

# **GUIDELINE ANSWERS**

## **PROFESSIONAL PROGRAMME**

**DECEMBER 2016**

**MODULE 2**



**THE INSTITUTE OF  
Company Secretaries of India**

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

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

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(i)

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

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PROFESSIONAL PROGRAMME

**UPDATING SLIP**

**ETHICS, GOVERNANCE AND SUSTAINABILITY**

MODULE – 2 – PAPER 3

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

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## PROFESSIONAL PROGRAMME EXAMINATION

DECEMBER 2016

### INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed : 3 hours

Maximum marks : 100

**NOTE:** Answer **ALL** Questions.

#### Question 1

*ABC University is a public university; especially known for its Faculty of Commerce and Management in the country. The faculty offers various UG and PG programmes along with research programmes viz., M. Phil and Ph.D. Recently, the Academic Council of the university approved the proposal of the faculty to start some UG and PG programmes in distance learning mode too. It is observed that the students of distance education are normally dependent on self-study along with a little support from the department(s) concerned. In view of this aforementioned fact, the Dean concerned of the faculty decided to launch a web based knowledge portal to facilitate the students of different courses and he proposed to upload the study materials, e-lectures, suggested answers of last examinations, mock test papers relevant for the coming examinations, etc. of the approved courses on this knowledge portal. It is expected that the portal will be very useful for the students as it aims to provide the access of various academic resources on anytime anywhere basis. For the implementation of this project, a technical consultant was appointed by the university. Accordingly, an initial feasibility study was done to know whether system should be developed in-house or bought as a ready made package and a detailed report was submitted. As a next step, as per the recommendations of the consultant, an expression of interest was published by the university in various national and regional newspapers inviting various organisations to showcase their capabilities and suggest a good solution as per the requirements of the concerned faculty of the university.*

*Based on the above, answer the following -*

- (a) What are three major attributes of information security ? Out of these attributes, which attribute will be having the highest priority while developing web based knowledge portal ? Explain with reasons. (5 marks)*
- (b) What may be the possible factors, which have been considered by the technical consultant for taking a decision as to whether system should be developed in-house or bought as a readymade package ? (5 marks)*
- (c) Technical consultant also suggested that some of the services in the proposed knowledge portal should be available on intranet of the university. What are the major advantages of intranet ? (5 marks)*
- (d) Information security measures must be applied to all systems in today's vulnerable environment. What are the basic system security measures, which must be applied to the proposed web based knowledge portal ? (5 marks)*

**Answer 1(a)**

Three major attributes of Information Security are as follows:

- *Confidentiality* : It refers to the prevention of unauthorized disclosure of information.
- *Integrity* : It refers to the prevention of unauthorized modification of information.
- *Availability* : It refers to the prevention of unauthorized withholding of information or it refers to ensuring that authorized parties are able to access the information whenever required as per required format.
- *Accuracy* : The data is free from any errors or mistakes.
- *Authenticity* : Information should be reproduced and be identifiable as genuine and original not copy.

The proposed knowledge portal aims to provide the access of various academic resources on anytime anywhere basis. Hence, out of these aforementioned attributes, the third attribute namely, availability will be having the highest priority while developing web based knowledge portal because e-content hosted on the proposed Knowledge Portal should be uninterruptedly available to the authorized users.

**Answer 1(b)**

The possible factors which have been considered by the technical consultant for taking a decision as to whether system should be developed in house or brought as a readymade package are as follows:

1. *Comparing the implementation cost* : Implementing any system involves high cost, thus, comparing the cost involved in in-house implementation of the system vis-à-vis outsourcing the same to the third party is significant.
2. *Critical Success Factor of the Learning System versus available Vendors* : Some vendors began by developing small learning platforms; others entered the field via a robust e-learning package, or a data warehouse solution. Thus, understanding business needs and product's relative strengths is essential for better decision.
3. *Functional Specifications & Customizations* : The new learning Software must suit the needs of the Users. Further, the vendor should be ready to customize the same to fit the needs of the users as far as possible.
4. *Support Capabilities* : It is must to evaluate the Software package's customer-support capabilities. Since the portal will be accessible to all users 24\*7 across all geographies, the consultant must find out whether the packaged software vendor offers 24/7 customer support, international support, and a Web-based help desk along with post implementation support.
5. *Flexibility* : 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 align with existing user needs and achieve integration.

6. *Time to Implement* : Implementation can be a daunting prospect when company-wide 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)**

Major advantages of using intranet of some of the services in the proposed Knowledge Portal are given as follows:

1. Easy, economic and fast system of communication within enterprise;
2. Based on Internet protocol which expands accessibility;
3. Serves information automatically;
4. Replaces Grapevine and permit inter-employee communication with more transparency;
5. Improves productivity of executives by devoting more time in analyzing information than waiting for information;
6. Ready to access the information globally;
7. Makes the flow of information need driven;
8. Handles multimedia data effortlessly.

#### **Answer 1(d)**

Basic system security measures, which must be applied to the proposed web based knowledge portal, are given as under:

- *Password Protection* : All accounts and resources must be protected by passwords. It is suggested that passwords must be at least eight characters long and should have combination of upper and lower case letters, numbers, and special characters etc.
- *Software Updates* : System must be configured to automatically update operating system software, server applications, client software, and malware protection software. For medium or high availability systems, a plan to manually apply new updates within a documented time period is an acceptable alternative.
- *Firewall* : Systems must be protected by the firewall to that allows those incoming connections necessary to fulfil the business need of that system. Client Systems, which have no business, need to provide network services must deny all incoming connections. Systems that provide network services must limit access to those services to the smallest reasonably manageable group of hosts that need to reach them.
- *Antivirus/Malware Protection* : Systems running any Operating systems must have antivirus and anti-spyware software installed and it must be configured to automatically scan and update.
- *Regular Backups* : A robust backup plan is a must to avoid any unauthorized usage and loss of data. It is advisable to take weekly backups of your complete data.

- *Awareness* : It is important to educate your users around basic network security, and protocols to be followed while accessing the application. Make sure your users understand how important you the data is, and all the measures they can take to protect it.

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

**Question 2**

- (a) *On the basis of primary job functions, explain five types of database users.* (4 marks)
- (b) *Explain the retention of electronic records as per section 7 of the Information Technology Act, 2000.* (4 marks)
- (c) *What is 'assembler' ? Briefly explain various steps of assembling.* (4 marks)
- (d) *Briefly explain major limitations of expert system.* (4 marks)

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

**Question 2A**

- (i) *Describe major requirements for implementing successful e-governance initiatives.*
- (ii) *To conduct information system audit, a plan has to be developed, similar to one used in financial auditing. Explain the key tasks involved in the same.*
- (iii) *What is 'cloud computing' ? Describe in brief any three benefits of cloud computing.*
- (iv) *What is data description language (DDL) ? Explain in brief basic functions of DDL.* (4 marks each)

**Answer 2(a)**

On the basis of the primary job functions, five types of database users are given as under:

- *System Administrators* : They oversee the database system's general system's general operations.
- *Data Administrators (DBAs)* : DBAs manage the DBMS and ensure that the database is functioning properly. Role of DBA is sufficiently important in Database Administration and Security.
- *Database Designers* : They design the database structure. They are, in effect, the database architects. If the database design is poor, even the best application programmers and the most dedicated DBA cannot produce a useful database environment.
- *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.
- *End Users* : They are people, who use the application programs to run the organization's daily operations. For example clerks, supervisors and managers, etc.

**Answer 2(b)**

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

- The Information contained therein remains accessible so as to be usable for a subsequent reference;
- 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 digitally generated, sent or received;
- The details which will facilitate their identification of the origin, destination, date and time of dispatch or receipt of such electronic record are available in 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.

**Answer 2(c)**

Assembler is a computer program, known as language translator, which is used to translate program written in assembly language into machine language. The translated program is called an object program. Assembler checks each instruction for its correctness and generates diagnostic messages, if there are mistake in program.

Various steps of assembling are:

- To input source program in Assembly Language through an input device;
- Assembling the source code into an object file;
- Linking the object file with other modules or libraries into an executable program;
- Loading the program into memory;
- To execute the program.

**Answer 2(d)**

The major limitations of expert systems are:

- Expert systems are sometimes overrated.
- Expert systems can be expensive to develop and maintain.
- It is difficult to elicit the knowledge of experts.
- It lacks common sense.
- Non-availability of experts
- Extensive user training is required to work with an expert system
- Expert system cannot learn.
- The validation of expert systems can be difficult.



**Answer 2A(i)**

Major requirements for implementing successful e-governance are given as follows:

- 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;
- National Citizen Database, which is the primary unit of data for all governance vertical and horizontal applications across the state and central governments;
- E-governance and interoperability standards for the exchange of secure information with non-repudiation, across the state and central government departments seamlessly;
- A secure delivery framework by means of virtual private network connecting across the state and central government departments; and
- Data centers to handle the departmental workflow automation, collaboration, interaction, exchange of information with authentication;
- IT Literacy and awareness regarding benefits of e-governance;
- Optimum utilization of existing ICT infrastructure;
- Positive Attitude of Employees;
- Coordination between Government Department and Solution developers;
- Re-engineering of departmental processes;
- Infrastructure for sustaining e-governance projects on national level;
- *Bridging the Language Divide* : The local dialect of communication for a majority of population still remains the regional language or Hindi. They are not too familiar with English which still remains the most prevalent medium of interacting with any IT based application. Government need to ensure that this barrier should diminish with government initiatives to publish the portals in Hindi and local languages as well.

**Answer 2A(ii)**

The key tasks involved in the plan in order to conduct information system audit are given as follows:

- Definition of scope and objectives;
- Analysis and understanding of standard procedures;
- Evaluation of system and internal controls;
- Audit procedures and documentation of evidence;
- Analysis of facts encountered;
- Formation of opinion over the controls;
- Presentation of report and recommendations.

**Answer 2A(iii)**

Cloud computing simply means the use of computing resources (hardware and software) as a service through networks, typically the Internet.

Major benefits of cloud computing are given as follows:

- Cloud computing reduces IT infrastructure cost of the company.
- Cloud computing promotes the concept of virtualization, which enables server and storage device to be utilized across organization.
- Cloud computing makes maintenance of software and hardware easier as installation is not required on each end user's computer.

**Answer 2A(iv)**

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

Basic functions performed by DDL are given as under:-

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

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

**Question 3**

- (a) Describe key objectives of enterprise resource planning (ERP).
- (b) What is comparative analysis model under e-Governance ? Also explain possible ways through which this model can be applied in related areas.
- (c) Explain 'audit and accountability' requirements under advanced system security measures which are applied to high criticality systems.
- (d) Explain information need of middle level management in the context of information systems. (4 marks each)

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

**Question 3A**

- (i) Define the following terms under Information Technology Act, 2000 :
  - (a) Asymmetric crypto system
  - (b) Digital signature
  - (c) Private key
  - (d) Public key. (1 mark each)

- (ii) *What do you understand by mainframe computer ? Distinguish between mainframe computer and super computer.* (4 marks)
- (iii) *Differentiate between 'database' and 'data warehouse'* (4 marks)
- (iv) *State major characteristics of algorithms.* (4 marks)

**Answer 3(a)**

Key objectives of Enterprise Resource Planning are given as follows:

- To provide support for all variations of best business practices;
- To enable implementation of these practices with a view towards enhancing productivity;
- To empower the customer to modify the implemented business processes to suit the needs;
- To help in transforming the enterprise functions to be agile, cost-effective and focused on supporting the business objectives; and
- To facilitate the organization making prompt and effective management decisions;
- To support for imbibing best business practices in the business operations;
- To eliminate repetitive processes and greatly reduce the need to manually enter information;
- To empower the organization to streamline the business process and thus reduce wastage of resources;
- To ensure consistency and updation of data;
- To assist in transforming the enterprise functions to be agile, cost-effective and focused on supporting the business objectives.

**Answer 3(b)**

Comparative Knowledge Model is one of the least-used but a highly influential model. The model, if used innovatively, can harness the potential and capacity offered by the communication technologies and aims it towards better governance.

This model could be applied in the following possible ways:

- To learn from historic policies and actions and derive learning lessons for future policy-making;
- To evaluate the effectiveness of the current policies and identify key learning in terms of strengths and shortcomings in policies;
- To effectively establish conditions of precedence, especially in the case of judicial or legal decision-making and use it to influence/advocate future decision-making;
- To enable informed decision-making at all levels by enhancing the background knowledge and providing a rationale for future course of action; and
- To evaluate the performance and track-record of a particular decision-maker/ decision-body.

**Answer 3(c)**

'Audit and Accountability' requirements under advanced system security measures, which can be applied to high criticality systems, are given as under:

- *Enable process auditing or accounting* : Enable process auditing or accounting, which generates log information about the creation of new processes and their system activity.
- *Audit privilege escalation or change in privilege* : Generate a log message whenever a user changes their level of privilege.
- *Audit firewall denial* : Generate a log message when the host-based firewall denies a network connection.
- *Audit all significant application events* : Log all significant application events.
- *Write audit events to a separate system* : System logs must be written to a remote system in such a way that they cannot be altered by any user on the system being logged.

**Answer 3(d)**

The information need of Middle level management is structured in comparison to top management and it can be developed in form of template in some areas.

The major information needs of middle management comprises of:

- Information about Strategic Decisions/Plan of the organization for which they have been working;
- Tactical information which helps middle level managers in allocating resources and establishing controls to implement the top level plans of the organization;
- High Level Operational reports;
- Information about latest technologies in the area they have been working;
- Information about problems faced by operational management in getting the things implemented; and exception reports;
- Information about best practices adopted by different organization in the same industries or different industries.

**Answer 3A(i)**

- (a) *Asymmetric crypto system* : It means a system of a secure key pair consisting of a Private Key for creating a digital signature and a Public Key to verify the digital signature.
- (b) *Digital signature* : It means authentication of any electronic record by a subscriber by means of an electronic method or procedure in accordance with the provisions of section 3 of Information Technology Act, 2000 as amended. Digital signatures are used to authenticate the contents of electronic documents. They can be used with PDF, e-mail messages, and word processing documents.
- (c) *Private Key* : In cryptography, a private key (secret key) is a variable that is

used with an algorithm to encrypt and decrypt code. Quality encryption always follows a fundamental rule: the algorithm doesn't need to be kept secret, but the key does. Private keys play important roles in both symmetric and asymmetric cryptography. It means the key of a key pair used to create a digital signature.

- (d) *Public Key*: It means the key of a key pair used to verify a digital signature and listed in the Digital Signature Certificate.

### **Answer 3A(ii)**

Mainframe computers are large-sized, powerful multi-user computers that can execute multiple programs concurrently. That means, they can perform different actions or 'processes' at the same time. Mainframe computers can be used by as many as hundreds or thousands of users at the same time. Large organizations may use a mainframe computer to execute large-scale processes such as processing the organization's payroll, critical backend data processing, data warehousing etc.

Main difference between a super computer and a mainframe is that a super computer channels all its power into executing a few programs as fast as possible, whereas a mainframe uses its power to execute many programs concurrently. In some ways, mainframes are more powerful than super computers because they support more simultaneous programs. But super computers can execute a single program faster than a mainframe.

### **Answer 3A(iii)**

Main difference between database and data warehouse are as under:

- (1) Database is a collection of related information stored in a structured form in terms of table so that it makes easier insertion, deletion and manipulation of data. While, Data warehouse is a storage area for processed and integrated data across different sources which will be both operational data and external data.
- (2) Database consists of tables that contain attributes. Whereas a data warehouse is a database system optimized for reporting and analysis.
- (3) Data warehouse generally refers to the combination of many different databases across entire enterprise. Once the data entered in the data warehouse, it can be then only loaded, refreshed and accessed for queries.
- (4) Data warehousing emphasizes the capture of data from diverse sources for useful analysis and access, but does not generally start from the point-of-view of the end user who may need access to specialized, sometimes local databases.

### **Answer 3A(iv)**

Major characteristics of algorithms are given as follows:

- An algorithm must have a beginning and an end.
- The non-ambiguity requirement for each step of an algorithm cannot be compromised.

- The range of inputs for which an algorithm works has to be specified carefully.
- The same algorithm can be represented in several different ways.
- Several algorithms for solving the same problem may exist.
- Algorithms for the same problem can be based on very different ideas and can solve the problem with dramatically different speeds.
- It must terminate at a reasonable period of time.

**Question 4**

- (a) *Discuss various revision characteristics of software.*
- (b) *In a typical installation, what are the key responsibilities of a database administrator (DBA).*
- (c) *Explain in brief four major capabilities of decision support systems (DSS).*
- (d) *Describe any four characteristics of internet protocol.*

(4 marks each)

**Answer 4(a)**

Various revision characteristics of software are:-

- *Maintainability* : Maintenance of the software should be easy for any kind of user.
- *Flexibility* : Changes in the software should be easy to make.
- *Extensibility* : It should be easy to increase the functions performed by it.
- *Scalability* : It should be very easy to upgrade it for more work.
- *Testability* : Testing the software should be easy.

**Answer 4(b)**

In a typical installation, major responsibilities of a Database Administrator (DBA) are given as follows:

- Providing the standards and the administration of databases and their use;
- Database tuning and performance monitoring;
- Application tuning and performance monitoring;
- Plan growth and changes (capacity planning);
- Guiding, reviewing, and approving the design of a new databases;
- Determining the rules of access to the data and monitoring its security;
- Ensuring database integrity and availability, and monitoring the necessary activities for reorganization backup and recovery; and
- Approving the operation of new programs with existing production databases, based on results of testing with test data.

**Answer 4(c)**

Four major capabilities of Decision Support Systems (DSS) are given as follows:

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

**Answer 4(d)**

Major characteristics of Internet Protocol are given as under:

- The IP protocol resides in the Internet layer. The IP protocol is the protocol in the TCP/IP stack that is responsible for letting the machine, routers, switches and etcetera, know where a specific packet is going. This protocol is the very heart of the whole TCP/IP stack, and makes up the very foundation of very thing in the Internet.
- The IP protocol encapsulates the Transport layer packet with information about which Transport layer protocol it came from, what host it is going to, and where it came from, and a little bit of other useful information. All of this is precisely standardized, down to every single bit.
- The IP protocol has a couple of basic functionalities that it must be able to handle. It must be able to define the datagram, which is the next building block created by the transport layer.
- The IP protocol also defines the Internet addressing system. It means that the IP protocol is what defines how to reach between hosts, and this also affects how one is able to route packets.
- IP must also be able to decapsulate and encapsulate the IP datagram and send or receive the datagram from either the Network access layer, or the transport layer.
- IP protocol is responsible for routing packets from one host to another, as well as packets that we may receive from one host destined for another.
- The IP protocol is also a connectionless protocol, which in turn means that IP does not “negotiate” a connection. A connection-oriented protocol on the other hand negotiates a “connection” and then when all data has been sent, tears it down. TCP is an example of this kind of protocol; however, it is implemented on top of the IP protocol.

**Question 5**

- (a) *What are the basic elements of management information systems (MIS) ? Also, discuss the limitations of MIS. (8 marks)*
- (b) *A Certifying Authority certifies some parameters/conditions while issuing a digital signature certificate. Identify the section under which these parameters/conditions have been provided in the Information Technology Act, 2000 and explain the same in detail. (8 marks)*

**Answer 5(a)**

Management Information System (MIS) is an organized approach to study the information needs of an organization's management at every level in making operational, tactical, and strategic decisions. The three elements of MIS are Management, Information and System. It is necessary to understand these three components:

1. Management may be thought of as the sum total of these activities which relate to the laying down of certain plans, policies and purposes, securing men, money, materials and machinery needed for their goal achievements; putting all of them into operation, checking their performance and providing material rewards and mental satisfaction to the men engaged in the operation.
2. Information is a source for increment in knowledge. In MIS, it is obtained by processing data in to a form meaningful to the users.
3. A system is a set of components that operate together to achieve a common objective or multiple objectives. These objectives are realized in the outputs of the system. An efficient system uses its inputs economically in producing its outputs. An effective system produces the outputs that best meet the objectives of the system. MIS can be thought of as a system (set of hardware, software, manpower, procedures, etc.) to provide timely and accurate information to the management users in an organization.

Major limitations of Management Information Systems (MIS) are given as under:

- Quality of the outputs of MIS is basically governed by the quality of inputs and processes.
- MIS is not a substitute for effective management .It means that it cannot replace managerial judgement in making decisions in different functional areas. It is merely an important tool in the hands of executives for decision-making and problem solving.
- MIS may not have requisite flexibility to quickly update itself with the changing needs of time, especially in the fast changing and complex environment.
- MIS cannot provide tailor made information packages suitable for the purpose of every type of decisions made by executives.
- MIS takes into account mainly quantitative factors; thus it ignores non-quantitative factors like morale, attitudes of members of the organization, which have an important bearing on decision-making process of executives.
- MIS is less useful for making non-programmed decision-making. Such type of



decisions is not of routine type and thus they require information, which may not be available from existing MIS to executives.

- The effectiveness of MIS is reduced in the organization, where the culture is to hold information and not share with others.
- MIS effectiveness decreases due to frequent changes in top management organizational structure and operational team.
- Non-availability of experts, who can diagnose fully the objectives of the organization and give a desired direction needed for operating information system.
- Difficulty usually faced by experts, in selecting the sub-systems of MIS, to be designed and operated upon first. Turnover of experts is also quite high.
- Source of availability of experts for running MIS effectively, is not always known to management.
- Due to varied objectives of business concerns, the approach adopted by experts for designing and implementing MIS is non-standardized one.
- Non-availability of heavy financial resources required for running the MIS effectively.
- It is difficult to quantify the benefits of MIS, so that it can be easily comparable with cost.
- Perception problems as its utility are not readily perceptible by many users.

#### **Answer 5(b)**

A Certifying Authority certifies certain parameters/conditions while issuing a Digital Signature Certificate. These parameters/conditions are given under Section 36 of Information Technology Act, 2000 as amended, these are as under:

A Certifying Authority while issuing a Digital Signature Certificate shall certify that –

- It has complied with the provisions of this Act and the rules and regulations made there under,
- It has published the Digital Signature Certificate or otherwise made it available to such person relying on it and the subscriber has accepted it;
- The subscriber holds the private key corresponding to the public key, listed in the Digital Signature Certificate;
  - o The subscriber holds a private key which is capable of creating a digital signature;
  - o The public key to be listed in the certificate can be used to verify a digital signature affixed by the private key held by the subscriber;
  - o The subscriber's public key and private key constitute a functioning key pair;
- The information contained in the Digital Signature Certificate is accurate; and

- It has no knowledge of any material fact, which if it had been included in the Digital Signature Certificate would adversely affect the reliability of the representations made in clauses above.

**Question 6**

*Write notes on the following :*

*(a) Parallel testing*

*(b) Vision of national service delivery gateway (NSDG)*

*(c) Integrated approach of MIS development*

*(d) Features of WiFi.*

*(4 marks each)*

**Answer 6(a)**

Parallel testing is performed by system testing team. In Parallel Tests, the same test data is used in the new and old system and the output results are then compared. The system is tested and a copy of the live data e.g. share transfers effected during the last 6 months, the results of the share transfers are already available in the live environment as either a manual system or another computer system is in existence. When the same data is fed into the new system, the results obtained should be compared to ensure accuracy. As the same data is run on two systems one new and another existing, it is called parallel testing.

**Answer 6(b)**

The emergence of many e-governance applications for different departments to provide online services to citizens, businesses and government would require increasing interactions amongst departments and with external agencies at various levels in Government. Departments would need to develop connectors/adaptors for point to point connections between departments creating a mesh as shown in figure given below and also tight coupling between applications. This would lead to applications that are difficult to maintain and upgrade in case of version change and change in government policies and business rules. The NSDG is an attempt to reduce such point to point connections between departments and provide a standardized interfacing, messaging and routing switch through which various players such as departments, front-end service access providers and back-end service providers can make their applications and data interoperable. The NSDG aims to achieve a high order of interoperability among autonomous and heterogeneous entities of the Government (in the Centre, States or Local bodies), based on a framework of e-Governance Standards.

**Answer 6(c)**

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

iterative process. It continues until a final design is achieved, that satisfies the requirement at all levels in the organization.

**Answer 6(d)**

Wi-Fi [Wireless Fidelity] 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. Its features are as under:

- It is the wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections.
- It enables a user to get access to internet anywhere in the given location.
- The broadcast of data is completed via radio waves and the cost of cables for network lying down.
- Wi-Fi enables a user to get access to internet anywhere in the given location. Wi-Fi makes waves for business with their highly effective cable less media.

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## 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 management has changed significantly in its scope and complexity in recent times.
- (b) Loan syndication is one of the project finance services.
- (c) Working capital management is all about deciding the level, structure and financing of current assets.
- (d) Treasury operations are important in banking due to huge funds involved.

(5 marks each)

### Answer 1(a)

Financial management has changed significantly in scope and complexity in view of introduction of new financial instruments and transactions. Derivative contracts like options and future contracts, foreign currency swaps, and interest rate swaps have now been used very commonly in the financial markets. The globalization of capital markets, GDR (Global Depository Receipts) and Euro Issue, has increased the scope and reach of financial managers. With liberalisation measures taken by the government the scope of financial management has increased from keeping records, preparing financial reports, managing cash position, paying bills and occasionally obtaining funds to investing in assets and new products and determining best mix of financing and dividends in relation to a company's overall valuation.

Under the changed circumstances, financial management covers the following:

- (a) *Raising the funds* : Apart from Indian Public and Financial Institutions, companies have started raising funds etc. in the international markets by way of Euro Issues and from International Financial Institutions etc.
- (b) *Investment Decisions* : Presently, investment decisions of firms are not confined to Indian territory but spread over globally. Foreign investors are encouraged. Hence the competitions in India as well as from abroad have made the financial management more complex and foreign exchange management has become highly specialised area in financial management. The time value of money coupled with exchange rate fluctuations make the decision making exercise more complex and compelled the decision makers to make the use of various sophisticated

management techniques like probability theory, capital rationing, linear programming, goal programming and sensitivity analysis to overcome the problems.

- (c) *Dividend Decisions* : In view of wealth maximisation of firm, the internally generated funds are not paid out by way of dividend or issue of bonus shares. They are utilised by companies in making investments. It further increases the scope of financial management and makes it more complex.

### **Answer 1(b)**

Loan syndication involves obtaining commitment for term loans from the financial institutions and banks to finance the project. Projects require large amount of initial outlay with long gestation periods. Considering the risk and the size of the loan, a number of banks participate together in funding such proposals. Loan syndication is therefore a tie up of term loans from the different financial institutions. Merchant Bankers facilitate the companies in arranging and procuring credit from financial institutions, banks and other lending and investment organisations for financing the client project cost or working capital requirements.

The process of loan syndication involves the formalities such as preparation of project details, preparation of loan application, selection of financial institutions for loan syndication, issue of sanction letter and letter of intent from the financial institutions, compliance of terms and conditions for the availment of the loan, documentation, and disbursement of the loan.

The public financial institutions require the borrower to submit the requisite information for the loan in the prescribed forms along with the project report which is thoroughly scrutinized by them at individual levels and discussed in the inter-institutional meetings. After the officers of the institutions satisfy themselves of the viability of the project, the proposal for the loan is submitted to the sanctioning authority and it is after this sanction the formal letter of intent is issued to the borrower.

### **Answer 1(c)**

Management of working capital involves three broad decisions:

1. deciding the level of current asset;
2. the structure/composition of current assets i.e., choosing the levels and mix of cash, marketable securities, receivables and inventories; and
3. the financing of current asset.

A firm can have a flexible or restrictive policy of working capital management. In case of flexible policy it will keep large cash and securities balances, large amounts of inventory, and grant liberal credit terms to its customers. Such a policy is most appropriate when carrying costs are low relative to shortage costs. The level of holding current assets also depends upon a number of factors such as nature of firm's business, the extended reach of business. The strategy for effective working capital management is to ensure uninterrupted supply of cash to the operating cycle.

Restrictive policy actions include keeping low level of cash and securities balances, keeping small amounts of inventory and allowing few or no credit sales. Restrictive

Policy uses long-term financing for permanent asset requirements only and short-term borrowing for seasonal variations.

### Answer 1(d)

Treasury management means to plan, organise and control cash and borrowings so as to optimise interest and currency flows, and minimise the cost of funds. The treasury function is very important in banking as huge funds are involved. The interest rates are fluctuating and the treasury needs to work on the yield expected in credit and investment decisions with an objective to reduce the volatility of Net Interest Income (NII). With increasing globalization, banks need to closely monitor and manage their foreign exchange exposures. All banks/financial institution should ensure that they try to serve for giving best service in the market operation within code of conduct issued from time to time. It is essential that all staff should be familiar to code of conducts, in professional manner while entering into dealing transactions. Banks/financial institution are responsible for dealing actions of the staff members. They should know their counter party and their credit worthiness before entering into contract. They should take measure of risk control and meet proper legal obligation for each contract to minimize the loss. Therefore it is better to prepare a dealing mandate for each transaction.

Banks/financial institutions should observe confidentiality. The transactions should not be dealt in non-market rates. Adequate safeguards should be established to prevent abuse of information by staff members with respect to non-public price-sensitive information.

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

#### Question 2

*Distinguish between the following :*

- (a) 'Currency Futures' and 'Currency Options' in forex trading.
- (b) 'Operating Leverage' and 'Financial Leverage'.
- (c) 'Leasing' and 'Hire-Purchase'.
- (d) 'Efficient Portfolio' and 'Optimal Portfolio'. (4 mark each)

### **OR (Alternate question to Q.No. 2)**

#### Question 2A

- (i) *Foreign exchange market provides a mechanism for transfer of purchasing power from one currency to another for its various constituents. Discuss. (4 marks)*
- (ii) *Mention the steps taken by financial institutions while appraising a project. (4 marks)*
- (iii) *What are the main determinants of dividend policy in a company ? (4 marks)*
- (iv) *Capital rationing does not lead to optimum results. Discuss. (4 marks)*

### Answer 2(a)

#### **'Currency Futures' and 'Currency Options' in forex trading**

**Currency Futures** : Future contracts are legally binding agreements in which one party agrees to either buy or sell a certain foreign currency at a later date in time. These

contracts are standardized with respect to what is being traded, the quantity, delivery time and delivery location. They consist of secondary markets and can also be dealt numerous times much like a bond and opposed to a bank loan.

**Currency Option** : Currency options, commonly known as a Forex options are contracts which allows a person the right, but not the obligation, to buy or sell a specified currency at a specified exchange rate on or before a specified date. The only person obliged to perform the contract is the seller of the option.

### Answer 2(b)

#### ‘Operating Leverage’ and ‘Financial Leverage’

**Operating Leverage** : Operating leverage indicates the proportion of fixed operating charges. Higher operating leverage indicates higher quantum of fixed operating charges. It is the measure of Business Risk. Operating leverage is defined as the firm’s ability to use fixed operating cost to magnify the effect of changes in sales on its Earnings before Interest and Taxes (EBIT). The percentage change in EBIT occurring due to a given percentage change in sales is known as the degree of operating leverage. The operating leverage of 1.5 means that 1% increase in sales would result in 1.5% increase in EBIT (i.e. operating profit).

$$\text{Degree of Operating Leverage (DOL)} = \frac{\text{Percentage changes in EBIT}}{\text{Percentage change in sales}}$$

$$\text{Or, DOL} = \frac{\text{Contribution}}{\text{EBIT}}$$

**Financial Leverage** : Financial Leverage indicates the proportion of fixed financial charges, in the form of interest cost. Higher financial leverage indicates higher quantum of fixed financial charges. It is a measure of Financial Risk. The percentage change in Earnings Per Share (EPS) occurring due to a given percentage change in Earnings before Interest and Tax (EBIT) is known as the degree of Financial leverage. The Financial Leverage of 1.5 means that 1% increase in EBIT would result in 1.5% increase in EPS.

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

$$\text{Or, DFL} = \frac{\text{EBIT}}{\text{EBT}}$$

### Answer 2(c)

#### ‘Leasing’ and ‘Hire-Purchase’

<i>Leasing</i>	<i>Hire-purchase</i>
1. A lease represents a contractual arrangement whereby the lessor grants the lessee the right to use an asset in return for periodic lease rental payments.	1. Hire Purchase is a loan or contract that involves an initial deposit, linked to a specific purchase, which is a way of obtaining the use of an asset before payment is completed.
2. The lessee cannot claim depreciation as he is not an owner.	2. The hirer is entitled to claim depreciation as an owner.

<i>Leasing</i>	<i>Hire-purchase</i>
3. The entire lease rental is a tax deductible expense for the lessee.	3. Only the interest component of the instalment is tax deductible for the hirer
4. The lessee does not enjoy the salvage value of the asset.	4. The hirer being the owner enjoys the salvage value of the asset.

### Answer 2(d)

#### 'Efficient Portfolio' and 'Optimal Portfolio'

The Markowitz Model analyses the various possible portfolios of the given number of securities and helps in selection of the best or the most efficient portfolio. According to Markowitz Model, investor is mainly concerned with risk & return. For selection of portfolio, various combinations of securities can be made according to their risk & return preferences. An investor will choose his optimal portfolio from the set of portfolios that offer:

- maximum expected returns for varying levels of risk, and
- minimum risk for varying levels of returns.

**Efficient Portfolio** : Under portfolio management efficient portfolio is that which lies along the capital market line. A portfolio that provides greatest expected return for a given level of risk or equivalently the lowest risk for a given expected return. These all combinations are plotted on the graph. All portfolios on efficient frontier of the graph are known as efficient portfolios.

**Optimal Portfolio** : Efficient portfolio which is best suited to the risk-return preference of a particular individual investor is an optimum portfolio for the investor. It represents a tangent point of the individual investor's utility function or indifference curve on the efficient frontier. It is the portfolio in which risk-reward combination is such that it yields the maximum return possible under the current and anticipated circumstances.

### Answer 2A(i)

The foreign exchange transaction (i.e., for the sale and purchase of foreign currencies) takes place in foreign exchange market, which provides a mechanism for transfer of purchasing power from one currency to another. This market is not a physical entity like the Mumbai stock exchange or a trading center; rather it is network of telephones among banks, foreign exchange dealers and brokers etc. The market is an over the counter market. The dealers sit in their dealing room of major commercial banks around the world and communicate with each other through telephones, computer terminals and Society for Worldwide Inter-bank Financial Telecommunication (SWIFT) mechanism. This is a non-profit Belgian cooperative with main and regional centers around the world connected by data transmission lines.

The forex market is a wholesale market called the inter-bank market. Commercial banks are the market makers. Corporations use the foreign exchange market for a variety of purposes relating to their operation like payment for imports, conversion of export receipts, hedging of receivables and payables, payment of interest on foreign currency loans, placement of surplus funds etc.



**Answer 2A(ii)**

Project Report submitted by a corporate unit to a financial institution for grant of financial facilities is properly appraised by a team of expert drawn from different disciplines. Each project is appraised on its own merits and flexibility is observed while applying the norms of ratio analysis, funds flow analysis, financial indicators, technical norms etc. The various steps taken by a financial institution while appraising a project are:

1. *First is the examination of the Project itself* - The term lending financial institutions have been established by the Government with the sole objective to promote development and growth of the industries which are given planned priorities for the economic development of the country. Therefore, the project should be such which meet this standard and falls within the category of approved projects. Further the project report prepared by the corporate unit should confirm to the prescribed standard of the financial institutions.
2. *The Promoters : Capacity and competence* - The promoter's capacity and competence should be examined with reference to their management background, traits as entrepreneurs, business or industrial experience, and past performance in other concerns, their integrity and reputation, market standing and legal competence.
3. *Viability Tests* - After analyzing the Project and Promoters capacity, a bank/ financial institution carries out the different validity tests:
  - (a) Technical Aspects of Project Appraisal
  - (b) The Financial Aspects of Project Appraisal such as NPV, BCR and IRR, Sensitivity Analysis, Scenario Analysis etc.
  - (c) Economic Appraisal to examine the project from the entire economy's point of view to determine whether the project will improve the economic welfare of the country.
  - (d) Social/distributive Appraisal
  - (e) Environmental Aspects
  - (f) Organizational and Managerial Aspects
  - (g) Commercial Aspects Including Marketing- Commercial aspects of a project include arrangement for supply of inputs for the initiation and operation of the project and marketing of outputs.

**Answer 2A(iii)**

The Board of Directors take following factors into consideration for determining dividend policy:

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

- (2) *Financial* : There are financial constraints to Dividend Policy. A firm can pay dividend only to the extent that it has cash to disburse; a firm can't pay dividend when its earnings are in accounts receivables or firm does not have adequate liquidity.
- (3) *Economic Constraints* : Besides, there are economic constraints also. The question arise, does the value of dividend affects the value of the firm. If the answer to it is yes then there must be some optimum level of dividend, which maximises the market price of the firm's stock.
- (4) *Nature of Business conducted by a company* : A company having a business of the nature which gives regular earnings may like to have a stable and consistent dividend policy. Industries manufacturing consumer/consumer durable items have a stable dividend policy.
- (5) *Existence of the Company* : The length of existence of the company affects dividend policy. With their long standing experience, the company may have a better dividend policy than the new companies.
- (6) *Type of Company Organisation* : The type of company organisation whether a private limited company or a public limited company affects dividend decisions. In a closely held company, a view may be taken for acquiescence and conservative policy may be followed but for a public limited company with wide spread of shareholder, a more progressive and promising dividend policy will be the better decision.
- (7) *Financial Needs of the Company* : Needs of the Company for additional capital affects the dividend policy. The extent to which the profits are required to be invested in the company for business growth is the main consideration in dividend decisions. Working capital position of a company is an important condition that affects the dividend policy as no company would declare a dividend to undermine its financial strength and threaten its solvency.
- (8) *Market Conditions* : Business cycles, boom and depression, affects dividend decisions. In a depressed market, higher dividend declaration is used to market securities for creating a better image of the company. During the boom the company may like to save more, create reserves for growth and expansion or meeting its working capital requirements.
- (9) *Financial Arrangement* : In case of financial arrangements being entered into or being planned like merger or amalgamation with another company, liberal policy of dividend distribution is followed to make the share stock more attractive.
- (10) *Change in Government Policies* : Changes in Government Policies particularly those affecting earnings of the company are also taken into consideration in settling dividend decisions. For example, higher rate of taxation will definitely affect company earnings and carry impact on dividend decisions. Besides, fiscal, industrial, labour, industrial policies do affect in different magnitude the dividend decisions of individual corporate enterprises.

**Answer 2A(iv)**

A firm may put a limit to the maximum amount that can be invested during a given period of time, such as a year. Such a firm is then said to be resorting to capital rationing. A firm with capital rationing constraint attempts to select the combination of investment

projects that will be within the specified limits of investments to be made during a given period of time and at the same time provide greatest profitability.

Capital rationing may be effected through budget ceiling. It may result in accepting several small investment proposals than accepting a few large investment proposals so that there may be full utilisation of budget ceiling. This may result in accepting relatively less profitable investment proposals if full utilization of budget is a primary consideration. Similarly, capital rationing can also lead to the firm foregoing the next most profitable investment falling after the budget ceiling even though it is estimated to yield a rate of return much higher than the required rate of return. Thus, capital rationing does not lead to optimum results.

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

**Question 3**

- (a) ABC Ltd. has an average selling price of ₹10 per unit. Its variable unit costs are ₹7 and fixed costs amount to ₹1,70,000. It finances all its assets by equity funds. It pays 30% tax on its income. PQR Ltd. is identical to ABC Ltd. except in respect of the pattern of financing. The latter finances its assets 50% by equity and 50% by debt, the interest on which amounts to ₹20,000.

Determine the degree of operating, financial and combined leverages at ₹7,00,000 sales for both the companies and interpret the results. (4 marks)

- (b) Product-Y is sold for ₹20 per unit. The demand for the product is at a constant rate of 2,000 units per month. The cost price per unit is ₹10. The ordering cost is ₹1.20 per order and the carrying cost is 10% per annum. Calculate EOQ and number of orders needed per year. (4 marks)
- (c) The rate of inflation in USA is likely to be 3% per annum and in India it is likely to be 6.5%. The current spot rate of US \$ in India is ₹68.40. Find the expected rate of US \$ in India after 1 year and 3 years from now using purchasing power parity theory. (4 marks)
- (d) The following data relate to two securities, A and B :

	A	B
Expected return	22%	17%
Beta factor ( $\beta$ )	1.5	0.7

Assume  $RF = 10\%$  and  $RM = 18\%$

Find out whether the securities, A and B are correctly priced ? (4 marks)

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

**Question 3A**

- (i) Current price of share of a company is ₹60 and dividend per share is ₹4. If its capitalisation rate is 12%, what is the dividend growth rate ? (4 marks)
- (ii) Radha bought a 3-month call option on A Ltd.'s share with an exercise price of ₹50 at a premium of ₹4. She has also bought a put option on the same share at an exercise price of ₹40 at a premium of ₹1.50. A's share is currently selling at

₹45. What will be Radha's position after three months if the share price turns out to be ₹50 or ₹30 ? (4 marks)

(iii) The credit sales of a firm is ₹6,40,000. It has a gross profit margin of 15% and a current ratio of 2.5. The firm's current liabilities are ₹96,000; inventories ₹48,000 and cash ₹16,000.

(a) Determine the average inventory to be carried by the firm, if an inventory turnover of 5 times is expected (assume 360 days in a year).

(b) What is the average collection period ? (4 marks)

(iv) A company is planning to purchase a machine. It costs ₹50,000 and has no salvage value. The expected life of machine is 5 years and company applies straight line method of depreciation. The estimated earnings after tax are ₹5,000 each year for 5 years. Required rate of return of the company after tax is 12%. Should the company purchase the machine using NPV method ? (4 marks)

### Answer 3(a)

No. of units sold = Rs. 7,00,000/ Rs. 10 = 70,000 units

#### Determination of various leverages

Particulars	(Rs.)	(Rs.)
	ABC Ltd.	PQR Ltd.
Sales revenue	7,00,000	7,00,000
Less : Variable cost (70,000 * Rs. 7)	(4,90,000)	(4,90,000)
Contribution	2,10,000	2,10,000
Less : fixed cost	(1,70,000)	(1,70,000)
EBIT	40,000	40,000
Less : Interest	-	(20,000)
EBT	40,000	20,000
Less : Tax @ 30%	(12,000)	(6,000)
EAT	28,000	14,000
Degree of Operating Leverage	2,10,000/40,000	2,10,000/40,000
DOL = Contribution/EBIT	= 5.25	= 5.25
Degree of Financial Leverage	40,000/ 40,000	40,000/ 20,000
DFL = EBIT/ EBIT - Interest	= 1	= 2
Degree of Combined Leverage	2,10,000/ 40,000	2,10,000/ 20,000
DCL = Contribution/ EBIT - Interest	= 5.25	=10.5

**Interpretation**

The degree of combined leverage of ABC Ltd. is higher than PQR Ltd. due to Financial Leverage. The 1% change in sales of ABC Ltd. will lead to 5.25% change in EPS of ABC Ltd., whereas 1% change in sales of PQR Ltd. will lead to 10.5% change in EPS of PQR Ltd.

**Answer 3(b)**

Annual demand of the product = 2,000 \* 12 = 24,000 units

$$EOQ = \sqrt{\frac{2AB}{C}}$$

Where A = Annual Demand

B = Ordering cost per unit per annum

C = Carrying cost per unit per annum

$$= \sqrt{\frac{2 \times 24,000 \times \text{Rs. } 1.20}{\text{Rs. } 1}} = \sqrt{57,600} = 240 \text{ units}$$

No. of order needed per year = 24,000/240 = 100 orders

**Answer 3(c)**

According to Purchasing Power Parity :

$$\text{Forward rate} = \text{Spot rate} \left[ \frac{1 + r_H}{1 + r_F} \right]$$

So, Spot rate after one year

$$68.40 \left[ \frac{1 + 0.065}{1 + 0.03} \right]^1$$

$$= \text{Rs. } 70.72$$

After 3 years

$$68.40 \left[ \frac{1 + 0.065}{1 + 0.03} \right]^3$$

$$= \text{Rs. } 75.61$$

**Answer 3(d)**

If the two securities, A and B are correctly priced then the returns required, based on their levels of systematic risk and calculated from the CAPM, will be the same as their expected returns. The required return can be ascertained with the help of CAPM equation as follows:

**Security A**

$$R_A = R_F + (R_M - R_F) \beta$$

$$= 0.10 + (0.18 - 0.10) * 1.5$$

$$= 0.22 \text{ or } 22\%$$

This is equal to the expected return of Security A. Therefore security A is correctly priced.

**Security B**

$$\begin{aligned}
 R_B &= R_F + (R_M - R_F) \beta \\
 &= 0.10 + (0.18 - 0.10) * 0.7 \\
 &= 0.156 \text{ or } 15.6\%
 \end{aligned}$$

This return of 15.6% is less than the expected return of 17%. Therefore, Security B is not correctly priced. It is undervalued, giving a return which is higher than what is required based on its level of risk.

**Answer 3A(i)**

$$P_0 = \frac{D(1+g)}{k_e - g}$$

Where  $P_0$  = Current price of share

$D$  = dividend per share

$k_e$  = capitalisation rate

$g$  = dividend growth rate

$$60 = \frac{4(1+g)}{0.12 - g}$$

$$7.2 - 60g = 4 + 4g$$

$$64g = 3.2$$

$$g = 0.05 \text{ or } 5\%$$

The dividend growth rate is 5%

**Answer 3A(ii)**

$$\text{Premium paid} = \text{Rs. } 4 + \text{Rs. } 1.5 = \text{Rs. } 5.5$$

**Profit or loss on expiration**

- (a) If share price is Rs. 50, then neither call nor put will be exercised, entire premium will be a loss.

$$\begin{aligned}
 \text{Profit/loss} &= \text{Call option (0) + Put option (0) - Premium} \\
 &= (\text{Rs. } 5.5)
 \end{aligned}$$

Loss of Rs. 5.5

- (b) If share price is Rs. 30, then call will lapse and put will be exercised.

$$\begin{aligned}
 \text{Profit/Loss} &= \text{Call option (0) + Put Option (Rs. } 40 - \text{Rs. } 30) - \text{Premium (Rs. } 5.5) \\
 &= \text{Rs. } 10 - \text{Rs. } 5.5 \\
 &= \text{Rs. } 4.5
 \end{aligned}$$

Profit of Rs. 4.5

**Answer 3A(iii)**

$$(a) \text{ Inventory Turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

Since Gross profit margin is 15%, the cost of goods sold will be 85% of the sales.

$$\text{Cost of Goods sold} = 0.85 * \text{Rs. } 6,40,000 = \text{Rs. } 5,44,000$$

$$\text{Therefore, } 5 = \frac{\text{Rs. } 5,44,000}{\text{Average inventory}}$$

$$\text{Average Inventory} = \text{Rs. } 1,08,800$$

$$(b) \text{ Average collection period} = \text{Debtors}/(\text{credit sales}) * 360$$

Calculation of debtors:

$$\text{Current assets}/\text{Current liabilities} = \text{current ratio}$$

$$\text{Current assets} = 2.5 * \text{Rs. } 96,000$$

$$\text{Current assets} = \text{Rs. } 2,40,000$$

$$\text{Less : Inventories} \quad (\text{Rs. } 48,000)$$

$$\text{Less : cash} \quad (\text{Rs. } 16,000)$$

$$\text{Closing debtors} \quad \underline{\text{Rs. } 1,76,000}$$

$$\text{Average collection period} = (\text{Rs. } 1,76,000 / \text{Rs. } 6,40,000) * 360 = 99 \text{ days}$$

**Answer 3A(iv)**

$$\text{Depreciation} = (\text{Rs. } 50,000 - 0) / 5 = \text{Rs. } 10,000$$

Year	EAT	Depreciation	CFAT	PV @ 12%	PV of CFAT
1	5,000	10,000	15,000	0.8929	13,393.5
2	5,000	10,000	15,000	0.7972	11,958
3	5,000	10,000	15,000	0.7118	10,677
4	5,000	10,000	15,000	0.6355	9,532.5
5	5,000	10,000	15,000	0.5674	8,511
				$\Sigma$ PV of CFAT	54072
				Less : cash outflow	(50,000)
				NPV	<u>4,072</u>

**Advice :** As the NPV is coming out to be positive i.e. Rs. 4,072, hence the company should purchase the machine.

**Or Alternatively,**

$$\begin{aligned} \text{NPV} &= (\text{Rs. } 15,000 * \text{PVAF}_{12\%, 5 \text{ Years}}) - \text{Cash outflow} \\ &= (\text{Rs. } 15,000 * 3.6048) - \text{Rs. } 50,000 \\ &= \text{Rs. } 54,072 - \text{Rs. } 50,000 = \text{Rs. } 4,072 \end{aligned}$$

**Advice :** As the NPV is coming out to be positive i.e. Rs. 4,072, hence the company should purchase the machine.

**Question 4**

- (a) A new project under consideration requires a capital outlay of ₹300 lakh for which the funds can either be raised by issue of equity shares of ₹100 each for the entire sum or by issue of equity shares to the tune of ₹200 lakh and by issue of 15% loan of ₹100 lakh. Find out the indifference level of EBIT, if the tax rate is 50%.
- (b) A perpetual bond of ₹100 is currently selling for ₹95. The coupon rate is 13.5% and the appropriate rate of discount is 15%. Calculate the value of the bond. Should it be bought? What is its yield at maturity?
- (c) Financial services are fundamental to economic growth and development. Explain.
- (d) What is operating lease? (4 marks each)

**Answer 4(a)**

In the Financial plan I, the firm will be issuing 3 lakh equity shares (Rs. 300 lakh/ Rs. 100) of Rs. 100 each. However in financing Plan II, there will be 2 lakh equity shares of Rs. 100 each and a 15% loan of Rs. 100 lakh on which interest of Rs. 15 lakh would be payable. The indifference level of EBIT may be calculated as follows:

$$\frac{\text{EBIT} (1 - 0.50)}{3,00,000} = \frac{(\text{EBIT} - \text{Interest}) (1 - 0.50)}{2,00,000}$$

$$\frac{\text{EBIT} (1 - 0.50)}{3,00,000} = \frac{(\text{EBIT} - 15,00,000)(1 - 0.50)}{2,00,000}$$

$$\text{EBIT} = \text{Rs. } 45,00,000$$

Thus at the Indifference level of Rs. 45 lakh, the EPS under both the plans would be same.

**Answer 4(b)**

$$\text{Value of bond} = \text{Interest} / K_d = 13.5 / 0.15 = \text{Rs. } 90$$

The bond is over-valued, therefore it should not be bought.

$$\text{Yield to maturity} = \text{Interest} / \text{Current value of bond} = 13.5 / 95 = 0.142 \text{ or } 14.2\%$$

**Answer 4(c)**

Financial services are fundamental to economic growth and development. Banking,



savings and investment, insurance, and debt and equity financing help private citizens save money, guard against uncertainty, and build credit, while enabling businesses to start up, expand, increase efficiency, and compete in local and international markets. For the poor, these services reduce vulnerability and enable people to manage the assets available to them in ways that generate income and employment.

The financial services sector is the largest in the world in terms of earnings, comprised of a wide range of businesses including merchant banks, credit card companies, stock brokerages, and insurance companies. These large firms have the expertise, reputation, and geographic reach to have significant direct impact to change the way entire markets operate. They are also developing initiatives to build human and institutional capacity. Almost all multinational banks now have microfinance initiatives. Another challenge is to expand the focus from micro finance to meso-finance.

#### Answer 4(d)

An operating lease can be defined as any lease other than a finance lease. The salient features of an operating lease are:

1. The lease term is significantly less than the economic life of the equipment.
2. The lessee enjoys the right to terminate the lease at a short notice without any significant penalty.
3. The lessor usually provides the operating know-how and the related services and undertakes the responsibility of insuring and maintaining the equipment.

#### Question 5

(a) A company is currently paying a dividend of ₹2 per share. The dividend is expected to grow at 15% annually for three years, then at 10% rate for the next three years after which it is expected to grow at 5% rate forever.

(i) What is the present value of the share if the capitalisation rate is 9% ?

(ii) If the share is held for three years, what shall be its present value ?

(8 marks)

(b) An Indian importer has to settle an import bill for Singapore \$1,30,000. The exporter has given the Indian exporter two options :

(i) Pay immediately without any interest charges

(ii) Pay after three months with interest @ 5% per annum

The importer's bank charges 15% per annum on overdrafts. The exchange rates in the market are as follows :

Spot rate (₹/Singapore \$) : 48.35/48.36

3-Month forward rate (₹/Singapore \$) : 48.81/48.83

The importer seeks your advice.

(8 marks)

**Answer 5(a)**

(i) PV of Dividends during super normal growth period

Year	Dividend	PVF @ 9%	PV of dividend
1	$2(1.15)^1 = 2.3$	0.9174	2.11
2	$2(1.15)^2 = 2.64$	0.8417	2.22
3	$2(1.15)^3 = 3.04$	0.7722	2.35
4	$3.04(1.10)^1 = 3.34$	0.7084	2.37
5	$3.04(1.10)^2 = 3.68$	0.6499	2.39
6	$3.04(1.10)^3 = 4.05$	0.5963	2.41
			13.85

$$\text{PV at the end of year 6} = \frac{D}{k_e - g} = \frac{4.05(1.05)}{0.09 - 0.05} = 106.31$$

$$\text{PV of Rs. 106.31 at 9\% discount rate} = 106.31 * 0.5963 = \text{Rs. 63.39}$$

$$\text{PV of share today} = \text{Rs. 13.85} + \text{Rs. 63.39} = \text{Rs. 77.24}$$

(ii) Present value of shares at the end of year 3 will be equal to discounted value of dividends and share :  $P_3 = \text{Rs. 2.37} + \text{Rs. 2.39} + \text{Rs. 2.41} + \text{Rs. 63.39} = \text{Rs. 70.56}$ 

Present value of dividend at the end of 1, 2 &amp; 3 years

$$= \text{Rs. 2.11} + \text{Rs. 2.22} + \text{Rs. 2.35} = \text{Rs. 6.68}$$

The present value of the share today

$$P_0 = \text{Rs. 70.56} + \text{Rs. 6.68} = \text{Rs. 77.24}$$

Thus the value of share is the same if the share is held for three years instead of indefinitely.

**Answer 5(b)**

Evaluation of two options offered by exporter for settlement of payment

*Option I : Pay immediately without any interest charges*

Bill value converted to Indian rupees (Singapore \$ 1,30,000 x Rs.48.36)	Rs. 62,86,800
Add: Overdraft interest @ 15% p.a. for 3 months (Rs. 62,86,800 *15%*3/12)	Rs. 2,35,755
Total	<u>Rs. 65,22,555</u>

*Option II : Pay after 3 months with interest @ 5% p.a.*

Bill value	Singapore \$ 1,30,000
Add: Interest @ 5% p.a. for 3 months	Singapore \$ 1,625
	Singapore \$ 1,31,625

Therefore amount to be paid in Indian Rupees after 3 months under forward purchase contract

$$= \text{Singapore } \$ 1,31,625 * \text{Rs. } 48.83 = \text{Rs. } 64,27,249$$

Difference in outflows in Option I and Option II

$$= \text{Rs. } 65,22,555 - \text{Rs. } 64,27,249 = \text{Rs. } 95,306$$

**Advice:** it is advisable to settle bill payable after three months (i.e. choose option II) since rupee outflow is less by Rs. 95,306.

#### Question 6

*Gold Ltd. is considering a proposal to replace an existing equipment by a new one. The new equipment is operationally efficient and will result in saving in operating costs estimated at ₹1,50,000, annually. It will cost ₹3,00,000 and will be purchased at the beginning of the year. The equipment dealer states that most companies use a four year life while depreciating the equipment. As the equipment will be operational in mid of the year, only 60% of the estimated annual savings will be obtained in the first year. A one time expense of ₹30,000 will be incurred in transferring production activities from the old equipment to the new one.*

*The equipment, currently in use, is fully depreciated and has no book value. However, its condition reveals that it can be used for an additional 5 years. The firm will receive ₹5,000, if it is disposed off now.*

*The company uses the straight line method of depreciation. Assuming that the full year's depreciation is taken into account in the first year, the corporate tax rate for all revenues and gains is 30% and required rate of return is 15%, what action should be taken by management of Gold Ltd. ? (16 marks)*

#### Answer 6

<i>Calculation of cash outflows</i>		<i>(Rs.)</i>
Cost of new equipment		3,00,000
Add: shifting expenses		30,000
Less : tax benefit on shifting		(9,000)
Less : sale proceeds of old equipment	5,000	
Less : tax on gain @ 30%	(1,500)	(3,500)
		3,17,500

Since the present equipment is fully depreciated and has no book value, the net sale proceeds of Rs. 5,000 is considered as capital gain.

**Calculation of cash inflow**

<i>Particulars</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>
Cash savings	90,000	1,50,000	1,50,000	1,50,000
Less : Depreciation	<u>(75,000)</u>	<u>(75,000)</u>	<u>(75,000)</u>	<u>(75,000)</u>
Increase in earnings	15,000	75,000	75,000	75,000
Less : taxes @ 30%	<u>(4,500)</u>	<u>(22,500)</u>	<u>(22,500)</u>	<u>(22,500)</u>
Earnings after tax	10,500	52,500	52,500	52,500
Add : Depreciation	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>	<u>75,000</u>
Cash inflows	85,500	1,27,500	1,27,500	1,27,500

**Calculation of Net present value**

<i>Year</i>	<i>Cash flows (Rs.)</i>	<i>PVF @ 15%</i>	<i>PV of cash inflows</i>
0	(3,17,500)	1	(3,17,500)
1	85,500	0.8696	74,351
2	1,27,500	0.7561	96,403
3	1,27,500	0.6575	83,831
4	1,27,500	0.5718	72,904
NPV			9,989

As the proposal is having a positive NPV of Rs.9,989, the company should accept the proposal and replace the existing equipment by the new one.

\*\*\*

TABLE - 1 : PRESENT VALUE OF RUPEE ONE

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
5%	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462	0.7107	0.6768	0.6446	0.6139	0.5847	0.5568	0.5303	0.5051	0.4810			
6%	0.9434	0.8900	0.8396	0.7921	0.7473	0.7050	0.6651	0.6274	0.5919	0.5584	0.5268	0.4970	0.4688	0.4423	0.4173			
7%	0.9346	0.8734	0.8163	0.7629	0.7130	0.6663	0.6227	0.5820	0.5439	0.5083	0.4751	0.4440	0.4150	0.3878	0.3624			
8%	0.9259	0.8573	0.7938	0.7350	0.6806	0.6302	0.5835	0.5403	0.5002	0.4632	0.4289	0.3971	0.3677	0.3405	0.3152			
9%	0.9174	0.8417	0.7722	0.7084	0.6499	0.5963	0.5470	0.5019	0.4604	0.4224	0.3875	0.3555	0.3262	0.2992	0.2745			
10%	0.9091	0.8264	0.7513	0.6830	0.6209	0.5645	0.5132	0.4665	0.4241	0.3855	0.3505	0.3186	0.2897	0.2633	0.2394			
11%	0.9009	0.8116	0.7312	0.6587	0.5935	0.5346	0.4817	0.4339	0.3909	0.3522	0.3173	0.2858	0.2575	0.2320	0.2090			
12%	0.8929	0.7972	0.7118	0.6355	0.5674	0.5066	0.4523	0.4039	0.3606	0.3220	0.2875	0.2567	0.2292	0.2046	0.1827			
13%	0.8850	0.7831	0.6931	0.6133	0.5428	0.4803	0.4251	0.3762	0.3329	0.2946	0.2607	0.2307	0.2042	0.1807	0.1599			
14%	0.8772	0.7695	0.6750	0.5921	0.5194	0.4556	0.3996	0.3506	0.3075	0.2697	0.2366	0.2076	0.1821	0.1597	0.1401			
15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472	0.2149	0.1869	0.1625	0.1413	0.1229			
16%	0.8621	0.7432	0.6407	0.5523	0.4761	0.4104	0.3538	0.3050	0.2630	0.2267	0.1954	0.1685	0.1452	0.1252	0.1079			
17%	0.8547	0.7305	0.6244	0.5337	0.4561	0.3898	0.3332	0.2848	0.2434	0.2080	0.1778	0.1520	0.1299	0.1110	0.0949			
18%	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704	0.3139	0.2660	0.2255	0.1911	0.1619	0.1372	0.1163	0.0985	0.0835			
19%	0.8403	0.7062	0.5934	0.4987	0.4190	0.3521	0.2959	0.2487	0.2090	0.1756	0.1476	0.1240	0.1042	0.0876	0.0736			
20%	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349	0.2791	0.2326	0.1938	0.1615	0.1346	0.1122	0.0935	0.0779	0.0649			
21%	0.8264	0.6830	0.5645	0.4665	0.3855	0.3186	0.2633	0.2176	0.1799	0.1486	0.1228	0.1015	0.0839	0.0693	0.0573			
22%	0.8197	0.6719	0.5507	0.4514	0.3700	0.3033	0.2486	0.2038	0.1670	0.1369	0.1122	0.0920	0.0754	0.0618	0.0507			
23%	0.8130	0.6610	0.5374	0.4369	0.3552	0.2888	0.2348	0.1909	0.1552	0.1262	0.1026	0.0834	0.0678	0.0551	0.0448			
24%	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751	0.2218	0.1789	0.1443	0.1164	0.0938	0.0757	0.0610	0.0492	0.0397			
25%	0.8000	0.6400	0.5120	0.4096	0.3277	0.2621	0.2097	0.1678	0.1342	0.1074	0.0859	0.0687	0.0550	0.0440	0.0352			

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

RATE	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15	15	15
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986	10.3797			
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2098	6.8017	7.3601	7.8869	8.3838	8.8527	9.2950	9.7122			
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5152	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079			
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2064	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595			
9%	0.9174	1.7591	2.5313	3.2397	3.8897	4.4859	5.0330	5.5348	5.9952	6.4177	6.8052	7.1607	7.4869	7.7862	8.0607			
10%	0.9091	1.7355	2.4869	3.1699	3.7908	4.3553	4.8684	5.3349	5.7590	6.1446	6.4951	6.8137	7.1034	7.3667	7.6061			
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2065	6.4924	6.7499	6.9819	7.1909			
12%	0.8929	1.6901	2.4018	3.0373	3.6048	4.1114	4.5638	4.9676	5.3282	5.6502	5.9377	6.1944	6.4235	6.6282	6.8109			
13%	0.8850	1.6681	2.3612	2.9745	3.5172	3.9975	4.4226	4.7988	5.1317	5.4262	5.6869	5.9176	6.1218	6.3025	6.4624			
14%	0.8772	1.6467	2.3216	2.9137	3.4331	3.8887	4.2883	4.6389	4.9464	5.2161	5.4527	5.6603	5.8424	6.0021	6.1422			
15%	0.8696	1.6257	2.2832	2.8550	3.3522	3.7845	4.1604	4.4873	4.7716	5.0188	5.2337	5.4206	5.5831	5.7245	5.8474			
16%	0.8621	1.6052	2.2459	2.7982	3.2743	3.6847	4.0386	4.3436	4.6065	4.8332	5.0286	5.1971	5.3423	5.4675	5.5755			
17%	0.8547	1.5852	2.2096	2.7432	3.1993	3.5892	3.9224	4.2072	4.4506	4.6586	4.8364	4.9884	5.1183	5.2293	5.3242			
18%	0.8475	1.5656	2.1743	2.6901	3.1272	3.4976	3.8115	4.0776	4.3030	4.4941	4.6560	4.7932	4.9095	5.0081	5.0916			
19%	0.8403	1.5465	2.1399	2.6386	3.0576	3.4098	3.7057	3.9544	4.1633	4.3389	4.4865	4.6105	4.7147	4.8023	4.8759			
20%	0.8333	1.5278	2.1065	2.5887	2.9906	3.3255	3.6046	3.8372	4.0310	4.1925	4.3271	4.4392	4.5327	4.6106	4.6755			
21%	0.8264	1.5095	2.0739	2.5404	2.9260	3.2446	3.5079	3.7256	3.9054	4.0541	4.1769	4.2784	4.3624	4.4317	4.4890			
22%	0.8197	1.4915	2.0422	2.4936	2.8636	3.1669	3.4155	3.6193	3.7863	3.9232	4.0354	4.1274	4.2028	4.2646	4.3152			
23%	0.8130	1.4740	2.0114	2.4483	2.8035	3.0923	3.3270	3.5179	3.6731	3.7993	3.9018	3.9852	4.0530	4.1082	4.1530			
24%	0.8065	1.4568	1.9813	2.4043	2.7454	3.0205	3.2423	3.4212	3.5655	3.6819	3.7757	3.8514	3.9124	3.9616	4.0013			
25%	0.8000	1.4400	1.9520	2.3616	2.6893	2.9514	3.1611	3.3289	3.4631	3.5705	3.6564	3.7251	3.7801	3.8241	3.8593			

## ETHICS, GOVERNANCE AND SUSTAINABILITY

Time allowed : 3 hours

Maximum marks : 100

**NOTE:** Answer **ALL** Questions.

### PART — A

#### Question 1

- (a) The 'Tylenol incident' involving Johnson & Johnson was an event that demonstrated how Business ethics is an important aspect of company competitiveness. In 1982, an incident occurred in Chicago causing the death of 7 people who had taken Johnson & Johnson's product, Tylenol. It was later revealed that the cause of the deaths had to do with deadly cyanide put in the capsules by an unknown suspect. But, Johnson & Johnson took immediate and forceful actions, not only conducting a product recall from the entire country and sending their staff to the areas where the deaths occurred, but also openly informing the public about the incident through press release. They went on a large scale informational promotion asking the public not to use the product until the cause of the deaths are fully determined. At the time, the executive managers spent an enormous amount of one hundred million dollars to carry out the product recall, but they managed to maintain the image of an exemplary company of business ethics as they demonstrated their belief of 'people first' to the public.
- (i) In terms of the above case study explain the scope of Business Ethics in following functional areas -
- (a) Compliance;
  - (b) Marketing; and
  - (c) Production. (2 marks each)
- (ii) Define 'credo' and what does Credo of Johnson and Johnson talks about. (4 marks)
- (b) Answer the following in brief :
- (i) An owner selects the agent to work in good faith to protect their interest and remain faithful to their goals. Who do you think are the agents and owners in modern organisations ? (2 marks)
  - (ii) Board should have a proper blend of skills for effective and good corporate governance. Explain. (2 marks)
  - (iii) Which type of a company should have at least one woman director ? (2 marks)
  - (iv) For a successful Board meeting it is important to have a proper Board agenda. What are the key factors for setting the Board agenda ? (2 marks)

(v) *Briefly explain the role of due diligence report in helping to curb occurrence of related party transactions.* (2 marks)

(c) *What is an 'integrity pact' ?* (5 marks)

**Answer 1(a)(i)**

- (a) Ethics in 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. Organisations that have high ethical values comply with the laws not only in letter but go beyond what is stipulated or expected of them. In the given case, Johnson and Johnson have shown a high level of compliance and did beyond what was expected to protect their image. The company issued warnings using the media and advised the consumers not to consume any type of Tylenol product. It withdrew all forms of Tylenol capsules from the market. The company thus put customer safety first before worrying about the profits.
- (b) Marketing ethics deals with the moral principles behind the operation and regulation of marketing. The marketing ethics includes both products and how such products are delivered to the customers. Johnson and Johnson in this case took immediate steps to recall the product and made all efforts to locate the cause of the problem. The company was able to maintain its image by marketing efforts. The marketing team took correct decision and went on a large scale informational promotion to protect the public from any problem.
- (c) Ethics in production deals with the duties of a company to ensure that their products and production processes do not cause harm to society at large. The company should try to produce products of high quality and should not be dangerous to the customers. Johnson and Johnson had realised that there was a defect in their product and therefore they reacted quickly to save any further damage. They were very quick in detecting the problem and worked efficiently to control any further loss to the customers.

**Answer 1(a)(ii)**

Credo is a Latin word which means "a set of fundamental beliefs or a guiding principle." A credo is like a mission statement. It gives the company a reason to exist. It motivates its employees and develops the spirit in them. It is a statement of common values that allows employees to understand the importance of the stakeholders and services provided. It is the force which makes them work together to achieve a consistent high standard.

**Johnson & Johnson :** The Credo of Johnson and Johnson challenges it to put the needs and well-being of the people they serve first. It also speaks about the responsibilities it has to its employees, to the communities in which the company thrives and works and the world community, and to its shareholders. Johnson and Johnson believe that its Credo is a blueprint for long-term growth and sustainability.

**Answer 1(b)(i)**

In modern organisations, the shareholders are the owners of the organisations. The owners set the central objectives of the corporation. Managers who are responsible for



carrying out these objectives in day-to-day work of the company are 'Agents' of the corporation. The owners authorise the managers to act as 'Agents' and a contract between owner/principal and agent is made. The agent should act in good faith. He should protect the interest of the principal and should remain faithful to the goals.

**Answer 1(b)(ii)**

Good governance is the prime concern of the Board. To be able to undertake its functions efficiently and effectively, the Board must possess the necessary blend of qualities, skills, knowledge and experience. Each of the directors should make quality contribution. A Board should have a mix of the following skills, knowledge and experience:

- (i) Operational or technical expertise, commitment to establish leadership;
- (ii) Financial skills;
- (iii) Legal skills; and
- (iv) Knowledge of Government and regulatory requirement or subject expert in which the company is in operation so as that company may get the benefit of director's specialization.

**Answer 1(b)(iii)**

Section 149(1) of the Companies Act 2013 read with Rule (3) of Companies (Appointment and Qualification of Directors) Rules, 2014 provides that following companies should appoint at least one woman director :

- (i) every listed company;
- (ii) every other public company having paid-up share capital of Rs.100 crores or more; or turnover of Rs.300 crore or more.

Regulation 17(1)(a) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 also provides that the Board of Directors of the Listed Entity shall have at least one woman director.

**Answer 1(b)(iv)**

The board agenda determines the issues to be discussed in the Board meeting of an organisation. Key success factors for setting the agenda include:

- (i) Agendas should strike a balance between reviews of past performance and forward-looking issues.
- (ii) Strategic issues require more time for debate so it is a good practice that the allocated discussion time is indicated in the agenda.
- (iii) Normally the agenda in the Board Meeting should include the minutes of the last meeting.
- (iv) Any specific proposals which require the Board's approval / confirmation should be included in the agenda.

**Answer 1(b)(v)**

Section 188 (1) of Companies Act, 2013 provides that except with the consent of

the Board of Directors given by a resolution at a meeting of the Board and subject to such conditions as may be prescribed, no company shall enter into any contract or arrangement with a related party with respect to (a) sale, purchase or supply of any goods or materials; (b) selling or otherwise disposing of, or buying, property of any kind; (c) leasing of property of any kind; (d) availing or rendering of any services; (e) appointment of any agent for purchase or sale of goods, materials, services or property; (f) such related party's appointment to any office or place of profit in the company, its subsidiary company or associate company; and (g) underwriting the subscription of any securities or derivatives thereof, of the company. Hence Due Diligence Report of such transactions has its own importance.

Due diligence report is system of curbing related party transactions from occurring. Audit committee should seek a due diligence report with regard to all proposed material transactions which should highlight potential conflict of interest. Therefore, the companies should have well articulated policies specifying that transactions beyond a certain threshold limits and transactions of certain nature would require a pre-clearance from the audit committee.

### **Answer 1(c)**

The Integrity Pact (IP) is a tool developed by Transparency International (TI) aimed at preventing corruption in public contracting. It consists of a process that includes an agreement between a government or a government department and all bidders 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 is a written agreement between the government/government department and all bidders to refrain from bribery and collusion. Bidders are required to disclose all commissions and similar expenses paid by them to anyone in connection with the contract. If the written agreement is violated then the pact describes the sanctions that shall apply. These may include:

- (i) Loss or denial of contract;
- (ii) Forfeiture of the bid or performance bond and liability for damages;
- (iii) Exclusion from bidding on future contracts (debarment); and
- (iv) Criminal or disciplinary action against employees of the government.

It is a monitoring system that provides for independent oversight and increased government accountability of the public contracting process.

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

### **Question 2**

*Elucidate the following :*

- (a) *Need for corporate governance*
- (b) *Board committees*
- (c) *Code of Conduct*

*(5 marks each)*

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

- (i) *What are different types of directors on a Corporate Board ?*
  - (ii) *Independent directors bring valuable outside perspective and have objective view in Board deliberations. What are the various roles of an independent director?*
  - (iii) *Discuss the duties of the nomination and remuneration committee.*
- (5 marks each)*

**Answer 2(a)**

Corporate Governance is required 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. It helps organisations to achieve and improve-

- (i) Corporate Performance
- (ii) Enhance Investor Trust
- (iii) Better Access to Global Market
- (iv) Combating Corruption
- (v) Enhancing Enterprise Valuation
- (vi) Reduced Risk of Corporate Crisis and Scandals
- (vii) Accountability
- (viii) Efficiency with which a corporation employs assets
- (ix) Ability to attract low-cost capital
- (x) Ability to meet societal expectations

Corporate governance definitely acts as a spirited move towards achievement of excellence by a corporate not only in terms of increased profits and revenue but also respectability for the laws of the land, protection of interests of shareholders, creditors, employees and other stakeholders of the organisation.

**Answer 2(b)**

A board committee is a small working group identified by the board, consisting of board members, for the purpose of supporting the board's work. Committees are a subset of the board, deriving their authority from the powers delegated to them by the board. Committees are generally formed to perform some expertise work. Members of the committee are expected to have expertise in the specified field. Committees are usually formed as a means of improving board effectiveness and efficiency in areas where more focused, specialized and technical discussions are required. These committees prepare the groundwork for decision-making and report at the subsequent Board Meeting. Committees enable better management of Board's time and allow in-depth scrutiny and focused attention.

The board committees may be statutory or non-statutory which work as a means of improving board effectiveness and efficiency where more focused, specialized and technically oriented discussions are required. Following are mandatory committees under the Companies Act 2013 :

- Audit Committee
- Nomination and Remuneration Committee
- Stakeholders' Relationship Committee
- Corporate Social Responsibility Committee

SEBI (LODR) Regulations 2015 also provides for the constitution of Risk Management Committee.

Companies depending upon the need may have non mandatory committees like:

- Corporate Governance Committee
- Regulatory compliance & Govt Affairs Committee
- Strategies Committee
- Capital Expenditure (Capex) Committee
- HR Committee
- Project Appraisal Committee

### **Answer 2(c)**

The Code of Conduct or the Code of Business Conduct contains standards of business conduct that must guide actions of the Board of Directors and Senior Management of the company. A code of conduct is a written document that may contain some inspiration statements but usually specifies acceptable or unacceptable types of behavior. A code of conduct is more akin to a regulatory set of rules and as such tends to elicit less debate about specific actions. The code of conduct may include the following:

- Company Values
- Avoidance of Conflict of Interests
- Accurate and timely disclosure in reports and documents that the company files before Government agencies as well as in the company's other communications
- Compliance of applicable laws, rules and regulations including Insider Trading Regulations
- Maintaining confidentiality of the company affairs
- Standards of business conduct for the company's customers, communities, suppliers, shareholders, competitors, employees
- Prohibition for the Directors and senior management from taking corporate opportunities for themselves or their families

- Review of the adequacy of the Code annually by the Board
- No authority to waive off the Code should be given to anyone in any circumstances.

Regulation 17(5) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 provides that the board shall lay down a code of conduct for all Board members and senior management of the Listed Entity. The code of conduct shall be posted on the website of the Listed Entity. All Board members and senior management personnel shall affirm compliance with the code on an annual basis. The Annual Report of the Listed Entity shall contain a declaration to this effect signed by the CEO.

The Code of Conduct of a company shall suitably incorporate the duties of Independent Directors as laid down in the Section 149(8) of the Companies Act, 2013 which provides that the company and the Independent Directors shall abide by the provisions specified in Schedule IV.

#### **Answer 2A(i)**

As per Section 2(34) of the Companies Act, 2013, Director means a director appointed to the Board of a Company. Some of the types of directors on a Corporate Board are as under -

- Executive Director/Managing Director* : The term executive director is usually used to describe a person who is both a member of the board and who also has day to day responsibilities in respect of the affairs of the company. According to Section 2(54) of the Companies Act, 2013 "managing director" means a director who, by virtue of articles of a company or an agreement with the company or of a resolution passed by the company in general meeting or by its Board of directors, is entrusted with substantial powers of management of the affairs of the company and includes a director occupying the position of a managing director, by whatever name called.
- Non Executive Director* : They are not in the employment of the company. They are the members of the Board, who normally do not take part in the day-to-day implementation of the company policy. They are generally appointed to provide the company with the benefits of professional expertise and outside perspective to the board.
- Shadow Director* : 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.
- Woman Director* : Second Proviso to section 149 of the Companies Act, 2013 read with Rule 3 of Companies (Appointment and Qualification of Directors) Rules, 2014, prescribes that every listed company and every other public company having paid-up share capital of one hundred crore rupees or more; or turnover of three hundred crore rupees or more shall appoint at least one Woman director.
- Resident Director* : Section 149 (3) of the Act has provided for residence of a director in India as a compulsory i.e. every company shall have at least one

director who has stayed in India for a total period of not less than 182 days in the previous calendar year.

- (vi) *Independent Directors* : Section 149(4) of the Companies Act, 2013 read with Rule 4 of the Companies (Appointment and Qualification of Directors) Rules, 2014 provides that every listed company shall have at least one-third of the total number of directors and the following class or classes of Companies shall have at least two directors as Independent Directors-
- The Public Companies having paid up share capital of ten crore rupees or more; or
  - The Public Companies turnover of one hundred crore rupees or more; or
  - The Public Companies which have, in aggregate, outstanding loans, debentures and deposits, exceeding fifty crore rupees.
- Section 149(6) of Companies Act, 2013 defines Independent Director.
- (vii) *Nominee Director*: A nominee director belongs to the category of non-executive director and is appointed on behalf of an interested party.
- (viii) *Lead Independent Director*: Internationally, it is considered a good practice to designate an independent director as a Lead Independent Director or Senior Independent Director. He coordinates the activities of other non-employee directors and advises the chairman on issues ranging from the schedule of board meetings to recommending retention of advisors and consultants to the management.
- (ix) *Small Shareholders Director*: A listed Company may have one director elected by small shareholders. Such director may be appointed upon notice of not less than 1000 shareholders or 1/10th of the total shareholders, whichever is lower.
- (x) *Additional Director* : Section 161(1) of the Companies Act, 2013 provides that any person, other than a person who fails to get appointed as a director in a general meeting may be appointed as an additional director at any time who shall hold office up to the date of the next annual general meeting or the last date on which the annual general meeting should have been held, whichever is earlier.

### **Answer 2A(ii)**

#### **Role of Independent Director**

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

- (i) To ensure un-biased, independent judgment in the Board meetings relating to all the key issues.

- (ii) To make critical evaluation of the performance of Board and Management in the best interest of the Company and overall stakeholders.
- (iii) To scrutinize the effect of key strategies for achievement of desired goals and provide critical analysis of possible shortcomings.
- (iv) To ensure integrity of financial information, financial controls, audit mechanisms and the effective risk management system.
- (v) Being an outsider to the company, he should consider the interest of minority shareholders.
- (vi) Balance the often conflicting interests of the stakeholders
- (vii) Facilitate withstanding and countering pressures from owners
- (viii) Fulfil a useful role in succession planning
- (ix) Act as a coach and mentor for their other colleagues
- (x) Provide independent judgment and wider perspectives on various issues

**Answer 2A(iii)****Duties of the Nomination and Remuneration Committee**

The duties have been prescribed in Section 178 of the Companies Act, 2013 and Regulation 19 of SEBI LODR Regulations, 2015. The duties of the Nomination and Remuneration Committee include:

- Formulation of the criteria for determining qualifications, positive attributes and independence of a director and recommend to the Board a policy, relating to the remuneration of the directors, key managerial personnel and other employees;
- Formulation of criteria for evaluation of Independent Directors and the Board;
- Devise a policy on Board diversity;
- Identify persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down, and recommend to the Board their appointment and removal. The company shall disclose the remuneration policy and the evaluation criteria in its Annual Report.

**Question 3**

- (a) *Investors must be safeguarded not only against frauds and cheating but also against the losses arising out of unfair practices, What are the SEBI's regulations for investors' protection in India ?* (5 marks)
- (b) *"Shareholders can ensure that the company follows good corporate governance practices and implements beneficial policies." Discuss shareholder's activism.* (5 marks)
- (c) *What are the expectations from institutional shareholders ? What are the principles of good governance for the institutional investors ?* (5 marks)

**Answer 3(a)**

One of the important objectives of the SEBI is to provide a degree of protection to the investors and to safeguard their rights, steady flow of savings into market and to promote the development and regulation of the securities market. Investors should be safeguarded not only against frauds and cheating but also against the losses arising out of unfair practices like deliberate misstatement in offer statements to investors, price manipulations or insider trading.

SEBI has issued many guidelines and regulations to regulate the capital market and to protect the investors. Some of these guidelines are:

- SEBI (Ombudsman) Regulation 2003 – designed to redress the investor's grievance against listed companies or intermediaries or both for amicable settlement
- SEBI (Prohibition of fraudulent and unfair Trade Practices relating to securities market) Regulations 2003 – to prohibit any fraudulent and unfair Trade Practices relating to securities market
- SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009
- SEBI (Investor Protection and Education Fund) Regulations, 2009 to establish an Investor Protection and Education Fund which will be used inter-alia, for "aiding investors".
- SEBI (Prohibition of Insider Trading) Regulations 2015. The basic objective is to prohibit persons who have more access to company's information which can be used to benefit the individual or group of individual or agency.

In addition to the above, SEBI has also set up a separate cell to address the grievances of investors – SEBI Complaints Redressal System (SCORES).

**Answer 3(b)**

Shareholder activism refers to the active involvement of shareholders in their organization. The shareholder activism means-

- Establishing dialogue with the management on issues that concern the organisation
- Influencing the corporate culture
- Using the corporate democracy provided by law
- Increasing general awareness on social and human rights issues concerning the organization.

Shareholder activism can be exercised through proxy battles, publicity campaigns, shareholder resolutions, litigation and negotiations with management. 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. Active participation in company meetings is a healthy practice.



Shareholders must realize that their active participation in the company's operations ensures-

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

### Answer 3(c)

Institutional shareholders/investors are financial institutions that accept funds from third parties for investment in their own name but on behalf of such third parties. They include pension funds, mutual funds and insurance companies. The institutional investors/shareholders can effectively use their power to influence the standard of corporate governance. They are expected to-

- Take active interest in the composition of the Board of Directors
- Be vigilant
- Maintain regular and systematic contact at senior level for exchange of views on management, strategy, performance and the quality of management.
- Ensure that voting intentions are translated into practice.
- Evaluate the corporate governance performance of the company.

The UK Stewardship Code provides following seven principles of good governance for the institutional investors-

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

### Question 4

- (a) *"The committees are a sub-set of the Board, deriving their authority from the powers delegated to them by the Board." In the light of above statement, discuss the need and advantage of committee management. (5 marks)*

- (b) *The Organisation of Economic Co-operation and Development (OECD) was established in 1961. The OECD was one of the first non-government organisations to spell out the principles that should govern corporate. What are the existing OECD principles of corporate governance ? (5 mark)*
- (c) *"The central element in corporate governance is the challenges arising out of separation of ownership and control. The shareholders are the true owners of a corporate and the governance function controls the operations of the corporate. There is a strong likelihood that there is mismatch between the expectations of the shareholders and the actions of management". In the light of above statement, enumerate the core principles of accountable corporate governance. (5 marks)*

#### **Answer 4(a)**

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

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

The board must identify the requirements of the committee to support its work and responsibilities. As such, it lays down the terms of reference for each committee so created. The terms of reference comprise a clear statement which describes the purpose of the committee, its membership composition, authority, major areas of responsibility and reporting mechanism to the board. Greater specialization and intricacies of modern board work is one of the reasons for increased use of board committees. Some advantages of committees include:

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

#### **Answer 4(b)**

The OECD Principles of Corporate Governance set out a framework for good practice which was agreed by the Governments of all countries that are members of the OECD. They were designed to assist Governments and Regulatory bodies in both OECD countries and elsewhere in drawing up and enforcing effective rules, regulations and codes of corporate governance. The OECD Principles of Corporate Governance are:

- I. *Ensuring the Basis for an Effective Corporate Governance Framework* : The corporate governance framework should promote transparent and efficient

markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities.

- II. *The Rights of Shareholders and Key Ownership Functions* : The corporate governance framework should protect and facilitate the exercise of shareholders' rights.
- III. *The Equitable Treatment of Shareholders* : The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.
- IV. *The Role of Stakeholders in Corporate Governance* : The corporate governance framework should recognise the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.
- V. *Disclosure and Transparency* : The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.
- VI. *The Responsibilities of the Board* : The corporate governance framework should ensure the strategic guidance to the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

#### **Answer 4(c)**

There are many features that are important considerations in the continuing evolution of corporate governance best practices. CalPERS which is the largest U.S. public pension fund has provided Core Principles which should be adopted by companies and markets in order to establish the foundation for achieving long-term sustainable investment returns through accountable corporate governance structures.

These core principles of accountable corporate governance are-

- (i) *Sustainability* : Companies and external managers are expected to optimize operating performance, profitability and investment returns in a risk-aware manner and with a responsible conduct.
- (ii) *Director Accountability* : Directors should be accountable to shareowners, and management accountable to directors.
- (iii) *Transparency* : Operating, financial, and governance information about the companies must be readily transparent to permit accurate market comparisons.
- (iv) *One-share/One-vote* : All investors must be treated equitably and upon the principle of one-share/one vote.
- (v) *Proxy Materials* : Proxy materials should be written in a manner designed to provide shareowners with the information necessary to make informed voting decisions.

- (vi) *Code of Best Practices* : Code of Best Practices should be followed to promote transparency of information, prevention of harmful labor practices, investor protection, and corporate social responsibility.
- (vii) *Long-term Vision* : Corporate directors and management should have a long-term strategic vision that, at its core, emphasizes sustained shareowner value and effective management of both risk and opportunities in the oversight of financial, physical, and human capital.
- (viii) *Access to Director Nominations* : Shareowners should have effective access to the director nomination process.
- (ix) *Political Stability* : Progress toward the development of basic democratic institutions and principles, including such things as: a strong and impartial legal system; and, respect and enforcement of property and shareowner rights.

### PART – B

#### Question 5

- (a) *"The term Corporate Social Responsibility refers to the concept of business being accountable for how it manages the impact of its processes on stakeholders and takes responsibility for producing a positive effect on society". What are the factors influencing corporate social responsibility ? (5 marks)*
- (b) *"Sustainable development is a broad concept that balances the need for economic growth with environmental protection and social equity". Define sustainable development and its principles. (5 marks)*
- (c) *What is stakeholder inclusiveness ? (5 marks)*

#### Answer 5(a)

Some of the factors influencing CSR are:

- (i) Globalization coupled with focus on cross-border trade, multinational enterprises and global supply chains is increasingly raising CSR concerns relating to Human Resource Management practices, environmental protection, and health and safety, among other things.
- (ii) Governments and Intergovernmental bodies, such as the United Nations, the OECD and the International Labour Organization have developed compacts, declarations, guidelines, principles and other instruments that outline social norms for acceptable conduct.
- (iii) Advances in communication technology, such as the internet, cellular phones and personal digital assistants, are making it easier to track corporate activities and disseminate information about them.
- (iv) Consumers and investors are showing increased interest in supporting responsible business practices and are demanding more information on how companies are addressing risks and opportunities related to social and environmental issues.
- (v) Numerous serious and high-profile breaches of corporate ethics have contributed to elevated public mistrust of corporations and highlighted the need for improved corporate governance, transparency, accountability and ethical standards.

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

### **Answer 5(b)**

Sustainable development essentially refers to the process of maintenance of the quality of environmental and social systems in the pursuit of economic development. It is a broad concept and it combines economics, social justice, environmental science and management, business management, politics and law. Sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. The Brundtland Report first introduced the concept.

Four fundamental Principle of Sustainable Development agreed by the world community are:

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

### **Answer 5(c)**

Stakeholder Inclusiveness is one of the four core principles in the GRI G4 Guidelines that help to define report content that is material to the reporting organization and its stakeholders.

Stakeholders are defined as entities or individuals that can reasonably be expected to be significantly affected by the organization's activities, products, and/or services; and whose actions can reasonably be expected to affect the ability of the organization to successfully implement its strategies and achieve its objectives. This include entities or individuals whose rights under law or international conventions provide them with legitimate claims vis-à- vis the organization.

Stakeholders are individuals or groups that have interests, rights, or ownership in an organization and its activities. These may be divided in two groups:

- *Primary Stakeholders*: Customers, suppliers, employees and shareholders are examples of primary stakeholders groups.

- *Secondary stakeholders* : Secondary stakeholders include Governments (especially through regulatory agencies), Unions, Non-Governmental Organizations (NGOs) activities, political action groups, and the media.

Since the stakeholders for an organization are scattered and there may be variation in their expectation and interest, stakeholder engagement processes can serve as tools for understanding the reasonable expectations and interests of stakeholders. The reasonable expectations and interests of stakeholders are a key reference point for many decisions in the preparation of the sustainability report. The organization should identify its stakeholders, and explain how it has responded to their reasonable expectations and interests.

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

**Question 6**

*Answer the following :*

- Why CSR at all ?*
- What are different stages of KYOSEI ?*
- What are the key drivers of sustainability reporting ?* (5 marks each)

***OR (Alternate question to Q.No. 6)***

**Question 6A**

- "Report content should be balanced and reasonable presentation of the organisation's performance." In the light of above statement, discuss the steps to use the GRI Reporting Framework.*
- Since the sustainability reporting is relatively a new concept, many organisations find it difficult to prepare. What are the challenges in mainstream sustainability reporting ?*
- The Convention on Biological Diversity, known informally as the Biodiversity Convention, is an international treaty that was adopted in Rio de Janeiro in June, 1992. What were the goals of the convention ?* (5 marks each)

**Answer 6(a)**

Business cannot exist in isolation; business cannot be oblivious to societal development. The social responsibility of business can be integrated into the business purpose so as to build a positive synergy between the two. CSR is important because of following reasons-

- CSR creates a favourable public image, which attracts customers. Organizations that perform well with regard to CSR can build reputation. Brand equity, is based on values such as trust, credibility, reliability, quality and consistency.
- CSR activities builds up a positive image encouraging social involvement of employees, which in turn develops a sense of loyalty towards the organization, helping in creating a dedicated workforce which is proud of its company.
- Society gains through better employment opportunities, while the organisation

benefits from a better community, which are the main source of its workforce and the consumer of its products.

- (iv) The company's social involvement discourages excessive regulation or intervention from the Government or Statutory bodies, and hence gives greater freedom and flexibility in decision-making.
- (v) A business organisation has a great deal of power and money, entrusted upon it by the society and should be accompanied by an equal amount of responsibility. In other words, there should be a balance between the authority given to organisations and responsibility towards the society.
- (vi) The good public image secured by one organisation by their social responsiveness encourages other organizations in the neighborhood or in the professional group to adapt themselves to achieve their social responsiveness.
- (vii) The atmosphere of social responsiveness encourages co-operative attitude between groups of companies.
- (viii) Companies can better address the grievances of its employees and create employment opportunities for the unemployed.
- (ix) In a number of jurisdictions, Governments have expedited approval processes for firms that have undertaken social and environmental activities beyond those required by regulation. In India, Section 135 of the Companies Act, 2013 has provided for mandatory Corporate Social Responsibility to certain class of companies.

### **Answer 6(b)**

KYOSEI is a Japanese technique meaning "a spirit of cooperation". In simple words, it may mean 'the living and working together for the common good'. However, in broad sense it may be defined as "All people, regardless of race, religion or culture, harmoniously living and working together into the future."

KYOSEI works in five stages. In the first stage of KYOSEI, a company must work to secure a predictable stream of profits and to establish strong market positions. At this stage a corporate is at the stage of evolution and it is concerned with profit making and its economic survival. Stakeholder's benefits are not a major concern area.

From this foundation, it moves on to the second stage, in which managers and workers resolve to cooperate with one another, recognizing that both groups are vital to the company's success. Managers and workers unite in working for the prosperity of the corporation and both have a share in the profits.

In the third stage, this sense of cooperation is extended beyond the company to encompass customers, suppliers, community groups, and even competitors. At this stage company assumes local social responsibilities. Companies respect the interests of their own stakeholders, customers, staff, shareholders, suppliers, competitors and the local community.

At the fourth stage, a company takes the cooperative spirit beyond national boundaries and addresses some of the global imbalances. At this stage company assumes global social responsibilities. It begins to take care of all its direct stakeholders, including its local community and beyond. Thus it strives to fulfill its corporate obligations on a global scale.

In the fifth stage, which companies rarely achieve, a company urges its national government to work towards rectifying global imbalances. At the global level KYOSEI will address Trade imbalances, Income imbalances and Environmental imbalances by advocating political, economic and educational reform.

### **Answer 6(c)**

Sustainability reporting is a process of publicly disclosing an organization's economic, environmental, and social performance. Many companies find that financial reporting alone no longer satisfies the shareholders, customers, communities and other stakeholders needs for information about overall organizational performance. Through sustainability reporting, organizations report on progress against performance goals not only for economic achievements, but for environmental protection and social well-being. Some of the key drivers of sustainability reporting are-

- (i) *Regulations* : Governments, at most levels have stepped up the pressure on corporations to measure the impact of their operations on the environment. Legislation is becoming more innovative and is covering an ever wider range of activities. The most notable shift has been from voluntary to mandatory sustainability, monitoring and reporting.
- (ii) *Customers* : Public opinion and consumer preferences are a more abstract but powerful factor that exerts considerable influence on companies, particularly those that are consumer oriented.
- (iii) *Loyalty* : This factor has led the firms to provide much more information about the products they produce, the suppliers who produce them, and the product's environmental impact starting from creation to consumption.
- (iv) *NGO's and the Media* : Public reaction comes not just from customers but from advocates and the media, who shape public opinion.
- (v) *Employees* : Those who work for a company bring particular pressure to bear on how their employers behave; they, too, are concerned citizens beyond their corporate roles.
- (vi) *Peer pressure from other companies* : Each company is part of an industry, with the peer pressures and alliances that go along with it. Matching industry standards for sustainability reporting can be a factor; particularly for those who operate in the same supply chain and have environmental or social standards they expect of their partners.
- (vii) *Companies themselves* : Corporations, as public citizens, feel their own pressure to create a credible sustainability policy, with performance measures to back it up, but with an eye on the bottom line as well. Increasingly, stakeholders are demanding explicit sustainability reporting strategies and a proof of the results.
- (viii) *Investors*: Increasingly, investors want to know that companies they have targeted have responsible, sustainable, long-term business approaches. Institutional investors and stock exchange CEOs, for example, have moved to request increased sustainability reporting from listed companies, and environmental, social and corporate governance indices have been established such as the Dow Jones Sustainability Index.



**Answer 6A(i)**

The Global Reporting Initiative (GRI) had launched the fourth generation of its sustainability reporting guidelines: the GRI G4 Sustainability Guidelines (the Guidelines) in 2013. The aim of G4, is to help reporters prepare sustainability reports that contain valuable information about the organization's most critical sustainability-related issues, and make such sustainability reporting standard practice.

G4 is applicable to all organizations, large and small, across the world. The Guidelines are now presented in two parts to facilitate the identification of reporting requirements and related guidance. It consist of following two parts-

Part 1- Reporting Principles and Standard Disclosures: It contains the reporting principles and standard disclosures and also sets out the criteria to be applied by an organization to prepare its sustainability report in accordance with the Guidelines.

Part 2 - Implementation Manual: It contains reporting and interpretative guidance that an organization should consult when preparing its sustainability report.

There are two different types of Standard Disclosures. The General Standard Disclosures are applicable to all organizations preparing sustainability reports. The General Standard Disclosures are divided into seven parts:

- Strategy and Analysis
- Organizational Profile
- Identified Material Aspects and Boundaries
- Stakeholder Engagement
- Report Profile
- Governance
- Ethics and Integrity

The Guidelines organize Specific Standard Disclosures into three Categories - Economic, Environmental and Social. The Reporting Principles for Defining Report Content have been designed to assist organizations in identifying material Aspects and their Boundaries and to indicate where their impacts may be identified as material. It does not focus on the financial condition of the organization.

**Answer 6A(ii)**

Some of the challenges in mainstreaming sustainability reporting are-

1. *Government Encouragement* : In many jurisdictions, there are no guidelines on sustainability reporting to encourage the corporate sector. It is the need of the hour that Governments should encourage the corporate in their jurisdiction to adopt the sustainability reporting as a measure of good corporate governance.
2. *Awareness* : Lack of awareness about the sustainability reporting is also a major challenge which the Government and Corporate Governance bodies need to address by arranging the sustainability awareness programme for the

Professionals, Board of Directors and Management in the corporate sector, as these are the persons who will drive sustainability reporting initiative for an organisation. The government/regulators should organize such awareness programme jointly with the experts in the field of Sustainability Reporting.

3. **Expertise Knowledge:** The professional bodies in various jurisdictions should impart the expert knowledge of sustainability reporting to their members to develop a good cadre of experts in this emerging area of sustainability reporting.
4. **Investor Behaviour:** It is a recognized principle that investors should consider the Environmental, Social and Governance (ESG) issues while making investment decisions. There are specific regulators guidelines for the institutional investor to be vigilant on voting aspects and be concerned about the governance practices of the companies in which they invest. It should be a practice that the investor fund flow to those organization following the good governance including reporting on sustainability aspects.

#### **Answer 6A(iii)**

The Convention on Biological Diversity which was signed by Government leaders at the 1992 Rio Earth Summit is dedicated to promoting sustainable development. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the Convention recognizes that biological diversity is about more than plants, animals and micro organisms and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live. Its objective is to develop national strategies for the conservation and sustainable use of biological diversity. It is often seen as the key document regarding sustainable development.

It has the following 3 main objectives:

- (i) The conservation of biological diversity
- (ii) The sustainable use of the components of biological diversity
- (iii) The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

Some of the issues dealt within the convention include:

- Measures and incentives for the conservation and sustainable use of biological diversity.
- Regulated access to genetic resources and traditional knowledge, including Prior Informed Consent of the party providing resources.
- Sharing, in a fair and equitable way, the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources (governments and/or local communities providing the traditional knowledge or biodiversity resources utilized).
- Access to and transfer of technology, including biotechnology, to the governments and/or local communities that provide traditional knowledge and/or biodiversity resources.

- Technical and scientific cooperation.
- Impact assessment.
- Education and public awareness.
- Provision of financial resources.
- National reporting on efforts to implement treaty commitments.

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