GUIDELINE ANSWERS

PROFESSIONAL PROGRAMME

DECEMBER 2015

MODULE II



THE INSTITUTE OF Company Secretaries of India IN PURSUIT OF PROFESSIONAL EXCELLENCE Statutory body under an Act of Parliament

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These answers have been written by competent persons and the Institute hopes that the **GUIDELINE ANSWERS** will assist the students in preparing for the Institute's examinations. It is, however, to be noted that the answers are to be treated as model answers and not as exhaustive and the Institute is not in any way responsible for the correctness or otherwise of the answers compiled and published herein.

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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NOTE: Guideline Answers of the last Four Sessions need to be updated in the light of changes and references given below:

PROFESSIONAL PROGRAMME

UPDATING SLIP

ETHICS, GOVERNANCE AND SUSTAINABILITY

MODULE – II – PAPER 3

| Examination Session | Question No. | Updating required in the answer |
|------------------------|--------------|---|
| (1) | (2) | (3) |
| 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. |

PROFESSIONAL PROGRAMME EXAMINATION

DECEMBER 2015

INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed: 3 hours Maximum marks: 100

NOTE: Answer ALL Questions.

Question 1

Arise Ltd. is manufacturing several types of computer components and is having its branches throughout the globe. The company wants to centralise and consolidate the information flowing in from its branches in a uniform manner across various levels of the organisation. Each factory and branch is using different software and varied platforms which do not communicate with each other. Also, there is no retention of electronic records in a common server. This results in large duplication of data. So, the company has decided to implement an ERP system to take care of all these issues. In light of the above, answer the following:

- (a) List out the problems that Arise Ltd. is facing at present. Also mention the objectives of implementing ERP system by the company.
- (b) Discuss various factors which are to be considered while deciding about purchase of the ERP system from a third party.
- (c) As an information system auditor, what do you think about the limitations of an ERP system?
- (d) What are the provisions in the Information Technology Act, 2000 for retention of electronic records? (5 marks each)

Answer 1(a)

The problems faced by Arise Ltd. at present include:

- 1. Lack of interaction and coordination among different units across the globe and along the supply chain
- 2. High operational costs due to lack of coordination among various units and departments of the organization
- 3. Redundancy of data
- 4. Lack of data integrity
- 5. High inventory cost due to lack of real time updating of inventory
- 6. Difficulty in reporting
- 7. Reduced profits due to higher cost per unit.

Objectives of Implementing ERP system:

1. Provide support for all variations of best business practices.

- 2. Enable implementation of these practices with a view towards enhancing productivity.
- 3. Empower the customer to modify the implemented business processes to suit the needs.
- 4. Helps in transforming the enterprise functions to be agile, cost-effective and focused on supporting the business objectives.
- 5. Facilitate the organization in making prompt and effective management decisions.

Answer 1(b)

- Comparing the implementation cost: Implementing Enterprise Resource Planning (ERP) involves high cost, thus, comparing the cost involved in in-house implementation of ERP vis-à-vis outsourcing the same to the third party 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 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 program can be aligned with existing business needs and achieve integration.
- 7. *Time to Implement*: Implementation can be a daunting prospect when companywide integration is at stake. Check the rollout time proposed by the vendor. 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 1(c)

Each system has its own limitations. ERP is also not different and it has also got some limitations. Some of the limitations associated with an ERP system are discussed herein:

1. Difficult to implement in running businesses

- 2. Customization is problematic
- 3. Policy Limitations
- 4. Ongoing Support
- 5. Lack of user participation in ERP implementation
- 6. Problem of Harmonization of ERP processes with the business processes
- 7. Resistance to change by the users
- 8. High Annual Charges
- 9. Training of users
- 10. High switching cost.

Answer 1(d)

Section 7 of the Information Technology Act, 2000 as amended provides for retention of records in electronic format. It provides that where any law provides that documents, records or information shall be retained for any specific period, then, that requirement shall be deemed to have been satisfied if such documents, records or information are retained in the electronic form, if —

- (a) the information contained therein remains accessible so as to be usable for a subsequent reference;
- (b) the electronic record is retained in the format in which it was originally generated, sent or received or in a format which can be demonstrated to represent accurately the information originally generated, sent or received;
- (c) the details which will facilitate the identification of the origin, destination, date and time of dispatch or receipt of such electronic record are available in the electronic record:

Provided that this clause does not apply to any information which is automatically generated solely for the purpose of enabling an electronic record to be dispatched or received. These provisions will not apply to any law that expressly provides for the retention of documents, records or information in the form of electronic records.

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

Question 2

- (a) What are the various types of computers, classified on the basis of their functions?
- (b) State the various functions of an operating system.
- (c) Explain in brief the operational characteristics of a good software.
- (d) What are the major advantages of 'agile software development'?

(4 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

Distinguish between the following:

(i) 'Objective information' and 'subjective information'.

- (ii) 'Primary memory' and 'secondary memory'.
- (iii) 'System software' and 'application software'.
- (iv) 'Hierarchical DBMS' and 'relational DBMS'.

(4 marks each)

Answer 2(a)

Classification of Computers on the basis of function:

- Servers: Server usually refers to a computer dedicated to providing a service.
 For example, a computer dedicated to a database may be called a "Database server". Similarly computers dedicated to manage file and web are called "File servers" and "Web servers" respectively.
- 2. Workstations: Workstations are computers that are intended to serve one user and may contain special hardware enhancements not found on a personal computer.
- 3. Information appliances: Information appliances are computers specially designed to perform a specific user-friendly function such as playing music, photography, or editing text. The term is most commonly applied to mobile devices.
- 4. *Embedded computers*: Embedded computers are computers that are a part of a machine or device. These generally execute a program that is stored in non-volatile memory and are only intended to operate a specific machine or device.

Answer 2(b)

An operating system executes many functions to operate computer system efficiently. Some of the essential functions of operating System are the following:

- Resource Management: An operating system manages a collection of computer hardware resources by using a variety of programs. It manages computer system resources, including its CPU, primary memory, virtual memory, secondary storage devices, input/output peripherals, and other devices.
- Task Management: The operating system also controls the running of many tasks. It manages one as well as many program(s) within a computer system simultaneously to handle efficient execution of tasks.
- Memory Management: Operating system keeps track of all the memory locations whether they are free or allocated. It also determines how and how much memory needs to be allocated to a process so that each task can be executed smoothly.
- File Management: An operating system contains file management programs that provide the ability to create, delete, enter, change, ask, and access of files of data. They also produce reports on a file.
- User Interface: It is a function of an operating system that allows users to interact
 with a computer. A user interface program may include a combination of menus,
 screen design, keyboard commands. A well-designed user interface is essential
 for an operating system to be popular and user friendly. It assists users to load
 programs, access files, and accomplish other tasks.

Answer 2(c)

Operational characteristics are functionality based factors which are related to 'exterior quality of software, some of the operational characteristics of good software are:

- Correctness: The software should meet all the specifications stated by the customer.
- 2. Usability/Learnability: The amount of efforts or time required to learn how to use the software should be less. This makes the software user-friendly even for IT-illiterate people.
- 3. *Integrity*: Software should be integrated with other applications and it should not affect the working of another application.
- 4. Reliability: The software should neither have any defects nor it should fail while execution.
- 5. *Efficiency*: The software should make effective use of the storage space and execute command as per desired timing requirements.
- 6. Security: The software shouldn't have ill effects on data / hardware. Proper measures should be taken to keep data secure from external threats.

Answer 2(d)

Agile technology is being widely used by the organization in developing information system now a days and it is resulting in various advantages. Following are the major advantages of agile systems:

- (1) Time & money saving: This approach leads to focus more on the application rather than documenting the things. Thus brings down the cost and time involved in the project.
- (2) Regular feedback from client: Since it is iterative in its form, it tends to have a regular feedback from the end user so that the same can be implemented as soon as possible. Further, as all phases of SDLC are required to be completed very quickly, there is a transparency to each individual working on the project with the status of each phase.
- (3) Flexibility: Change request and enhancements can be implemented easily between the phases.
- (4) Fast execution: Daily meetings and discussions for the project following agile approach can help to determine the issues well in advance and work on it accordingly. Quick coding and Testing makes the management aware of the gaps existing in either requirements or technology used and can try to find the workaround for the same.
- (5) Short project life cycle: The quicker development, testing and constant feedbacks from the user result in shorter project life cycle and thus becomes the appropriate approach for the projects to be delivered in a short span of time.

Answer 2A(i)

Objective Information: These are without bias i.e. not influenced by personal feelings, interpretations, or prejudices. These are generally clear cut and to the point.

Example of objective information: Number of states in India

Subjective Information: It includes opinions, personal viewpoints, and evaluations existing in the mind.

Example of subjective information: Evaluation of a course based on comments by the students.

Answer 2A(ii)

| | Primary Memory | Secondary Memory |
|---|---|--|
| 1 | These are semiconductor 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 | Also known as Main Memory. | Also known as Backup Memory or Auxiliary Memory. E.g. Tapes, Floppies, Hard Discs. |

Answer 2A(iii)

System software: It is a program that manages and supports the computer resources and their operations. It executes various tasks such as processing data and information, controlling hardware components, and allowing users to use application software. It functions as a bridge between computer system hardware and the application software. It is made up of many control programs, including the operating system, communication software and database manager. An application software cannot run without a system software. Example of such software include: Android operating system, Windows operating system etc.

Applications software: Applications software is program that performs common information processing jobs for end users. These do not require advanced level computer skills and allow users to do things like creating text documents, playing video games, listening to music or viewing websites. Example of such software include: MS word, Power point, Chrome, Internet Explorer etc.

Answer 2A(iv)

Hierarchical Data Base Management System (HDBMS)

A DBMS is said to be hierarchical if the relationships among data in the database are established in such a way that one data item is present as the subordinate of another one or a sub unit i.e. the items have "parent-child" relationships among them. It follows "tree" structure database. No backward movement is allowed in the hierarchical database.

Relational Data Base Management System (RDBMS)

A DBMS is said to be a Relational DBMS or RDBMS if the database relationships are treated in the form of a table. There are three keys on relational DBMS these are Relation, Domain and Attributes. RDBMS contains a fundamental constructs of sets or records. Sets contain one to many relationships and record statical table contains fields composed of rows and columns. Some popular examples of RDBMS are Oracle, Sybase, Ingress, Informix, Microsoft SQL Server, and Microsoft Access.

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

Question 3

- (a) What are the factors which affect the information needs?
- (b) "The Information Technology Act, 2000 is not applicable over several other Acts." Explain.
- (c) What are the applications of internet in an organisation and in the real world?
- (d) Explain 'consumer to consumer (C2C) e-commerce'. Describe its characteristics. (4 marks each)

OR (Alternate question to Q.No. 3)

Question 3A

Write notes on the following:

- (i) Big data analytics
- (ii) Social computing
- (iii) Wi-Fi
- (iv) Program development life cycle.

(4 marks each)

Answer 3(a)

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. Information need of top management is entirely different from the information needs of Operational Management.
- 2. Purpose of seeking information: The information needs also depend on the purpose of seeking information. Example an investor is interested majorly in the financial records of the company while customers are interested in the attributes related to the product/services offered by the company.

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. For example, an employee of the organization will be interested in knowing about the company pay policy.

Answer 3(b)

The Information Technology Act, 2000 extends to the whole of India except as otherwise provided, it applies to also any offence or contravention there under committed outside India by any person. However, there are some specific exclusions to the Act (i.e. where it is not applicable) as detailed in the First Schedule, stated below:

- (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
- (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.

Answer 3(c)

The most common applications of internet in the real world include:

- Communication: Internet has become an indispensible means of communication now days. It is being widely used for both internal as well as external communication. E-mail is the most popular internet service which refers to sending business communication electronically over a network to single recipient or to many recipients.
- Management of Business Operations: Internet has become a must for all business concerns. Now most of the organisation owns their web portals where one may get most of the relevant information about of the organization.
- 3. Education: Internet is extensively used in providing education and spreading awareness. Many organisation have emerged which are providing free online education through MOOCS (Massive open online course).
- 4. Research and studies: Internet has proved to be a boon for research and studies. Now, most of the good libraries have got digitized and these are available online. One may get their online access by paying the requisite fee. In addition to the online libraries, ample of material is freely available on internet. Researches may find enormous details about a topic in just a click.
- E-commerce: E Commerce is another application of internet which has makes
 everyone's life easier. Different models of e-commerce are being used by the
 organizations for different functions. It is being widely used for buying/selling thing online.

6. *E-governance*: In the age of internet, government has also taken serious steps for computerisation of government offices. This helps in elimination of various disadvantages of bureaucracy.

Answer 3(d)

Consumer to Consumer i.e. C2C e-commerce refers to online dealing of goods and services between people. The parties are two consumers (individuals) and the transactions are fulfilled with the help of online market dealer like auction sites, for example eBay, Olx etc.

Characteristics of C2C E-commerce

- 1. It promotes opportunity for consumers to transact goods or services to other consumers present on Internet.
- 2. The C2C in many a situation models the exchange systems with a modified form of deal making.
- 3. For the deal making purposes large virtual consumer trading communities are developed. The customers operate by the rules of these communities to compete, check and decide their own basic transaction prices.
- 4. It mimics the traditional economic activities corresponding to 'classified ads' and auctions of personal possessions.
- 5. Much of the transactions in this category correspond to the small gift items, craft merchandise and similar items that are normally sold through the markets or Bazaars.

Answer 3A(i)

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

The primary goal of big data analytics is to help companies make better business decisions by enabling data scientists and other users to analyze huge volumes of transaction data as well as other data sources that may be left untapped by conventional Business Intelligence(BI) programs.

Answer 3A(ii)

Social Computing: Everyone has started going online for their daily needs and they are leaving the trails of their opinion, behavior and choices. Analysing these traces is known as social computing. By performing analytical operation on these data, organizations can better understand their customer needs, preferences, their employee's experiences and problems that require immediate attention.

Further, it enables businesses to take a results oriented and business-led approach, focusing on specific issues and communities, soliciting membership and creating platforms for content, collaboration and transactional support.

Answer 3A(iii)

Wi-Fi: Wi-Fi is the name of a popular wireless networking technology that uses radio waves to provide wireless highspeed Internet and network connections. It is a trademarked term meaning IEEE 802.11x and is defined as any "wireless local area network (WLAN) products that are based on the Institute of Electrical and Electronics Engineers' (IEEE) 802.11 standards".

A wireless network uses radio waves, just like cell phones, televisions and radios do and enable users to get access to internet anywhere in the given location.

Answer 3A(iv)

When programmers build software applications, they follow an organized plan, or methodology, that breaks the process into a series of tasks. The program development life cycle (PDLC) is an outline of each of the steps used to build software applications. It is a tool used to guide computer programmers through the development of an application.

The program development lifecycle consists of six steps, these are:

- 1. Analyze the problem
- 2. Design the program
- 3. Code the program
- 4. Test and debug the program
- 5. Formalize the solution
- 6. Maintain the program

Question 4

- (a) What are the constraints in operating a management information system (MIS)? Explain.
- (b) Explain the effect of computers on information systems audit.
- (c) Discuss the stages of e-governance evolution in India.
- (d) "People are one of the components of the database systems." Based upon primary job functions, what are the various types of users that can be identified in a database system? (4 marks each)

Answer to Question 4(a)

Major constraints which come in the way of operating an information system are the following:

- 1. Non-availability of experts who can diagnose fully the objectives of the organisation and give a desired direction needed for operating information system.
- 2. Experts usually face difficulties in selecting the sub-systems of MIS, to be designed and operated upon first.
- 3. Source of availability of experts for running MIS effectively, is not always known to management.
- 4. Due to varied objectives of business concerns, the approach adopted by experts for designing and implementing MIS is non-standardised one.

- 5. At time there is lack of cooperation from staff.
- 6. Non-availability of heavy financial resources required for running the MIS effectively.
- 7. Turnover of experts is quite high.
- 8. It is difficult to quantify the benefits of MIS.
- 9. Perception problems as its utility are not readily perceptible by many users.

Answer 4(b)

Computer systems have affected how auditors carry out their two basic functions: evidence collection and evidence evaluation, these are discussed below:

- (i) Impact of Computers on Evidence Collection: Collecting evidence on the reliability of a computer system is often more complex than collecting evidence on the reliability of a manual system. Auditors confront a diverse and sometimes complex range of internal control technology that did not exist in manual systems. Auditors must understand these controls to ensure reliability of evidence collected. The continuing evolution of control technology makes it more difficult for auditors to collect evidence on the reliability of controls. Thus, auditors must keep up with these developments to be able to evaluate the reliability of communications networks competently. Similarly, new audit tools might be required in due course if auditors are to be able to evaluate the reliability of controls in data communications networks competently.
- (ii) Impact of Computers on Evidence Evaluation: Given the increased complexity of computer systems and internal control technology, it has also become difficult to evaluate the consequences of control strengths and weaknesses for the overall reliability of systems. Auditors are not only required to understand when a control is acting reliably or malfunctioning they must also be able to trace the consequences of the control strength or weakness through the system. The onus is on auditors to ensure that these controls are sufficient to maintain asset safeguarding, data integrity, system effectiveness, and system efficiency and that they are in place and working reliably.

Thus, in some ways, auditors are also under greater stress when they perform the evidence evaluation function for computer systems as the consequences of errors in a computer system can be more serious than the consequences of errors in a manual system.

Answer 4(c)

E-Governance is intrinsically linked with the development of computer technology and networking capabilities of computers and communication systems. In India, this could be seen as the following stages:

 Computerisation: The concept of e-Governance has its origins in India during the seventies with a focus on development of in-house government applications in the areas of defense, economic monitoring, planning and the deployment of IT to manage data intensive functions related to elections, census, tax administration etc.

- 2. *Networking*: Computerisation was followed by the efforts of National Informatics Center (NIC) to connect all the district headquarters during the eighties.
- 3. Online Presence: From the early nineties, IT technologies were supplemented by Information and Communication Technologies to extend its use for wider applications with policy emphasis on reaching out to the rural areas and taking in greater inputs from NGO's and private sector as well. Global shifts towards increased deployment of IT by governments emerged in the nineties, with the advent of the World Wide Web.
- 4. On-Line interactivity: With the increase in internet and mobile connections, the citizens are learning to exploit these new modes of access in wide ranging ways thus creating abundant evidences that the 'new 'e-citizenship' is taking hold. There has been increasing involvement of international agencies under the framework of e-governance for development to catalyze the development of e-governance laws and technologies in developing countries.

Answer 4(d)

People are one of the key components of database system and include all users of the database system. On the basis of primary job functions, following five types of users can be identified in a database system :

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

Question 5

- (a) Explain broadcasting/wider-dissemination model of e-governance. Describe the requirements of implementing successful e-governance. (8 marks)
- (b) How is electronic mail (e-mail) a useful application? Explain the advantages and disadvantages of e-mail. (8 marks)

Answer 5(a)

Broadcasting/Wider-Dissemination Model is based on dissemination of governmental information already available in the public domain into the wider public domain through the use of Information and Communications Technologies and convergent media. This model could be applied for putting Government Laws, Legislations and judicial decisions

online, making available the names, contact addresses, e-mails, fax numbers of local/national/regional/ international government officials online, making available information pertaining to Government Plans, Budgets, Expenditures, and Performances online.

For the success of an e-governance project and superior service delivery, it is imperative that the government agencies should focus on whole citizen experience. Apart from this some of the requirements for implementing successful e-governance across the nation are:

- 1. E-Governance framework across the nation with enough bandwidth to service a population of one billion.
- Connectivity frameworks for making the services reach rural areas of the country or development of alternative means of services such as e-governance kiosks in regional languages.
- 3. National Citizen Database which is the primary unit of data for all governance vertical and horizontal applications across the State and Central Governments.
- 4. E-governance and interoperability standards for the exchange of secure information with non-repudiation, across the State and Central Government departments seamlessly.
- 5. A secure delivery framework by means of virtual private network connecting across the State and Central Government departments.
- 6. Data centers to handle the departmental workflow automation, collaboration, interaction, exchange of information with authentication.

Answer 5(b)

E-mail is the most popular internet service which refers to sending business communication electronically over a network to single recipient or to many recipients. It is very useful as the e-mail messages on the Internet can be transmitted from one user to another often in seconds. Also the receiver can retrive the mail at his or her convenience or the user is automatically notified when there is E-mail in the electronic mail box. An E-mail system requires messaging system that stores and forward the messages to the right individual and mail program that allow the user to send and receive messages containing attachments.

Some of the major advantages of e-mail are summarised as follows:

- Speed: E-mail messages can be transmitted very quickly. It is considered extremely fast, with some messages able to reach their destination in a matter of seconds/minutes.
- Cost: The cost of sending or receiving messages is considered very low as hundreds of messages could be sent or received for the cost of a brief telephone call, making e-mail for cheaper than the postal service.
- 3. *Multiple copies*: E-mail allows multiple copies of the same basic message to be created and transmitted.

- 4. Auditing: Even the simplest e-mail package provides a number of features that allow users to audit their messages. Most programs allow users to keep copies of any messages they produce, automatically marking them with the date and time they were created.
- 5. Sharing data: E-mail messages can be used to transmit data files to other users. Files can be attached to messages and transmitted in the usual way.
- 6. *Multimedia*: The latest e-mail packages allow users to include multimedia elements in their messages. Messages can include a variety of different elements, including graphics, video, hyperlinks to information on the Internet and sound files.
- 7. *Group work*: E-mail supports group work and remote working. Group work involves several people working on the same project, using IT to help them communicate with each other and share data files.
- 8. Flexibility: The hardware and software used for handling e-mail can also be used for a variety of other purposes. Example: a typical modem, for example, can also be used to send or receive fax messages.

Some of the disadvantages of e-mail are:

- 1. Routing: E-mail messages seldom take the most direct route to their destinations. This can lead to a number of difficulties.
- Cost: In order to send or receive e-mail, organisations must have access to the correct hardware and software.
- Technical issues: Since using an e-mail service requires a certain level of technical knowledge, novice users may find it difficult to operate the hardware and software involved. This can place a burden on an organisation in terms of training and technical support requirements.
- 4. Spam: Unwanted messages, such as advertisements, are received by most email users. Dealing with unwanted or unnecessary e-mail messages can place a great burden on an organisation's resources.
- 5. Security: Unless e-mails are encrypted, they can be intercepted relatively easily. This makes email unsuitable for sending confidential information unless special precautions are taken.

Question 6

- (a) What are the core capabilities of decision support system (DSS)? Explain.
- (b) Draw a flowchart to find the sum of first 50 odd natural numbers.
- (c) "Information systems audit is an evaluation of adequacy of controls." What controls are required to be verified by an information systems auditor while auditing management controls? Explain any one of these controls.
- (d) Briefly describe the advantages of a database management system (DBMS). (4 marks each)

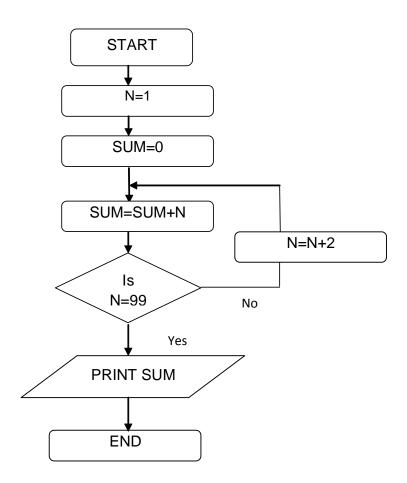
Answer 6(a)

Core capabilities of Decision Support System (DSS) are:

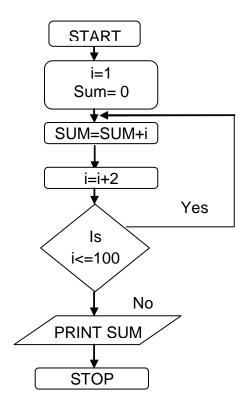
- 1. *Representations*: It includes the presentation of the information in the form of graphs, charts, lists, reports, formatted reports, symbols, etc.
- 2. Operations: It includes logical & mathematical manipulation of data. These operations are often confined to gathering information, generating statistics,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

Answer 6(b)

Alternative 1



Alternative 2



Answer 6(c)

Information System (IS) Audit is an evaluation of adequacy of controls. The following four management controls are required to be verified by the Information System Auditor

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

1. Security Policy and Standards

The IS auditor should first verify whether the organization has a Security Policy. If it does not exist, the auditor needs to point this out as unless the management has a corporate IS Security policy it cannot follow standard implementation of IS Security across all units and divisions. If a security policy exists, it needs to be examined for accuracy and adequacy in proportion to the risk. Further, the security policy has to be always dynamically updated.

2. Steering Committee for Security

The formulation and implementation of a sound security policy should be a team effort, brought into effect by a committee in which there is at least one member of the Board of Directors apart from the CIO and User HoDs. The auditor should point out the absence of such a committee. The auditor needs to stress upon the possible benefits of a properly functioning steering committee or conversely, the disadvantages of not having such a committee. In recommending the constitution and functioning of the committee, the auditor should be specific about composition, individual roles and responsibilities and monitoring/ escalating mechanism.

3. Business Continuity Planning

It is a very important aspect of Information Systems as it encompasses all aspects that can result in usage discontinuity. The IS Auditor should examine all such possibilities by which the availability of Computer Systems is threatened with temporary or permanent breakdown. In sensitive areas, even proofing against mob violence/terrorist strikes should be kept in view.

4. Systems Development Methodology

In most companies, Systems Development is not handled properly and proper documentation is not maintained. Thereby the accuracy of processing and the legal compliance are left as open questions. The IS auditor should verify whether following documents exist or not:

- 1. Functional requirement Specifications
- 2. Software requirement Specifications
- 3. Design Description
- 4. Software code
- 5. Test Plan
- 6. Unit test results
- 7. Integration test results
- Acceptance test results

The documentation should be properly cross-indexed. Every time a change is made, a thorough testing should be done and documented. The IS Auditor should get necessary evidence and comment on the lack of proper adherence to procedure.

Answer 6(d)

The Advantages of a DBMS are:

- 1. *Improved availability*: One of the principle advantages of a DBMS is that the same information can be made available to different users.
- 2. *Minimized redundancy*: The data in a DBMS is more concise because, as a general rule, the information in it appears just once. This reduces data redundancy

and therefore significantly reduces the cost of storing information on hard drives and other storage devices.

- 3. Accuracy: Accurate, consistent, and up-to-date data is a sign of data integrity. DBMSs foster data integrity because updates and changes to the data only have to be made in one place.
- 4. Program and file consistency: Using a database management system, file formats and system programs are standardized. This makes the data files easier to maintain because the same rules and guidelines apply across all types of data. The level of consistency across files and programs also makes it easier to manage data when multiple programmers are involved.
- 5. *User-friendly*: Data is easier to access and manipulate with a DBMS as in most cases, DBMSs also reduce the reliance of individual users on computer specialists to meet their data needs.
- 6. *Improved security*: DBMSs allow multiple users to access the same data resources. It also allows the usage of passwords to restrict data access.

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) Financial sector performs basic economic function of intermediation through transformation mechanisms.
- (b) Project review is a very important aspect of the entire project life.
- (c) A firm having high current ratio may not necessarily be treated as being favourably placed as regards payment of its current liabilities.
- (d) Sharpe ratio is a risk adjusted measure of return to evaluate the performance of a portfolio. (5 marks each)

Answer 1(a)

The financial sector performs basic economic function of intermediation essentially through four transformation mechanisms:

- (i) Liability Asset transformation (i.e., accepting deposits as a liability and converting them into assets such as loans):
- (ii) Size transformation (i.e., providing large loans generated from of numerous small deposits);
- (iii) Maturity transformation (i.e., offering savers alternate forms of deposits according to their liquidity preferences while providing borrowers with loans of desired maturities); and
- (iv) Risk transformation (i.e., distributing risks through diversification which substantially reduces risks for savers which would prevail in the absence of financial intermediation).

The process of financial intermediation supports increasing capital accumulation through the institutionalization of savings and investments and as such, fosters economic growth. The gains to the real sector of the economy, therefore, depend on how efficiently the financial sector performs this basic function of financial intermediation.

Answer 1(b)

The projects that are well designed, comprehensively planned, fully resourced and meticulously executed may also face challenges. These challenges can take place at

any point in the life of the project and the project team must review continually by revisiting the design, planning and implementation of the project to confirm they are valid. Project review helps to determine whether corrective actions need to be taken when the project's performance deviates significantly from its design and its plan.

The three principle categories of activities that take place during the review are:

- Project Monitoring
- Project Evaluation
- Project Control

These activities are intended to occur continuously and continually, taking place through the entire life of the project. For example, the earliest iterations of the project indicators are already being developed during the Project Identification and Design Phase; the Monitoring Plan is developed during the Planning Phase; monitoring visits are conducted during the implementation phase, and many evaluation activities are undertaken during the End of Project Transition Phase.

Answer 1(c)

Traditionally, it has been believed that liquidity is proportional to the level of current assets. A firm having a high current ratio is treated as favorably placed as regards payment of its current liabilities. This is a myth since the holding of current assets is always in proportion to the turnover. If level of current assets is rising disproportionately to the turnover, then notwithstanding the high current ratio, the situation has the following implications:

The age of current assets is increasing which tells upon their quality. As the current assets, particularly inventory and receivables, get older the chances of their easy and complete conversion into cash recede. Once this happens, there is every possibility of the operating cycle cracking.

The firm is paying a huge cost for the higher build up of current assets. This cost consists of :

- (a) The amount spent towards raw materials and intermediate inputs
- (b) The cost incurred towards storing and maintaining the inventory
- (c) The interest cost for obtaining finance against these current assets
- (d) The cost of obsolescence associated with holding inventory for longer periods and
- (e) The cost of expected default on receivables as reflected in charge to Profit and loss account towards bad debts.

Answer 1(d)

The Sharpe ratio is a risk-adjusted measure of return that is often used to evaluate the performance of a portfolio. The ratio helps to make the performance of one portfolio comparable to that of another portfolio by making an adjustment for risk.

Mathematically, Sharpe ratio is defined as:

 $S(X) = (r_x - R_f) / Std Dev (X)$

Where X = Investment

 r_x = Average rate of return of x

R_f = Best available rate of return of risk free security

Std Dev (X) = Standard deviation of r_x

The Sharpe ratio is quite simple. It's broken down into just three components: asset return, risk-free return and standard deviation of return. After calculating the excess return, it's divided by the standard deviation of the risky asset to get its Sharpe ratio. The idea of the ratio is to see how much additional return investor is receiving for the additional volatility of holding the risky asset over a risk-free asset - the higher the better.

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

Question 2

Distinguish between the following:

- (a) 'Forfaiting' and 'export factoring'.
- (b) 'Net net net lease' and 'update lease'.
- (c) 'Interest rate parity' and 'purchasing power parity'.
- (d) 'Call premium' and 'put premium'.

(4 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

- (i) What are the risks and uncertainties in capital budgeting decisions?
- (ii) Explain 'pecking order hypothesis' relevant to capital structure planning.
- (iii) Describe the meaning of 'pegging of currency'. Highlight the intermediate arrangements for determining exchange values of foreign currency.
- (iv) 'Reverse stock split' is generally an indication of financial difficulty. Elucidate.

 (4 marks each)

Answer 2(a)

'Forfaiting' and 'Export factoring'

Forfaiting is similar to cross border factoring to the extent both have common features of non recourse and advance payment. But they differ in several important respects:

- (a) A forfaiter discounts the entire value of the note/bill but the factor finances between 75-85% and retains a factor reserve which is paid after maturity.
- (b) The availing bank which provides an unconditional and irrevocable guarantee is a critical element in the forfaiting arrangement whereas in a factoring deal, particularly non-recourse type, the export factor bases his credit decision on the credit standards of the exporter.
- (c) Forfaiting is a pure financing arrangement while factoring also includes ledger administration, collection and so on.

- (d) Factoring is essentially a short term financing deal. Forfaiting finances notes/bills arising out of deferred credit transaction spread over three to five years, normally long term.
- (e) A factor does not guard against exchange rate fluctuations; a forfaiter charges a premium for such risk.

Answer 2(b)

'Net net net lease' and 'Update lease'

Net net lease: In triple net (net net net) lease, the lessee is obliged to take care of maintenance, taxes and insurance of the equipment. The lessee has to pay the net amount of three types of costs, which how this term got its name.

Update lease: Update lease is intended to protect the lesee against the risk of obsolescence. The lessor agrees to replace obsolete asset with new one at specified rent.

Answer 2(c)

'Interest rate parity' and 'Purchasing power parity'

Interest Rate Parity: According to Interest Rate Parity Principle, the forward premium (or discount) on currency of a country vis-à-vis the currency of another country will be exactly offset by the interest rate differential between the countries. The currency of the country with lower interest rate is quoted at a forward premium and vice versa.

Purchasing Power Parity: According to the Purchasing Power Parity (PPP) Principle, the currency of a country will depreciate vis-à-vis the currency of another country on the basis of differential in the rates of inflation between them. The rate of depreciation in the currency of a country would roughly be equal to the excess inflation rate in the country over the other country.

Answer 2(d)

Call premium and Put premium

| | Call premium | Put premium |
|-------------------------|--|---|
| Exchange Rate | As exchange rate increases call premium also increases | As exchange rate increases put premium decreases. |
| Strike Price | As strike rate increases call premium decreases | As strike rate increases put premium also increases |
| Risk free interest rate | As the interest rate in the economy increases, value of call option increases | As the interest rate in the economy increases, value of Put option decreases |
| Volatility | As volatility increases, there is high degree of uncertainty about the rate of the currency and hence on the option. | The owner of the call benefits from the rate increase. Due to increase in volatility the owner of put option benefits from the rate decreases. |

Answer 2A(i)

Risk and uncertainty are quite inherent in capital budgeting decisions. This is so because investment decisions and capital budgeting are actions of today which bear fruits in future which is unforeseen. Future is uncertain and involves risk. The projection of probability of cash inflows made today are not certain to be achieved in the course of future. Seasonal fluctuations and business cycles both deliver heavy impact upon the cash inflows and outflows projected for different project proposals. The cost of capital which offers cut-off rates may also be inflated or deflated under business cycle conditions. Inflation and deflation are bound to effect the investment decision in future period rendering the degree of uncertainty more severe and enhancing the scope of risk. Technological developments are other factors that enhance the degree of risk and uncertainty by rendering the plants or equipments obsolete and the product out of date. Tie up in the procurement in quantity and/or the marketing of products may at times fail and frustrate a business unless possible alternative strategies are kept in view.

Answer 2A(ii)

The Pecking order theory is based on the assertion that managers have more information about their firm than investors. This disparity of information is referred to as asymmetrical information. Other things being equal, because of asymmetrical information, managers will issue debt when they are positive about their firm's future prospects and will issue equity when they are unsure.

The cost of equity includes the cost of new issue of shares and the cost of retained earnings. The cost of debt is cheaper than the cost of both these sources of equity funds. Amongst the cost of new issue and retained earnings, the latter is cheaper because personal taxes have to be paid by shareholders on distributed earnings while no taxes are paid on retained earnings and also no floatation costs are incurred when the earnings are retained.

As a result, between the two sources of equity funds, retained earnings are preferred. It has been found in practice that firms prefer internal finance. If the internal funds are not sufficient to meet the investment outlays, firms go for external finance, issuing the safest security first. They start with debt, then possibly hybrid securities such as convertible debentures, then perhaps equity as a last resort. It is called Pecking order theory since there is not a well defined debt equity target and there are two kinds of equity, internal and external, one at the top of pecking order and one at the bottom.

Answer 2A(iii)

Pegging of currency refers to a method of stabilizing a country's currency by fixing its exchange rate to that of another country. Different countries follow different methods for pegging of their currencies. The foreign exchange value is established according to the practice being followed by a country. If the country follows a fixed rate of parity between its currency and a foreign currency, then the changes in parity value of that currency shall determine changes in the value of domestic currency vis-a-vis other foreign currencies. Thus, in that situation, performance of the domestic economy is not reflected in the valuation of its currency. This is one extreme side of absolute rigidity in fixation of exchange rate. The other extreme is allowing the exchange value of the national currency to float independently according to market forces without any intervention from the Central

Bank. In between these two extremes, there are many intermediate arrangements for determination of exchange values. These arrangements are being listed below:

- 1. Domestic currency pegged to one foreign currency
- 2. A currency pegged to a basket of currencies
- 3. Flexibility limited in terms of a single currency
- 4. Pegged to some indicators
- 5. Managed Float
- 6. Independent float

Answer 2A(iv)

A reverse stock split or reverse split is a process by which shares of corporate stock are effectively merged to form a smaller number of proportionally more valuable shares. Under the situation of falling price of company's share, the company may want to reduce the number of outstanding shares to prop up the market price per share. The reduction of the number of outstanding shares by increasing per share par value is known as reverse split. For example, a company has 20 lakh outstanding shares of Rs. 5 par value per share. Suppose it declares a reverse split of one for four. After the split it will have 5 lakh shares of Rs. 20 par value per share. The Reverse split is sometimes used to stop the market price per share below a certain level. The reverse split is generally an indication of financial difficulty and is therefore intended to increase the market price per share.

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

Question 3

- (a) ABC Chemicals Ltd. is considering two mutually exclusive proposals. Your advice is sought for choice between the two options under consideration:
 - (i) Purchase of petrol truck
 - (ii) Purchase of a battery powered truck

| | Year | Petrol truck | Battery powered truck |
|--------------------|------|--------------|-----------------------|
| Purchase cost (₹) | 0 | 1,50,000 | 2,50,000 |
| Operating cost (₹) | 1 | 24,000 | 12,000 |
| | 2 | 34,000 | 12,000 |
| | 3 | 29,000 | 12,000 |
| | 4 | 31,000 | 12,000 |
| | 5 | _ | 12,000 |

Assume an investment incentive of 100% initial depreciation allowance and a 30% incidence of corporate tax. No depreciation is allowed on subsequent years. Taxes are promptly paid. A return of 10% after tax as investment incentives is required.

You are required to find out equivalent cost for two options.

(4 marks)

(b) Sagar Ltd. has been in IT business for six years and enjoys a favourable market reputation. Corporate tax is 30%. They anticipated that the demand for IT solutions would increase considerably since many foreign firms are setting-up their BPO centres in India. For an expansion project, they propose to invest ₹22 crore to be funded by new debt and equity on 50:50 basis. Enquiries with merchant bankers reveal that funds can be available at following rates:

| | Rate |
|---------------------------|-------------------------|
| Debt | |
| First ₹5 crore | 10% |
| Next ₹5 crore | 12% |
| All additional funds | 15.72% |
| Equity | 12% |
| Risk gradation by company | 2% over cost of capital |

You are required to compute the appropriate risk adjusted discount rate.

(4 marks)

- (c) Describe the tool that provides insights into whether a company is creating or destroying wealth. (4 marks)
- (d) A group of new customers with 10% risk of non-payment, desires to establish business connection with you. The group desires one and a half months credit and is likely to increase the sales of your concern by ₹1,20,000 per annum. Cost of sales would be 80% of sales. Tax rate is 30% and required rate of return is 40% (after tax). Should the new business connection be established? Give your decision with supporting calculations. (4 marks)

OR (Alternate question to Q.No. 3)

Quesiton 3A

(i) Describe various tools of treasury management.

(4 marks)

(ii) From the following given operating data, calculate the degree of operating leverage of the two companies:

| | ABC Ltd. | XYZ Ltd. |
|----------------------------------|----------|----------|
| Sales (₹) | 40 lakh | 50 lakh |
| Variable expense (as % of sales) | 40% | 30% |
| Fixed cost (₹) | 10 lakh | 20 lakh |

Also, state which company has the greater business risk and why?

(4 marks)

(iii) Madhur Ltd., an Indian company has an export exposure of 100 lakh Yen value at December end. Yen is not directly quoted against Rupee. The current spot rates are INR/USD = ₹63.60 and JPY/USD = 124.75 Yen. In December end, it is estimated that Yen will be depreciated to 144 and Rupee to 65 against a Dollar. You are required to calculate the expected loss if hedging is not done.

(4 marks)

(iv) Diva Ltd. has 10 lakh equity shares outstanding at the end of accounting year 2014-15. The current market price of the shares is ₹150 each. The Board of directors of the company has recommended ₹8 per share as dividend. The rate of capitalisation appropriate to the risk class to which the company belongs is 12%.

Based on Modigliani-Miller approach, calculate the market price of the share if the recommended dividend is – (a) declared; and (b) not declared. (4 marks)

Answer 3(a)

Calculation of Equivalent cost for two options

| | Year | PV Factor | Petrol | truck | Battery p | owered truck |
|---|------|-----------|------------------------|------------------|-----------------------|------------------|
| | | @ 10% | Cost (1 – tax rate) | PV adjusted cost | Cost (1- tax rate) | PV adjusted cost |
| Purchase cost | 0 | 1 | 1,05,000 | 1,05,000 | 1,75,000 | 1,75,000 |
| Operating cost | 1 | 0.909 | 16,800 | 15,271 | 8,400 | 7,636 |
| | 2 | 0.826 | 23,800 | 19,659 | 8,400 | 6,938 |
| | 3 | 0.751 | 20,300 | 15,245 | 8,400 | 6,308 |
| | 4 | 0.683 | 21,700 | 14,821 | 8,400 | 5,737 |
| | 5 | 0.621 | - | - | 8,400 | 5,216 |
| | | | Total cost | 1,69,996 | | 2,06,835 |
| Divided by annuity PV Factor @ 10% corresponding to life of project | | | | 3.17 | | 3.79 |
| Equivalent cost (Rs.) | | | | 53,626 | | 54,574 |

Conclusion

As the annualised cost of Petrol Truck is cheaper, it is advisable to choose petrol truck.

Answer 3(b)

Total funds required = Rs. 22 crores

50% is financed by debt. Therefore, Rs. 11 crore is financed by debt, out of which Rs. 5 crores is @ 10%, next Rs. 5 crores is @ 12% and remaining Rs. 1 crores @ 15.72%.

Also remaining Rs. 11 crores is financed by equity @ 12%

Therefore,
$$K_{D1} = 10(1 - 0.30) = 7\%$$
 $K_{D2} = 12(1 - 0.30) = 8.4\%$ $K_{D3} = 15.72(1 - 0.30) = 11.004\%$

| Source | Cost (X) | Weight (W) (figure in Rs. crores) | XW (figure in Rs. crores) |
|-------------|----------|--------------------------------------|------------------------------|
| Debt 1 (D1) | 0.07 | 5 | 0.35 |
| Debt 2 (D2) | 0.084 | 5 | 0.42 |
| Debt 3 (D3) | 0.11004 | 1 | 0.11004 |
| Equity | 0.12 | 11 | 1.32 |
| | \sum W | 22 | Σ XW =2.20004 |

$$K_O = \frac{\sum XW}{\sum W} = 2.20004/22 = 10\%$$

Risk adjusted discount rate = 10% + 2% = 12%

Answer 3(c)

Economic Value Added (EVA) is a measurement tool that provides a clear picture of whether a business is creating or destroying shareholder wealth. EVA measures the firm's ability to earn more than the true cost of capital. EVA combines the concept of residual income with the idea that all capital has a cost, which means that it is a measure of the profit that remains after earning a required rate of return on capital. If a firm's earnings exceed the true cost of capital it is creating wealth for its shareholders. The cost of capital is the rate of return required by the shareholders and lenders to finance the operations of the business. When revenue exceeds the cost of doing business and the cost of capital, the firm creates wealth for the shareholders. The goal of EVA is to take into account the cost of capital invested in the company.

EVA = Net Operating Profit - Taxes - Cost of Capital

Answer 3(d)

Credit period = 1.5 months

| | Rs. |
|-----------------------------------|----------|
| Increase in Sales | 1,20,000 |
| Less: Cost of goods sold | (96,000) |
| Gross profit | 24,000 |
| Less: Bad debts (1,20,000 * 10%) | (12,000) |
| Profit before tax | 12,000 |
| Less: Tax @ 30% | (3600) |
| Profit after tax | 8,400 |
| Required return 40% of Rs. 12,000 | 4,800 |

As the return is more than Rs. 4,800, the new business connection is acceptable.

Answer 3A(i)

Various tools of Treasury Management are:

1. Analytic and planning tools

In treasury function, planning and budgeting are essential to achieve targets and to keep effective control on costs. Analysis of the data and information is necessary for planning and budgeting. Productivity and efficiency improves by decentralization of responsibility and that this can be achieved by performance budgeting.

2. Zero Based Budgeting (ZBB)

In ZBB each manager establishes objectives for his function and gain agreement on them with top management. Then alternate ways for achieving these targets are defined and most practical way for achieving the targets is selected. This alternative is then broken into incremental levels of effort required to achieve the objective. For each incremental level of activity, costs and benefits are assessed. The alternative with the least cost is then selected.

3. Financial Statement Analysis

Financial analysis of a company is necessary to help the treasury manager to decide whether to invest in the company. Such analysis also helps the company in internal controls. The soundness and intrinsic worth of a company is known only by such analysis. The market price of a share depends, among other things on the sound fundamentals of the company, the financial and operational efficiency and the profitability of that company.

4. Internal Treasury Control

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

Answer 3A(ii)

(Rs. in lakh)

| | ABC Ltd. | XYZ Ltd. |
|--|--------------|--------------|
| Sales | 40 | 50 |
| Less: variable cost | (16) | (15) |
| Contribution | 24 | 35 |
| Less: Fixed cost | 10 | 20 |
| EBIT | 14 | 15 |
| Degree of Operating leverage = Contribution/EBIT | 24/14 = 1.71 | 35/15 = 2.33 |

XYZ Ltd. has a higher degree of operating leverage. In this company, the EBIT is likely to vary more with fluctuation of sales. Therefore XYZ Ltd. has a higher degree of operating risk.

Answer 3A(iii)

Calculation of Spot (current) rate of Yen

- = (INR/USD) x (USD/JPY)
- = 63.60 x 1/124.75 = .5098 or Rs. 50.98 per 100 yen

Calculation of forward rate of Yen

- = (INR/USD) x (USD/JPY)
- = 65 x 1/144 = .4514 or Rs. 45.14 per 100 yen

Calculation expected loss if hedging is not done:-

| Exposure of 100 lakh yen at | Rs. |
|--|-----------|
| Current spot rate of Rs. 50.98 per 100 JPY | 50,98,000 |
| Expected rate of Rs. 45.14 per 100 JPY | 45,14,000 |
| Expected loss without forward cover | 5,84,000 |

Answer 3A(iv)

Computation of market price under MM Approach

(a) If dividend is declared

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

$$P_1 = P_0 (1 + K_e) - D_1$$

$$= 150 (1 + 0.12) - 8 = Rs. 160$$

(b) If dividend is not declared

$$P_1 = P_0 (1 + K_e) - D_1$$

= 150 (1+0.12) - 0 = Rs. 168

Where $P_0 = Current market price of share$

D₁ = Dividend

 K_e = rate of capitalisation

Question 4

- (a) There are various sources of permanent working capital. Comment. (4 marks)
- (b) In a portfolio of the company, ₹2,00,000 have been invested in Asset-X which has an expected return of 8.5%, ₹2,80,000 in Asset-Y, which has an expected

- return of 10.2% and `3,20,000 in Asset-Z which has an expected return of 12%. What is the expected return for the portfolio? (4 marks)
- (c) Saraswati Engineering Company is considering its working capital investment for the next year. Estimated fixed assets and current liabilities for the next year are ₹2.60 crore and ₹2.34 crore respectively. Sales and profit before interest and taxes (PBIT) depend on investment in current assets particularly inventories and book debts. The company is examining the following alternative working capital policies:

| Working capital | Investment in current | Estimated sales | PBIT |
|-----------------|-----------------------|-----------------|--------------|
| policy | assets (₹ in crore) | (₹ in crore) | (₹ in crore) |
| Conservative | 4.50 | 12.30 | 1.23 |
| Moderate | 3.90 | 11.50 | 1.15 |
| Aggressive | 2.60 | 10.00 | 1.00 |

You are required to calculate the rate of return on total assets for each policy.

(4 marks)

(d) ABC Ltd. has 10,000 shares of 7 each, ₹10,000, 12% debentures and ₹20,000 as short-term loan @10%. Tax rate for the company is 30%. Assume the cost of equity capital as 20%. Calculate weighted average cost of capital at book value.
(4 marks)

Answer 4(a)

Sources of permanent working capital are following:

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

Answer 4(b)

| Security | Expected return (E) | Amount invested | Weights (W) | EW |
|----------|---------------------|-----------------|-------------|---------|
| Asset X | 8.5% | 2,00,000 | 0.25 | 0.02125 |
| Asset Y | 10.2% | 2,80,000 | 0.35 | 0.0357 |
| Asset Z | 12% | 3,20,000 | 0.40 | 0.04 |
| | | 8,00,000 | 1.00 | 0.10495 |

Answer 4(c)

(Rs. in crore)

Working capital Investment Policies

| | Conservative | Moderate | Aggressive |
|----------------------|--------------|----------|------------|
| Current assets | 4.50 | 3.90 | 2.60 |
| Fixed assets | 2.60 | 2.60 | 2.60 |
| Total assets (X) | 7.10 | 6.50 | 5.20 |
| Current liabilities | 2.34 | 2.34 | 2.34 |
| Forecasted sales | 12.30 | 11.50 | 10.00 |
| Expected PBIT (Y) | 1.23 | 1.15 | 1.00 |
| Rate of return (Y/X) | 17.32% | 17.69% | 19.23% |

Answer 4(d)

Calculation of weighted average cost of capital at book value

Source of capital Book value (1) Weightage of Cost after Weighted total fund (2) tax (3) cost(2)*(3)Equity share capital Rs. 70,000 0.70 0.20 0.14 12% Debentures Rs. 10,000 0.12 (1-0.30) 0.10 = 0.0840.0084 10% short term loan Rs. 20,000 0.20 0.10 (1-0.30) = 0.070.014 Rs. 1,00,000 0.1624

WACC = 16.24%

Question 5

(a) A company has two alternatives for selecting a new machine to replace its existing machine. The cash flows under the two alternatives are as follows:

| | Machine-A (₹ in lakh) | Machine-B (₹ in lakh) |
|---------------------|--------------------------|--------------------------|
| Year 0 cash outflow | 25 | 40 |
| Year 1 cash inflow | Nil | 10 |
| Year 2 cash inflow | 5 | 14 |
| Year 3 cash inflow | 20 | 16 |
| Year 4 cash inflow | 14 | 17 |
| Year 5 cash inflow | 14 | 15 |

You are required to appraise the two alternatives using net present value and profitability index methods.

The cost of capital of the company is 15%.

(8 marks)

(b) Aman Ltd. is producing a single Product-X and presently commanding a market share of 15%. The following cost details are provided:

| | ₹ | ₹ |
|-------------------|----|-----|
| Sales price | | 100 |
| Less: Material | 40 | |
| Labour | 20 | |
| Overheads | 10 | 70 |
| Contribution | | 30 |
| Less : Fixed cost | | 20 |
| Profit | | 10 |

The current volume of sale of Product-X is 15,000 units. It has now been estimated that the market share can be increased up to 25% from next year for 3 years if the following promotional expenses are incurred in the corresponding previous year:

| For Year-1 | ₹1,00,000 |
|------------|-----------|
| For Year-2 | ₹75,000 |
| For Year-3 | ₹50,000 |

There will be an increase in fixed cost by `30,000 when production is increased from present level. The company wants to achieve 15% return and would apply discounted cash flow technique for evaluation.

You are required to evaluate the impact of above situation on profitability when —

- (i) Market share is increased by 25%; and
- (ii) Market share is increased by 20%.

(8 marks)

Answer 5(a)

(i) Computation of NPV

| Year | Cash flows | Cash flows (Rs. in lakh) | | PV (Rs. in lakh) | |
|------|------------|--------------------------|--------|------------------|-----------|
| | Machine A | Machine B | | Machine A | Machine B |
| 0 | (25) | (40) | 1.0000 | (25) | (40) |
| 1 | - | 10 | 0.8696 | - | 8.70 |
| 2 | 5 | 14 | 0.7561 | 3.78 | 10.59 |
| 3 | 20 | 16 | 0.6575 | 13.15 | 10.52 |
| 4 | 14 | 17 | 0.5718 | 8.01 | 9.72 |
| 5 | 14 | 15 | 0.4972 | 6.96 | 7.46 |
| | | | NPV | 6.90 | 6.99 |

(ii) Profitability index (PI)

PI = PV of cash inflows/ PV of cash outflows

PI of Machine A = Rs. 31.90 lakh/ Rs. 25 lakh = 1.28

PI of Machine B = Rs. 46.99 lakh/ Rs. 40 lakh = 1.17

Conclusion: Considering the Net Present Value Method, though both the machines have positive NPVs, but Machine B has a higher NPV and may be recommended. Supplementing the analysis with profitability index method, Machine A has a higher PI than machine B. As both the machines have positive NPV, the final decision has to be given in confirmation with NPV & PI method. Therefore, machine B is recommended to replace the existing machine.

Answer 5(b)

Calculation for increase in production

| % increase in market share | Total production | Increase in production |
|----------------------------|---------------------------------|-----------------------------------|
| 25% | 15000 *25/15 = 25,000 units | 25,000 – 15,000 = 10,000 units |
| 20% | 15000 * 20/15 = 20,000 units | 20,000 – 15,000 = 5,000 units |

Calculation of incremental outflow

| Year | Promotional expenses | Fixed cost | Total outflow | |
|------|----------------------|------------|---------------|--|
| 0 | 1,00,000 | | 1,00,000 | |
| 1 | 75,000 | 30,000 | 1,05,000 | |
| 2 | 50,000 | 30,000 | 80,000 | |
| 3 | | 30,000 | 30,000 | |

(i) Incremental NPV at market share of 25%

| Ye | ar Net outflow | Contribution | n Net cash Flo | ow PVF @ 1 | 5% PV |
|----|----------------|--------------|----------------|------------|------------|
| 0 | (1,00,000) | - | (1,00,000) | 1.0000 | (1,00,000) |
| 1 | (1,05,000) | 3,00,000 | 1,95,000 | 0.8696 | 1,69,572 |
| 2 | (80,000) | 3,00,000 | 2,20,000 | 0.7561 | 1,66,342 |
| 3 | (30,000) | 3,00,000 | 2,70,000 | 0.6575 | 1,77,525 |
| | | | | NPV | 4,13,439 |

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(ii) Incremental NPV at market share of 20%

| Year | Net outflow | Contribution | Net cash Flow | PVF @ 15% | PV |
|------|-------------|--------------|---------------|-----------|------------|
| 0 | (1,00,000) | - | (1,00,000) | 1.0000 | (1,00,000) |
| 1 | (1,05,000) | 1,50,000 | 45,000 | 0.8696 | 39,132 |
| 2 | (80,000) | 1,50,000 | 70,000 | 0.7561 | 52,927 |
| 3 | (30,000) | 1,50,000 | 1,20,000 | 0.6575 | 78,900 |
| | | | | NPV | 70,959 |

Impact on Profitability: As NPV under both the options is positive after taking into account fixed costs as well as promotional expenses. Therefore, profitability position of firm will improve if market share is increased in both the cases.

Question 6

A newly formed company has applied for a short-term loan to a commercial bank for financing its working capital requirements. Projected statement of profit and loss is as follows:

| | | ₹ |
|--|-----------|-----------|
| Sales (20% cash) | | 21,00,000 |
| Less: Cost of goods sold | | 15,30,000 |
| Gross profit | | 5,70,000 |
| Less: Administrative expenses | 1,40,000 | |
| Selling expenses | 1,30,000 | 2,70,000 |
| Profit before tax (PBT) | | 3,00,000 |
| Less: Tax | | 1,00,000 |
| Profit after tax (PAT) | | 2,00,000 |
| Cost of goods sold has been derived as | follows : | |
| Material | | 8,40,000 |
| Wages and money expenses (one mont | h arrear) | 6,25,000 |
| Depreciation | | 2,35,000 |
| | | 17,00,000 |
| Less: Stock (10% of finished goods) | | 1,70,000 |
| | | 15,30,000 |
| | | |

The figures given above relate only to the goods that have been finished and not to work-in-progress; goods equal to 15% of year's production (in terms of physical units) are in progress on an average requiring full materials and only 40% of other expenses. The company believes in keeping two months consumption of material in stock. Credit allowed to customers is 2 months. Selling expenses and administrative expenses are one month in arrears. Credit allowed by supplier is 1½ months.

You are requested by the bank to prepare an estimate of requirements of working capital for the company. Add 10% to your estimated figure to cover contingencies. (16 marks)

Answer 6

Statement showing estimates of working capital

| Statement showing estimates of working | Capital |
|--|--------------|
| | Amount (Rs.) |
| Current Assets | |
| Raw material (W.N. 2) | 1,61,000 |
| Work in progress (W.N. 1) | 1,63,500 |
| Finished Goods (W.N. 3) | 1,46,500 |
| Debtors (W.N 4) | 2,11,800 |
| Total Current Assets (A) | 6,82,800 |
| Current Liabilities | |
| Creditors (W.N. 5) | 140,875 |
| Outstanding wages (W.N 5) | 55,208 |
| Outstanding administrative & Selling Expenses (W.N. 7) | 22,500 |
| Total current liabilities (B) | 2,18,583 |
| Working capital (A-B) | 4,64,217 |
| Add: 10% for contingencies | 46,422 |
| Estimated working capital | 5,10,639 |
| Working Notes: | |
| 1. Work in Progress | |
| Raw material (Rs. $8,40,000 * 0.15$) = Rs. $1,2$ | 6,000 |
| Wages etc. (Rs. 6,25,000 * 0.15 * 0.40) = Rs. 3 | 7,500 |
| Rs. 1,6 | 3,500 |
| 2. Raw material | |
| Total consumption of raw material = consumed in finis work-in-progress = Rs. $8,40,000 + Rs. 1,26,000 = R$ | • |
| Stock of raw material = Rs. $9,66,000 *2/12 = Rs. 1,6$ | 1,000 |
| 3. Finished goods stock = Rs. $14,65,000 * 0.10 = Rs. 1$ | 1,46,500 |
| 4. Debtors | |

Material consumed Rs. 8,40,000

Wages etc.

Rs. 6,25,000

Rs. 14,65,000 * 0.90

Add: Administrative & Selling expenses

2,70,000

15,88,500

Rs. 15,88,500 * 0.80 * 2/12 =

Rs. 2,11,800

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Alternatively, Debtors may be arrived as follows:

Credit sales = 21,00,000 * 80% = 16,80,000

Debtors = 16,80,000 * 2/12 = 2,80,000

(Note: the answer will change accordingly)

5. Creditors

Raw material consumed = Opening stock + purchases – closing stock

Rs. 9,66,000 = Nil + Purchases - Rs. 1,61,000

Purchases = Rs. 9,66,000 + Rs. 1,61,000 = Rs. 11,27,000

Rs. 11,27,000 * 1.5/12 = Rs. 1,40,875

6. Outstanding wages

Wages paid = Rs. 6,25,000 + 37,500 = Rs. 6,62,500

Outstanding = Rs. 6,62,500 *1/12 = Rs. 55,208

7. Outstanding Administrative & Selling Expenses

Rs. 2,70,000 * 1/12 = Rs. 22,500

TABLE - 1: PRESENT VALUE OF RUPEE ONE

| RATE | YEAR |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | - | 7 | က | 4 | 5 | 9 | 7 | 80 | 6 | 10 | 7 | 12 | 13 | 41 | 15 |
| | | | | | | | | | | | | | | | |
| 2% | 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 |
| %9 | 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 |
| %2 | 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 |
| %6 | 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 |

 $7ABLE \cdot 2$: PRESENT VALUE OF AN ANNUITY OF RUPEE ONE

| RATE | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR |
|------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|--------|--------|---------|
| | - | 7 | ო | 4 | 5 | 9 | 7 | ∞ | 6 | 10 | 7 | 12 | 13 | 14 | 15 |
| ì | | | | | | ! | 1 | | 1 | 1 | | | | | |
| 2% | 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 |
| %9 | 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 |
| %/ | 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 |
| %6 | 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) XM Ltd. (XML) which is the Indian branch of US-based Corporation reported that in the years 1998 and 1999 it manipulated its books to make fictitious payments which were recorded as commissions or discounts. According to the US-based parent company's own admission, XML paid over US \$6,00,000 as bribe to various government employees to win contracts, though it was a serious criminal offence for an American company under the Foreign Corrupt Practices Act (FCPA) to pay bribes in a foreign country to obtain contracts.

In view of the above, answer the following:

- (i) XML paid bribe for contracts. Why was it an unethical business practice? Explain in the spirit of business ethics.
- (ii) What role can be played by the Board of directors in corporate governance to avoid unethical behaviour? (5 marks each)
- (b) (i) Is shadow director equally liable with the other directors for obligations of the firm?
 - (ii) Explain the regulatory requirements to constitute an investment committee in insurance companies working in India.
 - (iii) Why was Integrity Pact developed by Transparency International?
 - (iv) What do you understand by 'ethics in compliance'?
 - (v) Briefly explain the legal provisions regarding appointment of woman director in a public company. (2 marks each)
- (c) How academicians, legislators and professionals are joining hands to improve the corporate scenario throughout the affected world? (5 marks)

Answer 1(a)(i)

In the given case, XM Limited, an Indian branch of American company has paid bribes to various government employees to win contracts. It is considered a serious offence for an American Company under Foreign Corrupt Practices Act (FCPA) to pay bribes in a foreign country to obtain contracts.

The coverage of business ethics is very wide as it deals with norms relating to a company and its employees, suppliers, customers and neighbors, its fiduciary responsibility to its shareholders. It reflects the philosophy of business, one of whose aims is to determine the fundamental purposes of a company.

Business ethics stands for the saneness or purity of purpose that is upheld through carefully designed actual practices of a business enterprise. It is an embodiment of conscious concern towards execution of business processes in tune with the nobility of the purpose.

Ethical conduct is in the long-term interests of businessmen. A business enterprise that is honest and fair to its customers, employees, and other stakeholders earns their trust and good will. 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. Maintaining this balance often requires tradeoffs. To address this unique aspect of business, rules are articulated to guide it to earn profits without harming individuals or society as a whole. The significant issues in business ethics include ethical management of enterprise in relation to its stakeholders in particular and natural environment in general.

Ethical policies and practices enable a business enterprise to build goodwill for itself. A business organisation that adheres to a code of conduct gains a competitive advantage and builds long term value. On the other hand, unethical practices lead to the ultimate downfall of big organisations too.

Business ethics can be reinforced through a 'Code of Conduct' which businessmen are expected to follow while dealing with others. 'Code of Conduct' is a set of principles and expectations that are considered binding on any person who is member of a particular group. The alternative names for code of conduct are 'Code of Ethics' and 'Code of Practice'. Business ethics comprises of the principles and standards that guide behavior in the conduct of business. Businesses must balance their desire to maximize profits against the needs of the stakeholders. Maintaining this balance often requires tradeoffs. To address these unique aspects of businesses, articulated as well as implicit rules are developed to guide the businesses to earn profits without harming individuals or society as a whole.

Answer 1(a)(ii)

The Board represents the interests of shareholders, as owners of corporation, in optimizing long term value by overseeing management performance on the behalf of shareholders. The Board's responsibilities in performing this oversight function in ethical manner includes-

- duty of care and
- duty of loyalty.

A Director's duty of care refers to the responsibilities to exercise appropriate diligence in overseeing the management of the company, making decisions and taking other actions. Directors are expected to review and devote appropriate time to study board materials so that good corporate governance parameters can be achieved. Along with rely on others, directors must make enquiries about potential problems that come to their attention and follow up until they are reasonably satisfied that management is addressing them appropriately.

A Director's duty of loyalty towards good corporate governance and shareholders refers to the responsibility to act ethically in good faith and in the company's best interests,

not the interests of the director, a family member or an organization with which director is affiliated. Director should not use their positions for their personal gain. The duty of loyalty may be relevant in cases of conflict of interest and corporate opportunities.

Answer 1(b)(i)

Shadow Director is a person who is not formally appointed as a Director, but in accordance with whose directions or instructions the directors of a company are accustomed to act. However, a person is not a Shadow Director merely because the Directors act on advice given by him in a professional capacity. Shadow Director is a holder of controlling or majority share of a private firm who is not (technically) a director and does not openly participate in the firm's governance, but whose directions or instructions are routinely complied with by the employees or other Directors. In the eyes of law, he or she is a De-facto Director and is held equally liable for the obligations of the firm with the other De-facto and De-jure Directors.

Answer 1(b)(ii)

Investment Committee: In terms of Corporate Governance Guidelines for Insurance Companies issued by IRDA, the Board of every Insurer working in India shall set up an Investment Committee comprising of at least two Non Executive Directors, the Chief Executive Officer, Chief of Finance, Chief of Investment Division and wherever an appointed actuary is employed, the Appointed Actuary. The constitution of the Investment Committee should be approved by the Board of Directors and any new appointment or removal of any member of the Investment Committee shall also be approved by the Board and be communicated to the IRDA within 30 days. The Committee shall be responsible for laying down an overall investment policy and operational framework for the investment operations of the insurer.

Answer 1(b)(iii)

The Integrity Pact (IP) was developed by Transparency International (TI) with the aim to prevent corruption in public contracting. It is a written agreement between a Government or a Government department and all bidders, to refrain from bribery and collusion for a public contract. It contains rights and obligations to the effect that neither side will pay, offer, and demand or accept bribes; collude with competitors to obtain the contract; or engage in such abuses while carrying out the contract. The IP also introduces a monitoring system that provides for independent oversight and accountability of the public contracting process. Bidders are required to disclose all commissions and similar expenses paid by them to anyone in connection with the contract.

Answer 1(b)(iv)

Ethics in Compliance : Compliance is about obeying and adhering to rules and authority. The motivation for being compliant could be to do the right thing out of the fear of being caught rather than a desire to abide by the law. An ethical climate in an organisation ensures that compliance with law is fuelled by a desire to abide by the laws. Organisations that value high ethical values comply with the laws not only in letter but go beyond what is stipulated or expected of them.

Answer 1(b)(v)

Section 149 along with Rule 3 of the Companies (Appointment and Qualification of Directors) Rules, 2014 prescribes that the following class of companies shall have at least one Woman Director from 1st April 2015—

- Every Listed Company
- Every other Public Company having paid-up capital of 100 crore rupees or more; or turnover of 300 crore rupees or more.

A company shall comply with above provisions within a period of six months from the date of its incorporation.

Any intermittent vacancy of a Woman Director shall be filled-up by the Board at the earliest but not later than immediate next Board meeting or three months from the date of such vacancy, whichever is later.

The paid-up share capital or turnover, as the case may be, as on the last date of latest audited financial statements shall be taken into account.

Section 149 came into force on 1-4-2014. The appointment of woman director was to be in place before 1-4-2015.

SEBI vide its circular dated 17-4-2014 amended clause 49 of the Listing Agreement. The sub-clause IIA(1) of amended clause 49 provides that the Board of Directors of the company shall have at least one Woman Director.

Answer 1(c)

Academicians, Legislators and Professionals are joining hands throughout the world to improve corporate scenario. World over, a consultative stakeholder centric approach is being adopted before introducing any new law or regulation. Companies are encouraged to be more self-governed and professionals are being tasked with ensuring the compliance of laws.

Various for profit and non-profit associations are working in order to ensure good corporate performance. The European Corporate Governance Institute (ECGI), an International Scientific Non-Profit Association has been established to improve Corporate Governance through fostering independent scientific research and related activities. It provides a forum for debate and dialogue between academicians, legislators and practitioners, focusing on major Corporate Governance issues and thereby promoting best practice. Based upon impartial and objective research and the collective knowledge and wisdom of its members, it advises on the formulation of Corporate Governance policy and development of best practice and undertakes any other activity that will improve understanding and exercise of corporate governance. It acts as a focal point for academicians working on Corporate Governance in Europe and elsewhere, encouraging the interaction between the different disciplines such as Economics, Law, Finance and Management. The Institute disseminates research results and other relevant material. It draws on the expertise of scholars and brings from numerous countries and brings together a critical mass of expertise and interest to bear on this important subject.

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

Question 2

Elucidate the following:

- (a) Corporate governance rating systems
- (b) Shareholder activism
- (c) Ethics committee.

(5 marks each)

OR (Alternate question to Q.No. 2)

Question 2A

- (i) "Better stakeholders' engagement ensures good governance." Analyse this statement in the context of employees as stakeholders.
- (ii) In Pramod Ltd., vacancy of an independent director arose on 15th June, 2014. In the Board meeting held on 14th October, 2014, the Board of directors unanimously passed a resolution to appoint one of the nominee directors as an independent director for next two consecutive terms. Enumerate the selection criteria of an independent director.
- (iii) Pawan, carrying 5.23% shares of Combo Ltd., a listed company, was offered directorship in the company. What will be the consequences of accepting the offer on his holdings?

 (5 marks each)

Answer 2(a)

Corporate Governance Rating Systems: With the increasing emphasis on Corporate Governance across the globe, it is perhaps not surprising that a number of Corporate Governance Rating Systems have been developed. Examples of such firms which have developed Corporate Governance Rating Systems are Deminor, Standard and Poor's, and Governance Metrics International (GMI). The rating system cover several markets, for example, Deminor has tended to concentrate on European companies whilst Standard and Poor's have used their corporate governance rating system in quite different markets, for example, Russia. GMI ratings cover a range of countries including the US, various countries in the Asia-Pacific region and Europe. These Corporate Governance Rating Systems should be of benefit to investors, both potential and those presently invested, and to the companies themselves.

A Corporate Governance rating could be a powerful indicator of the extent to which a company currently is adding, or has the potential to add in the future, shareholder value. This is because a company with good Corporate Governance is generally perceived as more attractive to investors than one without.

Corporate Governance Rating Systems should provide a useful indication of the CG environment in specific countries, and in individual companies within those countries. Such rating systems will provide a useful "benchmarks" for the majority of investors who identify good CG with a well-run and well-managed company. The ratings will also be useful to Governments in identifying perceived levels of Corporate Governance in their country compared to other countries in their region, or outside it, whose companies may be competing for limited foreign investment.

Answer 2(b)

Shareholder activism: The shareholder activism means establishing dialogue with the management on issues that concern, influencing the corporate culture, using the corporate democracy provided by law, and increasing general awareness on social and human rights issues concerning the organization. Shareholder activism refers to the active involvement of stockholders in their organization. Active participation in company meetings is a healthy practice. They can resolve issues laid down in the annual and other general meetings and can raise concerns over financial matters or even social causes such as protection of the environment. Shareholder activists include public pension funds, mutual funds, unions, religious institutions, universities, foundations, environmental activists and human rights groups. A share in a company is not only a share in profits but also a share in ownership. Shareholders must realize that their active participation in the company's operations ensures

- Better Management,
- Less Frauds, and
- Better Governance.

Answer 2(c)

Ethics Committee: It is a good practice for companies to have an Ethics Committee comprising of Independent Non-Executive Directors who are responsible for ensuring that systems are in place in the company to assure employee compliance with the Code of Ethics. The oversight process of the Ethics Committee of an organization involves the following areas to be addressed by it:

- Review of the definitions of standards and procedures
- Facilitate Compliance
- Due diligence of prospective employees
- Oversight of communication and training of ethics programme
- Monitor and audit compliance
- Enforcement of disciplinary mechanism
- Analysis and follow-up

Answer 2A(i)

"Better stakeholders' engagement ensures good governance". Employees are one of the important and primary stakeholders of the companies. Employees have a stake in the long-term success of the corporation. Employees possess skills and knowledge which are specific to their particular corporation. Moreover, employees care about a wide range of decisions within corporations. Stakeholder engagement leads to increased transparency, responsiveness, compliance, organizational learning, quality management, accountability and sustainability. Stakeholder engagement is a central feature of sustainability performance.

Following are some important example for ensuring good governance by employees:

Right to consultation - where employees must be consulted on certain

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

- Right to nominate/vote for supervisory board members In many cases employee
 participation on the board is mandated. This right creates a check and balance
 system between management and the supervisory board, which in turn creates
 the perception of greater fairness.
- Compensation/privatization programs that make employees holders of shares, thereby empowering employees to elect the Board Members, which, in turn holds management responsible

Answer 2A(ii)

"Independent Director" means a Non-Executive Director, other than a Nominee Director who fulfills the following criteria:

- (a) who, in the opinion of the Ministry or Department of the Central Government which is administratively in charge of the company, or as the case may be, the State government, is a person of integrity and possesses relevant expertise and experience;
- (b) (i) who is or was not a promoter of the Company or its Holding, Subsidiary or Associate Company;
 - (ii) who is not related to Promoters or Directors in the company, its holding, subsidiary or associate company;
- (c) who has or had no pecuniary relationship with the company, its holding, subsidiary or associate company, or their promoters, or directors, during the two immediately preceding financial years or during the current financial year;
- (d) none of whose relatives has or had pecuniary relationship or transaction with the company, its holding, subsidiary or associate company, or their promoters, or directors, amounting to two per cent. or more of its gross turnover or total income or fifty lakh rupees or such higher amount as may be prescribed, whichever is lower, during the two immediately preceding financial years or during the current financial year;
- (e) who, neither himself nor any of his relatives—
 - holds or has held the position of a Key Managerial Personnel or is or has been employee of the company or its holding, subsidiary or associate company in any of the three financial years immediately preceding the financial year in which he is proposed to be appointed;
 - (ii) is or has been an employee or proprietor or a partner, in any of the three financial years immediately preceding the financial year in which he is proposed to be appointed, of—
 - (A) a firm of auditors or company secretaries in practice or cost auditors of the company or its holding, subsidiary or associate company; or

- (B) any legal or a consulting firm that has or had any transaction with the company, its holding, subsidiary or associate company amounting to ten per cent. or more of the gross turnover of such firm;
- (iii) holds together with his relatives two per cent. or more of the total voting power of the company; or
- (iv) is a Chief Executive or director, by whatever name called, of any nonprofit organisation that receives twenty-five per cent. or more of its receipts from the company, any of its promoters, directors or its holding, subsidiary or associate company or that holds two per cent. or more of the total voting power of the company; or
- (f) who possesses such other qualifications as may be prescribed.

In the given case, Board of Directors of Pramod Ltd has appointed one of the nominee directors as an independent director. The Director so appointed cannot be considered independent as he is a Nominee Director. Further, Schedule IV of the Companies Act, 2013, provides that the appointment of Independent Director(s) of the Company shall be approved at the meeting of the Shareholders. Hence, the appointment made by the Board of Directors of Pramod Ltd. is not valid.

Answer 2A(iii)

According to Section 184 of the Companies Act, 2013 and Rule 9 of the Companies (Meetings of Board and its Powers) Rules, 2014, every Director shall at the first meeting of the Board in which he participates as a Director and thereafter at the first meeting of the Board in every financial year or whenever there is any change in the disclosures already made, then at the first Board meeting held after such change, disclose his concern or interest in any company or companies or bodies corporate, firms, or other association of individuals which shall include the shareholding, by giving a notice in writing in Form MBP 1.

Regulation 7 (1) of SEBI (Prohibition of Insider Trading) Regulations, 2015 provides that every person on appointment as a Key Managerial Personnel or a Director of the Company or upon becoming a promoter shall disclose his holding of securities of the company as on the date of appointment or becoming a promoter, to the company within seven days of such appointment or becoming a promoter.

Thus, Mr. Pawan shall disclose his shareholding under above laws and regulations in the Combo Ltd on accepting the offer of Directorship.

Question 3

- (a) Board of directors of IT Solutions Ltd. conducted its adjourned meeting on a public holiday in the month of October, 2015. The Board meeting was adjourned due to lack of quorum. Can the articles of association of a company fix such a quorum? (5 marks)
- (b) How has the Securities and Exchange Board of India (SEBI) contributed in improving corporate governance standards in India? (5 marks)
- (c) How can the government enforce ethical business practices? (5 marks)

Answer 3(a)

According to Section 174 of the Companies Act 2013, one third of total strength or two directors, whichever is higher, shall be the quorum for a meeting. Directors who participate by way of Video Conferencing or other visual means shall also be counted for the purposes of quorum. Any fraction of a number is to be rounded off to one. Total strength does not include directors whose places are vacant.

If the number of continuing directors is reduced below required quorum, continuing Directors may act for the purpose of increasing directors to such number which is required as quorum or for summoning a General Meeting and for no other purpose.

Where at any time the number of interested directors exceeds or is equal to two thirds of the total strength of the Board of Directors, the number of directors who are not interested directors and present at the meeting, being not less than two, shall be the quorum during such time.

Where a board meeting could not be held due to absence of quorum then the meeting shall be adjourned to the same day at same time and place in the next week, if that day is a National Holiday then at the next day which is not a National Holiday at same time and place. This provision is not applied if the Articles of Company provide otherwise.

Further, the Articles of Association of Company can stipulate a higher quorum.

Answer 3(b)

India's corporate governance reforms were initially spearheaded by corporate India and quickly became an important component of the work of the country's primary capital markets regulatory authority, the Securities Exchange Board of India (SEBI).

- The SEBI had set up a Committee under the Chairmanship of Kumar Mangalam Birla in the year 2000 to promote and raise standards of corporate governance. The Report of the Committee was the first formal and comprehensive attempt to evolve a Code of Corporate Governance, in the context of prevailing conditions of governance in Indian companies, as well as the state of capital markets at that time. The recommendations of the Report, led to inclusion of Clause 49 in the Listing Agreement.
- In the year 2002, SEBI analyzed the statistics of compliance with the Clause 49 by listed companies and felt that there was a need to look beyond the mere systems and procedures if corporate governance was to be made effective in protecting the interest of investors. SEBI therefore constituted a Committee under the Chairmanship of Shri N.R. Narayana Murthy, for reviewing implementation of the corporate governance code by listed companies and for issue of revised Clause 49 based on its recommendations.
- SEBI, as part of its endeavour to improve the standards of Corporate Governance in line with the needs of a dynamic market has amended the Clause 49 from time to time.
- SEBI vide its circular dated April 17, 2014 came out with 'Corporate Governance in Listed Entities - Amendments to Clause 49' of the Equity Listing Agreement which laid down the detailed Corporate Governance norms for listed companies providing for stricter disclosures and protection of investor rights, including

equitable treatment for minority and foreign shareholders. The new norms were aligned with the Companies Act, 2013 and were aimed to encourage companies to adopt best practices on Corporate Governance.

— Again, with a view to consolidate and streamline the provisions of existing listing agreements for different segments of the capital market and to align the provision relating to listed entities with the Companies Act 2013, SEBI has notified the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 on September 2, 2015 regulations. The new Listing Regulations have been structured to provide ease of reference by consolidating regulations into one single document across various types of securities listed on the Stock Exchanges.

Answer 3(c)

The heart of corporate governance is transparency, disclosure, accountability and integrity. Legal and regulatory framework of corporate governance in India is mainly covered under the SEBI guidelines, Listing Agreement and Companies Act 2013; however, it is not restricted to only SEBI Guidelines and the Companies Act, 2013. A gamut of legislations like The Competition Act, the Consumer Protection laws, the labour laws, the Environment laws, the Anti-Money Laundering Laws, etc. seeks to ensure good governance practices among the corporates.

Some degree of legislation is necessary to ensure that businesses comply with their ethical obligations and the public does not suffer as a result of dishonest business practices. The government has a supervisory role in the field of business ethics. The government is focusing on self regulation through enhanced disclosure requirements and transparency and encouragement to adhere to the established norms. The professionals are acting as extended arm of regulators in ensuring good governance practices in the organizations.

However, mere legislation does not ensure good governance. Good governance flows from ethical business practices even when there is no legislation. Corporate governance is not just a legal concept, it is a governance concept, and it is something which has to come from within. But one cannot have abstract concepts applicable to corporates at large and there lies the need for a legislative framework.

Government plays an important role in ensuring that business operates in an ethical matter, ultimately, the responsibility to do so lies with the business. It would be impossible for government to oversee all operations to such an extent that they could force all businesses to behave ethically. The focus is shifted to more governance and less government.

Question 4

- (a) Priya Ltd. declared dividend but failed to pay the dividend in time which created grievances among shareholders and debentureholders. Describe the provisions of law available for the beneficiaries. (5 marks)
- (b) Why Shann Turnbull, an Australian expert in corporate governance recommended 'Corporate Senate'? (5 marks)
- (c) How important is corporate governance for success of an organisation?

(5 marks)

Answer 4(a)

The provisions of law available for the shareholders and debenture holders are as follows-

- Section 127 of the Companies Act, 2013 provides where a dividend has been declared by a company but has not been paid or the warrant in respect thereof has not been posted within thirty days from the date of declaration to any shareholder entitled to the payment of the dividend, every Director of the Company shall, if he is knowingly a party to the default, be punishable with imprisonment which may extend to two years and with fine which shall not be less than One Thousand Rupees for every day during which such default continues and the company shall be liable to pay simple interest at the rate of eighteen per cent. per annum during the period for which such default continues: Provided that no offence under this section shall be deemed to have been committed:—
 - (a) where the dividend could not be paid by reason of the operation of any law;
 - (b) where a shareholder has given directions to the company regarding the payment of the dividend and those directions cannot be complied with and the same has been communicated to him;
 - (c) where there is a dispute regarding the right to receive the dividend;
 - (d) where the dividend has been lawfully adjusted by the company against any sum due to it from the shareholder; or
 - (e) where, for any other reason, the failure to pay the dividend or to post the warrant within the period under this section was not due to any default on the part of the company.
- Section 178(5) of the Companies Act, 2013 provides for constitution of the Stakeholders Relationship Committee.
- Clause 49 (VIII) (E) of the Listing Agreement provides that Stakeholders Relationship Committee, under the Chairmanship of non-executive director shall be constituted to look into and redress the grievances of shareholders, debenture holders and other security holders. This Committee shall consider and resolve the grievances of the security holders of the company including complaints related to transfer of shares, non-receipt of balance sheet, non-receipt of declared dividends.

Hence, in the given case, after the declaration of the dividend, it becomes the liability on the part of the company to pay the dividend to the eligible shareholders and if it is not paid within the prescribed time limit the directors and company are liable for such failure.

Answer 4(b)

The Australian Government has undertaken a set of reforms to improve Corporate Governance and disclosure norms of financial information and to update accounting rules.

Shann Turnbull, a very well-known Australian expert in corporate governance recommended that there should be a 'Dual Board Structure' along with a 'Corporate Senate' to oversee the regular board functioning (senate means a council).

The Corporate Senate was recommended to determine accounting policies, direct audit activities, arbitrate on board conflicts, advice AGM on director's benefits. The senate would also nominate directors on the Board and would act as trustees for any Employees Stock Option Scheme (ESOP).

The Corporate Senate would comprise of maximum of 3 (three) members who would be elected on the basis of 'One Vote per Shareholder' instead of 'One Vote per Share' principle. The corporate senate would have no proactive power of any kind. However, it would have the 'veto' power over any activity in which the board has a conflict of interests, and even that can be overridden by a vote of 75% of the shares.

Answer 4(c)

Corporate Governance is integral to the existence of the company. Corporate Governance is needed to create a Corporate Culture of Transparency, Accountability and Disclosure. It refers to compliance with all the moral & ethical values, legal framework and voluntarily adopted practices. Corporate governance is important for success of an organisation in following ways-

- (i) Improving Corporate Performance
- (ii) Enhanced Investor Trust
- (iii) Better Access to Global Market
- (iv) Combating Corruption
- (v) Easy Finance from Institutions
- (vi) Enhancing Enterprise Valuation
- (vii) Reduced Risk of Corporate Crisis and Scandals
- (viii) Increased accountability of the Board

PART B

Question 5

- (a) State the Millennium Development Goals that 189 members of United Nations agreed to adopt and achieve. (5 marks)
- (b) Describe corporate sustainability assessment criteria under the Dow-Jones Sustainability Index. (5 marks)
- (c) How far has International Labour Organisation (ILO) succeeded in shaping policies and programmes in favour of government, employees and workers together with the aim of social justice? (5 marks)

Answer 5(a)

The Millennium Development Goals: The Millennium Development Goals (MDGs) were officially established following the Millennium Summit of the United Nations in 2000. The eight Millennium Development Goals that 189 members of United Nations agreed to adopt and achieve are:

- (i) Eradicating extreme poverty and hunger
- (ii) Achieving universal primary education

- (iii) Promoting gender equality and empowering women
- (iv) Reducing child mortality rates
- (v) Improving maternal health
- (vi) Combating HIV/AIDS, malaria, and other diseases
- (vii) Ensuring environmental sustainability and
- (viii) Developing a global partnership for development.

All 189 United Nations member States and agreed to achieve these goals by the year 2015.

Answer 5(b)

The Dow Jones Sustainability Indices launched in 1999 are the first global indices tracking the financial performance of the leading sustainability-driven companies worldwide. The Dow Jones Sustainability World Index (DJSI World) comprises more than 300 Companies that represent the top 10% of the leading sustainability Companies out of the biggest 2,500 Companies in the Dow Jones World Index. In addition to the composite DJSI World, there are six specialized subset indexes excluding alcohol, ex gambling, ex tobacco, ex armaments & firearms, ex alcohol, tobacco, gambling, armaments & firearms indexes, and ex alcohol, tobacco, gambling armaments & firearms, and adult entertainment. Corporate Sustainability Assessment Criteria under the Dow-Jones Indices is as under:

| Dimension | Criteria | Weightage (%) |
|-------------|---|---|
| Economic | Codes of Conduct / Compliance / Corruption & Bribery Corporate Governance Risk & Crisis Management Industry Specific Criteria | 5.5 6.0 6.0 Depends on Industry |
| Environment | Environmental Performance (Eco-Efficiency) Environmental Reporting Industry Specific Criteria | 7.0 3.0 Depends on Industry |
| Social | Corporate Citizenship/ Philanthropy Labour Practice Indicators Human Capital Development Social Reporting Talent Attraction & Retention Industry Specific Criteria | 3.5 5.0 5.5 3.0 5.5 Depends on Industry |

Answer 5(c)

International Labour Organisation: The International Labour Organisation (ILO) was created in 1919, as part of the Treaty of Versailles that ended World War I, to reflect the belief that universal and lasting peace can be accomplished only if it is based on social justice. The ILO is the only 'tripartite' United Nations agency that brings together representatives of governments, employers and workers to jointly shape policies and programmes, to achieve its defined objectives.

The security, humanitarian, political and economic considerations were the driving force behind the creation of ILO. There was keen appreciation of the importance of social justice in securing peace, against a background of exploitation of workers in the industrializing nations of that time. There was also increasing understanding of the world's economic interdependence and the need for cooperation to obtain similarity of working conditions in countries competing for markets.

The ILO sets International Labor Standards and Conventions and offers recommendations. The aim is to provide basic rights, such as banning forced labor, equality at the workplace with regard to gender and race, right of collective bargain and the right to organize. It offers technical assistance to member nations in the form of vocational training facilities. The ILO sends experts to its member countries to provide consultation on technical matters.

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

Question 6

Explain the following:

- (a) Bali Roadmap
- (b) The Montreal Protocol
- (c) CSR Standard ISO 26000.

(5 marks each)

OR (Alternate question to Q.No. 6)

Question 6A

- (i) For the purpose of generating employment in Banaras, a leather industry is being started which consumes a large amount of water and discharges waste water containing putrescible organic and toxic inorganic materials into the river resulting in death of all aquatic life. Whether court should allow the owners of the tanneries to continue as it is working in public interest or direct them to stop working? Give reasons.
- (ii) Justify why 'corporate sustainability' and 'corporate social responsibility' have different background and different theoretical path although scholars and practitioners often interpret corporate sustainability and corporate social responsibility as being nearly synonymous.
- (iii) Every company is required to constitute a CSR Committee under the Companies Act, 2013. Do you agree? Explain with the relevant provisions of the law.

 (5 marks each)

Answer 6(a)

Bali Roadmap: At the 2007 United Nations Climate Change Conference in Bali, Indonesia in December, 2007, the participating nations adopted the Bali Roadmap as a two-year process to finalizing a bindinig agreement in 2009 in Denmark. The Bali Road Map consists of a number of forward-looking decisions that represent the various tracks, essential to reaching a secure climate future. The Bali Road Map includes the Bali Action Plan, which charted the course for a new negotiating process designed to tackle climate change, with the aim of completion by 2009.

- To conduct the process, a subsidiary body under the Convention was set up, called the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA).
- To discuss future commitments for industrialized countries under the Kyoto Protocol, the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol established a working group in December 2005, called the Ad Hoc Working Group on further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP).

Answer 6(b)

The Montreal Protocol: The Montreal Protocol is a protocol to the Vienna Convention for the Protection of the Ozone Layer, an international treaty designed to protect the ozone layer by phasing out the production of numerous substances believed to be responsible for ozone depletion. The treaty was opened for signature on 16 September 1987, and entered into force on 1 January 1989.

Due to its widespread adoption and implementation it has been hailed as an example of exceptional international co-operation. Since the Montreal Protocol came into effect, the atmospheric concentrations of the most important chlorofluorocarbons and related chlorinated hydrocarbons have either leveled off or decreased. It is believed that if the international agreement is adhered to, the ozone layer is expected to recover by 2050.

A Multilateral Fund for the Implementation of the Montreal Protocol was set up. The main objective of the protocol is to assist developing country parties to the Montreal Protocol whose annual per capita consumption and production of ozone depleting substances (ODS) is less than 0.3 kg to comply with the control measures of the Protocol.

Answer 6(c)

CSR Standard - ISO 26000

ISO 26000 is the International Standard giving guidance on social responsibility and is intended for use by organizations of all types both public and private sectors, in developed and developing countries. It provides guidance on principles of social responsibility, the core subjects and issues pertaining to social responsibility and on ways to integrate socially responsible behaviour into existing organizational strategies, systems, practices and processes.

This is a guidance tool provided by the ISO which enables organisations to understand the meaning and significance of social responsibility. It is important to note that this is not a certification but only a guiding tool. Hence, organisations which comply with these

standards are self-certified. It covers six core areas of social responsibility, including (i) human rights (ii) labour practices (iii) environment (iv) fair operating practices (v) consumer issues (vi) community involvement and development. This ensures a holistic approach to the concept of social responsibility and sustainable development.

It intends to assist organizations in contributing to sustainable development. It is intended to encourage them to go beyond legal compliance, recognizing that compliance with law is a fundamental duty of any organization and an essential part of their social responsibility. It is intended to promote common understanding in the field of social responsibility, and to complement other instruments and initiatives for social responsibility, not to replace them.

Answer 6A(i)

The given case is similar to the case M.C. Mehta v. Union of India [AIR 1988 SC 1037] also known as the Kanpur Tanneries or Ganga Pollution case wherein the Supreme Court had held that- "Where in public interest litigation owners of some of the tanneries discharging effluents from their factories in Ganga and not setting up a primary treatment plant in spite of being asked to do so for several years did not care, in spite of notice to them, even to enter appearances in the Supreme Court to express their willingness to take appropriate steps to establish the pre-treatment plants it was held that so far as they were concerned on order directing them to stop working their tanneries should be passed. It was observed that the effluent discharged from a tannery is ten times noxious when compared with the domestic sewage water which flows into the river from any urban area on its bank. It was further observed that the financial capacity of the tanneries should be considered as irrelevant while requiring them to establish primary treatment plants. Just like an industry which cannot pay minimum wages to it worker cannot be allowed to exist, a tannery which cannot set up a primary treatment plant cannot be permitted to continue to be in existence for the adverse effect on the public at large which is likely to ensure by the discharging of the trade effluents from the tannery to the river Ganga would be immense and it will outweigh any inconvenience that may be caused to the management and the labour employed by it on account of its closure".

Hence, looking to the judgement given by the Apex Court in the given case, the owners of tanneries cannot be allowed to pollute the water by producing the hazardous material irrespective of the fact that this being the employment generation activity.

Answer 6A(ii)

Scholars and practitioners often interpret Corporate Sustainability and Corporate Social Responsibility as being nearly synonymous, pointing to similarities and the common domain. The two concepts have different backgrounds and different theoretical paths.

According to management science, the notion of Corporate Sustainability can be defined first as the capacity of a firm to create value through the product and services it produces and to continue operating over the years. Corporate Sustainability can be considered as the attempt to adapt the concept of Sustainable Development to the corporate setting, matching the goal of value creation with environmental and social considerations. Corporate Sustainability includes an attempt to assimilate the environmental and social dimensions into business operations: processes, products and procedures. In practical terms, the Corporate Sustainability Approach leads to a very

concrete and pragmatic problem; how to measure performance based on the three dimensions outlined and how natural and social values can be incorporated into corporate accounting.

The evolutionary part of the concept of Corporate Social Responsibility is different from that of Corporate Sustainability. The first recognized contribution in the literature dates back to Bowen, who stressed the responsibilities of businesses and wrote that social responsibility refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society. Besides, economic and legal responsibilities, companies are expected to satisfy other requirements, relevant to conformity to social norms and voluntary contributions to the community in which they operate. Another important Corporate Social Responsibility approach developed during the 1980s in the light of the growth of the stakeholder approach, firms have obligations to a broader group of stakeholders than the simple shareholders, where a stakeholder is any group or individual who can affect or is affected by the achievement of the firm's objectives.

Although Corporate Sustainability and Corporate Social Responsibility have different roots and have developed along diverse theoretical paths, they ultimately converge.

Answer 6A(iii)

As per Section 135 of the Companies Act, 2013, the Companies that trigger any of the conditions stated below must constitute a Corporate Social Responsibility (CSR) Committee of the Board to formulate and monitor the CSR policy of a company.

The CSR provision will be applicable companies which fulfill any of the following criteria during any of the three preceding financial years -

- Companies having Net Worth of Rupees Five Hundred Crore or more, or
- Companies having Turnover of Rupees One Thousand Crore or more or
- Companies having a Net Profit of Rupees Five Crore or more

The CSR Rules have widened the ambit for compliance obligations to include the Holding and Subsidiary companies as well as foreign companies whose branches or project offices in India which fulfills the criteria specified above. If a company ceases to be a company covered under Section 135(1) of the Act for three consecutive financial years shall not be required to constitute a CSR Committee.
