value not exceeding rupees one crore per transaction.
 - (d) The audit committee shall review, at least on a quarterly basis, the details

of related party transactions entered into by the listed entity pursuant to each of the omnibus approvals given.

- (e) Such omnibus approvals shall be valid for a period not exceeding one year and shall require fresh approvals after the expiry of one year.
- 4. All material related party transactions shall require approval of the shareholders through resolution and the related parties shall abstain from voting on such resolutions whether the entity is a related party to the particular transaction or not.
- 5. The provisions of sub-regulations (2), (3) and (4) shall not be applicable in the following cases:
 - (a) transactions entered into between two government companies;
 - (b) transactions entered into between a holding company and its wholly owned subsidiary whose accounts are consolidated with such holding company and placed before the shareholders at the general meeting for approval.
- 6. The provisions of this regulation shall be applicable to all prospective transactions.
- 7. For the purpose of this regulation, all entities falling under the definition of related parties shall abstain from voting irrespective of whether the entity is a party to the particular transaction or not.
- 8. All existing material related party contracts or arrangements entered into prior to the date of notification of these regulations and which may continue beyond such date shall be placed for approval of the shareholders in the first General Meeting subsequent to notification of these regulations.

Answer 2A(iii)

Internal control is defined as a process, affected by an organization's people and information technology systems, designed to help the organization accomplish specific goals or objectives. It is a means by which an organization's resources are directed, monitored, and measured. It plays an important role in preventing and detecting fraud and protecting the organization's resources, both physical and intangible

Internal control means the policies and procedures, practices and organizational structures, designed to provide reasonable assurance that business objectives will be achieved and that undesired events will be prevented or detected and corrected.

Components of Internal Control : Internal control consists of five interrelated components.

- (i) *Control Environment* : The control environment is the set of standards, processes, and structures that provide the basis for carrying out internal control across the organization.
- (ii) *Risk Assessment* : Every entity faces a variety of risks from external and internal sources. Risk assessment involves a dynamic and iterative process for identifying and assessing risks to the achievement of objectives.

- (iii) *Control Activities* : Control activities are the actions established through policies and procedures that help ensure that management's directives to mitigate risks to the achievement of objectives are carried out.
- (iv) *Information and Communication* : Information is necessary for the entity to carry out internal control responsibilities to support the achievement of its objectives. Communication is the continual, iterative process of providing, sharing, and obtaining necessary information. Internal communication is the means by which information is disseminated throughout the organization, flowing up, down, and across the entity.
- (v) *Monitoring Activities* : Ongoing evaluations, separate evaluations, or some combination of the two are used to ascertain whether each of the five components of internal control, including controls to affect the principles within each component, is present and functioning.

Question 3

- (a) *Explain the focus areas of Global Corporate Governance Forum. (5 marks)*
- (b) *Discuss briefly the Department of Public Enterprises Guidelines on Corporate Social Responsibility and Sustainability for Central Public Sector Enterprises. (5 marks)*
- (c) *Ayesha Ltd. is engaged in managing events. A Board meeting is recently held at the head office of the company to expand its business operations to new areas. As a Company Secretary of the company, you are required to prepare minutes of this Board meeting. (5 marks)*

Answer 3(a)

Global Corporate Governance Forum was established to promote initiatives to raise corporate governance standards and practices in developing countries and emerging markets, using the OECD Principles of Corporate Governance as the basis for its work in 1999. The focus areas of the Forum are as follows-

- raising awareness and building consensus for implementation of reform through meetings, briefings, policy papers, and conferences;
- sponsoring research relevant to the needs of developing countries to underpin reform efforts by sound analysis through sponsoring papers and building sustainable networks for academics in developing countries;
- disseminating best practice materials and publications and guidelines developed with leading global specialists and practitioners; and
- supporting institution and capacity building and providing technical assistance to ensure implementation at the field level through training programs, toolkits and other direct assistance.

Answer 3(b)

DPE has issued New Guidelines on Corporate Social Responsibility and Sustainability for Central Public Sector Enterprises with effect from 1st April 2013.

- The guidelines issued are in consonance with the National Voluntary Guidelines

for Social, Environmental & Economic Responsibilities of Business issued by the Ministry of Corporate Affairs in July 2011.

- In the revised guidelines the thrust of CSR and Sustainability is clearly on capacity building, empowerment of communities, inclusive socio-economic growth, environment protection, promotion of green and energy efficient technologies, development of backward regions, and upliftment of the marginalized and under-privileged sections of the society.
- It is mandatory for CPSEs to take up at least one major project for development of a backward district.
- CPSEs are expected to formulate their policies with a balanced emphasis on all aspects of CSR and Sustainability – equally with regard to their internal operations, activities and processes, as well as in their response to externalities.
- Public Sector enterprises are required to have a CSR and Sustainability policy approved by their respective Boards of Directors.
- Each CPSE shall have a Board level committee headed by the Chairman and / or Managing Director, or an Independent Director to oversee the implementation of the CSR and Sustainability policies of the Company.
- The public sector enterprise shall have to disclose reasons for not being able to spend the entire budget on CSR and Sustainability activities as planned for that year, and shall make every endeavor to spend the unutilised budget of any year within the next two financial years.
- In case the CPSEs are unable to spend the unutilised budget within the next two financial years, the unspent amount would be transferred to a 'Sustainability Fund' to be used for CSR and Sustainability activities.

Answer 3(c)

Specimen Minutes of a Board Meeting

Minutes of the _____ Meeting of the Board of Directors of _____ (Company Name) held on _____ (Day), _____ (Date, Month and Year), at _____ (Venue) from _____ (Time of Commencement) till _____ (Time of Conclusion)

PRESENT

A.B. Chairman
C.D. Directors
E.F. I.J. K.L. Managing Director

IN ATTENDANCE

X..... Secretary

INVITEES

Y..... Chief Financial Officer
Z..... Designation and Organisation

1. Chairman for the Meeting
Mr/Ms.....was elected as the Chairman for the Meeting.
2. Leave of absence
Leave of absence from attending the Meeting was granted to Mr. M.N. and Mr. O.P. who expressed their inability to attend the Meeting 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, as circulated, were noted by the Board and signed by the Chairman.
5. Minutes of the Committee Meetings
The Minutes of the Meeting of the Committee held on, as circulated, were noted by the Board.
6. Resolution passed by circulation since the last Meeting.
The following Resolution was passed by circulation on (date of passing of the Resolution) in terms of the provisions of Section 175 of the Companies Act, 2013. "RESOLVED THAT
....."
Mr., Director dissented on the Resolution.
7. Action Taken Report
The following action taken was noted by the Board: Item No. Item Action Taken
_____.
8. Register of Contracts
The Register of Contracts in which Directors are interested under Section 189 of the Companies Act, 2013 and the Rules thereunder was signed by all the Directors present.
9. Notices of Disclosure of Interest of Directors
 - (a) The following Notices received from the Directors of the company, notifying their interest in other bodies corporate pursuant to the provisions of Section 184 of the Companies Act, 2013, were read and recorded: Name of the Director Nature of Interest Date of Notice
 - (b) A Notice dated received from Mr. I.J. pursuant to the provisions of Section 170 of the Companies Act, 2013, disclosing his shareholding and the shareholding of Mrs. I.J. in the company was read and recorded.
10. Expansion of business operations in new areas
The Chairman informed the Board that it was proposed to expand business operations in other states like _____. The matter was discussed in this connection and it was decided to expand operations in _____.

11. Conclusion of the Meeting

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

Date Chairman

Place

Entered on

(to be initialled by the Company Secretary)

Question 4

- (a) *"In the globalised world, ethical assessments are based on relativism." Comment on this statement in the light of business practices adopted by corporates in different parts of the world. (5 marks)*
- (b) *Discuss the salient features of CalPERS. What are the main drivers of their corporate engagement programme ? (5 marks)*
- (c) *What are the areas in which a company may face ethical issues ? Explain with the help of case study as to how investors can force ethical issues on company's agenda. (5 marks)*

Answer 4(a)

In the globalised world, ethical assessments are based on relativism. Some elements or aspects of experience or culture are relative to, i.e., dependent on, other elements or aspects. There are no absolute truths in ethics and that what is morally right or wrong varies from person to person or from society to society. The term often refers to truth relativism, which is the doctrine that there is no absolute truth. The truth is always relative to some particular frame of reference, such as a society or a language or a culture. For example, killing animals for sport (like bull fighting) could be right in one culture and wrong in another.

Adjustments in the holiday calendar, dress code, formality in business dealings, promotional policies adopted by the companies, all vary across regions. Banks in Middle East do not charge interest on housing loans; they buy property and sell at higher prices to be paid in form of instalments. Similarly, Mc Donald changes its ingredients in similar products to match worldwide cultural sensitivity.

Answer 4(b)

California Public Employees' Retirement System (CalPERS) manages retirement benefits for more than 1.6 million California public employees, retirees, and their families. The corporate governance team at CalPERS challenges companies and the status quo; vote proxies; work closely with regulatory agencies to strengthen financial markets; and invest with partners that use corporate governance strategies to add value to the fund by turning around ailing companies. As a strategy CalPERS invest in sick and ailing companies where it employs good governance practices to improve company's overall performance.

CalPERS corporate engagement process has the overarching objective of improving alignment of interest between providers of capital and company management. It is CalPERS view that improved alignment of interest will enable the fund to fulfil its fiduciary duty to achieve sustainable risk adjusted returns. The main drivers in the corporate engagement program are -

- *Financial Performance* – company engagement to address persistent, relative value destruction, through the Focus List Program
- *Value Related Risk* – material environmental, social and governance factors, such as reputational risk, climate change, board diversity and key accountability measures such as majority voting
- *Compliance* – in response to State or Federal legislation.

Answer 4(c)

A company may face ethical issues in different areas. Some of these issues are given below :

- (a) The ethical issues in finance that companies and employees are confronted with include:
 - In accounting – window dressing, misleading financial analysis.
 - Related party transactions not at arm length
 - Insider trading, securities fraud leading to manipulation of the financial markets.
 - Fake reimbursements.
- (b) The ethical issues faced by Human Resource Management include:
 - Discrimination issues, i.e., discrimination on the bases of age, gender, race, religion, disabilities etc.
 - Sexual harassment.
 - Discrimination of whistle-blowers.
- (c) The ethical issues confronted in marketing area include:
 - Pricing: price fixing, price discrimination and price skimming.
 - Anti-competitive practices, like manipulation of supply, exclusive dealing arrangements and tying arrangements.
 - Misleading advertisements.
- (d) The ethical issues confronted in production area include:
 - Defective, addictive and inherently dangerous products and
 - Ethical relations between the company and the environment include pollution, environmental ethics and carbon emissions trading.
 - Ethical problems arising out of new technologies, for example, genetically modified food etc.

Case Study to explain how investors can enforce ethical issues on company's agenda

Tesco a UK based Supermarket Chain Company faced an unprecedented revolt over the meagre wages it pays to workers in the developing world to supply its supermarkets with everything from cheap clothing to fruit.

Shareholders at the company's annual meeting in London also voiced their anger at a controversial pay scheme for chief executive Sir Terry Leahy, which could see him pocket over £11 million if Tesco's expansion into the US market succeeded. 8.75% of shareholders refused to back the company's remuneration policy while 17.71% refused to back Sir Terry's special US bonus.

PART B

Question 5

- (a) *Milkworld Ltd. started milk collection in the district it was situated with a collection of 511 Kgs. of milk from 180 farmers. The company set-up a system of direct and efficient contact with farmers. Company veterinarians and agronomists supervise the milk routes and advise farmers on various issues including proper feed for the herds. Milk storage facilities have been set-up close to the farmers, veterinary services are provided free and medicines provided at wholesale price. The company assists farmers in artificial insemination programmes for their cattle, and helps them in obtaining subsidy and loans.*

By working very closely with the farmers of the district and its local administration, the company has helped to raise the quality and hygiene of the milk produced and improved the health and lifestyle of the farmers and other residents. Its contribution to the creation of prosperity on an ongoing and sustainable basis has not only transformed the district into a prosperous and vibrant milk district today, but also a thriving hub of industrial activity.

On the basis of facts given in above case, what are your observations pertaining to performance of the company on corporate social responsibility ? (7 marks)

- (b) *Write a note on 'biological diversity'. (4 marks)*
- (c) *Discuss the regulatory framework for environment protection in India. (4 marks)*

Answer 5(a)

In the given case, Milkwood Ltd. has provided following services to the farmers, who are stakeholders of the company. These services are the fine examples of the corporate social responsibility activities undertaken by the company.

- The Company veterinarians and agronomists supervise the milk routes.
- The Company advises farmers on various issues including proper feed for the herds.
- Milk storage facilities have been set up close to the farmers.
- Free Veterinary services are provided.
- Medicines provided at wholesale price.

- The company assists farmers in artificial insemination programs for their cattle.
- Providing subsidy and help in procuring loans.
- The company has helped to raise the quality and hygiene of the milk produced and improved the health and life style of the farmers and other residents.

The company was working very closely with the farmers in the district and local administration. The company had undertaken above mentioned activities which were mutually beneficial to the company as well as farmers and local community of that district. The ongoing social responsibility activities of the company not only resulted into the transformation of the district into a prosperous and vibrant milk district but also helped making it a hub of industrial activities. The case clearly shows that the company had deep faith in “Stakeholder Theory” of Corporate Governance and in discharging social responsibility towards its stakeholders. It is an example of mutual benefit concept of social responsibility as business cannot exist and operate in isolation.

Answer 5(b)

Biological Diversity: Biological diversity is the term given to the variety of life on Earth. It is the variety within and between all species of plants, animals and micro-organisms and the ecosystems within which they live and interact. An international treaty - “the Convention on Biological Diversity” was adopted in United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992, which had following three main goals-

- conservation of biological diversity
- sustainable use of its components and
- fair and equitable sharing of benefits arising from genetic resources.

In India, the Biological Diversity Act 2002 was born out of India’s attempt to realise the objectives enshrined in the United Nations Convention on Biological Diversity, 1992, which recognizes the sovereign rights of states to use their own Biological Resources. The Act provides for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources and associated knowledge as well as facilitating access to them in a sustainable manner and through a just process.

Answer 5(c)

Regulatory frame work for environment protection in India : The primary responsibility for the implementation of the Policy of the Government of India with respect to environmental management, conservation, ecological sustainable development and pollution control rests with the Ministry of Environment and Forest (MoEF).

MoEF has notified Environmental Impact Assessment Notification 2006 to ensure that the economic growth and development in our country is in conformity with the regulations for environmental conservation. It is also responsible for the review and approval of Environmental Impact Assessment.

The Ministry is the nodal agency in the Government for various environment related

multilateral conventions and protocols. The MoEF is responsible to enforce the Regulations established pursuant to major legal enactments which are as follows:

- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The National Green Tribunal Act, 2010
- Prevention of Cruelty to Animals Act, 1960
- The Wild Life (Protection) Act, 1972
- Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
- The Biological Diversity Act, 2002

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

Question 6

- (a) *Explain the rule laid down in Rylands v. Fletcher case. How far it is applicable in Indian scenario ?* (5 marks)
- (b) *"Greenwashing is an evil practice amongst the corporates." Comment.* (5 marks)
- (c) *Explain the role of the government in improving sustainability reporting.* (5 marks)

OR (Alternate question to Q.No. 6)

Question 6A

- (i) *"The UN Global Compact incorporates a transparency and accountability policy known as the communications on progress (COP)." Elaborate.* (5 marks)
- (ii) *The Triple Bottom Line is made up of social, economic and environmental aspects and indicated by the phrase 'people, planet and profit'. Elucidate.* (5 marks)
- (iii) *"Corporate Manslaughter and Corporate Homicide Act, 2007 of United Kingdom (UK) is a landmark legislation." How ?* (5 marks)

Answer 6(a)

Rule laid in Rylands v. Fletcher case

Rylands v. Fletcher was a decision by the House of Lords which established a new area of English tort law. The "Rule in *Rylands v. Fletcher*" states that "the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape".

Applicability in Indian Scenario

The question of liability of an enterprise which is engaged in a hazardous or inherently

dangerous industry, where by any chance an accident occurs, persons die or get injured and the applicability of Rule in *Rylands vs. Fletcher* was debated in *M.C. Mehta v. Union of India*, commonly called oleum gas leak case.

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

Answer 6(b)

Greenwashing 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 whereas actually they are not concerned about environment.

Greenwashing 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. There is a profit-driven motive to greenwashing as well— green products are among the fastest growing segments in the market. Internationally, the increase in green advertising claims has become a cause for concern.

Answer 6(c)

Role of Government in Sustainability Reporting

Sustainability reporting is a process for publicly disclosing an organization’s economic, environmental, and social performance. Global Reporting Initiative (GRI) has developed a generally accepted framework to simplify report preparation and assessment, helping both reporters and report users gain greater value from sustainability reporting.

In India, the Ministry of Corporate Affairs (MCA) recommends sustainability reporting. Considering the importance of sustainability in businesses, MCA had launched Corporate Social Responsibility Voluntary Guidelines in 2009. To take this further, in 2011 MCA issued ‘National Voluntary Guidelines on Social, Environmental and Economical Responsibilities of Business’ which encouraged reporting on environment, social and governance issues.

In line with these Guidelines and considering the larger interest of public disclosure regarding steps taken by listed entities from a Environmental, Social and Governance (“ESG”) perspective, SEBI decided to mandate inclusion of Business Responsibility Reports as part of the Annual Reports for listed entities. In 2012, SEBI inserted a new Clause 55 in the Listing Agreement mandating top 100 listed companies to adopt the Business Responsibility Framework.

In 2015, SEBI in its (Listing Obligations and Disclosure Requirements) Regulations, 2015 has required that the annual report of top 500 listed entity shall contain BRR describing initiative taken by them from an environmental, social and governance perspective in the prescribed format.

Answer 6A(i)

- The UN Global Compact incorporates a transparency and accountability policy known as the Communication on Progress (COP).
- The Communication on Progress (COP) is an annual disclosure to stakeholders on progress made in implementing the ten principles of the UN Global Compact in the areas of human rights, labour, environment and anti-corruption, and in supporting broader UN development goals.
- The COP is posted on the Global Compact website by business participants. Failure to issue a COP changes a participant's status to non-communicating and can eventually lead to the expulsion of the participant.
- The COP helps drive continuous sustainability performance improvement within the company.
- The COP provides investors with sustainability performance information of companies, thus allowing for a more effective integration of environmental, social and governance (ESG) considerations in their investments and resulting in a more effective allocation of capital.
- The COP is an important demonstration of a company's commitment to transparency and accountability and it serves as an effective tool for multi-stakeholder dialogue.

Answer 6A(ii)

Triple Bottom Line

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 is made up of "Social, Economic and Environmental" aspect and is indicated by the "People, Planet, Profit" phrase.

- "People" means Human Capital. It implies that fair and beneficial business practices towards labour and the community and region in which a corporation conducts its business would create long-term value. Wellbeing of a corporate, its labour and other stakeholder interests are interdependent.
- The second aspect of TBL is "Planet" - the Natural Capital. It refers to sustainable environmental practices. A company which decides to follow TBL always keep in mind that it does no harm to nature or creates negative environmental impact.
- The third aspect of triple bottom line is profit. The concept of profit for TBL company is somehow more wider in all perspective. It is the reflection of economic impact an organization has on its business activities and that too after meeting all costs that would protect society and environment.

Answer 6A(iii)

The Corporate Manslaughter and Corporate Homicide Act, 2007 of United Kingdom, is a landmark in law as it introduced a new offence, for 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. For the first time in history, companies and organisations could be found guilty of corporate manslaughter as a result of serious management failures resulting in a gross breach of the duty of care.

The Act, clarifies the criminal liabilities of companies, including large organisations, where serious failures on the part of the management regarding caring about their men's health and safety measures that led to fatal consequences.

Under this Act, prosecutions will be, 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. The corporate body and individuals can still be prosecuted separately for committing health and safety offences. Companies and organisations should keep their health and safety management systems under review, in particular, the way in which their activities are managed and organised by senior management.
