

GUIDELINE ANSWERS

PROFESSIONAL PROGRAMME

JUNE 2017

MODULE 2



**THE INSTITUTE OF
Company Secretaries of India**

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

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

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(i)

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

PROFESSIONAL PROGRAMME

UPDATING SLIP

ETHICS, GOVERNANCE AND SUSTAINABILITY

MODULE – 2 – PAPER 3

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

PROFESSIONAL PROGRAMME EXAMINATION

JUNE 2017

INFORMATION TECHNOLOGY AND SYSTEMS AUDIT

Time allowed : 3 hours

Maximum marks : 100

NOTE: Answer **ALL** Questions.

Question 1

- (a) *What are the functions of Controller of Certifying Authority as per the Information Technology Act, 2000 ?*
 - (b) *What do you mean by EFT ? List any four benefits of EFT.*
 - (c) *What is test pack ? Explain the uses of test pack in Information System Audit.*
 - (d) *What are the limitations of using ERP system in an organization ?*
- (5 marks each)*

Answer 1(a)

As per section 18 of Information Technology Act, 2000, the Controller of Certifying Authority may perform all or any of the following functions, namely:-

- (a) Exercising supervision over the activities of Certifying Authorities;
- (b) Certifying public keys of the Certifying Authorities;
- (c) Laying down the standards to be maintained by Certifying Authorities;
- (d) Specifying the qualifications and experience which employees of the Certifying Authorities should possess;
- (e) Specifying the conditions subject to which the Certifying Authority shall conduct their business;
- (f) Specifying the contents of written, printed or visual materials and advertisements that may be distributed or used in respect of a Digital Signature Certificate and the public key;
- (g) Specifying the form and content of a Digital Signature Certificate and the key;
- (h) Specifying the form the manner in which accounts shall be maintained by the Certifying Authorities;
- (i) Specifying the terms and conditions subject to which auditors may be appointed and the remuneration to be paid to them;
- (j) Facilitating the establishment of any electronic system by a Certifying Authority either solely or jointly with other Certifying Authorities and regulation of such system;
- (k) Specifying the manner in which the Certifying Authorities shall conduct their dealings with the subscribers;
- (l) Resolving any conflict of interests between the Certifying Authorities and the subscribers;

- (m) Laying down the duties of the Certifying Authorities;
- (n) Maintaining a data-base containing the disclosure record of ever Certifying Authority containing such particulars as may be specified by regulations which shall be accessible to public.

Answer 1(b)

An electronic funds transfer (EFT) is a transaction that takes place over a computerized network, either among accounts at the same bank or to different accounts at separate financial institutions. EFT is one of the oldest electronic payment systems, EFT is the groundwork of the cash-less and paper-less culture where paper bills, cheques, envelops, stamps are eliminated, EFT is used for transferring money from one bank account directly to another without any paper money changing hands.

Benefits of Electronic Payments through EFT

1. *Speed* : Electronic Payments through EFT is quite speedy and time saving wherein the sending cash or cheques by post is quite slow and has the implications like security and currency conversion
2. *Convenience* : Electronic Payment ensures that store is open for the business globally, 24 hours a day, seven days a week.
3. *Efficiency* : The following points contribute to its efficiency
 - i. Electronic Payment System leave behind an electronic documented audit trail, streamlining auditing and accounting processes.
 - ii. Accepting Payment online streamlines the buying cycle. By making your order, stock, purchase, payment and dispatch process electronic from website to back office.
4. *Reduced Cost* : Accepting online payments means that many banking processes become automatic.
5. *Increased Customer Base* : Online payment take advantage of impulse buyers. If any website doesn't offer payment by credit cards as an option, you could lose out in this market.

Answer 1(c)

Test Packs are test data prepared by the auditor and processed by the logic [program] of the system being audited so that the output can be compared with predetermined results and discrepancies explained.

It is a type of computer Assisted Audit Technique which is used in conducting audit procedures by entering data (e.g. a sample of transactions) into the computer system and comparing the results obtained with predetermined results.

The use of test packs is the application of auditors test data (live or dummy) to clients' application programs. A small sample of data is processed through the computer and the output is compared with manually generated output using the same data. This audit approach requires little computer expertise but designing of test data which will represent all the possible combination is the time consuming and difficult process. Use

of test data generators can overcome this disadvantage. The systems auditors should request for the appropriate computer program to be loaded on a separate computer. He should prepare an exhaustive Test Pack. The Test Pack will consist of a comprehensive data so that the logic of the program is extensively checked.

Test packs also come handy when the conventional test cases are inadequate due to any reason ex. Loss of audit trail. They give the auditor the flexibility to submit valid and invalid data to test error and exception routines.

Answer 1(d)

Limitation of ERP

Each good system like ERP has some limitations and for these limitations, sometime people become reluctant to implement good system. The limitations which are associated with an ERP system are given below:

1. Difficult to implement in running businesses
2. Often requirement of Customization which is problematic
3. ERP deployments are time consuming, projects may take 1 to 3 years
4. Policy Limitations
5. Ongoing Support
6. Lack of user participation in ERP implementation
7. Problem of Harmonization in ERP processes with the business processes
8. Resistance to Change
9. High Annual Charges
10. Cutting Expenses on Training
11. Dependency on Vendor/High Switching Cost
12. Cost savings / ROI may take years to realise

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

Question 2

- (a) *How does information system play an important role in business management ? Explain. (4 marks)*
- (b) *List the names of any four input devices of a Computing System. Briefly describe about Optical Character Recognition (OCR). (4 marks)*
- (c) *Briefly explain any four characteristics database system that distinguishes the database approach with file-based approach. (4 marks)*
- (d) *Distinguish between Batch Processing and Time Sharing. (4 marks)*

OR (Alternate question to Q. No. 2)

Question 2A

Distinguish between the following :

- (i) *Primary Memory and Secondary Memory*

(ii) *Analytic Databases and Operational Databases*

(iii) *Tactical Management and Operational Management*

(iv) *E-Commerce and M-Commerce.*

(4 marks each)

Answer 2(a)

Information system has been playing a pivotal role in Business Management nowadays. A good information system may be termed as the backbone of business management. In today scenario, it is imperative to say that an Information system is the key to success of a business. A good information system is essential for midsize business to large business.

The massive data and increasing volumes of data needs organized storing and fast and effective processing for variety of purposes from decision making to risk management, from transaction processing to state the art products. This is possible only with the help of an effective information system.

Now the business has become global and most of the businesses are global distributed across the world. These businesses require stable and reliable network infrastructure which can run and handle simultaneous and real time fast processing. Now with the advancement of information technology, simultaneous processing of data on 24x7 bases has got possible. This has increased the efficiency of business.

Here we can say that the more businesses grow the more dependent they become of Information Systems. Information system is important at each level of business management. It supplies information from Strategic management team to middle management and it is very crucial for business successes.

The importance of information system in a business management is for following reasons:

- (a) An aid in operational excellence
- (b) Helpful in improved decision making
- (c) Necessary for day to day survival
- (d) Competitive Advantage
- (e) Easily retrievable records
- (f) To improve efficiency and productivity
- (g) Data Analysis and Benchmarking

Answer 2(b)

Input Devices of a Computer System

- Keyboard
- Mouse
- Trackball
- Scanner
- Bar Code Reader

- Optical Character Recognition
- Web Camera
- Digital Camera
- Camcorder
- Microphone
- Joystick
- Optical Mark Reader
- Touch Pen
- Touch pad
- Touch Screen
- Light pen
- Graphic digitizer

Optical Character Recognition

Optical Character Recognition (OCR), is the mechanical or electronic conversion of scanned images of handwritten, typewritten or printed text into machine-encoded text. It is widely used as a form of data entry from some sort of original paper data source, whether documents, sales receipts, mail, or any number of printed records. It is crucial to the computerization of printed texts so that they can be electronically searched, stored more compactly, displayed on-line, and used in machine processes such as machine translation, text-to speech and text mining.

Answer 2(c)

There are a number of characteristics that distinguish the database approach with the file-based approach.

1. Self-Describing Nature of a Database System

A database system contains not only the database itself but also the descriptions of data structure and constraints (meta-data). This information is used by the DBMS software or database users if needed. This separation makes a database system totally different from the traditional file-based system in which the data definition is a part of application programs.

2. Insulation between Program and Data

In the file based system, the structure of the data files is defined in the application programs so if a user wants to change the structure of a file, all the programs that access that file might need to be changed as well. On the other hand, in the database approach, the data structure is stored in the system catalog not in the programs. Therefore, one change is all that's needed.

3. Support multiple views of data

A view is a subset of the database which is defined and dedicated for particular users of the system. Multiple users in the system might have different views of the system. Each view might contain only the data of interest to a user or a group of users. No such view is present in the file based system.

4. Sharing of data and Multiuser system

A multiuser database system must allow multiple users access to the database at the same time. As a result, the multiuser DBMS must have concurrency control strategies to ensure several users access to the same data item at the same time, and to do so in a manner that the data will always be correct – data integrity. This does not happen with the file based system.

5. Data Sharing

The integration of the whole data in an organization leads to the ability to produce more information from a given amount of data, which is very difficult to achieve in the file based system.

Answer 2(d)

Batch Processing

Batch processing is execution of a series of programs (“jobs”) on a computer without manual intervention. So, all input data are preselected through scripts, command-line parameters, or job control language. This is in contrast to “online” or interactive programs which prompt the user for such input. A program takes a set of data files as input, processes the data, and produces a set of output data files. This operating environment is termed as “batch processing” because the input data are collected into batches of files and are processed in batches by the program.

Time Sharing

Time Sharing (Multitasking System) means multiple users simultaneously using the resources of a single processor (scalability).

In data processing, method of operation in which multiple users with different programs interact nearly simultaneously with the central processing unit of a large scale digital computer is termed as Time sharing. In other words, time sharing refers to the allocation of computer resources in time slots to several programs or users simultaneously.

Because the central processor operates substantially faster than does most peripheral equipment, it has sufficient time to solve several discrete problems during the input/output process. Even though the central processor addresses the problem of each user in sequence, access to and retrieval from the time sharing system seems instantaneous from the standpoint of remote terminals since the solutions are available to them the moment the problem is completely entered. Commonly used time sharing techniques include multiprocessing, parallel operation, and multiprogramming. Also, many computer networks organized for the purpose of exchanging data and resources are centered on time sharing systems.

The time shared systems are more complex than the multi-programming systems. In time-shared systems multiple processes are managed simultaneously which requires an adequate management of main memory so that the processes can be swapped in or swapped out within a short time.

Answer 2A(i)

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

Answer 2A(ii)

<i>S. No.</i>	<i>Analytical Database</i>	<i>Operational database</i>
1	It supports Online analytical processing	It supports Online Transactional processing
2.	These are primarily static, read only database which stores archived historical data for analysis	These are used to manage more dynamic bits of data. These database will allow users to simply view archived data.
3.	These are designed specifically for business analytics; big data and business intelligence solutions.	These are designed to support day to day operations of an organisation.
4	An analytical database stores business or projected data used in business analysis and forecasting.	Operational database might contain fact and dimension, data describing transactions

Answer 2A(iii)

<i>S.No.</i>	<i>Tactical Management</i>	<i>Operational Management</i>
1.	These are at the middle level of the management.	These are at the lower level of the management hierarchy.
2.	They receive strategic orders from strategic management as general directives.	Operational Management deals with the decisions related to day to day activities.
3.	They develop tactics or short term strategies having medium term impact to meet those strategic directives.	They make decisions concerning a narrow time span.

<i>S.No.</i>	<i>Tactical Management</i>	<i>Operational Management</i>
4.	Generally, the decision making at this level is semi structured.	Generally decisions at this level are structured in nature.
5.	<i>Example</i> : Decision to run discount schemes in the Delhi NCR stores by Pantaloons Retail to achieve annual targets an example of decision made by tactical management.	Example: Decision by Big Bazar store to stock up its weekly inventory of FMCG is an example of decision made by operational management.

Answer 2A(iv)

<i>S.No.</i>	<i>E-Commerce</i>	<i>M-Commerce</i>
1.	Electronic commerce or E-commerce is a term for any type of business, or commercial transaction that involves the transfer of information across the Internet.	M-commerce is a term that is used to refer to the growing practice of conducting financial and promotional activities with the use of a wireless handheld device.
2.	<p>Elements of E-Commerce:</p> <ul style="list-style-type: none"> • It is a place to sell the product and service through website • User Friendly • Advanced Technology • Easy to process and check out • Customer Support • Security and Privacy • Visualization of goods and products • Calls for Action • Usability • Prioritized Access of Customers 	<p>Elements of M-Commerce:</p> <ul style="list-style-type: none"> • Ease Access through Mobiles • Offline Access though supported mobile apps; • User Interfaces • Easy access to all services • Location Based Services • Secure Transactions • Other Value Added Services • Ease Usability
3.	E-Commerce is of Four Types : B2B, B2C, C2C, C2B.	<p>M-commerce generally support B2C transactions and not much compatible with B2B system.</p> <p>M-commerce may be executed and availed with following services:</p> <ul style="list-style-type: none"> • Mobile Apps • Mobile Ticketing Module • Mobile Banking • Mobile Wallet • M-Paisa and alike

S.No.	E-Commerce	M-Commerce
4.	For e-commerce, it is generally executed through PC, Laptops, Desktops etc.	M-Commerce is executed through mobile or handheld devices.
5.	Access is through browser or broadband.	Accessed through browsers, but more conveniently executed through mobile apps. Apart from broad band, mobile data can be used to access these services.
6.	Relatively less convenience as one has to carry one's devices or machines supported with internet access to avail e-commerce	More convenient as one has to have mobile phone and mobile data to access the m-commerce.
7.	Generally, the Payment Gateway is Credit Cards or Debit Cards	The payment can be done using mobile wallet, callers' rate, mobile banking as well as cards
8.	Less costly for the creation a web store and the use of internet	More costly for the creation of a mobile app and the use of cellular data

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

Question 3

- Briefly explain the objectives of making Information Technology Act, 2000 of India.
- What are the requirements for handling protected data ? Write any four.
- Briefly describe the scenarios, where database management system should not be used ?
- Describe the reasons for which information system audit is gaining significance. (4 marks each)

OR (Alternate question to Q. No. 3)

Question 3A

Write short notes on the following :

- Use of Analytics
- Android Operating System
- Data structure and its characteristics
- Bluetooth Technology. (4 marks each)

Answer 3 (a)

The Information Technology Act, 2000 was made applicable in India with following objectives:

- To give legal recognition to any transaction which is done electronically or use of internet.

2. To give legal recognition to digital signature for accepting any agreement via computer.
3. To provide facility of filling document online relating to school admission or registration in employment exchange.
4. To provide legal recognition for storage in electronic format.
5. To stop computer crime and protect privacy of internet users.
6. To give legal recognition for keeping books of accounts by bankers and other companies in electronic form.
7. To make more power to IPO, RBI and Indian Evidence Act, 1872 for restricting electronic crime.
8. To amend the Indian Penal Code, 1860, Indian Evidence Act, 1872, The Bankers' Books Evidence Act, 1891 and the Reserve Bank of India Act, 1934.

Answer 3(b)

The requirements for handling protected data are:

- (a) *Access control* : Access to protected data must be provided on a least privilege basis. No person or system should be given access to the data unless required by business process. In such cases where access is required, permission to use the data must be granted by the Data Steward.
- (b) *Sharing* : Protected data may be shared among the employees of the organization according to well-defined business process approved by the Data Steward. It may be released publicly only according to well-defined business processes, and with the permission of the Data Steward.
- (c) *Retention* : Protected data should only be stored for as long as is necessary to accomplish the documented business process.
- (d) *Incident Notification* : If there is a potential security incident that may place protected data at risk of unauthorized access, then the Technology Security Services must be notified about the same.

Answer 3(c)**Scenarios where Database Management System (DBMS) should not be used**

In spite of the advantages of using a DBMS, there are a few situations in which such a system may not be suitable:

1. In situation where unnecessary overhead costs of using a DBMS is involved due to the following reasons:
 - (a) High initial investment in hardware, software, and training.
 - (b) Generality that a DBMS provides for defining and processing data.
 - (c) Overhead for providing security, concurrency control, recovery, and integrity functions.

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

Answer 3(d)

For any business (for profit or for nonprofit) to survive, it must have an adequate information security system in place. IT audit is important because it gives assurance that the IT systems are adequately protected, provide reliable information to users and properly managed to achieve their intended benefits. Many users rely on IT without knowing how the computers work. A computer error could be repeated indefinitely, causing more extensive damage than a human mistake. IT audit could also help to reduce risks of data tampering, data loss or leakage, service disruption, and poor management of IT systems. Few of important reasons for which system audit is gaining significance are:

1. Ensuring the security of information
2. Standardization.
3. Improvement in business efficiency.
4. Improvement in system and process controls.
5. Planning for contingencies and disaster recovery.
6. Evaluating the effectiveness and efficiency related to the use of resources.
7. Reducing of the risk and enhancing of the system security.
8. Prevention and detection of errors and fraud.
9. Building Confidence and Public Reputation.

Answer 3A(i)

The field of Analytics has grown many folds in the recent years. Analytics is a process which helps in discovering the informational patterns with data. The field of analytics is a combination of statistics, computer programming and operations research.

The field of analytics has shown growth in the field of data analytics, predictive analytics and social analytics.

- Data analytics is a tool used to support decision-making process. It converts raw data into meaningful information.
- Predictive analysis is a tool used to predict future events based on current and historical information.
- Social Media analytics is a tool used by companies to understand and accommodate customer needs.

The every changing field of information technology has seen a great advancement and changes in the last decade. And from the emerging trend, it can be concluded that its influence on business is ever growing and it will help companies to serve customers better.

Answer 3A(ii)

Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smart phones and tablet computers. Android was unveiled in 2007 along with the founding of the Open Handset Alliance which is a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008.

It is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language.

Answer 3A(iii)

A data structure is a particular way of storing and organizing data in a computer so that it can be used efficiently. Different kinds of data structures are suited to different kinds of applications, and some are highly specialized to specific tasks. For example, B-trees are particularly well-suited for implementation of databases, while compiler implementations usually use hash tables to look up identifiers. In simple words, the term data structure refers to a scheme for organizing related pieces of information.

The basic types of data structures include: files, lists, arrays, records, trees, tables.

Each of these basic structures has many variations and allows different operations to be performed on the data.

Characteristics of Data Structure:

1. It contains data items that can be elementary item, group item or another data structure.
2. It has a set of operations that can be performed on data items. Such as searching, insertion etc.
3. It describes the rules of how the data items are related to each other.

Answer 3A(iv)

Bluetooth allows two devices to be connected to each other wirelessly. Bluetooth technology can also be used to transfer data between two electronics devices without using wires.

Bluetooth was invented in 1994 by Ericsson. The company later started working with a larger group of companies called the Bluetooth Special Interests Group, or "SIG," to develop the technology into what it is today. Bluetooth is not owned by any one company and is developed and maintained by SIG.

The name Bluetooth came from a code name originally used by SIG for the project and is a reference to a 10th century Danish king named Harold Bluetooth, who was responsible for uniting Norway, Sweden, and Denmark.

Bluetooth technology uses radio waves to send information between two devices that are close to each other. Unlike traditional radio waves, Bluetooth waves typically can only travel 33 feet or less. Bluetooth networks feature a dynamic topology called a piconet or PAN.

Bluetooth is used in mobile phones, headsets, headphones, MP3 players, computers, boom boxes, laptops, computer mice, GPS units, and car stereos. Almost any Bluetooth device can be paired with another Bluetooth device in order to exchange information.

Question 4

- (a) *What do you mean by State Wide Area Network (SWAN) ? Briefly describe its features.*
- (b) *Describe the steps involved in implementation of ERP in an organization.*
- (c) *As an information system auditor what are the environment controls that need to be checked and commented by you ? Write any eight.*
- (d) *What are the limitations of using MIS ? State any four. (4 marks each)*

Answer 4 (a)

State Wide Area Network (SWAN)

Wide Area Network is an advanced telecommunication infrastructure, which is used now-a-days extensively, for exchange of data and other types of information between two or more locations, separated by significant geographical distances.

The medium of connectivity can be copper, optical fiber cable or wireless, as may be found feasible. Such wide area networks, in a way, create a highway for electronic transfer of information in the form of voice, video and data.

Department of IT in Government of India is implementing an approved Scheme known as State Wide Area Network (SWAN) Scheme, envisaged to create such a connectivity in each State / UT, to bring speed, efficiency, reliability and accountability in overall system of Government-to-Government (G2G) functioning.

Features of SWAN

A wide area network deployed in a State or UT would have two components viz. Vertical Component and Horizontal Component.

The SWAN aims to create a dedicated Closed User Group (CUG) network of minimum speed of 2 Mbps by connecting around 7500 pops, providing Data, Voice & Video connectivity to more than 50,000 govt. offices. The networks aim at increasing the efficiency of the government delivery mechanism and optimize the performance. The backbone thus created would provide reliable, vertical and horizontal connectivity within the State / UT administration and would facilitate electronic transactions between all the government departments.

Answer 4 (b)

Implementation of Enterprise Resource Planning (ERP) system is a challenging transition and a rewarding change, if implemented properly. The 10 steps framework for successful ERP implementation is illustrated below:

1. Need Assessment

The first step in any ERP implementation is to identify the company's needs. Start by finding and documenting the critical business processes, inflection points and key performance indicators (KPI). This will help in pinpoint the right ERP solution, as well as the appropriate specialists needed as we go through this important transition.

Remember this is about business processes that support the enterprise. While information technology considerations are important, IT shouldn't be the driver of the analysis.

2. Hire a Team of Specialists

Many organizations lack the internal expertise and experience for ERP implementation. One needs to consider hiring or contracting with an experienced professional to guide you through the implementation process. This will prevent a lot of headaches and wasted time, as well as giving the time to focus on other tasks.

3. ERP System Evaluation and Selection

Selection of the right ERP solution is one of the most critical step in the process. The right program depends on the industry, business needs and system preferences. One consideration is whether somebody needs a premise ERP system or a cloud computing ERP system.

4. Prepare for Change

Implementing a new ERP system can be a major change for a company, especially if the company never used one in the past. It's important to stay transparent with the employees about the change and engage them when possible. ERP transitions are as much about changing culture as changing technology.

5. Data Preparation

Analyze the current data and decide which pieces need to be converted. After the data is all entered into the ERP database (most databases allow data entry via spreadsheet) one needs to clean it up. Review the information database and weed out anything that you deem unnecessary, like old customers or those who are no longer in business. Data integrity is critical to a successful implementation.

6. ERP Implementation

After completing the first five steps, it's time to launch the new system. The ERP consultants have mapped out a specific plan of how to install, configure and optimize the system for working environment. Plans are bound to change (at least slightly) during this process so always keep your major needs and end goals in mind.

7. Testing

While the performance and integrity of ERP systems have come a long way since their introduction in the 90's do not assume everything will execute smooth. System and user acceptance testing is a key phase of the implementation process.

8. Training & Education

After your system is configured, you need to train the employees on how to use the new program. Try finding a group that specializes in on sight training to make sure everyone is up to speed. Ensure the IT team has an extra session of training to know how to handle any tech problems that may arise in the future.

9. Go Live

Once the system has been configured, tested and your employees have been trained, it's time to go live. One can now safely activate your ERP system. It wouldn't hurt to do another round of testing after launching, just in case.

10. Ongoing Support

Unfortunately, one can't just install the ERP system and never touch it again. Advanced ERP implementations require time and attention beyond the initial installation. This includes upgrades to your system and general maintenance.

Answer 4(c)

The following environmental factors need to be checked and commented upon by the auditor:

- (i) Online UPS not used; either line-interactive UPS or Offline UPS used, or CVT used.
- (ii) Electrical cabling loose / points having loose contact.
- (iii) No separate earth pit for the Computing equipment.
- (iv) Switches/Hubs/Routers not fed UPS power.
- (v) Server room door kept open.
- (vi) AC not functioning properly, especially in summer.
- (vii) In winter AC set at 29 Deg C instead of 22 Deg C.
- (viii) No pest control measures taken.
- (ix) Eatables taken into server room/ Smoking in the server room.
- (x) Heavy duty printer kept inside server room; scope for dust.
- (xi) UPS, AC, other electrical items not under regular AMC.
- (xii) No Genset backup in case City power supply fails for long hours.
- (xiii) No smoke detectors/fire alarms in server room area.
- (xiv) Fire extinguishers not kept filled and ready.
- (xv) No fire drill carried out to make people aware of dos and don'ts.

The above are serious lapses that can seriously affect the functioning of the IT Setup and cause work stoppages.

Answer 4(d)

The main limitations of MIS are as follows:

1. The quality of the outputs of MIS is basically governed by the quality of inputs and processes.
2. MIS is merely a tool and not a substitute for effective management i.e. MIS cannot replace managerial judgment in decision making and problem solving. MIS may not have requisite flexibility to quickly adapt itself with the changing needs of time, especially in the dynamic and complex environment.
3. MIS cannot provide tailor made information packages suitable for the purpose of every type of decisions made by executives at different levels.
4. MIS takes into account mainly quantitative factors; thus it ignores significant qualitative factors like morale, attitudes of members of the organization, which have an important bearing on decision-making process of executives.
5. MIS is less useful in non-programmed decision-making. Such type of decisions is not of routine type and thus they require information, which may not be available from existing MIS to executives.
6. The effectiveness of MIS is reduced in the organization, where the culture is to hold information and not share with others.
7. MIS effectiveness decreases due to frequent changes in top management organizational structure and operational team.

Question 5

- (a) *Suppose you are appointed as a member of National e-Governance Plan (NeGP) implementation committee. Explain the elements to be incorporated by you in the approach and methodology for a proposed e-Governance application adopted for NeGP. (8 marks)*
- (b) *Explain Internet Protocol. What are the characteristics of Internet Protocol? (8 marks)*

Answer 5(a)

The approach and methodology adopted for National e-Governance Plan (NeGP) may contain the following elements:

- (i) *Common Support Infrastructure* : NeGP implementation involves setting up of common and support IT infrastructure such as: State Wide Area Networks (SWANs), State Data Centers (SDCs), Common Services Centers (CSCs) and Electronic Service Delivery Gateways.
- (ii) *Governance* : Suitable arrangements for monitoring and coordinating the implementation of NeGP under the direction of the competent authorities have also been substantially put in place. The programme also involves evolving/

laying down standards and policy guidelines, providing technical support, undertaking capacity building, R&D, etc. DEITY is required to adequately strengthen itself and various institutions like NIC, STQC, CDAC, NISG, etc. to play these roles effectively.

- (iii) *Centralized Initiative, Decentralized Implementation* : e-Governance is being promoted through a centralized initiative to the extent necessary to ensure citizen-centric orientation, to realize the objective of inter-operability of various e-Governance applications and to ensure optimal utilization of ICT infrastructure and resources while allowing for a decentralized implementation model. It also aims at identifying successful projects and replicating them with required customization wherever needed.
- (iv) *Public-Private Partnerships (PPP)* : PPP model is to be adopted wherever feasible to enlarge the resource pool without compromising on the security aspects.
- (v) *Integrative Elements* : Adoption of unique identification codes for citizens, businesses and property is to be promoted to facilitate integration and avoid ambiguity.
- (vi) *Programme Approach at the National and State levels* : For implementation of the NeGP, various Union Ministries/Departments and State Governments are involved. Considering the multiplicity of agencies involved and the need for overall aggregation and integration at the national level, NeGP is being implemented as a programme, with well-defined roles and responsibilities of each agency involved. For facilitating this, appropriate programme management structures have also been put in place.
- (vii) *Facilitator role of DEITY* : DEITY is the facilitator and catalyst for the implementation of NeGP by various Ministries and State Governments and also provides technical assistance. It serves as a secretariat to the Apex Committee and assists it in managing the programme. In addition, DEITY is also implementing pilot/ infrastructure/ technical/ special projects and support components. DARPG's responsibility is towards Government Process Re-engineering and Change Management, which are desired to be realized across all government departments. Planning Commission and Ministry of Finance allocate funds for NeGP through Plan and Non-plan budgetary provisions and lay down appropriate procedures in this regard.
- (viii) *Ownership of Ministries* : Under the NeGP, various MMPs are owned and spearheaded by the concerned line Ministries. In case there are any ongoing projects which fall in the MMP category, they would be suitably enhanced to align them with the objectives of NeGP. For major projects like Bharat Nirman, Rural Employment Guarantee Schemes, etc., the line ministries concerned are advised to make use of e-Governance as also automation techniques from the inception stage. States have been given the flexibility to identify a few additional state-specific projects, which are relevant for the economic development of the State.

Answer 5(b)

Internet Protocol (IP) is the method used to route information to the proper address. It is a method through which data is sent from one computer to another on internet.

Every computer on the Internet has to have its own unique address known as the IP address. IP is a connectionless protocol, which means that there is no continuing connection between the end points that are communicating. Internet protocols include TCP/IP (Transfer Control Protocol/Internet Protocol), HTTP (Hypertext Transfer Protocol), FTP (File Transfer Protocol), and SMTP (Simple Mail Transfer Protocol) that create connections. The most widely used version of IP today is Internet Protocol Version 4 (IPV4). However, IP version 6 (IPV6) is also in support. IPV6 provides for much longer addresses and therefore for the possibility of many more users.

When information is sent over the Internet, it is generally broken up into smaller pieces or "packets". Each Packet that travels through the internet is treated as an independent unit of data without any relation to any other unit of data. 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. Every packet sent via internet 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. 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.

Characteristics of Internet Protocol

1. The IP resides in the Internet layer.
2. The IP is the protocol in the TCP/IP stack that is responsible for letting the machine, routers, switches and etcetera, know where a specific packet is going. This protocol is the very heart of the whole TCP/IP stack, and makes up the very foundation of everything in the Internet.
3. The IP encapsulates the Transport layer packet with information about which Transport layer protocol it came from, what host it is going to, and a little bit of other useful information. The IP must be able to define the datagram, which is the next building block created by the transport layer. The IP also defines the Internet addressing system. It means that the IP protocol is what defines how to reach between hosts, and this also affects how one is able to route packets. IP must also be able to decapsulate and encapsulate the IP datagram (IP data) and send or receive the datagram from either the Network access layer, or the transport layer.

The IP is also a connectionless protocol, which in turn means that IP does not "negotiate" a connection. A connection-oriented protocol on the other hand negotiates a "connection" (called a handshake) and then when all data has been sent, tears it down.

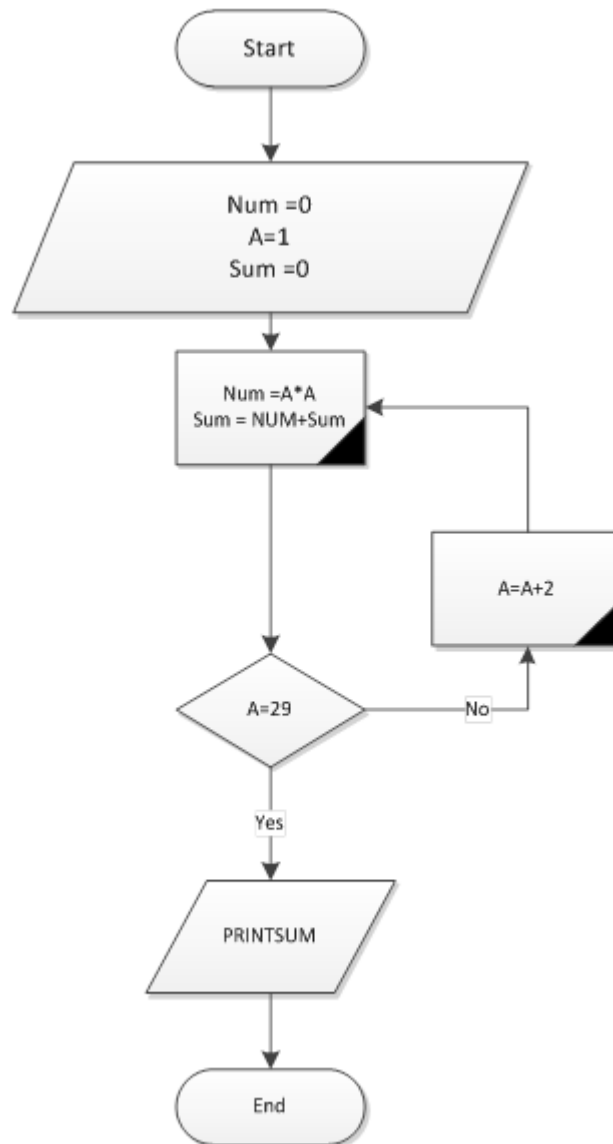
Question 6

- (a) Draw a flowchart to find the sum of the square of first 15 odd numbers.
- (b) Describe any four effects of applying computer technology to Management Information System (MIS).
- (c) What are the functions of Database Management System ? Write any four.

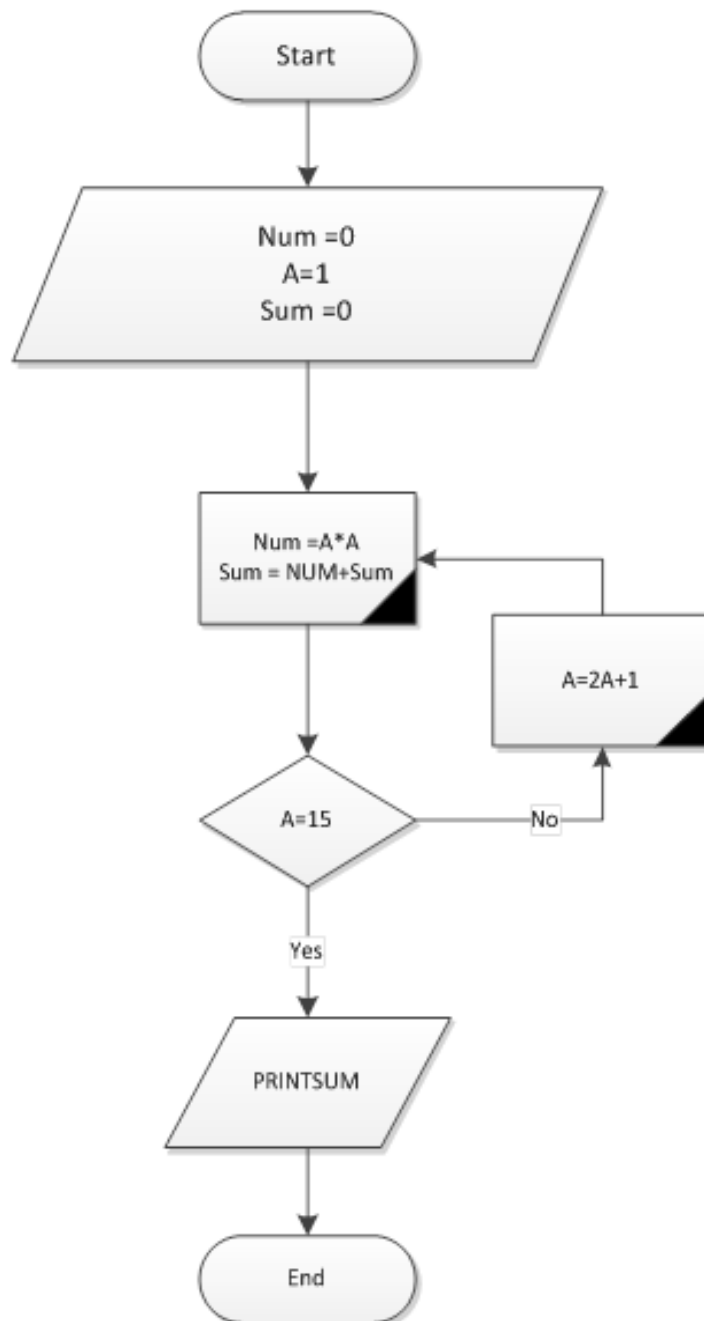
(d) Name the various steps involved in conducting Information System Audit.
(4 marks each)

Answer 6(a)

Flow Chart considering that the 15th Odd number is 29



Alternative Answer 6(a)



Answer 6(b)

The effects of applying computer technology to Management Information System (MIS) are listed below:

1. *Increase in speed of processing and retrieval of data* : Modern business situations, are characterized by, high degree complexity, tough competition and high risk and reward factors. This invariably calls for system capable of providing relevant information in minimum possible time. Computer with its unbelievably fast computational capability and systematic storage of information with random access facility has emerged as an answer to the problems faced by management. Processing of data in relevant form and design and retrieval of it, when needed, in fact requires considerably less time and facilitate the management action and decision-making.
2. *Expanded Scope of use of information system* : System experts in business organizations develop areas and functions, where computerized MIS could be used to improve the working of concern. These types of applications were not feasible under the manual system. For example, computer has facilitated using of online real time system to provide information to various users sitting at remote locations which are far from a centrally located computer system.
3. *Widened scope of analysis* : The use of computer provides varied type of information to decision-makers accurately and in no time. Such information equips executives to carry out thorough analysis of the problem and arrive at the final decision.
4. *Complexity of system design and operation* : During the initial years, after the induction of computer for MIS, systems experts faced problems in designing systems and their operations. The reason at that time was the non-availability of experts required for the purpose. But these days the situation is better. The manufacturers have developed some important programs (software) to help their users.
5. *Integrates the working of different information sub-systems* : A suitable structure of management information system may be a federation of information sub-system, viz., production, material, marketing, finance, engineering and personnel. Each of these sub-systems is required to provide information to support operational control, management control and strategic planning. Such information may be made available by common database.

This common database may meet out the information requirements of different information sub-system by utilizing the services of computers for storing, processing, analyzing and providing such information as and when required. In this way, computer technology is useful for integrating the day-to-day working of different information sub-systems.
6. *Increased the effectiveness of information systems* : Information received in time is of immense value and importance to a concern. Prior to the use of computer technology for information purposes, it was difficult to provide the relevant information to business executives in time even. The use of computer technology has made it quite easy to provide timely, accurate and desired information for the purpose of decision-making.

7. *More comprehensive information* : The use of computer for MIS has enabled provision of more comprehensive information to executives on business matters.

Answer 6(c)

Database Management System (DBMS) performs several functions that guarantee the integrity and consistency of the data in the database. Some of the functions of DBMS are:

1. *Data Dictionary Management* : The DBMS stores definitions of the data elements and their relationships (metadata) in a data dictionary. The DBMS uses this dictionary to look up the required data component structures and relationships, thus relieving the programmer from having to code such complex relationships in each program. All programs that access the data in the database work through the DBMS and any changes made in a database structure are automatically recorded in the data dictionary. In this way the DBMS provides data abstraction, removes structural and data dependency from the system.
2. *Data Storage Management* : The DBMS creates and manages the complex structures required for data storage, thus relieving programmer from the difficult task of defining and programming the physical data characteristics. Data storage management is also important for database performance tuning. Performance tuning relates to the activities that make the database perform more efficiently in terms of storage and access speed.
3. *Data Transformation and Presentation* : The DBMS transforms entered data to conform to required data structures by formatting the physically retrieved data in conformity to the user's logical expectations. Example: An end user in India would expect to enter data such as June 15, 2010 as 15/06/10 whereas the same date is entered in US as 06/15/10.
4. *Security Management* : The DBMS creates a security system that enforces user security and data privacy. Security rules determine which users can access the database which data items each user can access and which data operations (read, add, delete or modify) the user can perform. This is especially important in multiuser database system.
5. *Multi-user Access Control* : To provide data integrity and data consistency, the DBMS uses sophisticated algorithms to ensure that multiple users can access the database concurrently without compromising the integrity of the database.
6. *Backup and Recovery Management* : The DBMS provides backup and data recovery to ensure data safety and integrity. Current DBMS systems provide special utilities that allow the Database Administrator to perform routine and special backup and restore procedures. Recovery management deals with the recovery of the database after a failure such as a bad sector in the disk or a power failure.
7. *Data Integrity Management* : The DBMS uses data relationships stored in the data dictionary to enforce data integrity and, thus minimize data redundancy and maximize data consistency. The ensuring data integrity is especially important in transaction-oriented database systems.

8. *Database Access Languages and API* : The DBMS provides data access through a query language, that lets the user specify what must be done without having to specify how is to be done. SQL is the query language and data access standard supported by majority of DBMS vendors. The DBMS also provides application programming interfaces to procedural languages such as COBOL, C, Java, etc. In addition, the DBMS provides administrative utilities used by the DBA and the database designer to create, implement, monitor and maintain the database.
9. *Database Communication Interface* : Current generation DBMS accept end-user requests via multiple, different network environments. For example, the DBMS might provide access to the database via the Internet through the use of Web browsers such as Internet Explorer, Firefox.

Answer 6(d)

The following steps are involved in conducting systems audit:

1. Previewing the Environment;
2. Understanding the Information System;
3. Identifying the Audit Risk;
4. Identifying the Audit Evidence;
5. Identifying Key Control Points;
6. Identifying Control Weaknesses;
7. Verifying Veracity of Computer Files;
8. Conducting Audit Tests; and
9. Concluding the Audit.

FINANCIAL, TREASURY AND FOREX MANAGEMENT

Time allowed : 3 hours

Maximum marks : 100

NOTE : 1. Answer ALL Questions.

2. Tables showing the present value of ₹1 and the present value of an annuity of ₹1 for 15 years are annexed.
3. Suitable assumptions, if considered necessary, may be made while answering a question. However, such assumptions must be stated clearly.

Question 1

- (a) "The EVA is a tool to underline the shareholders value." Comment.
- (b) "Working Capital Leverage measures the sensitivity of return on investment in working capital." Comment with example.
- (c) "Does the Balance Sheet give a true picture of Current Assets ?" Comment.
- (d) "The Sharpe ratio is a risk-adjusted measure of return." Comment.

(5 marks each)

Answer 1(a)

Economic value added (EVA) is the after tax operating profits generated by a business minus the cost of the capital deployed to generate that cash flow. Representing real profit versus accounting profit, EVA underlines shareholder value, which is the main target of leading companies' strategies.

There are two key components to EVA. The net operating profit after tax (NOPAT) and the capital charge, which is the amount of capital times the cost of capital. In other words, it is the total pool of profits available to provide cash return to those who provided capital to the firm. The capital charge is the product of the cost of capital times the capital tied up in the investment. In other words, the capital charge is the cash flow required to compensate investors for the riskiness of the business given the amount of capital invested. On the one hand, the cost of capital is the minimum rate of return on capital required to compensate debt and equity investors for bearing risk-a cut-off rate to create value and capital is the amount of cash invested in the business, net of depreciation.

$$\text{EVA} = (\text{Operating Profit}) - (\text{Capital Charge})$$

$$\text{EVA} = \text{NOPAT} - (\text{Cost of Capital} * \text{Capital})$$

Answer 1(b)

Working capital leverage is used to locate the investment in working capital or current assets in the company. Working capital leverage measures the sensitivity of return on investment to changes in the level of current assets. It can be calculated as under:

$$\text{Working capital leverage} = \frac{\text{percentage change in ROI}}{\text{percentage change in working capital}}$$

If the earnings are not affected by the changes in current assets, the working capital leverage can be calculated with the help of the following formula.

$$\text{Working capital leverage} = \frac{\text{Current assets}}{\text{Total assets} - \text{Changes in level of Current assets}}$$

For example: M/s X has Total assets including Current assets as Rs. 14 lakh, and current assets are Rs. 4 lakh. Management is expecting 30% change in the level of current assets. In such case, working capital leverage can be calculated as under:

$$\begin{aligned} \text{Working capital leverage} &= \frac{\text{Current assets}}{\text{Total assets} - \text{Changes in level of Current assets}} \\ &= \frac{4,00,000}{14,00,000 - 1,20,000} = 0.3125 \end{aligned}$$

Answer 1(c)

Current assets as at a particular date may not be representative of the state of affairs prevailing on a day to day basis throughout the year. In the balance sheet we review that position of current assets as on a particular date only. In order to even out the effects of daily variation in the level of current assets, it is advisable to take average of weekly, monthly or quarterly holding depending upon the nature of the industry and turnover of the assets. The position at the end of a day is a static position which is not representative of the entire year. By taking period averages some amount of dynamism is brought into the picture.

Sometimes, an industry might have seasonal peaks or troughs of working capital requirement. For example, agro based industry like fruit processing unit would need to stock more raw material during the peak season when the crop has been harvested than during the lean season. The high level of current assets can be nothing but a fiction when we seek to realize the current assets. It may happen that the inventory carried by the firm may consist of obsolete items, packing materials, finished goods which have been rejected by buyers and items like dies and tools which are more fixed than current in character. Prudence is required to get rid of current assets like obsolete items, packing material and finished goods which may have been rejected by buyers.

On the other hand, the current liabilities are more ascertainable and less fictions. The payment of these liabilities, if not possible from the current assets, has to be arranged from long term sources of funds which may result in a mismatch that is not conducive to financial health of the firm.

Answer 1(d)

The Sharpe ratio is a risk-adjusted measure of return that is often used to evaluate the performance of a portfolio. The ratio helps to make the performance of one portfolio comparable to that of another portfolio by making an adjustment for risk. The Sharpe ratio is quite simple, which lends to its popularity. It's broken down into just three components: asset return, risk-free return and standard deviation of return. After calculating the excess return, it is divided by the standard deviation of the risky asset to get its Sharpe ratio.

$$\text{Sharpe ratio} = (R_x - R_f) / \sigma (X)$$

Where

- X is the investment
- R_x is the average rate of return of x
- R_f is the best available rate of return of a risk-free security (i.e. T-bills)
- $\sigma(X)$ is the standard deviation of RX

The idea of the ratio is to see how much additional return you are receiving for the additional volatility of holding the risky asset over a risk-free asset - the higher the better.

A ratio of 1 or more is considered good, 2 and more is very good, and 3 and more is considered excellent.

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

Question 2

- (a) Differentiate between Pyramid Shaped Capital Structure and Inverted Pyramid Shaped Capital Structure.
- (b) Differentiate between spot rate and forward rate of foreign exchange rate system.
- (c) Differentiate between Regression Analysis Method and Percent of Sales Method for estimating Working Capital needs.
- (d) Differentiate between Commodity Futures Contracts and Commodity Option Contracts. (4 marks each)

OR (Alternate question to Q. No.2)

Question 2A

- (i) Discuss the controllable factors those support to optimise the cost of capital of a firm. (4 marks)
- (ii) Explain the concept of financial insolvency and compare it with technical bankruptcy. (4 marks)
- (iii) "Social Cost and Benefit Analysis of Project has great importance in the Project Planning." Discuss. (4 marks)
- (iv) What do you understand by Pegging of currency and describe its various arrangements. (4 marks)

Answer 2(a)

Pyramid shaped Capital structure

A pyramid shaped capital structure has a large proportion of equity capital and retained earnings which have been ploughed back into the firm over a considerably long period of time. The cost of equity and the retained earnings of the firm is usually lower than the cost of debt. This structure is indicative of risk averse conservative firms.

Inverted Pyramid shaped Capital Structure

Such a capital structure has a small component of equity capital, reasonable level of retained earnings but an ever increasing component of debt. All the increases in the capital structure in the recent past have been made through debt only. Chances are that the retained earnings of the firm are shrinking due to accumulating losses. Such a capital structure is highly vulnerable to collapse.

Answer 2(b)**Spot Rate**

A spot rate is a rate at which currencies are being traded for delivery on the same day. For example, an Indian importer may need U.S. \$ to pay for the shipment that has just arrived. He will have to purchase the \$ in the market to make payment for the import. The rate at which he will buy \$ in the market is known as the spot exchange rate. He makes payment in terms of Rs. and gets in turn the U.S. \$ which will be paid to the foreign exporter. The spot exchange rate therefore, for a currency is the current rate at which one currency can be immediately converted into another currency. In most of the cases, the spot exchange rates are set by the demand and supply forces in the foreign exchange market.

Forward Rate

The forward rate is a price quotation to deliver the currency in future. The exchange rate is determined at the time of concluding the contract, but payment and delivery are not required till maturity. Foreign exchange dealers and banks give the forward rate quotations for delivery in future according to the requirements of their clients. Generally, the forward quotations are given for delivery in 30 days, 90 days, and 180 days. But, the quotations may be given up to 2 years. Sometimes, forward contracts with maturities exceeding two years are also arranged by the dealers to meet specific requirements of their clients. Quotations are normally given for major currencies, but dealers also provide forward quotations for other currencies on the specific request of their clients. The forward rate for a currency may be higher or lower than the spot rate. Forward rate may be higher than the spot rate if the market participants expect the currency to appreciate vis-à-vis the other currency, say US dollar. The currency, in such case is called trading at a forward premium. If the forward rate is lower than the spot rate, the participants expect the currency to depreciate vis-à-vis another, say the US dollar. The currency in this case, is said to be 'trading at forward discount'.

Answer 2(c)**Regression analysis method**

The regression analysis method is very useful statistical technique of forecasting working capital requirements. It helps in making projections after establishing the average relationship in the past years between sales and the working capital and its various components. The analysis can be carried out through the graphic portrayals (scatter diagram) or through mathematical formulae. The relationship between sales and working capital may be simple and direct indicating complete linearity between the two or may be complex in differing degrees involving simple linear regression and multiple regression situations. This method is suitable for simple as well as complex situations.

Percent of sales method

It is a traditional and simple method of determining the level of working capital and its components. In this method, working capital is determined on the basis of past experience. If over the years, the relationship between sales and working capital is found to be stable, then this relationship may be taken as base for determining the working capital for future. This method is simple, easy to understand and useful in forecasting of working capital. However, this method is criticised for the assumption of linear relationship, between sales and working capital. Therefore, this method may not be universally applicable.

Answer 2(d)**Commodity futures contracts**

A futures contract is an agreement for buying or selling a commodity at a predetermined delivery price at a specific future time. Futures are standardized contracts that are traded on organized future exchanges that ensure performance of the contracts and thus remove the default risk. The major function of futures markets is to transfer price risk from hedgers to speculators. For example, if a farmer is expecting his crop of wheat to be ready in two months time, but is worried that the price of wheat may decline in this period. In order to minimize the risk, he can enter into a futures contract to sell his crops in two months' time at a price determined now. In this way he is able to hedge his risk arising from a possible adverse change in the price of his commodity.

Commodity option contracts

Options are used for hedging and speculation. The commodity option holder has the right, but not the obligation, to buy (or sell) a specific quantity of a commodity at a specified price on or before a specified date. Option contracts involve two parties- the seller of the option writes the option in favour of the buyer who pays a certain premium to the seller as a price for the option. There are two types of commodity options: a call option gives the holder a right to buy a commodity at an agreed price (called exercise price), while a put option gives the holder a right to sell a commodity at an agreed price, on or before a specified date (called exercise date).

Answer 2A(i)

Cost of capital is the required rate of return that a firm must achieve to cover the cost of generating funds in the market place. It is the rate of return that a firm must earn on its project investments to maintain its market value and attract funds. Controllable Factors that support to optimize the cost of capital of a firm are:

(1) Capital Structure Policy

A firm has control over its capital structure, and it targets an optimal capital structure. As more debt is issued, the cost of debt increases, and as more equity is issued, the cost of equity increases.

(2) Dividend Policy

Given that the firm has control over its payout ratio, the breakpoint of the marginal cost of capital schedule can be changed. For example, as the payout ratio of

the company increases, the breakpoint between lower cost internally generated equity and newly issued equity is lowered.

(3) Investment Policy

It is assumed that, when making investment decisions, the company is making investments with similar degrees of risk. If a company changes its investment policy relative to its risk, both the cost of debt and cost of equity change.

Answer 2A(ii)

Insolvency is the inability of a debtor to pay its debts. Financial insolvency means failure of a firm to meet its current obligation. The failure could be temporary or might be remedial. In other words it is a situation where liabilities of the firm exceeds the assets, i.e., net worth becomes negative, bankruptcy happens. That is financial insolvency. Technical bankruptcy can be ascertained through comparing current assets and current liabilities. For this purpose, trend analysis to be made of past three to five years to pick up signals of bankruptcy if any.

Answer 2A(iii)

Social cost benefit analysis is a systematic and cohesive method to survey all the impacts caused by a project. It comprises not only the financial effects (investment costs, direct benefits like tax and fees, etc), but also the social effects, like: pollution, safety, indirect (labour) market, legal aspects, etc. The main aim of a social cost benefit analysis is to attach a price to as many effects as possible in order to uniformly weigh the abovementioned heterogeneous effects. As a result, these prices reflect the value a society attaches to the caused effects, enabling the decision maker to form a statement about the net social welfare effects of a project. Such analysis calculates direct (primary), indirect (secondary) and external effects of a project and helps in comparing project alternatives and making presentations of uncertainties and risks associated with projects. Hence Social cost benefit analysis is an important tool of project planning.

Answer 2A(iv)

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

(1) Domestic currency pegged to one foreign currency

Under this arrangement, the exchange rate of one currency is pegged to a dominant foreign currency, usually the U.S. dollar.

(2) A currency pegged to a basket of currencies

The currency of a country may be pegged to a basket of currencies. The basket is generally formed by the currencies of major trading parties to make the pegged currency more stable than if a single currency peg is used. Trade, services and major capital flows may be used as currency weights while calculating the basket.

(3) Flexibility limited in terms of a single currency

In this system, the value of the currency is maintained within certain margins of the peg.

(4) Pegged to some indicators

Under this arrangement, the currencies adjust more or less automatically to changes in the selected indicators.

(5) Managed Float

Central Bank of a country decides the exchange rate in this system. The rates are revised from time to time depending on forex reserves, developments in parallel exchange markets, the real effective exchange rate etc.

(6) Independent float

In this system market forces determine the exchange rate. Most of the developed countries follow this system of exchange rate.

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

Question 3

- (a) An analyst is evaluating the stocks of two companies for inclusion in the diversified portfolio that he manages for a pension fund. He wishes to use the price/earnings multiple (PE ratio) to compare the stocks. The analyst has collected the following information about Company A and Company B :

<i>Particulars</i>	<i>Company A</i>	<i>Company B</i>
<i>Historical and expected return on equity (ROE)</i>	16%	11%
<i>Historical and expected dividend payout ratio</i>	40%	40%
<i>Beta</i>	1.35	1.05

The expected return on the market index is 11.5 percent and the expected risk free return is 5.25 percent. You are required to calculate the Cost of Equity.

(4 marks)

- (b) The following are the data on capital expenditure of a project being evaluated by Management of Vivaan Limited:

<i>Particulars</i>	
<i>Annual cost savings</i>	₹ 40,00,000
<i>Useful life</i>	4 years
<i>Internal Rate of Return</i>	15%
<i>Profitability Index</i>	1.064

From the above information find out the following by assuming that salvage value is zero :

- (i) Cost of project
 - (ii) Payback period
 - (iii) Cost of capital
 - (iv) Net present value. (4 marks)
- (c) RBI sold a 91 days T-bill of face value of ₹100 at a yield of 6%. What was the issue price ? (4 marks)
- (d) King has purchased a bond for ₹1,000 with a coupon payment of ₹250 and sold for ₹1,200.
- (i) What is the holding return of King ?
 - (ii) If King sells the bond for ₹800 after receiving the ₹250 as coupon payment, then what is the holding return of King ? (4 marks)

OR (Alternate question to Q. No.3)

Question 3A

- (i) A firm has sales on ₹10 lacs and fixed cost on ₹1.5 lacs. Contribution margin is 30%. It has 10% debt of ₹8 lacs. Find out Operating leverage, Financial leverage and Combined leverage.

Also find out that if the firm wants to double the EBIT, how much percent increase in sales is needed ? (4 marks)

- (ii) Futures contract expiring on 28 October in U.S. Dollar at NSE is selling for ₹68.68. Your Banker has offered a forward contract for delivery on 28 October at ₹68.90/ Dollar. How can you take advantage of disparity in the futures and forward market ? How do you think the position would correct if on 28 October actual rate is ₹69 or ₹68 per U.S. Dollar. (4 marks)

- (iii) Assuming that the firm pays tax at 40%, compute the Weighted Average Cost of Capital from the following:

5,000 Equity shares of ₹100 each	₹5,00,000
10% Preference Shares	₹1,00,000
12% debentures	₹4,00,000

The current market price of the share is ₹120. The Company is expected to declare a dividend of ₹12 at the end of the current year, with an expected growth rate of 8%. Use book value weights. (4 marks)

- (iv) Calculate the Minimum stock level, Maximum stock level, Reordering level and Average stock level from the following information:
- (1) Minimum Consumption = 100 units per day
 - (2) Maximum Consumption = 150 units per day
 - (3) Normal Consumption = 120 units per day

(4) *Re-order period* = 10 (min)-15(max) units per day

(5) *Re-order quantity* = 1500 units per day

(6) *Normal re-order period* = 12 days

Answer 3(a)

$$\text{Cost of equity } (k_e) = R_f + \beta(R_m - R_f)$$

Where R_f = Risk free return

β = Beta of security

R_m = expected return on market index

For Company A

$$k_e = 5.25 + 1.35(11.5 - 5.25)$$

$$= 13.6875\%$$

For Company B

$$k_e = 5.25 + 1.05(11.5 - 5.25)$$

$$= 11.8125\%$$

Answer 3(b)

(i) *Cost of project*

At Internal rate of return (IRR), the sum of cash inflows is equal to the cost of project.

Therefore at IRR, 15%, the discount factor for cumulative present value of cash inflows for 4 years is 2.8550.

Hence present value of cash inflows (cost savings) would be:

$$2.8550 * \text{Rs. } 40,00,000 = \text{Rs. } 1,14,20,000$$

Therefore, cost of project is Rs. 1,14,20,000

(ii) *Payback period*

<i>Year</i>	<i>Cost savings</i>	<i>Cumulative cost savings</i>
1	40,00,000	40,00,000
2	40,00,000	80,00,000
3	40,00,000	1,20,00,000
4	40,00,000	1,60,00,000

$$\text{Payback period} = 2 + (1,14,20,000 - 80,00,000)/40,00,000 = 2.855 \text{ years}$$

(iii) *Cost of capital*

Profitability index = Present value of cash inflows / cash outflows

$$1.064 = \text{Present value of cash inflows} / 1,14,20,000$$

$$\begin{aligned} \text{Present value of cash inflows} &= 1.064 * 1,14,20,000 \\ &= \text{Rs. } 1,21,50,880 \end{aligned}$$

$$\begin{aligned} \text{Therefore, } 40,00,000 * \text{cumulative discount factor} &= 1,21,50,880 \\ \text{cumulative discount factor} &= 1,21,50,880/40,00,000 = 3.038 \end{aligned}$$

Considering the table of present value of an annuity of Rupee one at discount rate of 12%, the cumulative discount factor for 4 years is 3.0373. Hence the cost of capital is 12%.

(iv) *Net present value (NPV)*

$$\begin{aligned} \text{NPV} &= \text{Total present value of cash inflows} - \text{cost of the project} \\ &= \text{Rs. } 1,21,50,880 - \text{Rs. } 1,14,20,000 \\ &= \text{Rs. } 7,30,880 \end{aligned}$$

Answer 3(c)

Issue price of T-bill is at discounted value and redeemed at face value.

Maturity period 91 days

Face value Rs. 100

Yield rate 6% or 0.06

Let the issue price of T-bill be X. Then,

$$0.06 = \frac{100 - X}{X} \times \frac{365}{91}$$

$$0.06 = \frac{100 - X}{X} \times 4.011$$

$$0.06X = 401.1 - 4.011X$$

$$4.071X = 401.1$$

$$X = 98.53$$

Therefore issue price is Rs. 98.53

Answer 3(d)

(i) Holding period return = (Price gain + Coupon payment)/ Purchase price *100

Holding return of King when bond is sold for Rs. 1200

$$= \{(1200 - 1000) + 250\}/1000 * 100 = 45\%$$

(ii) Holding return of King when bond is sold for Rs. 800

$$= \{(800 - 1000) + 250\}/1000 * 100 = 5\%$$

Answer 3A(i)

	<i>Rs.</i>
Sales	10,00,000
Less : Variable cost (70%)	7,00,000
Contribution	<u>3,00,000</u>
Less : Fixed cost	<u>1,50,000</u>
EBIT	1,50,000
Less : Interest @ 10% of Rs. 8,00,000	<u>80,000</u>
PBT	<u>70,000</u>

$$\begin{aligned} \text{Operating leverage} &= \text{Contribution/ EBIT} \\ &= 3,00,000/ 1,50,000 \\ &= 2 \end{aligned}$$

$$\begin{aligned} \text{Financial leverage} &= \text{EBIT/ PBT} \\ &= 1,50,000/70,000 = 2.14 \end{aligned}$$

$$\begin{aligned} \text{Combined leverage} &= \text{operating leverage * financial leverage} \\ &= 2*2.14 = 4.28 \end{aligned}$$

Percentage increase in sales to be needed to double EBIT

Operating leverage is 2 (i.e. 50% increase in sales would cause 100% increase in EBIT)

Therefore to double the EBIT the sales should increase by 50%.

Answer 3A(ii)

In the Futures market US Dollar is cheap as compared to the forward rate. Therefore, one can go long in the futures market and sell Dollars to bank in the forward market locking a profit of Rs. 0.22 per US Dollar.

Today Rs. 68 per US \$

Buy \$ future at NSE	Rs. 68.68
Sell \$ forward to bank	Rs. 68.90
Net profit or loss per \$	Rs. 0.22

At maturity spot exchange rate

Rs. 68 per \$		Rs. 69 per \$	
Profit or loss on future	(0.68)	Profit or loss on future	0.32
Profit or loss on forward	0.90	Profit or loss on forward	(0.10)
Net gain or loss	<u>0.22</u>	Net gain or loss	<u>0.22</u>

Answer 3A(iii)

Cost of debt = Interest (1 – tax rate)

$$K_d = 0.12 (1 - 0.40) = 0.072 \text{ or } 7.2\%$$

$$\text{Cost of equity } (K_e) = \frac{D_1}{P_0} + g$$

$$= 12/120 + 0.08$$

$$= 0.18 \text{ or } 18\%$$

Calculation of WACC

Source of capital	Amount	Weight	Specific cost (%)	WACC (%)
Equity share capital	5,00,000	0.5	18	9
10% Preference share capital	1,00,000	0.1	10	1
12% Debentures	4,00,000	0.4	7.2	2.88
Total	10,00,000	1		12.88

Weighted average cost of capital = 12.88%

Answer 3A(iv)

$$\begin{aligned} \text{Reordering level} &= \text{Maximum consumption} \times \text{Maximum re-order period} \\ &= 150 \times 15 \\ &= 2250 \text{ units} \end{aligned}$$

$$\begin{aligned} \text{Minimum stock level} &= \text{Reordering level} - (\text{Normal consumption} \times \text{Normal re-order period}) \\ &= 2250 - (120 \times 12) \\ &= 810 \text{ units} \end{aligned}$$

$$\begin{aligned} \text{Maximum stock level} &= \text{Reordering level} + \text{Reordering quantity} - (\text{Minimum consumption} \times \text{Minimum re-order period}) \\ &= 2250 + 1500 - (100 \times 10) \\ &= 2750 \text{ units} \end{aligned}$$

$$\begin{aligned} \text{Average stock level} &= [(\text{Maximum stock level} + \text{Minimum stock level})] \div 2 \\ &= (2750 + 810) / 2 \\ &= 1780 \text{ units} \end{aligned}$$

Question 4

(a) The following information pertains to M/s Kanagana Limited :

Earnings of the company ₹5 lakh

Dividend payout ratio 60%

No. of shares outstanding 1,00,000

Equity capitalisation rate 12%

Rate of return on investment 15%

What would be the market value per share as per Walter's model?

(b) Consider a firm X Ltd., having the following details:

$$EBIT = ₹ 1,00,000$$

$$\text{Debt borrowed at the rate of 10\%} = ₹5,00,000$$

$$\text{Overall Capitalisation rate (K}_o\text{)} = 12.5\%$$

Find the value of the firm when:

(1) Debt is increased by ₹2,00,000

(2) Debt is decreased by ₹2,00,000

Also calculate cost of equity in each case.

(c) How is the marking to market settlement going to affect the margin balance of the trader? Explain.

(d) "Finance Manager has no role to play in manufacturing company." Comment.
(4 marks each)

Answer 4(a)

As per Walter's model

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

Where P = Market price per share; D = Dividend per share; E = earnings per share;
r = rate of return on investment; k = cost of equity capital

$$P = \frac{3 + \frac{0.15}{0.12} (5 - 3)}{0.12}$$

$$P = 45.83$$

Therefore market value per share as per Walter's model is Rs. 45.83

Answer 4(b)

Particulars	Debt is increased by Rs. 2,00,000 (Rs.)	Debt is decreased by Rs. 2,00,000 (Rs.)
EBIT	1,00,000	1,00,000
Less : Interest	<u>70,000</u>	<u>30,000</u>
Net profit	30,000	70,000
K _o	12.5%	12.5%
Value of firm (EBIT/ K _o)	8,00,000	8,00,000
Less : value of debt	<u>7,00,000</u>	<u>3,00,000</u>
Value of equity (E)	1,00,000	5,00,000
Cost of equity		
K _e = (Net profit/E)*100	30%	14%

Answer 4(c)

Marking-to-market means that the margin account of the traders is adjusted every day using the daily settlement price. If marking-to-market results in gain for the trader, the margin balance will be increased by the amount of gain. If it results in a loss for the trader, the margin balance will be decreased by the amount of loss. By marking-to-market, the contract can be considered closed out every day; at the beginning of the next day, a new contract is effectively entered into.

Answer 4(d)

Finance manager plays an important role in all types of company, whether it is manufacturing or a trading company. He is concerned with all financial activities of planning, raising, allocating and controlling the funds in an efficient manner. This can be done by decision making in respect of the following areas:

1. Investment decision for obtaining maximum profitability after taking the time value of money into account.
2. Financing decisions through a balanced capital structure
3. Best utilisation of fund
4. Tax administration and tax planning
5. Pricing volume of output, product mix, and cost volume profit analysis
6. Cost control
7. Managing liquidity requirement and investment of surplus funds.

Question 5

- (a) *Under a factoring arrangement Ranki Factors Services Limited has advanced a sum of ₹140 lakh against the receivable purchased from Aangi Limited. The factoring agreement provides for an advance payment of 80% (maintaining factor reserve of 20% to provide for disputes and deductions relating to the bills assigned) of the value of factored receivable and for guaranteed payment after three months from the date of purchasing the receivables. The advance carries a rate of interest of 12% per annum compounded quarterly and the factoring commission is 2.5% of the value of factored receivables. Both the interest and commission are collected upfront.*

You are required to :

- (i) *Compute the amount of advance payable to Aangi Limited.*
 - (ii) *Calculate per annum the effective cost of funds made available to Aangi Limited. (8 marks)*
- (b) *The following information is available in respect of Security-X and Security-Y :*

<i>Security</i>	<i>b</i>	<i>Expected Rate of Return</i>
<i>X</i>	<i>1.8</i>	<i>22.00%</i>
<i>Y</i>	<i>1.6</i>	<i>20.40%</i>

Rate of return of market portfolio is 15.3%

If risk free rate of return is 7%, are these securities correctly priced?

What would be the risk free rate of return, if they are correctly priced ?

(8 marks)

Answer 5(a)

- (i) Computation of amount of advance payable to Aangi Ltd.

<i>Particulars</i>	<i>Rs. (in lakh)</i>
Value of factored receivables (140/0.80)	175
Maximum permissible advance	140
Less: Commission @ 2.5% (175 *2.5%)	4.375
	135.625
Less: discount charge (140*0.120*90/360	4.2
Amount of advance payable to Aangi Ltd.	131.425

- (ii) Effective cost of funds made available to Aangi Ltd.

Discount charges expressed as a percentage of funds made available to Aangi Ltd.

$$= (4.20 / 131.425) * 100 = 3.1957\% \text{ per quarter}$$

$$\text{Annualised rate of interest} = \{(1 + 3.1957/100)^4 - 1\}$$

$$= 0.1341 = 13.41\%$$

Answer 5(b)

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

$$\text{Security X} = I_{RF} + (R_M - I_{RF})b$$

Where I_{RF} = Risk free return

b = Beta of security

$$R_M = \text{expected return on market index}$$

$$= 7\% + (15.3\% - 7\%) 1.8$$

$$= 21.94\%$$

This is less than expected return of Security X i.e. 22%

Therefore security X is not correctly priced.

$$\text{Security Y} = I_{RF} + (R_M - I_{RF})b$$

$$= 7\% + (15.3\% - 7\%) 1.6$$

$$= 20.28\%$$

Return of 20.28% is less than the expected return of 20.40%. Therefore, Security Y is not correctly priced.

In case both the securities are correctly priced, then they must offer same reward to risk ratio. The risk free rate would have to be such that

$$(22\% - I_{RF}) \div 1.8 = (20.4\% - I_{RF}) \div 1.6$$

$$(0.22 - I_{RF}) \times 1.6 = (0.204 - I_{RF}) \times 1.8$$

$$0.352 - 1.6 I_{RF} = 0.3672 - 1.8 I_{RF}$$

$$0.2 I_{RF} = 0.0152$$

$$I_{RF} = 0.076 \text{ or } 7.6\%$$

So, both the securities would have correctly priced if the risk free rate is 7.6%.

Question 6

Calculate the Net Working Capital requirement for Vertical Ltd. from the following information :

	₹(per unit)
Raw Material	160
Direct Labour	60
Overhead	<u>120</u>
Total Cost	340
Profit	<u>60</u>
Selling Price	400

Raw material is held in stock on an average for four weeks. Materials are in process on an average for two weeks. Finished goods are in stock on an average for four weeks. Credit allowed by supplier four weeks. Credit allowed by Debtors eight weeks. Work in progress comprise 100% material cost and 50% conversion cost. Lag in Payment of Wages $1\frac{1}{2}$ week. Time lag in payment of overhead expense, four weeks.

Other information :

Cost of Sales $\frac{1}{4}$ of total sales

Cash in hand/bank ₹ 50,000

Expected level of production 1,04,000 units

One year is taken as 52 weeks.

Production is carried evenly throughout the year.

State your assumptions, if any.

(16 marks)

Answer 6**Determination of Working capital requirement**

<i>Particulars</i>	<i>Amount (Rs.)</i>	<i>Amount (Rs.)</i>
(A) Current Assets		
Cash in hand		50,000
Inventory		
(a) Raw material $(1,04,000 \times 4/52 \times 160)$	12,80,000	
(b) Work in progress: (W.N-1)	10,00,000	
(c) Finished goods: $(1,04,000 \times 4/52 \times 340)$	<u>27,20,000</u>	50,00,000
Debtors (W.N-2)		<u>48,00,000</u>
TOTAL CURRENT ASSETS (A)		98,50,000
(B) Current Liabilities		
Creditors $(1,04,000 \times 4/52 \times 160)$		12,80,000
Wages outstanding $(1,04,000 \times 1.5/52 \times 60)$		1,80,000
Overhead outstanding $(1,04,000 \times 4/52 \times 120)$		<u>9,60,000</u>
TOTAL CURRENT LIABILITIES (B)		24,20,000
Net working capital (A-B)		74,30,000

Working Notes (W.N)

1. Calculation of Work in progress (W.N-1)	<i>Rs.</i>
Raw material 100% $(1,04,000 \times 2/52 \times 160)$	6,40,000
Direct labour 50% $(1,04,000 \times 2/52 \times 60)$	1,20,000
Overheads 50% $(1,04,000 \times 2/52 \times 120)$	<u>2,40,000</u>
Work in progress	10,00,000

2. Calculation of Debtors (W.N-2)

Assumption : As the credit sales are not given in the question. The question is solved assuming the credit sales as 75%. Any other percentage of credit sales may be assumed and the debtors will change accordingly

Debtors on selling price = $1,04,000 \times 8/52 \times 400 \times 75/100 = \text{Rs. } 48,00,000$

Alternatively, Debtors can be calculated on Cost price. In that case the answer will change accordingly

Debtors on cost = $1,04,000 \times 8/52 \times 340 \times 75/100 = \text{Rs. } 40,80,000$

Therefore, Net working Capital = Rs. 91,30,000 – Rs. 24,20,000 = Rs. 67,10,000

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
5%	0.9524	1.8594	2.7232	3.5460	4.3295	5.0757	5.7864	6.4632	7.1078	7.7217	8.3064	8.8633	9.3936	9.8986	10.3797
6%	0.9434	1.8334	2.6730	3.4651	4.2124	4.9173	5.5824	6.2098	6.8017	7.3601	7.8869	8.3838	8.8527	9.2950	9.7122
7%	0.9346	1.8080	2.6243	3.3872	4.1002	4.7665	5.3893	5.9713	6.5152	7.0236	7.4987	7.9427	8.3577	8.7455	9.1079
8%	0.9259	1.7833	2.5771	3.3121	3.9927	4.6229	5.2064	5.7466	6.2469	6.7101	7.1390	7.5361	7.9038	8.2442	8.5595
9%	0.9174	1.7591	2.5313	3.2397	3.8897	4.4859	5.0330	5.5348	5.9952	6.4177	6.8052	7.1607	7.4869	7.7862	8.0607
10%	0.9091	1.7355	2.4869	3.1699	3.7908	4.3553	4.8684	5.3349	5.7590	6.1446	6.4951	6.8137	7.1034	7.3667	7.6061
11%	0.9009	1.7125	2.4437	3.1024	3.6959	4.2305	4.7122	5.1461	5.5370	5.8892	6.2065	6.4924	6.7499	6.9819	7.1909
12%	0.8929	1.6901	2.4018	3.0373	3.6048	4.1114	4.5638	4.9676	5.3262	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	5.4282	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) Over the number of years Seasons Ltd., fully owned by Calmitech Corporation Ltd., a listed entity, of which you are now the company secretary, has adopted aggressive growth strategy via targeted acquisition together with organic growth plan. Therefore, the disclosure requirements are based upon the listing rules. Recently Seasons acquired Hijobs Ltd., for geographic exposure, revenues and profits. During the negotiation process there were issues regarding management structure, values and due diligence. Post completion the process of acquisition the problems started to emerge like lack of data provided in due diligence, reflected the fact that it either didn't exist or was incomplete. Now it was time for preparation of the year end accounts. There were issues regarding incomplete accounting records and incorrect exchange rates. In short preparation of the Annual report and the financial statements was a significant challenge. You investigated relatively limited available information on the branch and tentatively concluded that is not material.
- (i) What would you do knowing that disclosure of such information to the auditors and the Board may delay the parent company's result announcement to the market ?
- (ii) What fundamental ethical principles would you take into consideration for making a prudent decision ? (5 marks each)
- (b) Answer the following in brief :
- (i) What do you mean by credo ? Explain by citing at least one example.
- (ii) Discuss the activities for which financial sanctions can be provided under Investor's Education and Protection Fund.
- (iii) How a better stakeholder engagement ensures good governance ?
- (iv) What are the three categories of objectives provided in COSO International Control Integrated Framework ?
- (v) Write a note on ISO 31000. (2 marks each)
- (c) Explain the key principles of Stakeholder Engagement. (5 marks)

Answer 1(a)(i)

The basic principle of Corporate Governance is to maintain the ethical standards, adequate disclosures, transparency and work in the interest of all the stakeholders. Being a Company Secretary of the company, I would act in the best interest of the

company and disclose the findings immediately to the Board of directors, Board of the parent company and the auditors. In addition, I would look for a code of conduct which provides guidance on such matters. Proper qualitative and quantitative assessment on materiality of the new facts can be initiated in the best interest of the company. A team may be formed to expedite correcting the entries and making correct disclosures. Although, the process may defer the declaration of results in the market, but it is better than declaring the wrong results and then provide significant additional disclosures at a later date. This delay for the broader interest is inevitable.

Answer 1(a)(ii)

The following ethical principles would be considered to form a prudent decision:

- *Integrity* – Accounts and reports should be prepared in accordance with accounting standards and other principles so that they reflect the true and fair position of the company.
- *Honesty* – The aim should be to be honest to the company for the interest of various stakeholders. Truthfulness and correct disclosures cannot be sacrificed at any cost for immediate gains.
- *Objectivity* – Disclosures must be made at adequate places supported by proper annexures and other related evidences. In case there is a delay in making disclosures, it should be justified with proper reasons.
- *Professional Competence* – Professional ethics and standards including due care and diligence should be maintained in all circumstances.
- *Confidentiality* – Confidentiality of the company affairs should be maintained. The situation should be controlled to avoid panic in the organisation in order to ensure that the market standing and the stock prices are not negatively affected.

Answer 1(b)(i)

Credo is a Latin word which means “a set of fundamental beliefs or a guiding principle.” A company can have a ‘credo’ which can be used as a tool to define the ethical practices that the company pursues and the respect for stakeholders including customers, employees, community. For a company, credo is just like a mission statement.

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

Answer 1(b)(ii)

Schedule II to the Investor Education and Protection Fund Authority (Appointment of Chairperson and Members, holding of Meetings and provisions for Offices and Officers) Rules, 2016 stipulate the broad functional divisions of the Authority including sanctioning grants to the registered entities for seminars, programmes, projects or activities in the field of Corporate Governance, Investors’ Education and Protection fund including research activities.

Answer 1(b)(iii)

Stakeholder engagement provides opportunities to further align business practices with societal needs and expectations, helping to drive long-term sustainability and shareholder value. Stakeholders engagement helps the organization, to compete in an increasingly complex and ever-changing business environment, while at the same time bringing about systemic change towards sustainable development. Stakeholder engagement leads to increased transparency, responsiveness, compliance, organizational learning, quality management, accountability and sustainability. Stakeholder engagement is a central feature of sustainability performance. In nutshell, the stakeholder's engagement ensures good governance.

Answer 1(b)(iv)

The COSO International Control Integrated Framework sets forth three categories of objectives, which allow organizations to focus on separate aspects of internal control:

- *Operations Objectives* : These pertain to effectiveness and efficiency of the entity's operations, including operational and financial performance goals, and safeguarding assets against loss.
- *Reporting Objectives* : These pertain to internal and external financial and non-financial reporting and may encompass reliability, timeliness, transparency, or other terms as set forth by regulators, standard setters, or the entity's policies.
- *Compliance Objectives* : These pertain to adherence to laws and regulations to which the entity is subject.

Answer 1(b)(v)

ISO 31000 published on the 13th of November 2009, provides a standard on the implementation of risk management. ISO 31000 seeks to provide a universally recognised paradigm for practitioners and companies employing risk management processes. The scope of ISO 31000 - is not developed for a particular industry group, management system or subject matter field in mind, rather it provides best practice structure and guidance to all operations concerned with risk management.

The scope of this approach is to enable all strategic, management and operational tasks of an organization throughout projects, functions, and processes be aligned to a common set of risk management objectives. ISO 31000 contains 11 key principles that position risk management as a fundamental process in the success of the organization. ISO 31000 provides that Risk oversight is a key duty of the board, as failure to manage risk can threaten the existence of the entity being governed.

Answer 1(c)

Stakeholder engagement is an alliance-building tool. Corporations practice stakeholder engagement in an effort to understand the needs of their stakeholders, create partnerships and to promote dialogue. Stakeholder engagement identifies stakeholders, assesses stakeholder needs, develops stakeholder relation plans and forms alliances with stakeholders. Key principles of Stakeholder engagement are as under:

- *Communicate* : Interactions from the various stakeholders should be promoted. Example: for customers there should be dedicated customer care center. The

communication may be made through the print media elaborating about the progress of the company, which is also a part of the transparency and disclosure. Ensure intended message is understood and the desired response achieved.

- *Consult, early and often* : Always ask the right questions to get the useful information and ideas. To engage their support ask them for advice and listen how they feel.
- *Remember, they are human* : Operate with an awareness of human feelings.
- *Plan it* : Time investment and careful planning against it, has a significant payoff.
- *Relationship* : Try to engender trust with the stakeholders. Seek out networking opportunity.
- *Simple but not easy* : Show care. Be empathetic. Listen to the stakeholders.
- *Managing risk* : Stakeholders can be treated as risk and opportunities that have probabilities and impact.
- *Compromise* : Compromise across a set of stakeholders' diverging priorities.
- *Understand what success is* : Explore the value of the project to the stakeholder.
- *Take responsibility* : Project governance is the key of project success. It's always the responsibility of everyone to maintain an ongoing dialogue with stakeholders.

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

Question 2

- (a) *Ms. Nidhi is the Company Secretary of ZYCO Bank, the merchant banker for Synergy Ltd., which had recently carried out an issue and allotment of Equity Shares. Draft a post issue advertisement to be circulated in daily newspapers.*
 - (b) *What are the major financial risks which may adversely affect an organization ?*
 - (c) *Write a note on Secretarial Standard related to minutes of meeting.*
- (5 marks each)

OR (Alternate question to Q. No. 2)

Question 2A

- (i) *“What is considered ethical behaviour in one society might be considered unethical in another. For example, euthanasia (mercy killing) is permitted in some countries but it is considered strictly unethical in most of the other countries.” In the light of the above statement discuss the common features of ethics.*
 - (ii) *Elaborate the composition of the Board of the Public Sector Undertakings in the insurance sector.*
 - (iii) *“For the first time in the history of Company Law in India, the Companies Act, 2013 has given statutory recognition to the Secretarial Standards issued by the Institute of Company Secretaries of India.” Discuss.*
- (5 marks each)

Answer 2(a)

The post-issue merchant banker shall ensure that advertisement giving details relating to oversubscription, basis of allotment, number, value and percentage of all applications including ASBA (Application Supported by Blocked Amount) number, value and percentage of successful allottees for all applications, date of completion of despatch of refund orders or instructions to Self Certified Syndicate Banks by the Registrar, date of despatch of certificates and date of filing of listing application, etc. is released.

An assumed format of advertisement-

<i>Post Issue Advertisement of Synergy Ltd. (Equity Shares)</i>
<i>Carried out by Zyco Bank was a huge success</i>
Shares issued : 100,000 Shares subscribed : 328,000 Oversubscription : 3.28 times Basis of Allotment : Pro-rata allotment made to 150,000 share (Green Shoe Option) Applied through ASBA : 80 % Process complete: 30/09/2016 Date of completion of despatch of refund orders : 08/10/16 Date of despatch of Certificates : 15/10/16 Date of filing of listing application : 10/10/16

Merchant Banker to the Issue

Place: _____

Date: _____

Answer 2(b)

The risk which has some financial impact on the business entity is treated as financial risk. The major financial risks which may adversely affect an organisation are as follows:

- (i) **Market Risk** : This type of risk is associated with market ups and down. The market risks may be Absolute Risk (when it can be measured in rupee/currency term) and Relative Risk (relative to bench mark index). Hence the market risk may be defined as the risk to a firm due to the adverse changes in interest rates, currency rates, equity prices and commodity prices.
- (a) *Interest Rate Risk* : The financial assets which are connected with interest factors such as bonds/debentures, faces the interest rate risk. Interest rate risk adversely affects value of fixed income securities. Any increase in the interest reduces the price of bonds and debts instruments in debt market and vice versa.

- (b) *Currency Risk* : The volatility in the currency rates is called the currency risk. These risks affect the firms which have international operations of business and the quantum of the risk depends on the nature and extent of transactions with the external market.
- (c) *Equity Risk* : It means the depreciation in one's investment due to the change in market index. Beta (β) of a stock tells us the market risk of that stock and it is associated with the day-to-day fluctuations in the market.
- (d) *Commodity Risk* : This type of risk is associated with the absolute changes in the price of the commodity. Since commodities are physical assets, hence the prices are changed on account of the demand and supply factor.
- (ii) **Credit Risk** : When a counter party is unable or unwilling to fulfil their contractual obligation, the credit risk arises. This type of risk is related to the probability of default and recovery date.

Answer 2(c)

Section 118 (10) of the Companies Act, 2013 introduces Secretarial Standards and provides statutory recognition to Secretarial Standards issued by ICSI.

SS-1 applies to Meetings of the Board of Directors and its Committees, and SS-2 applies to General Meetings. These Secretarial Standards prescribe a set of principles for convening and conducting Board, Committee and general Meetings and matters related thereto. These Secretarial Standards also contain detailed provisions relating to minutes, highlights of which are as under:

Every company shall keep Minutes of all Meetings (Board, Committee and General Meetings) in Minutes Books. Minutes shall be preserved permanently in physical or electronic form. Minutes in electronic form shall be maintained with Timestamp. Minutes Books shall be kept in the custody of the Company Secretary.

Minutes shall contain a fair and correct summary of the proceedings of the Meeting. Minutes shall be written in clear, concise and plain language.

The pages of the Minutes Books shall be consecutively numbered. Minutes shall not be pasted or attached to the Minutes Books, or tampered with in any manner. Minutes, if maintained in loose-leaf form, shall be bound periodically.

Minutes of the Board & Committee Meeting shall be kept at the Registered Office of the company or at such other place as may be approved by the Board. However, Minutes of General Meetings shall be kept at the Registered Office.

Answer 2A(i)

Yes, the statement mentioned in the question, 'What is considered ethical behaviour in one society might be considered unethical in another', is correct. The example quoted about the practice prevailing in some of the countries of euthanasia, (mercy killing) is permitted or say ethical, while in other countries it is considered strictly as unethical. In light of the above, the common features of ethics may be listed as follows:

- Ethics is a conception of right or wrong conduct. Ethics tells us when our behaviour is moral and when it is immoral. It deals with the fundamental human

relationship, how we think and behave towards others and how we want them to think and behave towards us.

- Ethics relates to the formalised principles derived from social values. It deals with the moral choices that we make in the course of performing our duties with regard to other members of society. Hence, it is relevant in the context of a society only.
- Ethical principles are universal in nature. They prescribe obligations and virtues for everybody in a society. They are important not only in business and politics but in every human endeavour.
- There exist no sharp boundaries between ethical and non-ethical. Therefore, people often face ethical dilemmas wherein a clear cut choice becomes very difficult.
- The concepts of equity and justice are implicit in ethics. Fair and equitable treatment to all is its primary aim.
- Ethics and legality of action do not necessarily coincide. What a society interprets as ethical or unethical ends up expressed in laws. The legality of actions and decisions does not necessarily make them ethical. For example, not helping an injured person in a road accident may be unethical but not illegal.

Answer 2A(ii)

Section 149 of Companies Act, 2013 contains detailed provisions in relation to composition of Board of Directors. The Insurance Act, 1938 stipulates that the insurance companies in India would be public companies and hence, would require a properly constituted Board.

As per Guidelines on Corporate Governance for Central Public Sector Enterprises 2010, the Board of Directors of the company shall have an optimum combination of Functional, Nominee and Independent Directors. The number of Functional Directors (including CMD/MD) should not exceed 50% of the actual strength of the Board. The number of Nominee Directors appointed by Government/other CPSEs shall be restricted to a maximum of two. In case of a CPSE listed on the Stock Exchanges and whose Board of Directors is headed by an Executive Chairman, the number of Independent Directors shall be at least 50% of Board Members; and in case of all other CPSEs (i.e. listed on Stock Exchange but without an Executive Chairman, or not listed CPSEs), at least one-third of the Board Members should be Independent Directors.

Further, the Insurance Act prohibits (i) a life insurance agent to be the Director of the life insurance company; and (ii) the common directorship among life insurance companies.

Corporate Governance Guidelines for Insurers in India released by IRDA also provides for composition of Board of Directors as under:

- The Board of Directors is required to have a minimum of three “Independent Directors”. However, this requirement is relaxed to ‘two’ independent directors, for the initial five years from grant of Certificate of Registration to insurers. An independent director shall fulfil all the conditions specified under Section 149 of the Companies Act, 2013.

- Where the Chairman of the Board is non-executive, the Chief Executive Officer should be a whole time director of the Board.
- As required under Section 149 of the Companies Act, 2013, there shall be at least one Woman Director on the Board of every Insurance company.

Answer 2A(iii)

Yes, for the first time in the history of Company Law in India, the Companies Act, 2013 has given statutory recognition to the Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI).

Section 118(10) of the Act provides that “Every company shall observe secretarial standards with respect to general and Board meetings specified by the Institute of Company Secretaries of India constituted under section 3 of the Company Secretaries Act, 1980, and approved as such by the Central Government.”

In the context of this provision, observance of Secretarial Standards issued by the Institute of Company Secretaries of India (ICSI) assumes special relevance and companies have to ensure that there is compliance with these standards on their part. The Secretarial Standards on meetings of the board of directors and general meetings are made effective from 1 July 2015.

SS-1 applies to Meetings of the Board of Directors and its Committees. It prescribes a set of principles for convening and conducting Meetings of the Board of Directors and matters related thereto.

SS-2 applies to General Meetings of the Shareholders. It prescribes a set of principles for convening and conducting General Meetings of the Shareholders and matters related thereto.

Question 3

- (a) *Mr. Allen has recently joined Delta Limited as the secretary and has been asked by the Board of Directors to draft the charter of the Nomination and Remuneration Committee for its approval in the BOD meeting. Provide a sample draft which Mr. Allen would be supplementing to the BOD meeting in the light of provisions of LODR and Companies Act, 2013. (5 marks)*
- (b) *Are there any separate provisions of the meetings of the Independent Directors? If yes, state such provisions and also their rationale. (5 marks)*
- (c) *What are the primary responsibilities of the Chairman for leading the Board and ensuring its effectiveness ? (5 marks)*

Answer 3(a)

The charter of the Nomination and Remuneration Committee of Delta Limited may contain information under the following heads:

- Purpose and Objective
- Constitution and Organisation

- Responsibilities
 - o Compensation policies including performance related pay and stock options plans and other beneficial plans
 - o Nomination of Directors
 - o Performance Evaluation and Leadership Development
 - o Coordinating with Committees of the Board for good corporate governance
 - o Advisors at forums of the organisation
 - o Any other responsibilities
- Meetings and Report- Details regarding meetings to be conducted, quorum, reporting at adequate forums and other disclosures
- Compensation of Committee Members

Answer 3(b)

In accordance with Part VII of Schedule IV of the Companies Act, 2013, the Independent Directors of the company are required to hold at least one Meeting in a financial year, without the attendance of non-independent Directors and members of the management. The meeting shall:

- (a) review the performance of non-independent directors and the Board as a whole;
- (b) review the performance of the Chairperson of the company, taking into account the views of executive directors and non-executive directors;
- (c) assess the quality, quantity and timeliness of flow of information between the company management and the Board that is necessary for the Board to effectively and reasonably perform their duties.

Further, SEBI (LODR) Regulations also mandates the separate meeting of independent directors for all the listed companies. The provisions given in the companies Act and that in the SEBI (LODR) Regulations regarding separate meeting are same.

These meetings give an opportunity to independent directors for exchanging valuable views on the issues to be raised at the Board meetings. Such meetings are chaired by the senior/ lead independent director.

Answer 3(c)

The role of the Chairman includes:

- setting the board agenda, ensuring that Directors receive accurate, timely and clear information to enable them to take sound decisions, ensuring that sufficient time is allowed for complex or contentious issues;
- encouraging active engagement by all members of the Board;
- taking the lead in providing a comprehensive, formal and tailored induction programme for new Directors, and in addressing the development needs of

individual Directors to ensure that they have the skills and knowledge to fulfil their role on the Board and on Board Committees;

- evaluating annually the performance of each Board member in his/her role as a Director, and ensuring that the performance of the Board as a whole and its Committees is evaluated annually;
- holding meetings with the non-executive Directors without the executives being present; and
- ensuring effective communication with shareholders and in particular that the company maintains contact with its principal shareholders on matters relating to strategy, governance and Directors' remuneration. Ensuring that the views of shareholders are communicated to the Board as a whole.

Question 4

- (a) *A meeting of Board of Directors is to be held to review the financial performance of the company as well as declaration of dividend. Draft a notice and agenda of this meeting to be circulated to the Board of Directors in accordance with the relevant provisions of Companies Act, 2013.* (5 marks)
- (b) *How does Audit Committee play a significant role in corporate governance in India ?* (5 marks)
- (c) *What are the guidelines provided in the Listing Obligation and Disclosure Requirements (LODR) Rules 2015 related to annual report of companies ?* (5 marks)

Answer 4(a)

XYV Co. Ltd. New Delhi

Notice of _____ (Serial Number of Meeting) Board Meeting

12th June 2017

The _____ (Serial Number of Meeting) meeting of the Board of Directors will be held on _____ (Day) the 22nd day of June 2017 at Meeting Lounge of the registered office of the Company situated at _____ (Complete Address) at 10:00 am. All directors are hereby requested to kindly make it convenient to attend the same.

The agenda for the meeting are as follows:

1. To elect a Chairman of the Meeting (if applicable);
2. To grant leave of absence to Directors not present at the Meeting;
3. To take note of the minutes of the previous meeting;
4. To note the action taken in respect to earlier decisions of the Board;
5. To note the minutes of meetings of Board's Committee(s);
6. To discuss the financial performance and decide on dividend declaration;
7. Any other matter, with the permission of the Chairman and majority of directors.

Annexure:

- (a) Audited financial statements of last three quarters
- (b) Copy of minutes of last meeting
- (c) Action Taken Report (ATR) as received from the Administrative Division
- (d) Resolution on dividend policy and report on dividend payment and declaration of the company of last three financial years
- (e) Copy of minutes of the meeting of Audit Committee, Investment Committee, Remuneration Committee and Research Committee

Sd/-

Company Secretary

Sd/-

Chairman, Board of Directors

Answer 4(b)

“Corporate Governance is the application of best management practices, compliance of law in true letter and spirit and adherence to ethical standards for effective management and distribution of wealth and discharge of social responsibility for sustainable development of all stakeholders.” Although the entire Board of Directors is responsible for the maintenance of issues relating to the Corporate Governance, however, the Audit committee specifically looks after the subject matters relating to the accounts, audit, inspection, fraud and other related areas.

The audit committee plays a major role in corporate governance regarding the organization’s direction, control, and accountability. As a representative of the board of directors and main part of the corporate governance mechanism, the audit committee is involved in the organization’s both internal and external audits, internal control, accounting and financial reporting, regulatory compliance, and risk management.

Answer 4(c)

Regulation 34 of the SEBI (LODR) Regulations, 2015 provides that the listed entity shall submit the annual report to the stock exchange within twenty one working days of it being approved and adopted in the annual general meeting as per the provisions of the Companies Act, 2013.

The annual report shall contain the following:

- a. audited financial statements i.e. balance sheets, profit and loss accounts etc., and statement on Impact of audit qualifications;
- b. consolidated financial statements audited by its statutory auditors;
- c. cash flow statement presented only under the indirect method as prescribed in Accounting Standard-3 or Indian Accounting Standard 7, as applicable, specified in Section 133 of the Companies Act, 2013 read with relevant rules framed thereunder or as specified by the Institute of Chartered Accountants of India, whichever is applicable;
- d. directors report;
- e. management discussion and analysis report - either as a part of directors report or addition thereto;

- f. for the top five hundred listed entities based on market capitalization (calculated as on March 31 of every financial year), business responsibility report describing the initiatives taken by them from an environmental, social and governance perspective, in the format as specified by the Board from time to time:

Provided that listed entities other than top 500 listed companies based on market capitalization and listed entities which have listed their specified securities on SME Exchange, may include these business responsibility reports on a voluntary basis in the format as specified.

Additional Disclosures in Annual Report

The annual report shall contain any other disclosures specified in the Companies Act, 2013 along with the following additional disclosures as specified in Schedule V.

- (a) Related Party Disclosure;
- (b) Management Discussion and Analysis;
- (c) Corporate Governance Report;
- (d) Declaration signed by the chief executive officer stating that the members of board of directors and senior management personnel have affirmed compliance with the code of conduct of board of directors and senior management;
- (e) Compliance certificate from either the auditors or practicing company secretaries regarding compliance of conditions of corporate governance shall be annexed with the directors' report;
- (f) Disclosures with respect to DEMAT suspense account/ unclaimed suspense account.

PART B

Question 5

- (a) *What are the different reporting principles for defining quality in GRI ?* (5 marks)
- (b) *"The Concept of Kyosei is actually integrating business, government and the society and finally aiming at transnational approach." Can such objective be attained ? Explaining the concept of Kyosei justify your answer.* (5 marks)
- (c) *Discuss the core principles of National Voluntary Guidelines on Social, Environmental and Economic responsibility of business.* (5 marks)

Answer 5(a)

The GRI Reporting Framework is intended to serve as a generally accepted framework for reporting on an organization's economic, environmental, and social performance. It is designed for use by organizations of any size, sector, or location.

1. *Balance* : The report should reflect positive and negative aspects of the organization's performance to enable a reasoned assessment of overall performance.

2. *Comparability*: The organization should select, compile and report information consistently.
3. *Accuracy*: The reported information should be sufficiently accurate and detailed for stakeholders to assess the organization's performance.
4. *Timeliness*: The organization should report on a regular schedule so that information is available in time for stakeholders to make informed decisions.
5. *Clarity*: The organization should make information available in a manner that is understandable and accessible to stakeholders using the report.
6. *Reliability*: The organization should gather, record, compile, analyze and disclose information and processes used in the preparation of a report in a way that they can be subject to examination and that establishes the quality and materiality of the information.

Answer 5(b)

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," but for some, the definition is broader: "All people, regardless of race, religion or culture, harmoniously living and working together into the future."

The concept of Kyosei is actually integrating business, government and the society and finally aiming at transnational approach. The presence of imbalances in the world in areas such as trade, income levels and the environment hinders the achievement of kyosei. However, the objective can be attained.

Kyosei journey begins by laying a sound business foundation and ends in political dialogue for global change. Kyosei establishes harmonious relations among the company and -

- Customers
- Suppliers
- Competitors
- Governments
- Natural Environment.

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.

Answer 5(c)

National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business were released by MCA in July, 2011. These guidelines

have been formulated keeping in view the diverse sectors within which businesses operate, as well as the wide variety of business organizations that exist in India today – from the small and medium enterprises to large corporate organizations.

The National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business framework has 36 parameters reflecting nine key principles related to responsible business practices. The Guidelines encompassing nine Principles and related Core Elements identify the areas where responsible practices need to be adopted and the Reporting Framework provides a standard disclosure template which can be used by businesses to report on their performance in these areas.

Principles and the core elements

1. Businesses should conduct and govern themselves with Ethics, Transparency and Accountability;
2. Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle;
3. Businesses should promote the wellbeing of all employees;
4. Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized;
5. Businesses should respect and promote human rights;
6. Business should respect, protect, and make efforts to restore the environment;
7. Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner;
8. Businesses should support inclusive growth and equitable development;
9. Businesses should engage with and provide value to their customers and consumers in a responsible manner.

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

Question 6

Discuss in brief the following :

- (a) Ecomark.
- (b) Government Role in improving Sustainability.
- (c) Functions of CSR Committee.
- (d) Carbon footprint vis-a-vis Ecological footprint.
- (e) Agenda.

(3 marks each)

OR (Alternate question to Q. No. 6)

Question 6A

- (i) *What are the different sections of Business Responsibility Reporting framework as per LODR regulations ?*

- (ii) *What do you understand by emission trading ?*
- (iii) *Mention the names of the documents which were the result of the Rio Summit of UNCED held in 1992.*
- (iv) *Discuss the implications of historic judgement delivered in Kanpur Tanneries Case.*
- (v) *What do you understand by integrated reporting ?* *(3 marks each)*

Answer 6(a)

To increase consumer awareness, the 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 off in a way that significantly reduces the harm it would otherwise cause to the environment could be considered as Environment-Friendly Product. The 'Ecomark' label is awarded to consumer goods which meet the specified environmental criteria and the quality requirements of Indian Standards. Any product with the Ecomark will be the right environmental choice.

An earthen pot has been chosen as the logo for the Ecomark scheme in India. The familiar earthen pot uses a renewable resource, like earth. It does not produce hazardous waste and consumes little energy in its making. Its solid and graceful form represents both strength and fragility, which also characterises the eco-system.

Answer 6(b)

Government does play an important and even critical role in improving sustainability. In 2011, Ministry of Corporate Affairs (MCA), Govt. of India issued the first voluntary reporting framework for reporting on Business Responsibility in the form of 'National Voluntary Guidelines (NVG) on Social, Environmental and Economic Responsibilities of Business'.

Governments are interceding with unprecedented levels of new regulations, like SEBI mandated Business Responsibility Reporting in India for top 500 listed companies besides the voluntary reporting for others, Integrated Reporting in South Africa and many other jurisdictions are placing similar requirement on companies to report about the sustainability aspects in addition to financial information.

Answer 6(c)

Section 135 of the Companies Act, 2013 provides that companies specified in the said section shall constitute a Corporate Social Responsibility Committee (CSR Committee) of the Board. In accordance with section 135 of the Companies Act, 2013, the functions of the CSR committee include:

1. formulating and recommending to the Board, a CSR Policy which shall indicate the activities to be undertaken by the company as specified in Schedule VII;
2. recommending the amount of expenditure to be incurred on the CSR activities;
3. monitoring the Corporate Social Responsibility Policy of the company from time to time.

Further, the CSR Committee should institute a transparent monitoring mechanism for implementation of the CSR projects or programs or activities undertaken by the company.

Answer 6(d)

A carbon footprint is an estimate of how much carbon is produced to support your lifestyle. Essentially, it measures your impact on the climate based on how much carbon you produce. Factors that contribute to your carbon footprint include travel methods and general home energy usage. Carbon footprints can also be applied on a larger scale to companies, businesses and even countries. The word 'carbon' in the phrase 'carbon footprint' is often used as a short-cut to describe the main greenhouse gases - carbon dioxide, methane and nitrous oxide - in terms of carbon dioxide equivalents.

Ecological footprint is a measure of human demand on earth's eco-systems. It compares human demand with planet earth's ecological capacity to regenerate it. It represents the amount of biologically productive land and sea area needed to regenerate the resources a human population consumes and to absorb and render the corresponding waste harmless, given prevailing technology and resource management practices.

Answer 6(e)

'The 2030 Agenda for Sustainable Development' is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. The 17 Sustainable Development Goals and 169 targets demonstrate the scale and ambition of this new universal Agenda. They seek to build on the Millennium Development Goals and complete what these did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental. The goals and targets will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet.

Answer 6A(i)

As per Regulation 34 of SEBI (LODR) 2015, the Annual Report of the top five hundred listed entities based on market capitalization (calculated as on March 31 of every financial year), should contain a business responsibility report describing the initiatives taken by them from an environmental, social and governance perspective, in the format as specified by the Board from time to time. It referred the SEBI circular CIR/CFD/DIL/8/2012 vide dated 13th August 2012, in which the Business Responsibility Report framework is divided into five sections:

1. *Section A* : General Information about the Organisation – Industry Sector, Products & Services, Markets, other general information.
2. *Section B* : Financial Details of the Organisation – Paid up capital, Turnover, Profits, CSR (Corporate Social Responsibility) spend.
3. *Section C* : Other Details – BR initiatives at Subsidiaries and Supply-chain Partners.
4. *Section D* : BR Information – Structure, Governance & Policies for Business Responsibility.

5. *Section E* : Principle-wise Performance – Indicators to assess performance on the 9 Business Responsibility principles as envisaged by the National Voluntary Guidelines (NVGs).

Answer 6A(ii)

In order to give parties a certain degree of flexibility in meeting their emission reduction targets, the Kyoto Protocol developed three innovative mechanisms - known as Emissions Trading (the carbon market), Joint Implementation and the Clean Development Mechanism (CDM).

These market-based mechanisms allow developed parties to earn and trade emissions credits through projects implemented either in other developed countries or in developing countries, which they can use towards meeting their commitments. These mechanisms help identify lowest-cost opportunities for reducing emissions and attract private sector participation in emission reduction efforts. Developing nations benefit in terms of technology transfer and investment brought about through collaboration with industrialized nations under the CDM.

Answer 6A(iii)

The following documents were the outcome of the Rio Summit:

1. *Agenda 21* – It is a blueprint on how to make development socially, economically and environmentally sustainable.
2. *The Rio Declaration on Environment and Development* – it has 27 principles defining the rights and responsibilities of nations as they pursue human development and well-being.
3. *A statement of forest principles* – they guide the management, conservation and sustainable development of all types of forests, as essential to economic development and the maintenance of all forms of life.
4. *The United Nations Framework Convention on Climate Change* – aims to stabilize greenhouse gas concentrations in the atmosphere at levels that would prevent dangerous human induced interference with the climate system.
5. *The Convention on Biological Diversity* – it requires the countries to adopt ways and means to conserve the variety of living species, and ensure that the benefits from using biological diversity are equitably shared.
6. *Montreal Protocol on Substances that deplete the Ozone Layer* was designed to reduce the production and consumption of ozone depleting substances.

Answer 6A(iv)

The *M.C. Mehta v. Union of India*, also known as the Kanpur Tanneries or Ganga Pollution case, is among the most significant water pollution case. In the case following the alarming details given by M.C. Mehta about the extent of pollution in the river Ganga caused by the inflow of sewage from Kanpur alone, the Court came down heavily on the Nagar Mahapalika (Municipality). It emphasised that it is the Nagar Mahapalika of Kanpur that has to bear the major responsibility for the pollution of the river near Kanpur city.

The Supreme Court ordered the tanneries to clean their waste water within six months or shut down entirely. This was followed by a January 1988 judgment that required Kanpur's local municipality to take several immediate measures to control water pollution: relocation of 80,000 cattle housed in dairies or safe removal of animal waste from these locations; cleaning of the city's sewers; building of larger sewer systems; construction of public latrines; and an immediate ban on the disposal of corpses into the river. The court order also required all schools to devote one hour each week to environmental education and awareness.

Answer 6A(v)

Integrated reporting is founded on integrated thinking, which helps demonstrate inter connectivity of strategy, strategic objectives, performance, risk and incentives and helps to identify sources of value creation. Integrated Reporting is one step ahead of sustainability reporting and is set to become the way companies report their annual financial and sustainability information together in one report. The aim of an integrated report is to clearly and concisely tell the organization's stakeholders about the company and its strategy and risks, linking its financial and sustainability performance in a way that gives stakeholders a holistic view of the organization and its future prospects.

An Integrated Report is "a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term". The primary purpose of an integrated report is to explain to providers of financial capital how an organisation creates value over time.
