# GUIDELINE ANSWERS

## PROFESSIONAL PROGRAMME

DECEMBER 2019

MODULE 2

THE INSTITUTE OF
Company Secretaries of India
भारतीय कम्पनी सचिव संस्थान
IN PURSUIT OF PROFESSIONAL EXCELLENCE
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## C O N T E N T S

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**MODULE 2**

**PROFESSIONAL PROGRAMME EXAMINATION**

DECEMBER 2019

# INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

*Time allowed : 3 hours* *Maximum marks : 100*

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

**Question 1**

*PQR Ltd. is a logistic service provider company, having presence at different locations in India as well as abroad. The company has been facing a lot of challenges due to its complex technical infrastructure and out-dated legacy applications, including poor information system management. The employees of the company have also been facing a lot of issues in using the existing software systems. The poor quality of information resources and absence of proper information for strategic planning are leading to wastage of resources of the company and thus affecting the reputation of the company in the market. After a lot of deliberations with the stakeholders and with a consulting firm, the management of the company decided to adopt new IT enabled infrastructure including adoption of cloud computing services. Based on the above, attempt the following :*

*(a) Discuss any five (5) features of 'Information'. (5 marks)*

*(b) Briefly explain any five (5) characteristics of the information required for Strategic planning. (5 marks)*

*(c) Explain the encryption requirements during the transit and the storage of restricted data, as a part of data handling security measures to be taken by PQR Ltd. (5 marks)*

*(d) Define 'Cloud Computing'. Mention any two (2) features of cloud computing and also list out any four (4) uses of cloud computing. (1+2+2=5 marks)*

**Answer 1(a)**

Features of information are as under:

1. **Relevancy** : The information so generated should be relevant to the context for which it is collated. Too much or irrelevant information may confuse the intended user, so it is necessary to generate only relevant information. A good way of ensuring relevance of information is to closely define the objectives of any information reports.

2. **Up-to-date** : Information needs to be timely if it is to be acted upon within the stipulated deadline. If we do not have timely information then it is of no use. To improve the speed with which information is produced, businesses usually need to look at upgrading or replacing their information systems.

3. **Accuracy** : As far as possible, information should be free from errors (e.g. the figures add up; data is allocated to the correct categories). The users of

information should be informed whenever assumptions or estimates have been used.

4. **Meet the needs of the User** : Since different users have different information needs, the information provided to them should be tailored according to their specific requirements.

5. **Concise and User Friendly** : Information should be presented clearly and concisely (e.g. use summaries, charts etc.) and not too long. It also needs to be communicated using an appropriate medium (e.g. email, printed report, presentation. Businesses should also consider developing "templates" which are used consistently throughout the organization so that users get used to seeing information in a similar style.

6. **Cost effective** : Quite often the cost aspect is ignored but it's a fact that generation of information involves cost. Data is costly to collect, analyze and report. Information takes time to read and assimilate. All users should question whether the information they receive/ have requested is worthwhile.

7. **Reliable** : Information should come from authentic sources. It is good practice to quote the source referred i.e. whether it is internal or external sources. If estimates or assumptions have been applied, these should be clearly stated and explained.

8. **Completeness** : Information should contain all the details required by the user. Otherwise, it may not be useful as the basis for making a decision. For example, if an organisation is supplied with information regarding the costs of supplying a fleet of cars for the sales force, and servicing and maintenance costs are not included, then a costing based on the information supplied will be considerably underestimated. Ideally all the information needed for a particular decision should be available.

**Answer 1(b)**

Characteristics of Information required for Strategic Planning are as under:

1. **Ad hoc Basis** : The information may be produced either regularly or periodically. For example, top management uses reports pertaining to periodic accounting system reports such as, the income statement, balance sheet, statement of sources and uses of funds, and capital statements in its planning functions. However, strategic planning information is more often produced when it is needed, on an ad hoc basis.

2. **Unexpected Information** : The information produced by the system may not be the same that was anticipated. For example, information relating to economic forecast may be requested for the economy as a whole and for the industry in particular. The result of the economic forecast may be a surprise to the organization planners.

3. **Predicted nature** : The information produced is usually predictive of the future events rather than descriptive of past events. Strategic planners try to set a course for an organization through an uncharted future. Their primary task is to choose a route that will improve the organization's level of success.

4. **Summary Form** : The information produced is usually not detailed but in summary form. Long range planners are not usually interested in detailed information; they are concerned with more global data. For example strategic planners may not be interested in the customer invoices but overall buying trends for their product vis-à-vis the product of the competitors.

5. **External Data** : A large part of data used for input to the system is acquired from the external sources. To mention, rate of borrowed capital, investment opportunities, demographic characteristics of a market group, and economic conditions etc. and the example of this type of information.

6. **Unstructured format** : The data used for input to the system may contain data that are unstructured in format. For example: forecasts of future stock market trends may be using the opinions of stock buyers, sales people, or market analysts obtained in casual conversations.

7. **Subjectivity** : The input to the system may be highly subjective in nature.

**Answer 1(c)**

Encryption requirement are as under:

**1. Transit encryption** : Restricted data must be encrypted during transmission with a method that meets the following requirements:

(i) Cryptographic algorithm(s) are listed in FIPS 140-2 Annex A, the list of approved security functions.

(ii) Cryptographic key lengths meet best practices for length, given current computer processing capabilities.

(iii) Both the source and destination of the transmission must be verified.

**2. Storage encryption** : Restricted data must be encrypted using strong, public cryptographic algorithms and reasonable key lengths given current computer processing capabilities. Keys must be stored securely, and access to them provided on a least-privilege basis (see ISO 11568 for recommendations on securing keys). If one-way hashing is used in lieu of reversible encryption, salted hashes must be used. Possible encryption scenarios are:

(i) Encrypt files containing restricted data using different keys or passwords than those used for system login.

(ii) Encrypt data stored in databases at the column-level.

(iii) In addition to file and/or database encryption, implement full-disk encryption on portable devices containing restricted data.

**Answer 1(d)**

Cloud computing is a general term for anything that involves delivering hosted services over the Internet. It is therefore is a term used to describe a new class of network based computing that takes place over the Internet. Cloud computing in other words is the delivery of different services through the Internet. These resources include tools and applications like data storage, servers, databases, networking, and software.

Its features are:

1. It is basically a step on from Utility Computing
2. Cloud computing allows for pooling for resources to allow delivery of services to multiple customers.
3. It is a collection/group of integrated and networked hardware, software and Internet infrastructure (called a platform).
4. It is delivered using the Internet for communication and transport provides hardware, software and networking services to clients
5. The servers are easily maintained and the downtime is very low and even in some cases, there is no downtime. Cloud Computing comes up with an update every time by gradually making it better.
6. The capabilities of the Cloud can be modified as per the use and can be extended a lot.

**Uses of Cloud Computing**

1. Rapid Service
2. Secure Service
3. Satisfying User Experience
4. Lower Costs
5. Multi-User Access
6. Development Platform
7. Infinite Storage
8. File storage
9. Utility
10. Mobility
11. Data analytics
12. Backup

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

**Question 2**

*(a) Counter measure is a procedure that recognizes, reduces or eliminates a threat. Briefly discuss the counter measures that can be adopted for different type of E-commerce threats.*

*(b) In spite of the advantages of using a Database Management System (DBMS), there are a few situations or circumstances in which use of regular files is more desirable than DBMS. Write down such circumstances.*

*(c) Explain the importance of Documentation in Program development.*

*(d) Briefly mention the provisions of penalty as stipulated under section 72 of IT Act, 2000 for breach of confidentiality and section 73 of IT Act, 2000 for publishing false electronic signature certificate.* *(4 marks each)*

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

**Question 2A**

*Distinguish between the following :*

*(i) Vacuum Tube and Transistors*

*(ii) UDP and HTTP Protocol*

*(ii) Procedural Programming and Event Driven Programming*

*(iv) RAM and ROM* *(4 marks each)*

**Answer 2(a)**

Counter measure is a procedure that recognizes, reduces, or eliminates a threat. The counter measure adopted for different type of E-commerce threats are as under:

1. Intellectual property protection
   – Through Legislature & Authentication
2. Client computer protection
   (a) Privacy: Cookie blockers
   (b) Digital certificate
   (c) Browser protection
   (d) Antivirus software
   (e) Computer forensics expert
3. Communication channel protection
   (a) Use of Encryption
   (b) Use of Secure Sockets Layer (SSL)
   (c) Use of Secure Hyper Text Transfer Protocol (S-HTTP)
   (d) Use of Digital signature
4. Server protection
   (a) Access control and authentication
      (i) Digital signature from user
      (ii) Username and password
      (iii) Access control list
   (b) Firewalls

**Answer 2(b)**

In spite of the advantages of using a Database management system (DBMS), there are few situations in which such a system may involve unnecessary overhead costs, as that would not be incurred in traditional file processing.

The overhead costs of using a DBMS are due to the following:

1. High initial investment in hardware, software, and training
2. Generality that a DBMS provides for defining and processing data
3. Overhead for providing security, concurrency control, recovery, and integrity functions.

Additional problems may arise, if the database designers and DBA do not properly design the database or if the database systems applications are not implemented properly.

Hence, it may be more desirable to use regular files under the following circumstances:

1. The database and applications are simple, well defined and not expected to change.
2. There are tight real-time requirements for some programs that may not be met because of DBMS overhead.
3. Multiple user access to data is not required.
4. An application may need to manipulate the data in a way not supported by the query language.
5. Migrating the data is an easy process in traditional file processing.

**Answer 2(c)**

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

**Answer 2(d)**

Section 72 of the Information Technology Act, 2000 provides a punishment for breach of confidentiality and privacy of electronic records, books, information etc. by a person who has access to them without the consent of the person to whom they belong with imprisonment for a term which may extend to 2 years or with a fine which may extend to Rs. 1 lakh or with both.

Section 73 of Information Technology Act, 2000 provides punishment for an Electronic signature Certificate with false/fake particulars or otherwise making it available to any other person with imprisonment for a term which may extend to 2 years or with fine which may extend to Rs. 1 lakh or with both.

**Answer 2A(i)**

**Vacuum Tube and Transistors**

Vacuum tubes were used in first generation computers for circuitry. They were very expensive to operate and in addition to using a great deal of electricity, generated a lot of heat, which was often the cause of malfunctions. These vacuum tubes looked like electric bulbs. Its purpose was to act like an amplifier and a switch.

In second generation transistors were used in place of vacuum tube as main processing unit. Transistors were cheaper, consumed less power, more compact in size, more reliable and faster than the vacuum tubes and gave off virtually no heat compared to vacuum tubes. Though the transistor still generated a great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube.

**Answer 2A(ii)**

**UDP and HTTP Protocol**

**User Datagram Protocol (UDP)** : User Datagram Protocol (UDP) is a Transport Layer protocol. UDP is a part of Internet Protocol suite, referred as UDP/IP suite. UDP is an alternative communications protocol to Transmission Control Protocol (TCP) used primarily for establishing low-latency and loss-tolerating connections between applications on the internet.

A datagram is almost the same as a packet except that sometimes a packet will contain more than one datagram. This protocol is used together with IP when small amounts of information are involved. It is simpler than TCP and lacks the flow-control and error-recovery functions of TCP. Thus, it uses fewer system resources.

**Hypertext Transfer Protocol (HTTP)** : Web pages are constructed according to a standard method called Hypertext Markup Language (HTML). The Hypertext Transfer Protocol is an application protocol for distributed, collaborative, hypermedia information systems that allows users to communicate data on the World Wide Web. An HTML page is transmitted over the Web in a standard way and format known as Hypertext Transfer Protocol (HTTP). This protocol uses TCP/IP to manage the Web transmission

**Answer 2A(iii)**

**Procedural Programming and Event Driven Programming**

**Procedural Programming** : A procedural program is a series of steps, each of which performs a calculation, retrieves input, or produces output. Concepts like assignments, loops, sequences and conditional statements are the building blocks of procedural programming. Major procedural programming languages are COBOL, FORTRAN, C, BASIC, PASCAL etc.

**Event Driven Programming** : An event driven program is a continuous loop that responds to events that are generated in an unpredictable order. These events originate from user actions on the screen (mouse clicks or keystrokes, for example), or else from other sources (like readings from sensors on a robot). Major event-driven programming languages include Visual basic and Java.

**Answer 2A(iv)**

**RAM and ROM**

| *Differences* | *RAM* | *ROM* |
|---|---|---|
| Stands for : | RAM Stands for Random Access Memory | ROM Stands for Read - only memory |
| Definition : | Random Access Memory or RAM is a form of data storage that can be accessed randomly at any time, in any order and from any physical location. | Read Only Memory is a form of memory which is used for storing program. As the name suggest it can only read but not altered. |
| Volatility: | RAM is volatile i.e. its contents are lost when the device is powered off. | ROM is non - volatile i.e. its contents are retained even when the device is powered off. |
| Types: | The two main types of RAM are static RAM and dynamic RAM. | Types of ROM include PROM, EPROM and EEPROM. |
| Use: | RAM allows the computer to read data quickly to run applications. It allows reading and writing. | ROM stores the program required to initially boot the computer. It only allows reading. |

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

**Question 3**

(a) *What do you understand by Digital Signature ? What information does a Digital Signature contain ?* *(4 marks)*

(b) *To find the best Enterprise Resource Planning (ERP) system for our business, it's important to understand which features and functions we need most, before we compare ERP solutions. In view of this statement, list out some of the general features of ERP that we should consider before finalizing ERP solution.* *(4 marks)*

(c) *Discuss any four (4) of the major constraints, which come in the way of operating a Management Information System (MIS).* *(4 marks)*

(d) *What are the basic system security measures that all system must meet, regardless of their System classification ?* *(4 marks)*

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

**Question 3A**

(i) *What is an 'Expert System' ? Briefly discuss its components.*

(ii) *The right Enterprise Resource Planning (ERP) system can integrate key business functions, boosting the bottom line. The wrong ERP application can drain your IT budget. In view of this statement, briefly discuss any four (4) criteria, which you should use while choosing right ERP system.*

(iii) *Briefly explain 'USB flash Drive'.*

(iv) *Discuss the comparison of 'Compiler' and 'Interpreter'.* *(4 marks each)*

**Answer 3(a)**

As per section 2(1)(p) of the Information Technology Act, 2000 "Digital signature" 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.

A Digital signature (standard electronic signature) takes the concept of traditional paper-based signing and turns it into an electronic "fingerprint". This fingerprint or coded message, is unique to both the document and the signer and binds both of them together. The digital signature ensures the authenticity of the signer. Any changes made to the document after it is signed invalidate the signature, thereby protecting against signature forgery and information tampering. Digital signatures help organizations to sustain signer authenticity, accountability, data integrity and non-repudiation of electronic documents and forms.

A digital signature/electronic signature typically contains the : Owner's public key, the Owner's name, Expiration date of the public key, the Name of the issuer (the Certifying Authority that issued the Digital ID), Serial number of the digital signature, and the digital signature of the issuer.

**Answer 3(b)**

To find the best ERP system for your business, it's important to understand which features and functions we need before we compare ERP solutions. Some of the general features of ERP to be considered before finalising ERP solutions are as under:

1. Screen based flow control.
2. Application Logic.
3. Common service functions such as the currency, date, editing, and help.
4. Diagnostic functions.
5. Transaction flow control.
6. Help functions.
7. Central table system for management of parameters, texts and master data, online logical checks and validations.
8. Word processing, text, text editing.
9. Action massages.
10. Enterprise Modeling: Structure/Policy/Rules/Guidelines.
11. Fast adoption
12. Flexibility

13. Reporting
14. Effective data usage
15. Web enabled

**Answer 3(c)**

Major constraints which come in the way of operating a management information system are as under:

1. Non-availability of experts, who can diagnose fully the objectives of the organisation and give a desired direction needed for operating management information system.
2. Difficulty usually faced by experts, in selecting the sub-systems of MIS, to be designed and operated upon first.
3. Source of availability of experts for running MIS effectively, is not always known to the management.
4. Due to varied objectives of business concerns, the approach adopted by experts for designing and implementing MIS is non-standardised one.
5. Non-availability of cooperation from staff.
6. Non-availability of heavy financial resources required for running the MIS effectively.
7. Turnover of experts is quite high.
8. It is difficult to quantify the benefits of MIS, so that it can be easily comparable with cost.
9. Perception problems as its utility are not readily perceptible by many users.

**Answer 3(d)**

The basic system security measures that all systems must meet, regardless of the level of their System Classification are as under:

1. *Password Protection* : All accounts and resources must be protected by passwords which meet the following requirements, which must be automatically enforced by the system:
   - (a) Must be at least eight characters long.
   - (b) Must NOT be dictionary or common slang words in any language, or be readily guessable.
   - (c) Must include at least three of the following four characteristics, in any order: upper case letters, lower case letters, numbers, and special characters, such as *!@#$%^&*.
   - (d) Must be changed at least once per year.
2. Software Updates: Systems 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.

3. *Firewall* : Systems must be protected by a firewall that allows only those incoming connections necessary to fulfill 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.

4. *Malware Protection* : Systems running Microsoft or Apple operating systems must have antivirus and anti-spyware software installed and it must be configured to automatically scan and update.

**Answer 3A(i)**

An expert system is a computer program that simulates the judgement and behaviour of a human or an organization that has expert knowledge and experience in a particular field.

Expert systems typically consist of three parts:

1. A knowledge base which contains the information acquired by interviewing experts, and logic rules that govern how that information is applied;

2. An Inference engine that interprets the submitted problem against the rules and logic of information stored in the knowledge base; and an

3. Interface that allows the user to express the problem in a human language such as English. Despite its earlier high hopes, expert systems technology has found application only in areas where information can be reduced to a set of computational rules, such as insurance underwriting or some aspects of securities trading.

**Answer 3A(ii)**

The right Enterprise Resource Planning system can integrate key business functions, boosting the bottom line. The wrong ERP application can drain your IT budget. The following criteria should be used when evaluating an ERP system:

1. Functional Specifications. Does the application accommodate your business needs? Functional compatibility depends on a complex analysis of your company's unique business needs and the ERP industry's varied solutions.
2. Define and prioritize company processes. Identify core corporate functions, and develop a comprehensive picture based on input from all stakeholders.
3. Identify "showstoppers." A showstopper is the "missing feature or unsupported business process that transforms an otherwise great fit into a complete mismatch."

   Functional incompatibility can be avoided by determining that the ERP system is designed for:

   – Discrete or process manufacturing
   – Work orders or repetitive manufacturing
   – Distributor or manufacturer process management

– Multi-plant or a warehouse environment

– Multilanguage and/or multicurrency needs

4. *Evaluate your options* : Not all ERPs are created equal. A clue to a product's relative strengths is its origin. Some ERP vendors began by developing manufacturing software; others entered the field via a robust human resources package, or a data warehouse solution.

5. *Business Model* : Does the application mesh with your corporate culture?

   Functional compatibility is absolutely crucial—but it's also important to consider structural fit.

6. *Flexibility* : Can the application be modified? Will it scale to accommodate evolving needs? Enterprise Resource Planning is a long-range investment. A flexible system will grow with your company, accommodating new specifications as they emerge. Flexibility is also crucial in the implementation phase, to ensure that the program can align with existing business needs and achieve integration. Look for an ERP solution that will accommodate new operating protocols, future business growth, market expansion, and any other initiatives that might arise.

   To evaluate ERP flexibility, consider:

   – System parameters and default settings

   – Custom screen and menu options

   – Tools for modifying standard forms

   – Data access options and custom reporting

   – Modular format

7. *Time to Implement* : Will the rollout be quick, effective, and painless?

   Implementation can be a daunting prospect when company-wide integration is at stake. Check your ERP provider's implementation track record and methodology. 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 time to ROI.

8. *Industry Expertise* : Does the vendor have a proven track record in your industry? The ERP solution you choose should come with a pedigree of successful installations in your field.

**Answer 3A(iii)**

A USB flash drive is a small device that stores information and files from a computer. Flash drives are an easy way of moving data between different computers or devices to be read or edited. Flash drives are connected to a computer using a USB port, which can be found on many devices. Flash drives take their name from the flash memory used to hold files. Flash memory is a type of memory that does not need any moving parts, unlike a CD or Floppy disk.

Other common names for a flash drive include: memory stick, keydrive, pendrive, thumbdrive and jumpdrive or simply USB.

USB flash drives have some advantages over other portable storage devices. They are much smaller than floppy disks, and can hold much more data. They do not have moving parts, so they are more reliable.

**Answer 3A(iv)**

**Compiler and Interpreter**

(i) The basic purpose of interpreter is same as that of complier. In compiler, the program is translated completely and directly executable version is generated. Whereas interpreter translates each instruction, executes it and then the next instruction is translated and this goes on until end of the program. Interpreter translates program one statement at a time.

(ii) In Interpreter, object code is not stored and reused. Every time the program is executed, the interpreter translates each instruction freshly. It also has program diagnostic capabilities. Instructions repeated in program must be translated each time they are executed by the interpreter.

(iii) In Interpreters no intermediate object code is generated, hence are memory efficient. Whereas Compilers generate intermediate object code which further requires linking, hence requires more memory.

(iv) Because the source program is translated fresh every time it is used, it is slow process or execution takes more time. Approx. 20 times slower than complier.

(v) Interpreter is more efficient than the compiler.

(vi) In compiler, the compilation is done before execution, whereas in interpreter, compilation and execution takes place simultaneously.

(vii) In Compiler, error message is generated only after scanning the whole program. Hence debugging is comparatively hard. Error detection is difficult in compiler than the interpreter.

**Question 4**

*(a) What is a 'Certifying Authority' under IT Act, 2000 ? Explain the process for a person to become 'Certifying Authority'.*

*(b) Briefly explain the critical success factors for implementation of Enterprise Resource Planning (ERP) in an organization.*

*(c) Describe the various types of files that can be created in SQL Server databases.*

*(d) In order to develop India in the field of Software Production, 'National Policy on Software Products, 2019' (NPSP-2019) has been approved by the Government of India. Write down any four (4) of the Missions stipulated in NPSP-2019 to achieve the Vision of this policy. (4 marks each)*

**Answer 4(a)**

A Certifying Authority is a trusted body whose central responsibility is to issue, revoke, renew and provide directories of electronic Certificates. According to section

2(g) of Information Technology Act, 2000, “Certifying Authority” means a person who has been granted a license to issue Electronic Signature Certificates.

Any person may make an application, to the Controller of certifying authorities, for a license to issue Electronic Signature Certificates provided he fulfills the Central Government prescribed requirements with respect to qualification, expertise, manpower, financial resources and other infrastructure facilities, which are necessary to issue electronic Signature Certificates

Every application for issue of a license shall be in made in form as prescribed by Schedule-I of Information Technology (Certifying Authorities) Rules, 2000 and the application shall be accompanied by a certification practice statement; A statement including the procedures with respect to identification of the applicant; Payment of fees of twenty-five thousand rupees and other documents, as prescribed by Information Technology (Certifying Authorities) Rules, 2000.

**Answer 4(b)**

A lot has been said about the competitive advantage provided by Enterprise Resource Planning (ERP). An organization decides to take the plunge into the ERP route. The consultants will be hired to bring the “best practices” in the industry. It requires both the knowledge; functional knowledge as well as the software programming skills. The following factors are critical in ERP success.

**First and foremost is the top management commitment** : The large investments needed to implement ERP ensure that the decisions are invariably taken at the top management level. It is fortunate, but not sufficient. This ensures top management involvement, but it is not tantamount to top management commitment.

The management commitment involves the management of change. ERP is likely to turn the organization “upside down” unleashing lots of energy from vested interests. Unless top management is involved directly, it is impossible for any line manager to face the oppression to such changes.

**Another real test of top management commitment is the resistance to over-customization, particularly in the Indian context.** One reason why many computerization efforts in Indian organizations have not been particularly successful is not having “systems in place”. ERP implementation is a golden opportunity to put such “systems in place”. Thanks to excellent IT skills available in many Indian organizations, wherein there is a strong tendency to “do it your way” leading to large-scale customization. It is better to follow the “standard” way and concentrate on “innovative” ways of doing better business.

**Answer 4(c)**

At a minimum, every SQL Server database has two operating system files i.e. a data file and a log file. Data files contain data and objects such as tables, indexes, stored procedures, and views. Log files contain the information that is required to recover all transactions in the database. Data files can be grouped together in file groups for allocation and administration purposes.

SQL Server databases have three types of files, as shown in the following table.

| *File* | *Description* |
|---|---|
| Primary | The primary data file contains the startup information for the database and points to the other files in the database. User data and objects can be stored in this file or in secondary data files. Every database has one primary data file. |
| Secondary | Secondary data files are optional, are user-defined, and store user data. Secondary files can be used to spread data across multiple disks by putting each file on a different disk drive. Additionally, if a database exceeds the maximum size for a single Windows file, you can use secondary data files so the database can continue to grow. |
| Transaction Log | The transaction log files hold the log information that is used to recover the database.<br>There must be at least one log file for each database. |

**Answer 4(d)**

The National Policy on Software Products, 2019 (NPSP-2019) will lead to the formulation of several schemes, initiatives, projects and measures for the development of Software products sector in the country as per the roadmap envisaged therein.

To achieve the vision of NPSP-2019, the Policy has the following five Missions:

I. To promote the creation of a sustainable Indian software product industry, driven by intellectual property (IP), leading to a ten-fold increase in India share of the Global Software product market by 2025.

II. To nurture 10,000 technology startups in software product industry, including 1000 such technology startups in Tier-II and Tier-III towns & cities and generating direct and in-direct employment for 3.5 million people by 2025.

III. To create a talent pool for software product industry through (i) up-skilling of 1,000,000 IT professionals, (ii) motivating 100,000 school and college students and (iii) generating 10,000 specialized professionals that can provide leadership.

IV. To build a cluster-based innovation driven ecosystem by developing 20 sectoral and strategically located software product development clusters having integrated ICT infrastructure, marketing, incubation, R&D/testbeds and mentoring support.

V. In order to evolve and monitor scheme & programmes for the implementation of this policy, National Software Products Mission will be set up with participation from Government, Academia and Industry.

**Question 5**

(a) *Puru Ltd. is planning to develop an automation project and it was decided by the management to conduct an initial assessment to determine the viability of the* *automation project. Assuming that you are a consultant of this firm, list out the technology specific factors, which you should identify and evaluate during the initial assessment phase.*

*(b) What are the objectives of National Service Delivery Gateway (NSDG) ? Mention any eight (8). (8 marks each)*

**Answer 5(a)**

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

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

Once this initial assessment has been completed, it is possible to determine the goals, objectives and priorities for the project and develop the terms of reference for a feasibility study.

**Answer 5(b)**

The objectives of the National Service Delivery Gateway (NSDG) are as under:

1. To act as a core infrastructure for achieving standards-based interoperability between various e- Government applications implemented at various levels and geographically dispersed locations.
2. To evolve Gateway messaging standards and build a government owned Central Gateway based on these standards.
3. Act as a catalyst in enabling the building of Standards based e-Governance applications with Gateway as the middleware to ensure interoperability.
4. Enable integration across Centre, State or Local Governments thereby enabling Integrated Service Delivery and a Service Oriented Architecture (SOA) leading to joined up government.

5. Help protect the legacy investments in software and hardware by easily integrating them with other technology platforms and software implementations
6. De-link the back-end departments/Service Providers (SP) from the front-end Service Access Providers thereby
   (a) Ensuring separation of concerns of service access from the service implementation i.e. separates the Portal, CSC, Kiosks etc from the government services which reside in the backend departments.
   (b) Encouraging competition at the front-end by allowing independent service access providers to provide services with varying levels of complexity, cost and service quality levels.
7. Enable adding of shared services on to the core services as and when required, as special common services of the Gateway without affecting the core functionality of the Gateway, thereby providing flexibility and modularity.
   (a) encourage back-end services to be plugged into the infrastructure as and when they are ready,
8. Reduce the cost of e-Governance Projects by rationalizing, distributing and optimizing the services framework.
9. Use Public Key infrastructure for secure transactions. Provision exists for encryption of department payload to ensure confidentiality of department data. The gateway provides digital signature and certificates to all stakeholders interacting with the gateway for identification, authentication and authorization. Transaction and audit logs help track government data.
10. Enable transaction logging and time stamping for tracking of transactions and centralised control.
11. Help the Departments backend workflow evolve gradually as the Gateway acts as a middleware delinking the backends from the front end. This means that even the departments which do not have the complete automation or work flow at the back can still deliver e-Service to the citizens in a limited manner through the Gateway.

**Question 6**

*Write short notes on the following :*

*(a) Capability Cloud*

*(b) TCP/IP Protocol*

*(c) Distributed Database*

*(d) Steering Committee for Security in Audit of Management Control.*

*(4 marks each)*

**Answer 6(a)**

**Capability clouds** move beyond the building blocks of capacity to deliver finished services that directly address business objectives and enterprise goals. Instead of dealing with machine images or database instances, the discussion shifts to the analytics cloud, the testing cloud or the sales cloud and help to focus on a more important set of values. Also with the advent of capability clouds helps focusing on accelerating time-to-results, adding new functionality or changing business processes and business models rather than cost of ownership and efficiency issues. It is relatively easy for a business unit leader to buy a software-as-a-service tool for point solutions such as workforce planning or compensation management; the main requirement is simply a corporate credit card.

There have been three main drivers of cloud adoption thus far: a preference for operating expense over capital expense; speed to solution; and flexible, scalable access to specialized resources – be they technology, software or people. The capability cloud can add opportunities for agility and innovation in how business processes even business models are acquired composed and revised. For an example the analytics cloud may go beyond just delivering analytics databases, models and tools and offer PHD-level statisticians applying the art of the science where you only pay for the level of service that is needed.

**Answer 6(b)**

**TCP (Transmission Control Protocol) and IP (Internet Protocol)** are two different procedures that are often linked together. In fact, the term "TCP/IP" is normally used to refer to a whole suite of protocols, each with different functions. This suite of protocols is what carries out the basic operations of the Web. TCP/IP is also used on many local area networks. When information is sent over the Internet, it is generally broken up into smaller pieces or "packets". The use of packets facilitates speedy transmission since different parts of a message can be sent by different routes and then reassembled at the destination. It is also a safety measure to minimize the chances of losing information in the transmission process. TCP is the means for creating the packets, putting them back together in the correct order at the end, and checking to make sure that no packets got lost in transmission. If necessary, TCP will request that a packet be resent.

**Internet Protocol (IP)** is the method used to route information to the proper address. Every computer on the Internet has to have its own unique address known as the IP address. Every packet sent will contain an IP address showing where it is supposed to go. A packet may go through a number of computer routers before arriving at its final destination and IP controls the process of getting everything to the designated computer. Note that IP does not make physical connections between computers but relies on TCP for this function. IP is also used in conjunction with other protocols that create connections.

**Answer 6(c)**

A distributed database is one that can be dispersed or replicated among different points in a network.

A distributed database is a database in which storage devices are not all attached to a common processing unit such as the CPU, controlled by a distributed database management system (together sometimes called a distributed database system). It may be stored in multiple computers, located in the same physical location; or may be dispersed over a network of interconnected computers. Unlike parallel systems, in which the processors are tightly coupled and constitute a single database system, a distributed database system consists of loosely coupled sites that share no physical components.

The concept of distributed database system was built with a goal to improve reliability, availability and performance.

**Answer 6(d)**

**Steering Committee for Security in Audit of Management Control**

The formulation and implementation of a sound security policy should not be the task of the IT Department only. It should be a team effort, brought into effect by a committee in which there is at least one member of the Board of Directors apart from the Chief Information Officer and User HoDs. It is to be noted that the auditor should point out the absence of such a committee in case any organisation does not have it.

Without such a committee having regular planned meetings with agenda and action points, the implementation of security policy would be in jeopardy. The auditor needs to stress upon the possible benefits of a properly functioning steering committee or conversely, the ill effects of not having such a committee. In recommending the constitution and functioning of the committee, the auditor should be specific about composition, individual roles and responsibilities and monitoring/ escalating mechanism.

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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.*

*3. Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.*

*4. Working notes should form the part of answer.*

*5. Round of the working upto two decimal points, and final answers in integer only.*

**Question 1**

*Comment on the following :*

*(a) Little-Mirrlees method has suggested the valuation of project investment at shadow prices of resources to correct distortions due to market imperfections.*

*(b) The single model in relation to the multi index model.*

*(c) NSCCL has developed a comprehensive risk containment mechanism for the F&O segment.*

*(d) The treasury function is concerned with management of funds at the micro level, while the financial management function is an integral part of the management.* *(5 marks each)*

**Answer 1(a)**

Little and Mireless gave an approach for analysing Social Cost Benefit that is similar to the UNIDO approach. Like UNIDO guidelines, the Little-Mirrlees method also suggests valuation of project investment at opportunity cost (shadow prices) of resources to correct distortions due to market imperfections.

Herein, it is important to note that for calculating the social cost benefits of a project, shadow prices are important and market price represents shadow price only in case of a perfect markets. Since perfect markets are rarely a reality so it is necessary to develop a framework for calculating the shadow prices of resources in imperfect markets like India.

Little and Mirrlees suggested an elaborate methodology for calculating shadow prices of non-tradables. Use of detailed input-output tables is suggested with a view to tracing down the chain of all non-traded and traded inputs that go into their computation. However, in the case of non-availability of detailed input/output tables, a conversion factor based on the ratio of domestic costs of representative items to world prices of these items could be used for approximation of shadow prices of non-traded resources.

**Answer 1(b)**

The **single-index model (SIM)** is a simple asset pricing model to measure both the risk and the return of a stock. The model was developed by William Sharpe in 1963. The major assumption of Sharpe's single-index model is that all the co-variation of security returns can be explained by a single factor. This factor is called the index, hence the name "single-index model."

**Multi-index model** is an extension of Single Index Model. The multi-index model assumes a return-generating process that is a linear function of many factors. In this approach, each factor is a source of systematic risk. Since investors cannot diversify systematic risk, they are assumed to be compensated for bearing this risk. A security's sensitivity to each factor affects the assumed return-generating process for the security. This sensitivity is captured by a "factor beta". Except for the fact that multiple factors make this a richer model than the single index model, the use of a multi-factor model is similar to the single-index model. A broad generalization of these models is the Arbitrage Pricing Theory.

**Answer 1(c)**

National Securities Clearing Corporation Limited (NSCCL) has developed a comprehensive risk containment mechanism for the F&O segment with the following salient features:

- The soundness of the members is the key to risk management. Therefore, the requirements for membership in terms of capital adequacy (net worth, security deposits) are quite stringent.
- NSCCL charges an upfront initial margin for all the open positions of a Clearing Members (CM). It specifies the initial margin requirements for each futures/ options contract on a daily basis. It also follows VAR-based margining computed through SPAN. The CM in turn collects the initial margin from the TMs and their respective clients.
- The open positions of the members are marked to market based on contract settlement price for each contract. The difference is settled in cash on a T +1 basis.
- NSCCL's on-line position monitoring system monitors a CM's open position on a real-time basis. Limits are set for each CM based on his base capital. The on-line position monitoring system generates alerts whenever a CM reaches a position limit set up by NSCCL. NSCCL monitors the CMs for Mark to Market value violation, while TMs are monitored for contract wise position limits violation.
- CMs are provided a trading terminal for the purpose of monitoring the open positions of all the TMs clearing and settling through him. A CM may set exposure limits for a TM clearing and settling through him. NSCCL assists the CM to reduce the intra-day-exposure limits set up by a CM and whenever a TM exceeds the limits, it stops that particular TM from further trading.
- A member is alerted of his position to enable him to adjust his exposure or bring in additional capital. Position violations result in disablement of trading facility for all TMs of a CM in case of a violation by the CM.

– A separate Settlement Guarantee Fund for this segment has been created out of the base capital of members.

The most critical component of risk containment mechanism for F&O segment is the margining system and online position monitoring. The actual position monitoring and margining is carried out on-line through Parallel Risk Management System (PRISM) using SPAN (Standard Portfolio Analysis of Risk) system for the purpose of computation of on-line margins, based on the parameters defined by SEBI.

**Answer 1(d)**

The treasury function is concerned with management of funds at the micro level. It means that once the funds have been arranged and investments avenues identified, handling of the funds generated from the activities of the firm should be monitored with a view to carry out the operations smoothly. Since funds or cash is the lubricant of all business activity, availability of funds on day to day basis is to be ensured by the treasury manager. The role of treasury management is to manage funds in an efficient manner, so that the operations in the area of finance are facilitated in relation to the business profile of the firm. The objective of treasury management is to execute the plan of finance function. Execution of the plan takes care of the issues arising in routine operations of the firm which have a bearing upon the funds position.

The objective of financial management is to establish, coordinate and administer as an integral part of the management, an adequate plan for control of operations. In line with the twin objectives of investment and financing, the finance manager has to take responsibility for all decisions pertaining to these areas. In the finance function, a macro view of the requirements and uses of funds is to be taken. The finance manager has to arrange the funds according to the approved capital structure of the firm.

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

**Question 2**

*Distinguish between the following :*

*(a) Liquidity and profitability*

*(b) Netting and matching in management of forex*

*(c) Technical and financial viability of a project*

*(d) Long-term capital budget and short-term capital budget.* *(4 marks each)*

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

**Question 2A**

*(i) Explain the statement : "There are many reasons for participating in foreign exchange including facilitating commercial transactions, corporations converting their profits, or hedging against future price drops."*

*(ii) "Modigliani-Miller theory amplifies that the value of the levered firm is same as the value of the unlevered firm". Elaborate the assumptions, leading to the substantiation of the proposition.*

*(iii) Mention the types of deductions and tax incentives available to the corporates, bearing on the financial decisions making process of a firm.*

*(iv) Explain the role of parties involved in the process of securitisation of debt.*

*(4 marks each)*

**Answer 2(a)**

**Difference between Liquidity and Profitability**

1. Liquidity is defined as ability of the business to meet short-term obligations whereas profitability as a decision criterion is another important tool for taking decisions on different dimensions of the business processes/activities after evaluating the performance of the company in different spheres.

2. Liquidity is used for managing liquid resources or current assets or near cash assets so as to enhance the effectiveness with which they are utilized with a view to minimize costs where as profitability is used as a measure of comparison and standard of performance.

3. Lack of liquidity in extreme situations can lead to firm's insolvency. If the firm does not invest sufficient funds in current assets, it may become illiquid and therefore risky. But if current assets lie idle then it may impact the profitability negatively.

4. Liquidity shows the quickness with which a business/company can convert its assets into cash to pay it dues in the near future where as profitability is the measure to evaluate the performance of the company and related to sales or total capital employed or to net worth of the company.

5. There is an inverse relationship between liquidity and profitability. Thus, a proper trade-off between profitability and liquidity is required.

**Answer 2(b)**

**Difference between Netting and Matching in management of Forex**

**Netting** : Under this method, gross receipts and payments of all transactions among the parent firm and subsidiaries should be adjusted and only net amounts should be transferred. This technique is called netting. For example, Group X is expecting to receive $10 million in one subsidiary and pay $6 million at the same time in another subsidiary. Clearly the group only has a net exposure of a receipt of $4 million. Netting refers to netting off group receipts and payments, as mentioned in the given example.

This again involves centralization of data at the corporate level, selection of the time period at which netting is to be done, and choice of the currency in which netting is to be done. The currency could be the home currency of the firm. Netting reduces costs of remittance of funds, and increases control of intra-firm settlements. It also produces savings in the form of lower float (funds in the pipe-line) and lower exchange costs.

**Matching** : It is a process whereby cash inflows in a foreign currency are matched with cash outflows in the same currency with regard to, as far as possible, amount and maturity.

Matching is an extension of multilateral netting with the difference that matching includes also third parties apart from the ones operating within group. The aim of the company in this case is to negotiate match-able due dates and amounts in the same currencies. Then the payment received in one currency (cash inflow) can be used for the payment to other party in the same currency (cash outflow) if due date of the first transaction precedes to the due date of the second transaction.

Thus the need of use of derivative instruments to hedge the foreign exchange exposure is restricted only for hedging of final balance of these cash flows. The assumption of matching is that we do have opposite cash flows in one currency.

**Answer 2(c)**

The primary aim to carry out technical analysis is to check the technical viability of the project. A project is evaluated on the following parameters to judge its technical viability.

(i) Feasibility of selected technical processes and its suitability under given technological conditions prevailing in a country.

(ii) Location of the project.

(iii) Plant layout.

(iv) Machinery and other equipments with their specifications.

(v) Availability of raw material.

(vi) Power and other inputs.

(vii) Appropriateness of technology chosen from social point of view.

(viii) Availability of infrastructure for the project.

(ix) Techno economic assumptions and parameters used for analyzing costs and benefits viability provision for treatment of effluents.

(x) Training of manpower.

(xi) Legal requirement on documentation, license and registration.

**Financial Viability**

The primary aim of financial analysis is to determine whether the project satisfies the investment criteria of generating acceptable level of profitability. The project should be able to service the debt and ensure expected returns to the investor. Cash flow statement is the basis for financial analysis. The important aspects which are examined while conducting financial appraisal are:

(i) Investment outlay.

(ii) Means of financing.

(iii) Projected financial statements.

(iv) Viability and profitability.

(v) Break-even point analysis.

(vi) Sensitivity analysis.

(vii) Risk analysis.

**Answer 2(d)**

**Difference between Long-term capital budget and short-term capital budget**

Under Long-term Capital budget, the period covered under the planning is three to five or more years. The planning for such expenditure assumes a composite form involving all aspects of economic forecasts for the outlook of entire industry in which the company performs with its unit and forecast for the company with probable or expected coverage of market share. On the basis of this forecast, plant managers estimate their prospective capital expenditure, the marketing managers plan their marketing strategies, the personnel managers assess the requirements for manpower and technical hands to achieve targeted production results, and the finance mangers plans for the funds to be made available for investment taking into consideration the above requirements. The long-range capital budget is continually revised with changing economic conditions, the marketing environment, structure of wages and the inflationary pressures in the economy. It is flexible in nature and oriented towards a long-range growth planning for the company.

Short-period Capital budgeting, involves short-range planning for funds and planning of expenditure for a short duration. It does not involve large capital expenditure but covers temporary need for funds for different departments within the company depending upon the degree of urgency, profitability and savings to be achieved with reference to the capital costs to be incurred. Short-term capital expenditure plan is known as operating budget and is concerned with revenues and expenses related to firms daily operations.

Significance of planning for capital expenditure is derived only with major investment proposals and the use of funds over a long period. The most important factor affecting the planning horizon is the rate of change in technology in the industry. The advancement in technology may warrant capital investment for short as well as long period depending upon the changing pace of technology and technological obsolescence: long-term plan, however, it helps the company to analyse its need and directions into the distant future involving a technological change.

**Answer 2A(i)**

While there are many reasons for participating in foreign exchange including facilitating commercial transactions, corporations converting its profits, or hedging against future price drops, more and more people are getting involved in the market for the purpose of speculation. Various foreign exchange participants have different objectives for participating in foreign exchange which are mentioned below:

**(a)** **Exporting and Importing Companies** : Large multinational corporations influence the foreign exchange market as they purchase and sell goods and materials between different countries. Importing companies affect the demand of a currency as well. For example, an American retailer features Japanese furnishings and pays its suppliers in Japanese yen. If consumers like these products then they will indirectly contribute to an increase in demand for the yen as the American retailer will have to buy more merchandise from Japan. As the retailer purchases the yen and sells the dollar on the exchange market, the yen appreciates.

**(b) Foreign Investment Flows** : Foreign investment has many aspects, having to do with goods, services, stocks, bonds, or property. Suppose a Canadian company wants to open a factory in America. In order to cover the costs of the land, labour and capital the firm will need dollars. Suppose the company holds most of its reserves in Canadian dollars. It must sell some of its Canadian dollars to buy US dollars. The supply of Canadian dollars on the foreign exchange market will increase and the supply of US dollars will decrease, which causes the US dollar to appreciate against the Canadian dollar. On the other side, foreign investors are also increasing or decreasing the demand for the currency of the country in which they are interested in investing.

**(c) Banks** : For a long time the foreign exchange market has been associated with the term "interbank" market. This term was employed to capture the nature of the foreign exchange market when it predominantly dealt with banks. Banks include central bank, investment banks and commercial banks.

**(d) Speculators** : Investment Management Firms, Hedge funds, and Retail Traders: Many financial institutions use currency exchange as a method to generate income. There are also many individuals who try to do the same thing. The currency markets move in one direction only when many investors act together. An individual investor cannot move the exchange rate of a currency but many traders, investment funds, and banks may collectively move it.

**Answer 2A(ii)**

According to MM Model, under a given set of assumptions, the capital structure and its composition have no effect on the value of the firm. MM Model shows that the financial leverage does not affect and the cost of capital and value of the firm are independent of the capital structure. Thus,

Total value of levered firm = Total value of unlevered firm

But, this MM's proposition is based on certain assumptions, which relate to the behavior of investors and capital markets, the action of firm and the tax environment.

- **Perfect Capital Markets** : It means that investors are free to buy or sell securities. They can borrow without restriction at the same terms as the firms do and investors behave rationally. It also implied that the transaction costs do not exist. The assumption that firms and individual investors can borrow and lend at the same rate of interest is a very critical assumption for the validity of MM Proposition.
- **Homogeneous Risk Classes**: Firms operate in similar business conditions and have similar operating risk. They are considered to have similar operating risk and belong to homogeneous risk classes when their expected earnings have identical risk characteristics. It is generally implied under the MM hypothesis that firms within same industry constitute a homogeneous class.
- **Risk** : The operating risk is defined in terms of the variability of the net operating income (NOI). The risk of investors depends on both the random fluctuations of

the expected NOI and the possibility that the actual value of the variable may turn out to be different that their best estimate.

- **No taxes** : There are no corporate taxes. This implies that interest payable on debt do not save any taxes.
- **Full payout** : Firms distribute all net earnings to shareholders, means firms follow a 100% dividend payout.

**Answer 2A(iii)**

There are certain types of deductions, tax incentives available to the corporate which need to be considered while taking financial decisions, which are summed up as below:

(1) Deduction of profits & gains derived by 100% Export Oriented Undertaking.

(2) Deduction of profits & gains derived from the export of articles or things or services by an undertaking established in Special Economic Zone.

(3) Deductions u/s 80IA of Income Tax Act, 1961 in respect of profits and gains from industrial undertakings or enterprises engaged in infrastructure development etc.

(4) Deductions in respect of profits and gains by an undertaking or enterprise engaged in development of Special Economic Zone.

(5) Deduction in respect of Profits and gains from certain industrial undertakings other than infrastructure development undertakings.

(6) Deduction in respect of certain undertakings or enterprises in certain special category States.

(7) Deduction in respect of profits and gains from business of hotels and convention centers in specified areas.

(8) Allowability of revenue expenditure and capital expenditure (except on land) incurred on scientific research.

(9) Capital expenditure incurred on acquisition of patent rights or copy rights (before 1st day of April 1998) is also allowed to be amortized in equal instalments over a period of 14 years.

(10) Deduction of capital expenditure incurred on specified business under section 35AD of Income Tax Act, 1962.

(11) Expenditure for obtaining license to operate telecommunication services in equal installments over the period for which the license remains in force.

(12) Amortization of preliminary expenses such as feasibility report or project report expenses are allowed in 5 equal installments.

**Answer 2A(iv)**

The role of parties involved in the process of securitisation of debt is as under:

1. **Originator** : This is the entity that requires the financing and hence is the driver of the deal. Typically the Originator owns the assets or cash flows around which the transaction is structured.

2. **SPV (Special Purpose Vehicle)** : An SPV is typically used in structured transaction for ensuring bankruptcy remoteness from the Originator. The SPV is the issuer of securities or the entity through which the financing is channeled. Typically the ownership of the cash flows or assets around which the transaction is structured is transferred from the Originator to the SPV at the time of execution of the transaction. The SPV is typically a marginally capitalized entity with narrowly defined purposes and activities and usually has independent trustees/ directors.

3. **Investors** : The investors are the providers of funds and could be individuals or institutional investors like banks, financial institutions, mutual funds, provident funds, pension funds, insurance companies, etc.

4. **Obligor(s)** : The Obligor is the Originator's debtor. The amount outstanding from the Obligor is the asset that is transferred to the SPV. The credit standing of the Obligor(s) is of paramount importance in a structured finance transaction.

5. **Guarantor/Credit Enhancement Provider/Insurer** : These are entities that provide protection to the Investor for the finance provided and the returns thereon against identified risks. Typically, on the happening of pre-identified events, affecting the underlying assets or cash flows or the payment ability of the Obligors, these entities pay moneys, which are passed on, to the Investor.

6. **Rating Agency** : Since structured finance deals are generally complex with intricate payment structures and legal mechanisms, rating of the transaction by an independent qualified rating agency plays an important role in attracting Investors.

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

**Question 3**

*(a) The following details are provided by the CFO of the Viju Ltd., to his newly appointed Executive Assistant. This information is pertaining to one of the main competitor of Viju Ltd. From the given information, work out the income statement of competitor of Viju Ltd. :*

| | | |
|---|---|---|
| *Financial leverage* | *2* | |
| *Operating leverage* | *3* | |
| *Interest charges per annum* | *₹ 20 lakh* | |
| *Corporate tax rate including cess* | *40%* | |
| *Variable cost as a percentage of sales* | *60%* | *(4 marks)* |

*(b) Padmavati Corporation plans to enhance assets by 50% to support the expansion plan. The management of Padmavati Corporation has alternatives available to finance the expansion project : either a 12% debt issue or an issue of equity shares with premium at the rate of 20%. If the expansion plan is implemented, it would result into sales of ₹8 crore. The total cost excluding interest would be maintained at the level of 90%. The Statement of Financial Position and Income Statement of Padmavati Corporation are reproduced hereunder.*

***Statement of Financial Position as on 31st December, 2018***

| ***Particulars*** | ***Amount ₹*** |
|---|---|
| *Equity and Liabilities :* | |
| *10 lakh Equity shares* | *1,00,00,000* |
| *Retained earnings* | *60,00,000* |
| *11% Debentures* | *40,00,000* |
| *Assets :* | *2,00,00,000* |

***Income Statement for the year ended 31st December, 2018***

| ***Particulars*** | ***Amount ₹*** |
|---|---|
| *Sales* | *6,00,00,000* |
| *Total cost (excluding interest)* | *5,40,00,000* |
| *Interest* | *4,40,000* |
| *Tax rate* | *50%* |
| *Earnings after tax* | *27,80,000* |

*The market analysts, are of the view that, if the expansion is financed by debt, then Price-earnings ratio will fall from 7.50 to 5.00. You are required to calculate:*

*(i) Earnings per share for each alternative of financing.*

*(ii) Market price per share for each alternative of financing.* *(4 marks)*

*(c) You are being appointed as a Management consultant by Gramin Ltd., and the following information is provided to you, by the management of Gramin Ltd. Gramin Ltd. has been incorporated and commenced the business before one year ago, with an equity capital of ₹20 lakh, having a face value of ₹100 for each equity share. The following information is available, for the first year of operation:*

| | |
|---|---|
| *Price-earnings ratio* | *12.50* |
| *Earnings of the Gramin Ltd. for the year just ended* | *2,00,000* |
| *Dividend paid by Gramin Ltd.* | *1,50,000* |

*The Gramin Ltd. is expecting to maintain the current rate of earnings on investments. You are required to answer the following, by taking into consideration the Walter's model.*

*(i) What is the price per share, based on present dividend pay-out policy ?*

*(ii) Is the Gramin Ltd.'s Dividend pay-out ratio is optimal or not ?*

*(iii) What would the market price per share, if the optimal dividend pay-out ratio would have been maintained ?* *(4 marks)*

*(d) Romfen Ltd., is involved in the manufacturing of ancillary parts required by automobile manufacturer. One of the main customer of Romfen Ltd., is Patru Ltd. As per the agreement between them, Romfen Ltd. has to supply 4,000 units of product named as Honky per month to Patru Ltd., regularly and without any interruptions. To produce the Honky for each unit, one unit of the component Jivu is needed costing ₹20 per unit. The Procurement department's expenses involved in the administering of the one order works out to ₹120. The company's cost of capital is 10% per annum.*

*You are required to calculate the following :*

*(i) Economic Order Quantity*

*(ii) Total inventory holding cost comprises cost of ordering and cost of carrying.* *(4 marks)*

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

**Question 3A**

*(i) Nirupa, an Investment Advisor, is on the task to work out the expected rate of return for a share of Manushrut Ltd. You are required to help her, based on the following information :*

| | |
|---|---|
| *Beta value* | *1.50* |
| *Risk free rate of return* | *6%* |
| *Rate of return from market portfolio* | *12%* |

*She has also raised the question to you that, if the Alpha value is 1.5, then what may be the actual return from the share of Manushrut Ltd. ? Also, prepare a note, to indicate the significance of alpha value in the investment market.* *(4 marks)*

*(ii) The Managing Director, Namikumar, of Rajula Ltd., is inclined to relaxing the credit policy, to increase the sales turnover.*

*Management accountant of Rajula Ltd. has submitted the profit plan based on Sales of ₹10 lakh, and an accounts turnover ratio of 10 times. He has also projected a Profit-volume ratio @ 30%, bad debts ratio @ 1%, and fixed cost at ₹50,000. Namikumar, has mentioned that, by relaxation of the credit policy, sales would increase by ₹2 lakh. The bad debts ratio will be 2% of total sales, and accounts turnover ratio will be 6 times.*

*Management accountant is of the opinion that, company's cost of capital is 20% based on working capital limits and opportunity cost of capital. It is the practice of the banker to allow the working capital limits based on total sales value and to consider the debtors at sales value.*

*You are required to advise Namikumar, whether to move for relaxation of the credit policy or not.* *(4 marks)*

*(iii) Following information has been available from the finance department of the Royal Industries :*

*(1) The average receivable period is 45 days, while the average payable period is 30 days.*

*(2) The average inventory holding period is 75 days.*

*(3) The operating cash expenses of Royal Industries are ₹120 lakh annually at a constant rate.*

*(4) Return on investment is 15%.*

*(5) Number of days in a year are 360.*

*From the above information, compute :*

*(a) The cash cycle period in days, and cash turnover in terms of months.*

*(b) Minimum amounts of cash to be maintained to meet the liability of payments as and when due and payable.*

*(c) The savings in terms of interest cost if the management successfully reduces the inventory holding period by 30 days.* *(4 marks)*

*(iv) Aaya Inc., a UK company expects to receive Singapore dollars (S$) 8,00,000, six months from now. The current spot rate quoted by banker of Aaya Inc., is S$ 2.20 per Sterling Pound (£). The rate of interest prevailing in the Singapore money market is 14%, while it is 11% in UK money market.*

*From the above information, answer the following :*

*(a) Calculate forward rate to be quoted today, that is applicable at the end of six months' from now, based on interest rate parity theory.*

*(b) Evaluate the gain or loss to Aaya Inc., at the end of six months if forward contract entered into, and £ would be (1) gain by 4% annualised, (2) lost by 2% annualised or (3) remains stable at present level.* *(4 marks)*

**Answer 3(a)**

Financial leverage = 2:1

Financial leverage = EBIT/EBT

= EBIT/(EBIT - Interest)

$$\frac{2}{1} ] \frac{\text{EBIT}}{\text{EBIT - ₹ 20 lakhs}}$$

EBIT = 2(EBIT- ₹ 20 Lakhs )

EBIT = 2EBIT - ₹ 40 Lakhs

EBIT = ₹ 40 Lakhs……………….. (1)

Operating Leverage = 3:1

Operating Leverage = Contribution / EBIT

= 3/1

$$\frac{\text{Contribution}}{\text{₹ 40 Lakhs}} = \frac{3}{1}$$

Contribution = ₹ 40 lakhs x 3 = ₹ 120 Lakhs …………(2)

Variable cost = 60% of sales

Contribution = 40% of sales

Contribution = ₹ 120 Lakhs

Therefore, Sales = 100 / 40 x ₹120 Lakhs = ₹ 300 Lakhs …………(3)

Contribution – Fixed Cost = EBIT

= ₹ 120 Lakhs – Fixed Cost = 40 lakhs

Fixed Cost = ₹ 80 lakhs……………………..………..(4)

**Income Statement of Competitor of Viju Ltd.**

| *Particulars* | *₹ Lakhs* |
|---|---|
| Sales (3) | 300 |
| *Less* : Variable Cost (60% of sales) | 180 |
| Contribution (2) | 120 |
| *Less* : Fixed Cost excluding Interest (4) | 80 |
| EBIT (1) | 40 |
| *Less* : Interest | 20 |
| Profit before tax (PBT) | 20 |
| *Less* : Corporate Tax @ 40% | 08 |
| Profit after tax | 12 |

**Answer 3(b)**

| | *Sales* | | | *₹8,00,00,000* | |
|---|---|---|---|---|---|
| | | | | *Debt Financing* | *Equity Financing* |
| | EBIT | | | 80,00,000 | 80,00,000 |
| | *Less* : Interest | - | Old | (4,40,000) | (4,40,000) |
| | | - | New | (12,00,000)* | --------- |
| | EBT | | | 63,60,000 | 75,60,000 |
| | *Less* : Tax @ 50% | | | 31,80,000 | 37,80,000 |
| | EAT | | | 31,80,000 | 37,80,000 |
| | No. of shares | - | Old | 10,00,000 | 10,00,000 |
| | | - | New | ------- | 8,33,333# |
| | Total No. of shares | | | 10,00,000 | 18,33,333 |
| (i) | EPS = EAT ÷ No. of shares | | | 3.18 | 2.06 |
| | P/E | | | 5 | 7.5 |
| (ii) | MPS= EPS x P/E | | | 15.90 | 15.45 |

**#Calculation of new shares to be issued** = 1,00,00,000 ÷12=8,33,333 shares

***New interest** = 12% on 1,00,00,000= 12,00,000

**Answer 3(b)**

$K_e$ = 1/ (P/E)

= 1/12.5

= 0.08 or 8%

EPS = Earning of the firm/ No. of shares outstanding

= ₹2,00,000/ 20 ,000 shares

= ₹10

ROI (r) = (Earnings / Equity Capital ) x 100

= (₹2,00,000 / ₹20,00,000 ) x 100

= 10%

DPS = ₹1,50,000/20,000

= ₹7.5

*Walter's Model:*

P = [DPS + r/ $K_e$(EPS –DPS )] / $K_e$

= [7.5 + 0.10/0.08 (10 - 7.5 )]/ 0.08

= ₹ 132.81

The firm's D/P ratio at 75% is not optimal at which price per share is ₹132.81. The 0% D/P ratio would be optimum as r> $K_e$. If we consider 0% payout the Price will be:

P = [ 0 +0.10/0.08 (10 - 0)] /0.08

= ₹156.25

**Answer 3(d)**

Monthly Requirement = 4,000 units

Therefore, Annual Requirement = 4,000 units x 12 = 48,000 units

Price of X component = ₹20 per unit

Ordering cost = ₹120 per order

Inventory Holding Cost = 10 % per annum

= 10 % of ? 20

= ₹2 per unit

Economics order Quatity(EOQ)

$$= \sqrt{\frac{\text{2 x Annual Requirement x ordering cost per annum}}{\text{carrying cost per unit per annum}}}$$

$$= \sqrt{\frac{2 \times 48,000 \times 120}{2}} = 2,400 \text{ units}$$

$$\text{At EOQ, ordering cost} = \frac{48,000}{2,400} \times 120 = ₹2,400$$

$$\text{Inventory carrying cost} = \frac{2,400}{2} = ₹2,400$$

Total Inventory Holding Cost (Ordering Cost + Carrying Cost) = ₹4,800

**Answer 3A(i)**

As per CAPM

Expected Rate of Return = $R_f + \beta\ (R_m - R_f)$

= 6% + 1.5 (12-6) = 15 %

Alpha = Actual Return – Expected Return

+ 1.5 = AR – 15 %

Therefore, Actual Return = 16.50 %

If the Alpha is positive, it means that stock gives higher return than expected return calculated as per CAPM

**Answer 3A(ii)**

A statement showing evaluation of alternative credit policies

| *Particulars* | *Present Policy* ₹ | *Proposed Policy* ₹ | *Incremental Revenue /Cost* ₹ |
|---|---|---|---|
| Sales | 10,00,000 | 12,00,000 | 2,00,000 |
| Variable Cost (100 – P/V ratio %) | 7,00,000 | 8,40,000 | 1,40,000 |
| Contribution (a) | 3,00,000 | 3,60,000 | 60,000 |
| Fixed Cost (b) | 50,000 | 50,000 | |
| Bad Debts (c) | 10,000 | 24,000 | (14, 000) |
| Debtors | 1,00,000 | 2,00,000 | 1,00,000 |
| Cost of funds @ 20%(d) | 20,000 | 40,000 | (20,000) |
| Net Surplus a-(b+c+d) | 2,20,000 | 2,46,000 | 26,000 |

*Recommendation* : Since the proposed credit policy increases the Net Income of the company, so the company should adopt the proposed policy of relaxation in credit policy.

***Alternate Solution:***

A statement showing evaluation of alternative credit policies

| *Particulars* | *Present Policy* ₹ | *Proposed Policy* ₹ | *Incremental Revenue /Cost* ₹ |
|---|---|---|---|
| Sales 10,00,000 | 12,00,000 | 2,00,000 | |
| Variable Cost | (7,00,000) | (8,40,000) | (1,40,000) |
| (100 – P/V ratio %) | | | |
| Contribution (a) | 3,00,000 | 3,60,000 | 60,000 |
| *Less* : Fixed Cost (b) | (50,000) | (50,000) | Nil |
| Profit (A) | 2,50,000 | 3,10,000 | 60,000 |
| Total Cost | 7,50,000 | 8,90,000 | |
| Average Debtors (TC/DCP) Based on Total Cost instead of sales value | 75,000 | 1,48,333 | |
| Opportunity Cost @20% | 15,000 | 29,667 | 14,667 |
| Bad Debts | 10,000 | 24,000 | 14, 000 |
| Total Cost (B) | 25,000 | 53,667 | 28,667 |
| Net Surplus ( A - B) | 2,25,000 | 2,56,333 | 31,333 |

*Recommendation* : Since the proposed credit policy increases the Net Income of the company, so the company should adopt the proposed policy of relaxation in credit policy.

**Answer 3A(iii)**

(a) Cash Cycle period = Average Receivable period + Average Inventory holding period – Average payment period

= 45 days + 75 days – 30 days

= 90 days

Cash Turnover = 360 Days /90 days

= 4 times = 12/4= 3 months

(b) Minimum operating cash = Total operating annual outlay / turnover

= ₹120 Lakhs /4

= ₹30 Lakhs

| | | |
|---|---|---|
| (c) Cash Cycle | = | 45 days + 45 days – 30 days |
| | = | 60 days |
| Cash turnover | = | 360 / 60 |
| | = | 6 times |
| Minimum operating cash | = | ₹120 Lakhs / 6 |
| | = | ₹20 Lakhs |
| Reduction in investments | = | ₹ 30 Lakhs - ₹20 Lakhs |
| | = | ₹ 10 Lakhs |
| Savings | = | 0.15 x ₹ 10 lakhs |
| | = | ₹ 1.50 Lakhs |

**Answer 3A(iv)**

As per quoted rate: it is according to the indirect quote , hence Local Currency S$ and Foreign Currency = £

(i) Forward rate based on Interest Rate Parity Theory (IRPT). The exchange rate is Singapore Dollar (SGD) per pound. Hence, SGD is home currency, pound is the price.

The rate is per annum. The period is half year. Hence, the interest rate will converted into half yearly rates.

$$\frac{\text{Forward}}{\text{Spot}} = \frac{1 + \text{Home Interest Rate}}{1 + \text{Foreign Interest Rate}}$$

$$\frac{\text{Forward}}{2.2} = \frac{1.07}{1.055}$$

Estimate of Future Spot Rate of currency = SGD 2.23

(ii)

| *A* | *B* | *C* | *D* |
|---|---|---|---|
| Forward rate as per IRPT | If Pound gain 4% annualised (2% for six month) | If Pound Loses 2% annualised (1% for six month) | If Pound is Stable |
| Rate @ 2.23 | Rate will be 2.24 | Rate will be 2.18 | Rate will be 2.20 |
| Pound receipts 3,58,744 | 3,57,143 | 3,66,972 | 3,63,636 |
| Gain or loss, with reference to receipts under forward contract | (A-B) Gain of 1601 | (A-C) Loss of 8228 | (A-D) Loss of 4892 |

**Question 4**

(a) *Katfab Ltd., is facing the problem with respect to management of overseas transactions, which are denominated in the US $. The finance executive of Katfab Ltd. approached the banker, to deal with the transactions, and the following information was provided by the banker :*

| | | |
|---|---|---|
| *Spot rate* | *₹/US$* | *66.00 – 25* |
| *Forward rate, applicable for end of three months from now* | *₹/US$* | *67.00 – 50* |

*From the above information, you are required to answer the following questions:*

*(i) By what percentage will the dollar currency change, over the next three months ? (Answer with respect to ask rate)*

*(ii) By what percentage will the dollar currency change, over the next three months ? (Answer with respect to bid rate)*

*(iii) What would be the value of export transactions in terms of US $, if expected value would be ₹45 lakh, at the end of three months' from now ?*

*(iv) How much in terms of Indian Rupees would be needed, to fulfil the immediate remittance, of US $ 2,20,000 ?*

(b) *Ragina Mutual Fund, wants to hedge its portfolio of shares of ₹15 crore using the NSE-NIFTY Index futures. The contract size is 100 NIFTY. The Index is currently quoted at 9,120. The beta value of the portfolio is 0.80, while of market is 1.00. Calculate the number of future contracts to be traded by Ragina Mutual Fund.*

(c) *Critically evaluate the statement : "Investment decisions are directly related to financial decisions influenced by the cost of capital".*

(d) *The methodology used for storing the certificates are either dematerialisation or immobilisation. Explain.* *(4 marks each)*

**Answer 4(a)**

**(i) Ask rate:**

Computation of annualized appreciation/ depreciation:

= (Forward rate –Spot rate ) ÷ spot rate x 100 x 12/3

$$= \frac{67.50 - 66.25}{66.25} \times 100 \times \frac{12}{3}$$

= 7.55 %

Result is positive. Hence, appreciation.

**(ii) Bid rate :**

Computation of annualized appreciation/ depreciation:

Spot = 66 ₹/ US $= 0.01515 $/₹

3 months forward = 67 ₹/ $ = 0.01493 $/₹

Difference = (0.00022)

= 0.00022/0.01515 X 100 X 12/3

= 5.81%

Result is negative. Hence, depreciation.

**(iii) Action : Sell US $ in forward market**

Relevant rate = Forward bid rate = ₹67

US $ required = ₹45,00,000 / ₹67

= US $ 67,164.18

**(iv) Action = Buy US $ in spot market**

Relevant rate = spot ask rate = ₹66.25

Rupees required to obtain US $ 2,20,000

= US $ 2,20,000 x ₹ 66.25 = ₹1,45,75,000

**Answer 4 (b)**

Beta of the portfolio = 0.08, Beta of the market or index = 1.0

Values per future contract = VF = 9120 x 100 = ₹9,12,000

Value of the portfolio= $V_F$ = 15 crore

$$\text{Hedge ratio} = \frac{\text{Beta of the portfolio}}{\text{Beta of the Index}} = \frac{0.8}{1} = 0.8$$

Number of future Contracts to be traded

= Portfolio value x Hedge Ratio / Value of a Futures Contract

= 15 Crore x (0.8/ 9,12,000)

= 131.5789 or say 132 contracts

**Answer 4(c)**

**Cost of capital and its implication in investment decisions**

Cost of capital represents a rate that a company must overcome before it can generate value, and it is used extensively in the capital budgeting process to determine whether a company should proceed with a project or not.

Another way to describe the cost of capital is the opportunity cost of making an investment in a business. A wise company management will only invest in initiatives and projects that will provide returns that exceed the cost of their capital.

Cost of capital, from the perspective of an investor, is the return expected by them on their capital provided to a business. In other words, it is an assessment of the risk of a company's equity. In doing this, an investor may look at the volatility (beta) of a company's financial results to determine whether a certain stock is too risky or would make a good investment. A company's investment decisions for new projects should always generate a return that exceeds the firm's cost of the capital used to finance the project, otherwise; the project will not generate the return for investors.

**Answer 4(d)**

**Dematerialization**

Dematerialisation is the process of converting physical shares into electronic format. An investor who wants to dematerialise his shares needs to open a demat account with Depository Participant. Investor surrenders his physical shares and in turn gets electronic shares in his demat account. This type of system is cost effective and simple and has been adopted in India. In 1996, trading began on NSE for shares held in demat account form. It was the beginning of a new paperless trading stock market trading environment.

**Immobilization**

In case of Immobilization physical share certificates are kept in vaults with the depository for safe custody. All subsequent transactions in these securities take place in book entry form. The actual owner has the right to withdraw his physical securities as and when desired. The immobilization of fresh issue may be achieved by issuing a jumbo certificate representing the entire issue in the name of depository, as nominee of the beneficial owners.

**Question 5**

(a) *Pawan Ltd. has a machine having a balance economic life of five years, which costed ₹2,00,000 and has a book value of ₹80,000. A new machine with same capacity, costing ₹4 lakh is available in the market. One of the estimates from technical personnel indicated, that through the acquisition of a new machine, a saving in variable cost can accrue to the extent of ₹1,40,000 per annum. The economic life of the new machine will be 5 years, and can fetch a scrap value of ₹ 40.000.*

*The rate of income tax would be 46% including cess, and other taxes, as envisaged. The management has fixed the soft capital rationing at the rate of 12% per annum. If the old machine sold today, it would be result in realisation of ₹ 20,000, and will have zero value after five years from now. For the working, you can assume no capital gain tax applicable. You can also ignore the income tax savings on account of depreciation as well as loss on sale of existing machine.*

*You are required to advise the management, whether to replace the machine or not, as on date ?*

(b) *Ajitanad Ltd. has furnished the following information, to work out the weighted average cost of capital of the firm :*

| | |
|---|---|
| *Earnings per share* | *₹8* |
| *Dividend pay-out ratio* | *25%* |
| *Market price per share* | *₹80* |

| | |
|---|---|
| *Tax rate* | *30%* |
| *Growth rate of dividend* | *8%* |
| *Additional need of funds* | *₹10,00,000* |
| *Additional debt capital as part of total fund requirement* | *₹4,00,000* |
| *Cost of debt (before tax) – up to ₹ 2,00,000* | *10%* |
| *Cost of debt (before tax) – beyond ₹ 2,00.000* | *15%* |

*Compute from the above information,*

*(i) After tax cost of equity,*

*(ii) After tax cost of debt, and*

*(iii) Weighted average cost of capital.* *(8 marks each)*

**Answer 5(a)**

| | *Amount in ₹* |
|---|---|
| $\frac{\text{Net cash outlay on new machine}}{\text{Purchase price}}$ : | 4,00,000 |
| *Less* : realization from old machine | 20,000 |
| | 3,80,000 |
| Cash Inflows: | |
| Annual Savings in Variable cost as a result of purchase of new machine | 1,40,000 |
| *Less* : Tax @ 46% | 64,400 |
| Annual Savings after tax | 75,600 |
| PV of cash inflows annually for 5 years @ 12% p.a. (75,600 x 3.6048) | 2,72,523 |
| PV of Salvage (40,000 x 0.5674) | 22,696 |
| Total PV of cash inflows | 2,95,219 |
| *Less* : Initial investments | 3,80,000 |
| Net Present Value (NPV) | (84,781) |

Since NPV is negative, it is advised to the company to not to replace the existing machine.

**Answer 5(b)**

**(i) Cost of Equity**

$$K_e = \frac{D_1}{P_0} + g = [2x\ (1.08)/80] + 0.08 = 0.107 = 10.7\%$$

Where $D_1 = D_0\,(1+g)$ 2

**(ii) Cost of 10% Debt**

$K_d$ = Interest (1 - t) = 0.10 (1-0.30) = 7% 1

Cost of 15% Debt

$K_d$ = Interest (1 - t) = 0.15 ( 1-0.30) = 10.5% 1

**(iii) Calculation of weighted average cost of capital :**

| *Type of capital* | *Amount (₹)* | *Weight (w)* | *Cost of capital (K)* | *(W) x (K)* |
|---|---|---|---|---|
| Equity | 6,00,000 | 0.6 | 0.107 | 0.0642 |
| 10% Debt | 2,00,000 | 0.2 | 0.07 | 0.014 |
| 15% Debt | 2,00,000 | 0.2 | 0.105 | 0.021 |
| Total | 10,00,000 | 1.0 | | 0.0992 |

Therefore, Weight Average Cost of Capital = 9.92%

**Question 6**

*You have very recently completed a professional course from the national level institute of India. You are being appointed as an Executive Assistant of Managing Director of the newly incorporated company named as Sumati Ltd.*

*Sumati Ltd. is estimating to have production and sales capacity of 500 units per annum, and would be sold at the rate of ₹17,000 per unit. You are required to calculate the following for submission to your boss, and in turn to submit to the banking system as part of project report.*

*(1) Percentage of yield on investment;*

*(2) Percentage of profit on sales; and*

*(3) Rate of cash generation per annum before tax.*

*Following details are available for the project with an expected production of 250 units, for first year of operation :*

*A. Investments*

*Land* *₹ 2,00,000*

| | |
|---|---|
| *Building* | *₹ 16,00,000* |
| *Plant and machinery* | *₹ 24,00,000* |

***B. Cost of production for first year of operation***

| | |
|---|---|
| *Raw material (A)* | *₹ 13,00,000* |
| *Raw material (B)* | *₹ 12,52,000* |
| *Salaries and wages* | *₹2,70,000* |
| *Repairs and maintenance on Plant cost* | *5%* |
| *Repairs and maintenance on Building cost* | *2%* |
| *Depreciation on Plant cost* | *7%* |
| *Depreciation on Building cost* | *2.5%* |
| *Administrative and other expenses* | *₹1,00,000* |
| *Steam* | *₹ 2,24,000* |
| *Power* | *₹ 12,000* |
| *Packing drums* | *₹ 30,000* |

***C. Working capital requirement***

| | |
|---|---|
| *Raw material stock (A)* | *6 months* |
| *Raw material stock (B)* | *3 months* |
| *Stock of finished products* | *1 month* |
| *Credit to customers* | *1 month* |
| *Credit from suppliers [only on raw material (B)]* | *1 month* |
| *Cash expenses* | *1 month* |

*(16 marks)*

**Answer 6**

**Computation of Working Capital Requirement**

| *Particulars* | *Basis of calculation* | *Amount (₹)* |
|---|---|---|
| Raw material stock (A) | 13,00,000 x (6/12) | 6,50,000 |
| Raw material stock (B) and packing material | 12,52,000 x (3/12) | 3,13,000 |
| Stock of finished goods | 35,48,000 x (1/12) | 2, 95,667 |
| Credit to customers (250 x 17,000)/12 | 42,50,000 x (1/12) | 3,54,167 |
| Cash expenses | 7, 88,000 x (1/12) | 65,667 |
| *Less* : Credit from suppliers | 12,52,000 x (1/12) | (1,04,333) |
| Working capital requirement | | 15,74,168 |

Profit = (250*17,000) - ₹ 35,48,000 = ₹ 7,02,000

**Requirement of Total capital**

| | *Amount (₹ )* |
|---|---|
| Land | 2,00,000 |
| Building | 16,00,000 |
| Plant & machinery | 24,00,000 |
| Working capital | 15,74,168 |
| | 57,74,168 |

**(1) Percentage of yield on investment = Profit /Investment x 100**
**(7,02,000/57,74,168) x100**
**12.16%**

**(2) Percentage of profit on sales = (7,02,000/42,50,000) x 100**
**16.52%**

**(3) Rate of cash expenses per annum before tax**

| | *Amount (₹)* |
|---|---|
| PBT | 7,02,000 |
| *Add* : Depreciation | 2,08,000 |
| Cash generation before tax | 9,10,000 |

Rate = (9,10,000/57,74,168) x 100
= 15.76%

*Working Notes:*

**Calculation of cost of production per annum (Assuming Cash expenses are advance/ or cash reserved for expenses)**

| | *Amount (₹)* |
|---|---|
| Raw material (A) | 13,00,000 |
| Raw material (B) | 12,52,000 |
| Salary and wages | 2,70,000 |
| Repairs and maintenance; 5% on ₹24,00,000, 2% on 16,00,000 (1,20,000 + 32,000) | 1,52,000 |
| Depreciation;7% on ₹24,00,000, 2.5% on 16,00,000 (1,68,000 + 40,000) | 2,08,000 |
| Administration and other expenses | 1,00,000 |
| Steam | 2,24,000 |
| Power | 12,000 |
| Packing Drums | 30,000 |
| **Total** | **35,48,000** |

**Cash Generation Per annum**

| | |
|---|---|
| Administration and other expenses | 1,00,000 |
| Steam | 2,24,000 |
| Power | 12,000 |
| Repair and Maintenance | 1,52,000 |
| Salaries and Wages | 2,70,000 |
| Packing Drum Expenses | 30,000 |
| | **7,88,000** |

***Assumptions:***

1. Solution is based expected production of 250 units for first year of operation
2. In cash expenses, packing drums has been considered. Alternatively, it may be considered as a part of Raw material stock (A) or (B)
3. Credit to consumers has been taken at sales. It may alternatively be taken at cost of production as well.

**Alternative Answer-I**

In case, Credit to consumers is considered at cost of production, the calculation would be as under:

**Computation of Working Capital Requirement**

| *Particulars* | *Basic of calculation* | *Amount (₹)* |
|---|---|---|
| Raw material stock (A) | 13,00,000 x (6/12) | 6,50,000 |
| Raw material stock (B) and packing material | 12,52,000 x (3/12) | 3,13,000 |
| Stock of finished goods | 35,48,000 x (1/12) | 2,95,667 |
| Credit to customers | 35,48,000 x (1/12) | 2,95,667 |
| Cash expenses | 7,88,000 x (1/12) | 65,667 |
| *Less* : Credit from suppliers | 12,52,000 X (1/12) | 1,04,333 |
| **Working capital requirement** | | **15,15,668** |

**Requirement of Total capital**

| | *Amount (₹)* |
|---|---|
| Land | 2,00,000 |
| Building | 16,00,000 |
| Plant & machinery | 24,00,000 |
| Working capital | 15,15,668 |
| **Total Investment** | **57,15,668** |

(1) Percentage of yield on investment = Profit /Investment x 100

(7,02,000/57,15,668) x 100

12.28%

(2) Percentage of profit on sales = (7,02,000/42,50,000) x 100

16.52%

(3) Rate of cash generation per annum before tax

| | *Amount (₹)* |
|---|---|
| PBT | 7,02,000 |
| *Add* : Depreciation | 2,08,000 |
| Cash generation before tax | 9,10,000 |

Rate = (9,10,000/57,15,668) x 100

= 15.92%

***Working Notes:***

Profit before tax = Sales –Production Cost

Sales = 17000 x 250 = ₹42,50,000

Production cost = ₹35,48,000

Profit = ₹7,02,000

**Cost of production per annum**

| | *Amount (₹)* |
|---|---|
| Raw material (A) | 13,00,000 |
| Raw material (B) | 12,52,000 |
| Salary and wages | 2,70,000 |
| Repairs and maintenance; 5% on ₹24,00,000, 2% on 16,00,000 | 1,52,000 |
| Depreciation 7% on ₹24,00,000, 2.5% on 16,00,000 | 2,08,000 |
| Administration and other expenses | 1,00,000 |
| Steam | 2,24,000 |
| Power | 12,000 |
| Packing drums | 30,000 |
| | **35,48,000** |

**Alternative Answer- II**

Calculation on the basis of assumption that cash expenses are outstanding

**Computation of Working Capital Requirement**

| *Particulars* | *Basic of calculation* | *Amount (₹)* |
|---|---|---|
| Raw material stock (A) | 13,00,000 x (6/12) | 6,50,000 |
| Raw material stock (B) and packing material | 12,52,000 x (3/12) | 3,13,000 |
| Stock of finished goods | 35, 48,000 x (1/12) | 2, 95,667 |
| Credit to customers (250 x 17000)/12 | 42,50,000 x (1/12) | 3,54,167 |
| Cash expenses | 7,88,000 x (1/12) | (65,667) |
| *Less* : Credit from suppliers | 12,52,000x (1/12) | (1,04,333) |
| **Working capital requirement** | | **14,42,834** |

**Profit = (250 x 17,000) - ₹35,48,000 = ₹7,02,000**

**Requirement of Total capital**

| | *Amount (₹)* |
|---|---|
| Land | 2,00,000 |
| Building | 16,00,000 |
| Plant & machinery | 24,00,000 |
| Working capital | 14,42,834 |
| | **56,42,834** |

**(1) Percentage of yield on investment = Profit /Investment x 100**
**(7,02,000/56,42,834) x100**
**12.44%**

**(2) Percentage of profit on sales = (7,02,000/42,50,000)X 100**
**16.52%**

**(3) Rate of cash generation per annum before tax**

| | *Amount (₹)* |
|---|---|
| PBT | 7,02,000 |
| *Add* : Depreciation | 2,08,000 |
| Cash generation before tax | 9,10,000 |

Rate = (9,10,000/56,42,834) X 100
= 16.13%

*Working Notes:*

**Calculation of cost of production per annum**

| *Amount* | *(₹)* |
|---|---|
| Raw material (A) | 13,00,000 |
| Raw material (B) | 12,52,000 |
| Salary and wages | 2,70,000 |
| Repairs and maintenance; 5% on ₹24,00,000, 2% on 16,00,000 (1,20,000 + 32,000) | 1,52,000 |
| Depreciation; 7% on ₹24,00,000, 2.5% on 16,00,000 (1,68,000 + 40,000) | 2,08,000 |
| Administration and other expenses | 1,00,000 |
| Steam | 2,24,000 |
| Power | 12,000 |
| Packing Drums | 30,000 |
| **Total** | **35,48,000** |

***

*TABLE - 1* : **PRESENT VALUE OF RUPEE ONE**

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

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

| RATE | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 | YEAR 7 | YEAR 8 | YEAR 9 | YEAR 10 | YEAR 11 | YEAR 12 | YEAR 13 | YEAR 14 | YEAR 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5% | 0.9524 | 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 | 2.4019 | 3.0374 | 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) *Ranjeet is running a Non-Government Organization (NGO) to help deprived children. He receives government grants of ₹2 lakh for a project to educate the "non-school" going children who work at small shops, doing casual jobs etc. for the financial year 2018-19. On the completion of financial year Ranjeet managed to utilize only ₹50,000 from the grants. Inspite of his best efforts he was unable to persuade many street dwelling and poor children or their parents to join his NGO initiative.*

*There exists a clause in grant rules that Ranjeet has to return all the unspent money back to the fund providers at the end of March 31st, 2019. However his advisor Roshan advised him following :*

(i) *If we honestly return ₹1.5 lakh back, then fund providers will think that we are inefficient and ineffective NGO and they may not grant us adequate funds in coming years or in the worse case they may not sanction us any further projects.*

(ii) *We may discuss our CA Ranjan to manage our account books and show that most of the grants has been utilised for the purpose it was given.*

(iii) *Many other recipients of grant are also adopting this practice and no one raised objection so far, as long they give 10 percent of the grant to the incharge of the project supervision desk.*

(iv) *Though it may be considered unethical but we may use the grant money in coming years for the purpose for which it was disbursed. Hence we may not have a guilt feeling of unethical and immoral conduct.*

*Answer the following questions :*

(i) *What should Ranjeet do with the money ?* *(5 marks)*

(ii) *"Ethics are less a goal than a pathway and less a destination than a trip." Comment in the light of above.* *(5 marks)*

(b) *Write short notes on the following :*

(i) *What corporate governance deals with as per Confederation of Indian Industry (CII) Desirable Corporate Governance Code (1998) ?*

*(ii) Discuss the principle of Succession Planning based on Adi Godrej Committee Report.*

*(iii) Which companies are required to constitute a Nomination and Remuneration Committee of the Board ?*

*(iv) Discuss the Review of Information by Audit Committee for Corporate Governance in Public Sector Enterprises.*

*(v) Discuss the Accountability Principles of the UK Corporate Governance Code, 2014. (2 marks each)*

*(c) Discuss the nine thematic pillars of business responsibility enshrined in the National Guidelines on Responsible Business Conduct (NGRBC) released by the Ministry of Corporate Affairs (MCA). (5 marks)*

**Answer 1(a)**

(i) It will never be the valid justification to commit any unethical act by saying 'Others are also doing it.' Two wrong acts cannot make a right act i.e. one manipulating books of account to keep the amount of grant money not utilized for legitimate purpose till given date and other bribing to the in-charge of the project supervision team. The life of lie and deception is very low especially when manipulating the books of account. In the present case Ranjeet was not able to utilize three fourth of the grant money. It implies that either Ranjeet did not tried hard to utilise the money or the granting body had exaggerated the amount of grant required to educate non-school going children or both.

In any case, if Ranjeet keeps the unspent amount of grant, Government will continue to provide the grant money to educate the non-school going children which is not being utilized fully and other NGO and the in-charge of the project will keep amassing wealth by unethical means. Therefore Ranjeet should return the unspent amount of grant to the Government.

(ii) Yes it is very well said that 'Ethics are less a goal than a pathway and less a destination than a trip'. Exemplary leadership is critical to encourage ethical behaviour.

The ethical dilemma an organisation faces are difficult. The toughest ethical dilemmas in the workplace occur when two or more competing alternatives are present, each having its own set of ethical values, the choice of which always offers a less than ideal solution. This happens because we often are pitting two favourable outcomes against each other often fairness versus compassion. Right versus Right is the toughest ethical challenge to navigate.

Knowing the right things and doing it are two different things. It takes ethical leadership for one's action to match one's words. Integrity is the principle that underlies ethical decision making and is built on moral values. Therefore the process of achieving ethical outcomes are more significant and need to be focussed on.

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

As per Confederation of Indian Industry (CII) – Desirable Corporate Governance

Code (1998) "Corporate governance deals with laws, procedures, practices and implicit rules that determine a company's ability to take informed managerial decisions vis-à-vis its claimants - in particular, its shareholders, creditors, customers, the State and employees. There is a global consensus about the objective of 'good' corporate governance: maximising long-term shareholder value."

The key to good corporate governance is a well-functioning, informed board of directors. The board should meet a minimum of six times a year. Listed companies with a turnover of Rs.100 crores and above should have professionally competent, independent, nonexecutive directors, who should constitute at least 30% of the board if the Chairman of the company is a non-executive director, or at least 50% of the board if the Chairman and Managing Director is the same person. No single person should hold directorships in more than 10 listed companies.

Key information that must be reported to, and placed before, the board must contain: Annual operating plans and budgets, together with up-dated long term plans, Capital budgets, manpower and overhead budgets, Quarterly results for the company as a whole and its operating divisions or business segments, Internal audit reports, including cases of theft and dishonesty of a material nature, Show cause, demand and prosecution notices received from revenue authorities which are considered to be materially important, Fatal or serious accidents, dangerous occurrences, and any effluent or pollution problems, Default in payment of interest or non-payment of the principal on any public deposit, and/or to any secured creditor or financial institution.

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

Adi Godrej Committee was constituted by MCA to formulate a Policy Document on Corporate Governance. The committee's suggestions on the Succession planning were as under:

The best way to ensure that a company does not suffer due to a sudden unplanned for gap in leadership is to develop an action plan for a successful succession transition. A plan should be put in place early, so it acts as a contingency in case an emergency requiring a sudden transition.

Poor succession planning and time-consuming executive searches can dampen investor confidence, often leading to falling stock values and generating uncertainty about the strategic objectives of a company. Succession planning can no longer be ignored as an integral part of effective corporate governance.

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

Section 178(1) of the Companies Act, 2013 read with rule 6 of the Companies (Meetings of the Board and its Powers) Rules, 2014 and Rule 4 of the Companies (Appointment and Qualification of Directors) Rules, 2014, provides that the board of directors of following classes of companies is required to constitute a Nomination and Remuneration Committee of the Board-

(i) every listed public companies

(ii) All public companies with a paid up capital of 10 crore rupees or more;

(iii) All public companies having turnover of 100 crore rupees or more;

(iv) All public companies, having in aggregate, outstanding loans or borrowings or debentures or deposits exceeding 50 crore rupees or more;

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

Review of information by Audit Committee: The Audit Committee shall review the following information:

- Management discussion and analysis of financial condition and results of operations.
- Statement of related party transactions submitted by management.
- Management letters/letters of internal control weaknesses issued by the statutory auditors.
- Internal audit reports relating to internal control weaknesses.
- The appointment and removal of the Chief Internal Auditor shall be placed before the Audit Committee.
- Certification/declaration of financial statements issued/signed by the Chief Executive/Chief Finance Officer.

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

Accountability principle of the UK Corporate Governance Code, 2014 are as under :

1. *Financial and Business Reporting* :The board should present a fair, balanced and understandable assessment of the company's position and prospects.
2. *Risk Management and Internal Control* : The board is responsible for determining the nature and extent of the principal risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems.
3. *Audit Committee and Auditors* : The board should establish formal and transparent arrangements for considering how they should apply the corporate reporting, risk management and internal control principles and for maintaining an appropriate relationship with the company's auditors.

**Answer 1(c)**

The National Guidelines on Responsible Business Conduct comprises nine thematic pillars of business responsibility that are known Principles. These principles are interdependent, interrelated and non-divisible and all business are urged to address them holistically. It guides all companies on the adoption and implementation of the Principles.

The nine thematic pillars of business responsibility provided by the NGRBC are as under:

- Businesses should conduct and govern themselves with integrity in a manner that is Ethical, Transparent and Accountable.

- Businesses should provide goods and services in a manner that is sustainable and safe.
- Businesses should respect and promote the well-being of all employees, including those in their value chains.
- Businesses should respect the interests of and be responsive to all their stakeholders.
- Businesses should respect and promote human rights.
- Businesses should respect and make efforts to protect and restore the environment.
- Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent.
- Businesses should promote inclusive growth and equitable development.
- Businesses should engage with and provide value to their consumers in a responsible manner.

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

**Question 2**

*(a) As the Company Secretary of XYZ Ltd. prepare a note for the Board of Directors regarding the selection, qualifications, remuneration and tenure of Independent Directors.*

*(b) "Secretarial Audit ensures adherence to good governance practices." Discuss and describe provisions of the Companies Act, 2013 related to Secretarial Audit.*

*(c) Preparation of minutes of General, Board of Directors and Committee Meetings is a legal requirement under the Companies Act, 2013. Suggest at a minimum, what the minutes must contain ? (5 marks each)*

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

**Question 2A**

*(i) Discuss provisions of Corporate Governance under the Companies Act, 2013 and Listing Regulations related to constitution of Stakeholders Relationship Committee.*

*(ii) ABC Company Ltd. (a non-listed company) had a paid up share capital of ₹80 crore as on the last day of its financial year ending on 31st March, 2018. However its financial statements for the financial year 2017-18 are yet to be audited. Whether the company is required to appoint a woman director during the financial year 2017-18 ?*

*(iii) As the Company Secretary of X & Co. Ltd. prepare note on the matters to be included in Board's report for One Person Company and Small Company in terms of Rule 8A of Companies (Accounts) Rule, 2014 as amended by Companies (Accounts) Amendment Rules, 2018. (5 marks each)*

**Answer 2(a)**

To,

The Board of Directors,

XYZ Ltd

Sir/Madam,

*Sub : Note on selection, qualifications, remuneration and tenure of Independent Directors*

**Selection** : Section 150 of the Companies Act, 2013 provides that an independent director may be selected from a data bank containing names, addresses and qualifications of persons who are eligible and willing to act as independent directors, maintained by any body, institute or association, as may by notified by the Central Government, having expertise in creation and maintenance of such data bank and put on their website for the use by the company making the appointment of such directors:

Provided that responsibility of exercising due diligence before selecting a person from the data bank referred to above, as an independent director shall lie with the company making such appointment.

The appointment of independent director shall be approved by the company in general meeting and the explanatory statement annexed to the notice of the general meeting called to consider the said appointment shall indicate the justification for choosing the appointee for appointment as independent director.

Rule 4 of the Companies (Appointment and Qualifications of Directors) Rules, 2014 provides that at least two directors as independent directors are required for:

(i) the Public Companies having paid up share capital of ten crore rupees or more or

(ii) the Public Companies having turnover of one hundred crore rupees or more or

(iii) the Public Companies which have, in aggregate, outstanding loans, debentures and deposits, exceeding fifty crore rupees.

**Qualifications** : Rule 5 of The Companies (Appointment and Qualifications of Directors) Rules, 2014 provides that

An independent director shall possess appropriate skills, experience and knowledge in one or more fields of finance, law, management, sales, marketing, administration, research, corporate governance, technical operations or other disciplines related to the company's business.

None of the relatives of an independent director :-

(i) is indebted to the company, its holding, subsidiary or associate company or their promoters, or directors; or

(ii) has given a guarantee or provided any security in connection with the indebtedness of any third person to the company, its holding, subsidiary or associate company or their promoters, or directors of such holding company, for an amount of fifty lakhs rupees, at any time during the two immediately preceding financial years or during the current financial year.

**Remuneration** : Section 149(9) of the Companies Act, 2013 provides that notwithstanding anything contained in any other provision of this Act, but subject to the provisions of sections 197 and 198 of the Companies Act, 2013 an independent director shall not be entitled to any stock option and may receive remuneration by way of fee provided under sub-section (5) of section 197 of the Companies Act, 2013, reimbursement of expenses for participation in the Board and other meetings and profit related commission as may be approved by the members. Section 197 (5) of the Companies Act, 2013 provides that a director may receive remuneration by way of fee for attending meetings of the Board or Committee thereof or for any other purpose whatsoever as may be decided by the Board.

Provided that the amount of such fees shall not exceed one lakh rupees per meeting of the Board or committee thereof.

**Tenure** : According to section 149 (10) of the Companies Act, 2013 subject to the provisions of section 152 of the Companies Act, 2013 an independent director shall hold office for a term up to five consecutive years on the Board of a company, but shall be eligible for reappointment on passing of a special resolution by the company and disclosure of such appointment in the Board's report.

Section 149(11) of the Companies Act, 2013 states that notwithstanding anything contained in section 149(10), no independent director shall hold office for more than two consecutive terms, but such independent director shall beeligible for appointment after the expiration of three years of ceasing to become an independent director:

Provided that an independent director shall not, during the said period of three years, be appointed in or be associated with the company in any other capacity, either directly or indirectly.

**Answer 2(b)**

Secretarial Audit is a process to check compliance with the provisions of all applicable laws and rules/regulations/procedures, adherence to good governance practices with regard to the systems and processes of seeking and obtaining approvals of the Board and/or shareholders, as may be necessary, for the business and activities of the company, carrying out activities in a lawful manner and the maintenance of minutes and records relating to such approvals or decisions and implementation.

Section 204 of Companies Act 2013 provides for Secretarial audit for bigger companies. In this regard, the following are pertinent :

(1) Every listed company and a company belonging to other class of companies as may be prescribed shall annex with its Board's report made in terms of sub-section (3) of section 134, a secretarial audit report, given by a company secretary in practice, in Form number MR.3.

For the purposes of sub-section (1) of section 204, the other class of companies has been detailed in Rule 9 of the Companies (Appointment and remuneration of Managerial Personnel) Rules, 2014 which is as under-

(a) Every public company having a paid-up share capital of fifty crore rupees or more; or

(b) Every public company having a turnover of two hundred fifty crore rupees or more.

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

(3) The Board of Directors, in their report made in terms of sub-section (3) of section 134 of the Companies Act. 2013, shall explain in full any qualification or observation or other remarks made by the company secretary in practice in his report under section 204(1).

(4) If a company or any officer of the company or the company secretary in practice, contravenes the provisions of this section, the company, every officer of the company or the company secretary in practice, who is in default, shall be punishable with fine which shall not be less than one lakh rupees but which may extend to five lakh rupees

**Answer 2(c)**

Minutes are the written record of a board or committee meeting. Preparation of minutes of general, Board and committee meetings is a legal requirement under section 118 of Companies Act, 2013.The Company Secretary should ensure compliance of the same. Sub-section (2) of section 118 provides that the minutes of each meeting shall contain a fair and correct summary of the proceedings thereat.

Atleast the minutes must contain the following:

- Meeting location and date
- Names of attendees and absentees
- Principal points arising during discussion
- Board decisions
- In the case of each resolution passed at the meeting, the names of the directors, if any, dissenting from, or not concurring with the resolution. [Section 118(4)(b) of the Companies Act, 2013]
- All appointments made at any of the meetings aforesaid shall be included in the minutes of the meeting [Section 118(3) of the Companies Act, 2013]

Minutes record what actually happens at a meeting, in the order in which it took place, regardless of whether the meeting followed the written agenda or not. The minutes are important legal documents and, by law, must be kept by the company. They also serve as important reminders of action to be taken between meetings.

**Answer 2A(i)**

The Companies Act, 2013 envisages radical changes in the sphere of Corporate Governance in India. It is set to provide a major overhaul in Corporate Governance norms and have far-reaching implications on the manner in which corporate operates in India.

Some of the Provisions of Companies Act, 2013 related to Corporate Governance are as under:

1. Appointment and maximum tenure of Independent Directors.
2. Appointment of Woman Director.
3. Appointment of Whole time Key Managerial Personnel.
4. Performance Evaluation of the Directors and Board as a whole.
5. Enhanced disclosures and assertions in Board Report, Annual Return and Directors' Report with regard to Managerial Remuneration, risk management, internal control for financial reporting, legal compliance, Related Party Transactions, Corporate Social Responsibility, shareholding pattern, public money lying unutilised, etc.
6. Stricter yet forward-looking procedural requirements for Secretarial compliances and ICSI Secretarial Standards made mandatory.
7. Enhanced compliances of Related Party Transactions and introduction of concept of arm's length pricing.
8. Enhanced restrictions on appointment of Auditors and mandatory rotation of Auditors.
9. Separation of role of Chairperson and Chief Executive Officer.
10. Mandatory provisions regarding vigil mechanism.
11. Constitution of Nomination and Remuneration Committee.
12. Constitution of CSR Committee with minimum one Independent Director and formulation of CSR policy to spend 2% of average Net Profits during the three immediately preceding financial years in pursuance of CSR policy.
13. Secretarial Audit for the bigger companies.

Stakeholder Relationship Committee as per Regulation 20 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 :

(1) The listed entity shall constitute a Stakeholders Relationship Committee to specifically look into various aspects of interest of shareholders, debenture holders and other security holders.

(2) The chairperson of this committee shall be a non-executive director.

(2A) At least three directors, with at least one being an independent director, shall be members of the Committee.

(3) The Chairperson of the Stakeholders Relationship Committee shall be present at the annual general meetings to answer queries of the security holders.

(3A) The stakeholders' relationship committee shall meet at least once in a year.

**Answer 2A(ii)**

The Companies Act, 2013 in India recognized the importance of gender diversity and provides for mandatory appointment of at least one woman director in the listed and other specified class of companies.

Rule 3 of Companies (Appointment and Qualification of Directors) Rules, 2014, prescribes the following class of companies shall appoint at least one woman director-

(i) every listed company

(ii) every other public company having :-

(a) paid-up share capital of one hundred crore rupees or more; or

(b) turnover of three hundred crore rupees or more .

It is further clarified that the paid up share capital or turnover, as the case may be, as on the last date of latest audited financial statements shall be taken into account.

In view of the above facts since ABC Company Ltd. (a non-listed company) is having a paid up share capital of Rs.80 crores only which is less than Rs.100 crores as on 31st March 2018 and it's financial statement are yet to be audited, the company does not require to appoint a woman director for financial year 2017-18. It is also assumed that the turnover of the said company is below the threshold limit of Rs. 300 crores. In case the turnover of the company is Rs. 300 crores or more as on the last date of latest audited financial statement than the company will be required to appoint at least one woman director.

**Answer 2A (iii)**

The Board of Director's

X & Co. Ltd.

Dear Sir,

Followings are the matters to be included in the board's report of One Person Company and Small Company as per Rule 8A of the Companies (Accounts) Rules, 2014 as amended by Companies (Accounts) Amendment Rules, 2018 :

(1) The Board's Report of One Person Company and Small Company shall be prepared based on the stand alone financial statement of the company, which shall be in abridged form and contain the following:-

(a) the web address, if any, where annual return referred to in sub-section (3) of section 92 of Companies Act, 2013 has been placed

(b) number of meetings of the Board

(c) Directors' Responsibility Statement as referred to in sub-section (5) of section 134 of Companies Act, 2013

(d) details in respect of frauds reported by auditors under sub-section (12) of section 143 of Companies Act, 2013 other than those which are reportable to the Central Government

(e) explanations or comments by the Board on every qualification, reservation or adverse remark or disclaimer made by the auditor in his report

(f) the state of the company's affairs

(g) the financial summary or highlights

(h) material changes from the date of closure of the financial year in the nature of business and their effect on the financial position of the company

(i) the details of directors who were appointed or have resigned during the year

(j) the details or significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future.

(2) The Report of the Board shall contain the particulars of contracts or arrangements with related parties referred to in sub-section (1) of section 188 of Companies Act, 2013 in the Form AOC-2.

Signed

Company Secretary

**Question 3**

*(a) You, being a practicing Company Secretary, advise the Board mentioning the provisions related to composition and functions of Corporate Social Responsibility Committee.*

*(b) "To be effective new directors need to have a good deal of knowledge about the company and the industry within which it operates". In the light of this statement discuss directors' induction programme in a company.*

*(c) Discuss the system of Corporate Governance in the United Kingdom in the light of 'comply or explain' principle established by the Cadbury Committee in 1992.*

*(5 marks each)*

**Answer 3 (a)**

To,

The Board of Director's

___________ Company Name

Dear Sir,

Following are the provisions related to composition and functions of Corporate Social Responsibility Committee :

As per section 135 (1) of the Companies Act, 2013 every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during the immediately preceding financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.

**Composition of the Corporate Social Responsibility Committee**

As per Rule 5 of The Companies (Corporate Social Responsibility Policy) Rules, 2014

(i) A company covered under subsection (1) of section 135 which is not required to appoint an independent director pursuant to sub-section (4) of section 149 of the Act, shall have its CSR Committee without such director.

(ii) A private company having only two directors on its Board shall constitute its CSR Committee with two such directors.

(iii) With respect to a foreign company the CSR Committee shall comprise of at least two persons of which one person shall be as specified under clause (d) of sub-section (1) of section 380 of the Companies Act, 2013 and another person shall be nominated by the foreign company.

The CSR Committee shall institute a transparent monitoring mechanism for implementation of the CSR projects or programs or activities undertaken by the company.

**Functions of Corporate Social Responsibility Committee**

As per section 135 (3) of the Companies Act, 2013 :

The Corporate Social Responsibility Committee shall,—

(a) formulate and recommend to the Board, a Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the company in areas or subject, specified in Schedule VII of the Companies Act, 2013

(b) recommend the amount of expenditure to be incurred on the CSR activities and

(c) monitor the Corporate Social Responsibility Policy of the company from time to time.

This is for your information please.

Signed

___________ Company Secretary

**Answer 3(b)**

Directors must have a broad understanding of the area of operation of the company's business, corporate strategy and challenges being faced by the Board. For this purpose the induction procedures should be in place to allow new directors to participate fully and actively in board decision-making at the earliest. In order to discharge their professional obligations efficiently, new directors need to have a good deal of knowledge about the company and the industry within which it operates. It involves introducing the new directors to the people with whom they will be working and explaining how the board operates. It involves building up rapport, trust, and credibility with the other directors so that the new director is accepted by and can work with fellow directors.

Common methods of induction include:

- Briefing papers
- Internal visits
- Introductions

An induction programme should be available to enable new directors to gain an understanding of:

- the company's financial, strategic, operational and risk management position

- the rights, duties and responsibilities of the directors
- the roles and responsibilities of senior executives
- the role of board committees.

An induction kit should be given to new directors which should contain the following:

- Memorandum and Articles of Association with a summary of most important provisions
- Brief history of the company
- Company's Vision and Mission Statements
- Current business plan, market analysis and budgets
- All relevant policies and procedures, such as a policy for obtaining independent professional advice for directors;
- Protocol, procedures and dress code for Board meetings, general meetings, staff social events, site visits etc including the involvement of partners;
- Press releases in the last one year
- Copies of recent press cuttings and articles concerning the company
- Annual report for last three years
- Notes on agenda and Minutes of last six Board meetings
- Board's meeting schedule and Board committee meeting schedule
- Description of Board procedures.

**Answer 3(c)**

The Corporate Governance Code in U.K is based on the 'comply or explain' approach first set out in the Cadbury Committee report in 1992. Listed companies are required under the Financial Conduct Authority Listing Rules either to comply with the provisions of the Code or explain to investors in their next annual report why they have not done so.

The main principles of the U.K Corporate Governance Code, 2014 are as follows :

**A. Leadership**

1. *The Role of the Board* : Every company should be headed by an effective board which is collectively responsible for the long-term success of the company.
2. *Division of Responsibilities* : There should be a clear division of responsibilities between the higher management of the company for running of the board and the executive's responsibility for the running of the company's business. It is to be noted that no one individual should have unfettered powers of decision.
3. *The Chairman* : The chairman is responsible for leadership of the board and ensuring its effectiveness on all aspects falling under his purview.
4. *Non-Executive Directors* : As part of their role as members of a unitary board,

non-executive directors should constructively challenge and helping, developing proposals on strategy.

**B. Effectiveness**

1. *The Composition of the Board* : The board and its committees should have the appropriate balance of skills, experience, independence and knowledge of the company to enable them to discharge their respective duties and responsibilities effectively.

2. *Appointments to the Board* : There should be a formal, rigorous and transparent procedure for the appointment of new directors to the board.

3. *Commitment* : All directors should be able to allocate sufficient time to the company to discharge their responsibilities effectively.

4. *Development* : All directors should receive induction on joining the board and should regularly update and refresh their skills and knowledge.

5. *Information and Support* : The board should be supplied in a timely manner with information in a form and of a quality appropriate to enable it to discharge its duties.

6. *Evaluation* : The board should undertake a formal and rigorous annual evaluation of its own performance and that of its committees and individual directors.

7. *Re-election* : All directors should be submitted for re-election at regular intervals, subject to continued satisfactory performance.

**C. Accountability**

1. *Financial and Business Reporting* : The board should present a fair, balanced and understandable assessment of the company's position and prospects.

2. *Risk Management and Internal Control* : The board should maintain sound risk management and internal control systems.

3. *Audit Committee and Auditors* : The board should establish formal and transparent arrangements for considering how they should apply the corporate reporting, risk management and internal control principles and for maintaining an appropriate relationship with the company's auditors.

**D. Remuneration**

1. *The Level and Components of Remuneration* : Executive directors' remuneration should be designed to promote the longterm success of the company. Performance-related elements should be transparent, stretching and rigorously applied.

2. *Procedure* : There should be a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual directors. No director should be involved in deciding his or her own remuneration.

E. *Relations with shareholders*

1. *Dialogue with Shareholders* : There should be a dialogue with shareholders based on the mutual understanding of objectives. The board as a whole has responsibility for ensuring that a satisfactory dialogue with shareholders takes place.

2. *Constructive Use of General Meetings* : The board should use general meetings to communicate with investors and to encourage their participation.

**Question 4**

*(a) List the disclosure requirements prescribed under IRDAI with regards to preparation of Financial Statements and Auditors' Report of Insurance Companies.*

*(b) Discuss Audit Committee Composition under Legislative Framework of Corporate Governance in U.K., Singapore, South Africa, Australia and India.*

*(c) As the Company Secretary of MSZ Ltd. you are required to prepare a note for the Board of Directors explaining measures to protect the interests of minority shareholders as prescribed under Companies Act, 2013. (5 marks each)*

**Answer 4(a)**

The IRDAI (Preparation of Financial Statements and Auditors' Report of Insurance Companies) Regulations, 2002, have prescribed certain disclosures in the financial statements and the Authority is in the process of finalizing additional disclosures to be made by insurers at periodical intervals. In the meantime, it may be ensured by the Board that the information on the following, including the basis, methods and assumptions on which the information is prepared and the impact of any changes therein are also disclosed in the annual accounts:-

- Quantitative and qualitative information on the insurance company's financial and operating ratios, viz. incurred claim, commission and expenses ratios.
- Actual solvency margin details vis-à-vis the required margin.
- Insurers engaged in life insurance business shall disclose persistency ratio of policies sold by them.
- Financial performance including growth rate and current financial position of the insurance company.
- Description of the risk management architecture.
- Details of number of claims intimated, disposed off and pending with details of duration.
- All pecuniary relationships or transactions of the Non-Executive Directors vis-à-vis the insurance company shall be disclosed in the Annual Report.
- Elements of remuneration package (including incentives) of MD & CEO and all other directors and Key Management Persons.
- Payments made to group entities from the Policyholders Funds.

- Any other matters, which have material impact on the insurer's financial position.

Where finalization of annual accounts extends beyond 90 days from the end of the Financial Year, the status on disclosure in the financial statements required under this clause may be made within 15 days of adoption of annual accounts by the Board of Directors of the Insurers.

**Answer 4(b)**

Audit Committee Composition of UK, Singapore, South Africa, Australia and India are as under:

**UK**

The board should establish an audit committee of at least three, or in the case of smaller companies, two independent non-executive directors.

**Singapore**

The audit committee should comprise at least three directors, all non-executive, the majority of whom, including the Chairman, should be independent.

**South Africa**

The members of the audit committee should have the necessary financial literacy, skills and experience to execute their duties effectively.

**Australia**

The Audit Committee should be structured so that it:

- Consists only of non-executive directors
- Consists of a majority of independent directors
- Is chaired by an independent chair, who is not chair of the board
- Has at least three members.

**India**

As per section 177(1) of the Companies Act, 2013 read with rule 4 of the Companies (Appointment and Qualification of Directors) Rules, 2014, The Board of Directors of every listed public company and the Public Companies having paid up share capital of ten crore rupees or more or having turnover of one hundred crore rupees or more or which have, in aggregate, outstanding loans, debentures and deposits, exceeding fifty crore rupees shall constitute an Audit Committee.

As per section 177(2) of the Companies Act, 2013 the Audit Committee shall consist of a minimum of three directors with independent directors forming a majority

Provided that majority of members of Audit Committee including its Chairperson shall be persons with ability to read and understand, the financial statement.

**Regulation 18 of the SEBI(LODR) Regulations, 2015 provides that**

(1) Every listed entity shall constitute a qualified and independent audit committee in accordance with the terms of reference, subject to the following:

   (a) The audit committee shall have minimum three directors as members.

(b) Two-thirds of the members of audit committee shall be independent directors.

(c) All members of audit committee shall be financially literate and at least one member shall have accounting or related financial management expertise.

(d) The chairperson of the audit committee shall be an independent director and he shall be present at Annual general meeting to answer shareholder queries.

(e) The Company Secretary shall act as the secretary to the audit committee.

**Answer 4(c)**

To,

The Board of Directors
MSZ Ltd.

**Note on measures to protect the interest of minority shareholders**

Companies Act, 2013 provides for some measures to protect the interest of minority shareholders. It includes the following:

- Where a company, which has raised money from public through prospectus and still has any unutilized amount out of the money so raised and which proposes to change its objects, then the promoter and shareholders having control of a company are required to provide an exit to the dissenting shareholders in accordance with regulations to be specified by SEBI.
- Where any benefit accrues to promoter, director, manager, KMP, or their relatives, either directly or indirectly as a result of non-disclosure or insufficient disclosure in the explanatory statement annexed to the notice of general meeting then such persons shall hold such benefit in trust for the company and shall be liable to compensate the company to the extent of the benefit received by him.
- Class Action Suit: Section 245 of the Companies Act, 2013 deals with the Class Action for prevention and operation of mismanagement. In case of oppression / mismanagement, specified number of members or depositors is entitled to file Class Action Suit before NCLT for seeking prescribed reliefs. They may also claim damages / compensation for fraudulent / unlawful / wrongful acts from or against the company / directors / auditors / experts / advisors etc. Some of the actions that can be taken are as under: –
    - Restrain company from any act which is ultra vires the AOA / MOA
    - Restrain company for breach of provisions of MOA / AOA, Act or any other law
    - Declare a resolution void if material facts are not provided
    - Restrain company/ directors from acting on such resolutions
    - Restrain company from taking action contrary to any resolution passed by shareholders

- Claim damages or compensation or demand any other suitable action
- Seek other remedies as Tribunal may deem fit

This is for your information please.

Signed

...............Company Secretary

**PART — B**

**Question 5**

*(a) "Business should respect, protect and act to restore the environment". To recognize the above principle discuss the core elements related to environmental responsibility for sustainable growth and well being of society.*

*(b) "Business should provide goods and services that are safe and contribute to sustainability throughout the life cycle". In the light of this statement explain the core elements recommended by the National Voluntary Guidelines to engineer value in goods and services.*

*(c) "Corporate sustainability and corporate social responsibility are different from each other but have strong convergence as well". Discuss. (5 marks each)*

**Answer 5(a)**

The National Voluntary Guidelines on Social, Environmental and Economic Responsibility of Business was released by the the MCA in July, 2011.The Guidelines enunciated 9 Principles and among these Principles, one of the Principle is that 'Business should respect, protect, and act to restore the environment'.

This principle recognizes the fact that environmental responsibility is a prerequisite for sustainable economic growth and for the well being of society.

The key facts pertaining to the mentioned principle are as under:

1. Businesses should utilize natural and manmade resources in an optimal and responsible manner and ensure the sustainability of resources by reducing, reusing, recycling and managing waste.
2. Businesses should take measures to check and prevent pollution. They should assess the environmental damage and bear the cost of pollution abatement with due regard to public interest.
3. Businesses should ensure that benefits arising out of access and commercialization of biological and other natural resources and associated traditional knowledge are shared equitably.
4. Businesses should continuously seek to improve their environmental performance by adopting cleaner production methods, promoting use of energy efficient and environment friendly technologies and use of renewable energy.
5. Businesses should develop Environment Management Systems (EMS) and contingency plans and processes that help them in preventing, mitigating and

controlling environmental damages and disasters, which may be caused due to their operations or that of a member of its value chain.

6. Businesses should report their environmental performance, including the assessment of potential environmental risks associated with their operations, to the stakeholders in a fair and transparent manner.
7. Businesses should proactively persuade and support its value chain to adopt this principle.

**Answer 5(b)**

The National Voluntary Guidelines on Social, Environmental and Economic Responsibility of Business was released by the the MCA in July, 2011. The Guidelines enunciated 9 Principles and among these Principles, one of the Principle is that 'Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle'.

This principle recognizes that all stages of the product life cycle, right from design to final disposal of the goods and services after use, have an impact on society and the environment. Responsible businesses, therefore, should engineer value in their goods and services by keeping in mind the following impacts:

1. Businesses should assure safety and optimal resource use over the life-cycle of the product – from design to disposal – and ensure that everyone connected with it- designers, producers, value chain members, customers and recyclers are aware of their responsibilities.
2. Businesses should raise the consumer's awareness of their rights through education, product labelling, appropriate and helpful marketing communication, full details of contents and composition and promotion of safe usage and disposal of their products and services.
3. In designing the product, businesses should ensure that the manufacturing processes and technologies required to produce it are resource efficient and sustainable.
4. Businesses should regularly review and improve upon the process of new technology development, deployment and commercialization, incorporating social, ethical, and environmental considerations.
5. Businesses should recognize and respect the rights of people who may be owners of traditional knowledge, and other forms of intellectual property.
6. Businesses should recognize that over-consumption results in unsustainable exploitation of our planet's resources, and should therefore promote sustainable consumption, including recycling of resources.

**Answer 5(c)**

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

Corporate Sustainability can be considered as an attempt to adopt the concept of Sustainable Development to the corporate setting, matching the goal of value creation with environmental and social considerations. According to the Dow Jones Sustainability Index, 'Corporate Sustainability is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments.

Corporate Sustainability includes an attempt to assimilate the environmental and social dimensions into business operations, processes, products and procedures. In practical terms, the Corporate Sustainability approach leads to a very concrete and pragmatic solution to the problem of how to measure performance and how natural and social values can be incorporated into corporate accounting.

The evolutionary part of the concept of Corporate Social Responsibility is different from that of the Corporate Sustainability. The first recognized contribution in the literature dates back to Bowen, who stressed the responsibilities of businesses, and wrote that social responsibility refers to the obligations of the businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society.

Besides economic and legal responsibilities (that is, to be able to make profits as well as obey the law), companies are expected to satisfy other requirements, relevant to the conformity to social norms and voluntary contributions to the community in which they operate. Another important Corporate Social Responsibility approach was developed during the 1980s in the light of the growth of the stakeholder approach.

In nut-shell, the Corporate Sustainability and Corporate Social Responsibility can be differentiated on the following points:

| *Basis* | *Corporate Sustainability* | *Corporate Social Responsibility* |
|---|---|---|
| Vision | It looks forward, planning the changes a business might make to secure its future (reducing waste, assuring supply chains, developing new markets, building its brand. | It looks backwards, reporting on what a business has done, typically in the last 12 months, to make a contribution to society. |
| Targets | It targets the whole value chain – from suppliers to operations to partners to end-consumers. | It tends to target opinion formers – politicians, pressure groups, media. |
| Business | It is about business. | It is becoming about compliance. |
| Management | It is by operations and marketing. | It gets manages by communications teams. |
| Reward | Sustainability investment is rewarded by the environment. | CSR investment is rewarded by politicians. |
| Drive | Sustainability is driven by the need to create opportunities in emerging markets. | CSR is driven by the need to protect reputations in developed markets. |

**Convergence** : Although Corporate Sustainability and Corporate Social Responsibility have different roots and have developed along diverse theoretical paths, they have ultimately converged. This strong convergence is evident in some recent definitions of the Corporate Social Responsibility provided by international organizations, like the Prince of Wales International Business Leaders Forum : Corporate Social Responsibility means open and transparent business practices that are based on ethical values and have respect for their employees, communities and environment. It is designed to deliver sustainable value to society at large, as well as to the shareholders.

The concept of sustainable development has been transposed from the macro to the corporate dimensions. Companies, in fact, are a productive resource of our socio-economic system, and key to the eventual implementation of sustainability. According to the management theory, the attempt to include sustainability issues in the managerial framework can be divided into two separate issues: Corporate Sustainability and Corporate Social Responsibility.

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

**Question 6**

*Discuss, in brief, the following :*

*(a) Corporate Social Responsibility (CSR) is not a philanthropy.*

*(b) Investor behaviour challenge in mainstreaming sustainability reporting.*

*(c) Dow-Jones Sustainability Index.*

*(d) Issues dealt with in Convention on Biological Diversity.*

*(e) Objectives of scheme of labeling of environment friendly products.*

*(3 marks each)*

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

**Question 6A**

*(i) Explain in detail the KYOSEI philosophy of Corporate Governance.*

*(ii) Discuss briefly the Corporate Manslaughter and Corporate Homicide Act, 2007 of the United Kingdom.*

*(iii) Describe in brief the contents of major legal enactments for Environment Protection in India.* *(5 marks each)*

**Answer 6(a)**

CSR and Philanthropy has been always misconstrued as synonymous. However, there is a significant difference between the two.

Philanthropy means the act of donating money, goods, time or effort to support a charitable cause with reference to a defined objective. Philanthropy can be equated with benevolence and charity for the poor and needy. Philanthropy can be any selfless giving towards any kind of social need that is not served, underserved, or perceived as unserved or underserved. Philanthropy can be by an individual or by a corporate. It is the active effort to promote human welfare.

Corporate Social Responsibility on the contrary goes beyond that. CSR is about making the core business functions of a company more sustainable. It is about how a company aligns their values to social causes by including and collaborating with their investors, suppliers, employees, regulators and the society as a whole. The investment in CSR may be on people centric issues and/or planet issues. A CSR initiative of a corporate is not a selfless act of giving; companies derive long-term benefits from the CSR initiatives and it is this enlightened self interest which is driving the CSR initiatives in companies. A CSR program does not only benefit the community, but also the business in form of improved morale, increased staff retention, status as an employer of choice, attracting new business, and differentiation from competitors. This is because a CSR program requires involvement from all the stakeholders including employees as well as the community.

**Answer 6(b)**

The Sustainability Reporting is relatively a new concept, hence many organizations find it difficult to prepare it. Some of challenges in mainstreaming sustainability reporting areabsence of the guidelines on sustainability, lack of awareness of the concept of sustainability reporting , expertise knowledge on the sustainability reporting.

Apart from these challenges, the understanding of the Investor's behaviour is also a challenging one. It is a recognized principle that investors should consider the Environmental, Social and Governance (ESG) issues while making investment decisions. There are specific guidelines formulated by regulators for the institutional investor to be vigilant on voting aspects and be concerned about the governance practices of the companies in which they invest. However, the investor behaviour may vary from company to company and sometimes they invest in companies without considering the ESG issues either due to lack of awareness on ESG issues or some other business reasons. It should be made a practice that the investor fund flow to those organization following the good governance including reporting on sustainability aspects.

**Answer 6(c)**

The Dow Jones Sustainability Indices are the first global indices tracking the financial performance of the leading sustainability-driven companies worldwide, it was launched in 1999.

The Dow Jones Sustainability World Index (DJSI World) comprises more than 300 companies that represent the top 10% of the leading sustainability companies out of the biggest 2500 companies in the Dow Jones World Index.

In addition to the composite DJSI World, there are six specialized subset indexes excluding alcohol, ex gambling, ex tobacco, ex armaments & firearms, ex alcohol, tobacco, gambling, armaments & firearms indexes, and ex alcohol, tobacco, gambling armaments & firearms, and adult entertainment.

**Answer 6(d)**

The Convention on Biological Diversity, is an international treaty that was adopted in Rio de Janeiro in June 1992. Its objective is to develop national strategies for the conservation and sustainable use of biological diversity.

Some of the issues dealt within the Convention on Biological Diversity 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 456 PP-EGAS 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.

**Answer 6(e)**

To increase consumer awareness, the Ministry of Environment & Forests, Government of India launched the eco-labeling scheme known as 'Ecomark' in 1991 for easy identification of environment-friendly products. Any product which is made, used or disposed of in a way that significantly reduces the harm it would otherwise cause to the environment could be considered as Environment-Friendly Product.

The specific objectives of the scheme are as follow:

- To provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
- To reward genuine initiatives by companies to reduce adverse environmental impact of their products.
- To assist consumers to become environmentally responsible in their daily lives by providing information to take account of environmental factors in their purchase decisions.
- To encourage citizens to purchase products which have less harmful impacts on environment.
- Ultimately to improve the quality of the environment and to encourage the sustainable management of resources.

**Answer 6(A)(i)**

Kyosei is a Japanese technique meaning “a spirit of cooperation”. A concise definition of this word would be "living and working together for the common good.”

Kyosei establishes harmonious relations among the company and –

- Customers
- Suppliers
- Competitors
- Governments
- Natural Environment

Kyosei philosophy reflects a confluence of social, environmental, technological and political solutions. It believes that peace, prosperity and social and environmental improvement come through positive action. It works in five stages:

- First is economic survival of the company
- Second is cooperating with labour
- Third is cooperating outside the company
- Fourth is global activism, and
- Fifth is making the government/s a Kyosei partner

In the first stage of kyosei, a company must work to secure a predictable stream of profits and to establish strong market positions.

In the second stage managers and workers resolve to cooperate with one another, recognizing that both groups are vital to the company's success.

In the third stage, this sense of cooperation is extended beyond the company to encompass customers, suppliers, community groups, and even competitors.

At the fourth stage, a company takes the cooperative spirit beyond national boundaries and addresses some of the global imbalances.

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
- Environmental imbalances

by advocating political, economic and educational reform.

Kyosei philosophy banks upon the theory of corporate governance that makes governance function look outside in

- Governance leadership will pull and push executive leadership towards satisfaction of all the stakeholders.
- Conflicts and tension will be replaced by creative living and working together.

- Spirit of happy cooperation is made all-pervasive.

Strong relationships are the sine qua non of the Kyosei framework of responsibility. Togetherness and unity of life objectives are the idealist nature of Kyosei. Japanese companies like Canon strive hard to make the ideal a reality

**Answer 6(A)(ii)**

In the United Kingdom, the Corporate Manslaughter and Corporate Homicide Act introduced a new offence, across the UK, for prosecuting companies and other organisations where there has been a gross failing, throughout the organisation, in the management of health and safety measures having fatal consequences. Under the Corporate Manslaughter and Corporate Homicide Act, 2007 an organisation is guilty of corporate manslaughter if the way in which its activities are managed or organised causes a death and amounts to a gross breach of a duty of care to the person who died. A substantial part of the breach must have been in the way activities were organised by senior management.

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

The Act, which came into force in year 2008, clarifies the criminal liabilities of companies, including large organisations, where serious failures on the part of the management regarding caring about their men's health and safety measures that led to fatal consequences.

Prosecutions will be, of the corporate body, and not of the individuals, but the liability of directors, board members or other individuals under health and safety law or general criminal law, will remain unaffected. Nevertheless, the corporate body and individuals can still be prosecuted separately for committing health and safety offences.

Companies and organisations have to keep their health and safety management systems under constant review, particularly the way in which their activities are managed and organised by their senior management.

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

The Ministry of Environment and Forest (MOEF) is responsible to enforce the regulations established pursuant to major legal enactments which are as follows:

1. *The Water (Prevention and Control of Pollution) Act* : It was enacted in 1974 to prevent and control water pollution, to maintain or restore the wholesomeness of water in the country.
2. *The Air (Prevention and Control of Pollution) Act* : It was enacted in 1981 and amended in 1987 to provide for the prevention, control and abatement of air pollution in India.
3. *The Environment (Protection) Act* : It was enacted in 1986 with the objective of protecting and improving the environment.
4. *Public Liability Insurance Act, 1991*: It is meant to provide for the damages

suffered by the victims as a result of an accident occurring by the handling of a hazardous substance.

5. *National Green Tribunal (NGT)* : The National Green Tribunal was established on October 18th 2010 under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests, and other natural resources.

6. *The Prevention of Cruelty to Animals Act* : It was enacted in 1960 to prevent the infliction of unnecessary pain or suffering on animals, and to amend the laws relating to the prevention of cruelty to animals.

7. *Wild Life (Protection) Act, 1972* : It was enacted with the objective of effectively protecting the wild life of this country, and to control poaching, smuggling and illegal trade in wildlife and its derivatives.

8. *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006* : It recognizes the rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers over the forest areas inhabited by them, and provides a framework for according the same.

9. *The Biological Diversity Act, 2002* : It was born out of India's attempt to realise the objectives enshrined in the United Nations Convention on Biological Diversity (CBD) 1992, which recognizes the sovereign rights of states to use their own Biological Resources. The Act aims at the conservation of biological resources and associated knowledge as well as facilitating access to them in a sustainable manner.

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