

**PAPER – 7: INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**

**SECTION – A: INFORMATION TECHNOLOGY**

**QUESTIONS**

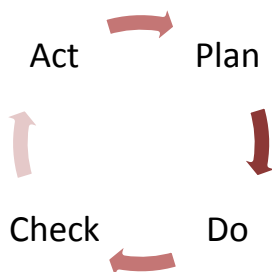
**Multiple Choice Questions**

**Q. No.(s) 1 to 5 are based on the Case Scenario.**

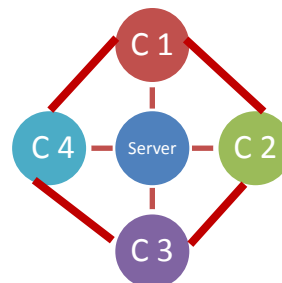
M/s MARS PLUTO ET LTD. (MPETL) is a company in service industry whose business is to provide data analysis and business intelligence services to its customers. In recent times, MPETL faced frequent problems of network outage due to complete or partial failure of hardware components, and storage failure. This hardware failure further made its data vulnerable to potential unauthorized disclosure or malicious use, as there were poor restrictions on use of computers system resources to authorized users. To seek the solution of this critical problem, Ms. Smriti was hired by the company to provide them the requisite consultation and propose solution of the problem. During the investigation, Ms. Smriti analyzed the problem thoroughly and used the cycle given in DIAGRAM 1 to suggest a solution. The suggestions of Ms. Smriti were as follows:

- Ms. Smriti suggested the company to redesign its network infrastructure and change the current database structure. Her suggested solution is in form of a new network structure given in DIAGRAM 2.

**DIAGRAM 1**



**DIAGRAM 2**



- She suggested revised access control rules for the new network to be created in MPETL. Company needed to have four computer operators plus two standby operators and a system administrator. Each operator can access only a specified system. The access rights are as mentioned below.

S. No.	System Name	Access Available to	Access Method
1	C1	Operator 1 and Standby Operator 1	User id plus password
2	C2	Operator 2 and Standby Operator 1	User id plus password

3	C3	Operator 3 and Standby Operator 2	User id plus password
4	C4	Operator 4 and Standby Operator 2	User id plus password
5	Server	System Admin and Managing Director of MPETL	Bio Metric Scanner (Finger) plus One time password received on mobile while accessing the server.

**Based on the facts of the case scenario given above, choose the most appropriate answer to Q. No(s) 1 to 5.**

- As suggested by Ms. Smriti, the revised access control mechanisms like Password and Biometric given to the users are based on the principle of \_\_\_\_\_.
  - Best Privilege
  - Least Privilege
  - Moderate Privilege
  - Most Privilege
- Ms. Smriti's suggestion of solution to the problem of MPETL refers to a strategy well depicted in the DIAGRAM 1. What do you think this strategy refers to?
  - SIX SIGMA Cycle
  - Total Quality Management Cycle
  - Business Process Reengineering Cycle
  - Enterprise Resource Planning Cycle
- MPETL provides business intelligence solution to its clients that may require to store complex data such as images, audio and video etc. Identify the type of database Model that MPETL might be using to store such voluminous data.
  - Object Oriented Database
  - Relational Database
  - Network Database
  - Hierarchical Database
- Due to frequent hardware failures, the Access controls used to allow individuals' access to system got violated. To reconfigure the Access controls, three step process will be followed. Which of the following shall NOT form a part of this process?
  - Identification
  - Authentication

- (c) Authorization
- (d) Accountability
- 5. The suggested network by Ms. Smriti has high cost of installation and maintenance. The company decided to opt STAR network as an alternate of this network. To create a STAR network, which network linkages need to be removed from DIAGRAM 2 (Server is denoted with 'S')?
  - (a) Linkages between: C1-S, C2-S, C3-S, C4-S
  - (b) Linkages between: C1-C2, C2-C3, C3-C4, C4-C1
  - (c) Linkages between: C1-S, C2-S, C3-C4, C4-C1
  - (d) Linkages between: C3-S, C4-S, C3-C4, C4-C1

### **Descriptive Questions**

#### **Chapter 1: Business Process Management & IT**

- 6. Mr. Anil is the Examination Department Head of a university in Chennai. During Covid 19 pandemic, the Top management of the university sought an action plan from him on how the examination department proposes to conduct online entrance exams for various courses that university offers. Knowing both the advantages and limitations of flowcharts, he preferred to give presentation on the work flow using flowchart. List both advantages and limitations of the flowcharts.
- 7. DEF Limited is planning to implement Business Process Management System (BPMS) to update the documentation, analysis, monitor and re-design its business processes. Though the benefits of BPMS are endless, elaborate some benefits that are unique to a company.

#### **Chapter 2: Information Systems and IT Fundamentals**

- 8. ABC Ltd. is a financial company with huge clientele, therefore the data under its custody is voluminous, thereby requiring the company to maintain its data in Database Management System (DBMS). Elaborate the advantages of Database Management System (DBMS) that the company may avail.
- 9. Discuss various activities that are executed by Operating System so that it is able to manage the hardware resources and acts as an interface with various application programs.

#### **Chapter 3: Telecommunication and Networks**

- 10. Mr. Raj is a Chief Manager of XYZ company; a well-known brand in the field of footwear. He suggested the Board members of the company to adopt e-commerce technology to launch its website and offer the relevant services online to its customers. This was proposed to meet out the ever-increasing demand of today's competitive world. Being unaware about the technology benefits, the Top Management asked him to present a

report pertaining to benefits of the same in next board meeting. Help Mr. Raj to jot down all the benefits associated with e-Commerce application and implementation.

11. Define Threat. Also discuss various categories of threats associated with Network security in a telecommunication network.

#### **Chapter 4: Business Information Systems**

12. Mr. Anil, the sales head of the XYZ bank providing Credit Card, is required to prepare a document to be launched in the public domain explaining its clients about processing of the credit card. Prepare the content for his document.
13. There are various components that compose together to make a typical Accounting Information System (AIS) that performs the functions like collection, storage, and processing of financial and accounting data useful in decision making. Discuss those components in brief.

#### **Chapter 5: Business Process Automation through Application Software**

14. You are deputed as an IT Administrator in ABC insurance company that uses Grid Computing to mine the data from partner hospitals for fraud detection. As an administrator, discuss your perspective in using the Grid Computing.
15. In a communication subsystem, there needs to be well placed controls so as to transport data among all or other subsystems within a system or to another system. Identify the control and briefly explain the controls falling under its purview.

### **SUGGESTED ANSWERS**

1. (b) Least privilege
2. (b) Total Quality Management Cycle
3. (a) Object Oriented Database
4. (d) Accountability
- 5 (b) Linkages between: C1-C2, C2-C3, C3-C4, C4-C1
6. The advantages of using Flowchart are as follows:
  - (i) **Quicker grasp of relationships** – Before any application can be solved, it must be understood and the relationship between various elements of the application must be identified. The programmer can chart a lengthy procedure more easily with the help of a flowchart than by describing it by means of written notes.
  - (ii) **Effective Analysis** – The flowchart becomes a blueprint of a system that can be broken down into detailed parts for study. Problems may be identified, and new approaches may be suggested by flowcharts.

- (iii) **Communication** – Flowcharts aid in communicating the facts of a business problem to those whose skills are needed for arriving at the solution.
- (iv) **Documentation** – Flowcharts serve as a good documentation which aid greatly in future program conversions. In the event of staff changes, they serve as training function by helping new employees in understanding the existing programs.
- (v) **Efficient coding** – Flowcharts act as a guide during the system analysis and program preparation phase. Instructions coded in a programming language may be checked against the flowchart to ensure that no steps are omitted.
- (vi) **Orderly check out of problem** – Flowcharts serve as an important tool during program debugging. They help in detecting, locating and removing mistakes.
- (vii) **Efficient program maintenance** – The maintenance of operating programs is facilitated by flowcharts. The charts help the programmer to concentrate attention on that part of the information flow which is to be modified.

The limitations of using Flowchart are as follows:

- (i) **Complex logic** – Flowchart becomes complex and clumsy where the problem logic is complex. The essentials of what is done can easily be lost in the technical details of how it is done.
  - (ii) **Modification** – If modifications to a flowchart are required, it may require complete re-drawing.
  - (iii) **Reproduction** – Reproduction of flowcharts is often a problem because the symbols used in flowcharts cannot be typed.
  - (iv) **Link between conditions and actions** – Sometimes it becomes difficult to establish the linkage between various conditions and the actions to be taken there upon for a particular condition.
  - (v) **Standardization** – Program flowcharts, although easy to follow, are not such a natural way of expressing procedures as writing in English, nor are they easily translated into Programming language.
7. Business Process Management System (BPMS), as a technology, can deliver endless benefits to any sized organization but more importantly following benefits are unique to a company:
- (a) **Automating repetitive business processes:** Processes such as report creation and distribution or the monitoring of or reporting on company's Key Performance Indicators (KPI) reduces the manual operational costs and helps employees to concentrate on activities that are important to the success of business.
  - (b) **BPMS works by 'loosely coupling' with a company's existing applications:** This enables it to monitor, extract, format and distribute information to systems and people; in line with business events or rules.

- (c) **Operational Savings:** BPM focuses on optimization of processes. The processes that are repetitive are optimized and lead to reduced expenses which translate to immediate cost savings. By automating a task, ROI of BPM that requires six hours of manual intervention, one can expect to cut that time to half. Thus, three hours multiplied by the number of times the process is completed in a cycle will yield significant cost saving.
  - (d) **Reduction in the administration involved in Compliance and ISO Activities:** Be it a quality assurance initiative such as the ISO standards, a financial audit law, or an IT systems best-practice implementation, companies worldwide are seeing the need to manage compliance as part of their everyday business activities. The BPM is ideally suited to help support companies in their quest for process improvement and compliance/governance certification. It gives full control over process and document change, clarity of inherent risks, and ease with which process knowledge is communicated across the company.
  - (e) **Freeing-up of employee time:** While the euphuism “time is money” is often over-used, it is very relevant to this topic, because in business, for each additional hour it takes to complete a manual business process, there is a hard cost associated with employee time as well as soft costs associated with losing business or lowered productivity. Another area where time comes into play is in opportunity costs.
8. The advantages of Database Management Systems (DBMS) are as follows:
- ◆ **Permitting data sharing:** One of the principle advantages of a DBMS is that the same information can be made available to different users.
  - ◆ **Minimizing Data Redundancy:** In a DBMS, duplication of information or redundancy is, if not eliminated, carefully controlled or reduced i.e. there is no need to repeat the same data over and over again. Minimizing redundancy can therefore significantly reduce the cost of storing information on hard drives and other storage devices.
  - ◆ **Integrity can be maintained:** Data integrity is maintained by having accurate, consistent, and up-to-date data. Updates and changes to the data only have to be made in one place in DBMS ensuring Integrity. The chances of making a mistake increase if the same data needs to be changed at several different places than making the change in one place.
  - ◆ **Program and file consistency:** Using a DBMS, file formats and programs are standardized. This makes the data files easier to maintain because the same rules and guidelines apply across all types of data. The level of consistency across files and programs also makes it easier to manage data when multiple programmers are involved.

- ◆ **User-friendly:** DBMS makes the data access and manipulation easier for the user and also reduces the reliance of users on computer experts to meet their data needs.
  - ◆ **Improved security:** DBMSs allow multiple users to access the same data resources which could lead to risk to an enterprise if not controlled. Security constraints can be defined i.e. Rules can be built to give access to sensitive data. Some sources of information should be protected or secured and only viewed by select individuals. Through the use of passwords, database management systems can be used to restrict data access to only those who should see it.
  - ◆ **Achieving program/data independence:** In a DBMS, data does not reside in applications but data bases program & data are independent of each other.
  - ◆ **Faster application development:** In the case of deployment of DBMS, application development becomes fast. The data is already therein databases, application developer has to think of only the logic required to retrieve the data in the way a user needs.
9. Various activities executed by Operating System (OS) are as follows:
- ◆ **Performing hardware functions:** Application programs to perform tasks have to obtain input from keyboards, retrieve data from disk & display output on monitors. Achieving all this is facilitated by operating system. Operating system acts as an intermediary between the application program and the hardware.
  - ◆ **User Interfaces:** An important function of any operating system is to provide user interface referred as Graphic User Interface (GUI) which uses icons & menus like in the case of Windows. So, how we interface with our system will be provided by Operating system.
  - ◆ **Hardware Independence:** Every computer could have different specifications and configurations of hardware. If application developer would have to rewrite code for every configuration s/he would be in a big trouble. Operating System provides Application Program Interfaces (API), which can be used by application developers to create application software, thus obviating the need to understand the inner workings of OS and hardware. Thus, OS gives us hardware independence.
  - ◆ **Memory Management:** Memory Management features of Operating System allow controlling how memory is accessed and maximize available memory & storage. Operating systems also provides Virtual Memory by carving an area of hard disk to supplement the functional memory capacity of RAM. In this way it augments memory by creating a virtual RAM.
  - ◆ **Task Management:** Task Management feature of Operating system helps in allocating resources to make optimum utilization of resources. This facilitates a user

to work with more than one application at a time i.e. multitasking and also allows more than one user to use the system i.e. timesharing.

- ◆ **Networking Capability:** Operating systems can provide systems with features & capabilities to help connect computer networks. Like Linux and Windows 8 give us an excellent capability to connect to internet.
- ◆ **Logical access security:** Operating systems provide logical security by establishing a procedure for identification and authentication using a User ID and Password. It can log the user access thereby providing security control.
- ◆ **File management:** The operating system keeps a track of where each file is stored and who can access it, based on which it provides the file retrieval.

10. The benefits associated with e-Commerce application and implementation are as follows:

- ◆ Reduction in costs to buyers from increased competition in procurement as more suppliers are able to compete in an electronically open marketplace.
- ◆ Reduction in errors, time, and overhead costs in information processing by eliminating requirements for re-entering data.
- ◆ Reduction in costs to suppliers by electronically accessing on-line databases of bid opportunities, on-line abilities to submit bids, and on-line review of rewards.
- ◆ Reduction in time to complete business transactions, particularly from delivery to payment.
- ◆ Creation of new markets through the ability to easily and cheaply reach potential customers.
- ◆ Easier entry into new markets, especially geographically remote markets, for enterprises regardless of size and location.
- ◆ Better quality of goods as specifications are standardized and competition is increased and improved variety of goods through expanded markets and the ability to produce customized goods.
- ◆ Faster time to market as business processes are linked, thus enabling seamless processing and eliminating time delays.
- ◆ Optimization of resource selection as businesses form cooperative teams to increase the chances of economic successes, and to provide the customer products and capabilities more exactly meeting the requirements.
- ◆ Reduction in inventories and reduction of risk of obsolete inventories as the demand for goods and services is electronically linked through just-in-time inventory and integrated manufacturing techniques.



- ◆ Reduction in overhead costs through uniformity, automation, and large-scale integration of management processes.
  - ◆ Reduction in use of ecologically damaging materials through electronic coordination of activities and the movement of information rather than physical objects.
  - ◆ Reduction in advertising costs.
11. A **Threat** is a possible danger that can disrupt the operation, functioning, integrity, or availability of a network or system. Network security threats can be categorized into four broad themes:
- ◆ **Unstructured Threats** - These originate mostly from inexperienced individuals using easily available hacking tools from the Internet. Many tools available to anyone on the Internet can be used to discover weaknesses in a company's network. These include port-scanning tools, address-sweeping tools, and many others. Most of these kinds of probes are done more out of curiosity than with a malicious intent in mind. For example, if a company's external website is hacked; the company's integrity is damaged. Even if the external website is separate from the internal information that sits behind a protective firewall, the public does not know that. All they know is that if the company's website is hacked, then it is an unsafe place to conduct business.
  - ◆ **Structured Threats** - These originate from individuals who are highly motivated and technically competent and usually understand network systems design and the vulnerabilities of those systems. They can understand as well as create hacking scripts to penetrate those network systems. An individual who presents a structured threat typically targets a specific destination or group. Usually, these hackers are hired by industry competitors, or state-sponsored intelligence organizations.
  - ◆ **External Threats** - These originate from individuals or organizations working outside an organization, which does not have authorized access to organization's computer systems or network. They usually work their way into a network from the Internet or dialup access servers.
  - ◆ **Internal Threats** - Typically, these threats originate from individuals who have authorized access to the network. These users either have an account on a server or physical access to the network. An internal threat may come from a discontented former or current employee or contractor. It has been seen that majority of security incidents originate from internal threats.
12. Steps involved in the processing of Credit Card are as follows:
- Step 1: Authorization** – This is the first step in processing a credit card. After a merchant swipes the card, the data is submitted to merchant's bank, called an acquirer, to request authorization for the sale. The acquirer then routes the request to the card-

issuing bank, where it is authorized or denied, and the merchant is allowed to process the sale.

**Step 2: Batching** – This is the second step in processing a credit card. At the end of a day, the merchant reviews all the day's sales to ensure they were authorized and signed by the cardholder. It then transmits all the sales at once, called a batch, to the acquirer to receive payment.

**Step 3: Clearing** – This is the third step in processing a credit card. After the acquirer receives the batch, it sends it through the card network, where each sale is routed to the appropriate issuing bank. The issuing bank then subtracts its interchange fees, which are shared with the card network, and transfers the remaining amount through the network back to the acquirer.

**Step 4: Funding** – This is the fourth and final step in processing a credit card. After receiving payment from the issuer, minus interchange fees, the acquirer subtracts its discount fee and sends the remainder to the merchant. The merchant is now paid for the transaction, and the cardholder is billed.

13. The key components of Accounting Information System (AIS) are as follows:

- **People:** AIS helps various system users that include accountants, consultants, business analysts, managers, chief financial officers and auditors etc. from different departments within a company to work together. With well-designed AIS, everyone within an organization who is authorized to do so can access the same system and get the same information. AIS also simplify getting information to people outside of the organization when necessary.
- **Procedure and Instructions:** These include both manual and automated methods for collecting, storing, retrieving and processing data.
- **Data:** This refers to the information pertinent to the organization's business practices that may include sales orders, customer billing statements, sales analysis reports, purchase requisitions, vendor invoices, check registers, general ledger, inventory data, payroll information, timekeeping, tax information etc. This data can then be used to prepare accounting statements and reports such as accounts receivable aging, depreciation/amortization schedules, trial balance, profit and loss, and so on.
- **Software:** These are the computer programs that provide quality, reliability and security to the company's financial data that may be stored, retrieved, processed and analyzed. Managers rely on the information it outputs to make decisions for the company, and they need high-quality information to make sound decisions.
- **Information Technology Infrastructure:** This include hardware such as personal computers, servers, printers, surge protectors, routers, storage media, and possibly

a backup power supply used to operate the system. The hardware selected for AIS must be compatible with the intended software.

- **Internal Controls:** These are the security measures such as passwords or as complex as biometric identification to protect sensitive data against unauthorized computer access and to limit access to authorized users. Internal controls also protect against computer viruses, hackers and other internal and external threats to network security.

14. As an Administrator, the perspectives in using Grid Computing are as follows:

- **Planning:** The administrator should understand the organization's requirements for the grid to better choose the grid technologies that satisfy grid's requirements. One of the first considerations is the hardware available and how it is connected via a LAN or WAN. Next, an organization may want to add additional hardware to supplement the capabilities of the grid.
  - **Security:** Security is a much more important factor in planning and maintaining a grid where data sharing comprises the bulk of the activity. In a grid, the member machines are configured to execute programs rather than just move data. This makes an unsecured grid potentially fertile ground for viruses and Trojan horse programs. For this reason, it is important to understand the issues involved in authenticating users and providing proper authorization for specific operations.
  - **Organization:** It is important to understand how the departments in an organization interact, operate, and contribute to the whole. Often, there are barriers built between departments and projects to protect their resources in an effort to increase the probability of timely success. For example, a project that finds itself behind schedule and over budget may not be able to afford the resources required to solve the problem. A grid would give such projects an added measure of safety, providing an extra margin of resource.
- **Installation:** First, the selected grid system must be installed on an appropriately configured set of machines. These machines should be connected using networks with sufficient bandwidth to other machines on the grid. Machines should be configured and connected to facilitate recovery scenarios. Any critical databases or other data essential for keeping track of the jobs in the grid, members of the grid, and machines on the grid should have suitable backups.
- **Managing enrollment of donors and users:** The administrator is responsible for controlling the rights of the users in the grid. Donor machines may have access rights that require management as well. The rights of these grid user IDs must be properly set so that grid jobs do not allow access to parts of the donor machine to which the users are not entitled. As users join the grid, their identity must be

positively established and entered in the Certificate Authority. Further, procedures for removing users and machines must also be executed by the administrator.

- **Certificate Authority:** It is critical to ensure the highest levels of security in a grid because the grid is designed to execute code and not just share data. Thus, viruses, Trojan horses, and other attacks can affect the grid system. The Certificate Authority is one of the most important aspects of maintaining strong grid security. An organization may choose to use an external Certificate Authority or operate one itself.
  - **Resource Management:** Another responsibility of the administrator is to manage the resources of the grid. This includes setting permissions for grid users to use the resources as well as tracking resource usage and implementing a corresponding accounting or billing system. Usage statistics are useful in identifying trends in an organization that may require the acquisition of additional hardware; reduction in excess hardware to reduce costs; and adjustments in priorities and policies to achieve better for attaining the overall goals of an organization etc.
  - **Data sharing:** For small grids, the sharing of data can be fairly easy, using existing networked file systems, databases, or standard data transfer protocols. As a grid grows and the users become dependent on any of the data storage repositories, the administrator should consider procedures to maintain backup copies and replicas to improve performance. All of the resource management concerns apply to data on the grid.
15. The control discussed in this case is **Communication Controls**. The controls falling under its purview are as follows:
- **Physical Component Controls:** One way to reduce expected losses in the communication subsystem is to choose physical component that have characteristics that make them reliable and that incorporate features or provide controls that mitigate the possible effects of exposures. These controls involve Transmission Media - Bounded (Guided) Media or Unbounded (Unguided) Media; Communication Lines – Private (Leased) or Public; Modems; Port Protection Devices; Multiplexors and Concentrators.
  - **Line Error Controls:** Whenever data is transmitted over a communication line, it can be received in error because of attenuation, distortion, or noise that occurs on the line. Error Detection (using Parity Checking, Cyclic Redundancy Checks (CRC) and Loop Check) and Error Correction (using forward Error Correcting Codes and Backward Error Correction) are the two major approaches under Line Error Controls.
  - **Flow Controls:** These are needed because two nodes in a network can differ in terms of the rate at which they can send receive and process data. The simplest

form of flow control is “Stop-and-Wait Flow Control” in which the sender transmits a frame of data only when the receiver is ready to accept the frame.

- **Link Controls:** This involves two common protocols – HDLC (Higher Level Data Control) and SDLC (Synchronous Data Link Control).
- **Topological Controls:** A communication network topology specifies the location of nodes within a network, the ways in which these nodes will be linked, and the data transmission capabilities of the links between the nodes. Some of the four basic topologies include Bus, Ring, Star and Tree Topology.
- **Channel Access Controls:** Two different nodes in a network can compete to use a communication channel. Whenever the possibility of contention for the channel exists, some type of channel access control technique must be used. These techniques fall into two classes – Polling methods and Contention methods. Polling techniques establish an order in which a node can gain access to channel capacity; whereas in Contention methods, nodes in a network must compete with each other to gain access to a channel.
- **Internetworking Controls:** Internetworking is the process of connecting two or more communication networks together to allow the users of one network to communicate with the users of other networks. Three types of devices are used to connect sub-networks in an Internet: Bridge, Router and Gateway.

**SECTION – B: STRATEGIC MANAGEMENT****Multiple Choice Questions**

1. O-Farm, an organic farm products brand has been operating in India since 2014. It has had a decent history of business with revenue of ₹ 50 crores in the previous year and a Compound Annual Growth Rate (CAGR) of 11% year on year.

While the company operated on “Kisaan Kalyan” i.e., farmer friendly agenda since its inception, the rough times ahead seem to call for changes. The recent amendments in Agriculture laws, though indirectly related to organic farming, have posed immense threat to how the business operates. The leaders have been proactive in shifting gears and budgeted funds for shifting focus to “Upbhokta Sewa”, i.e., customer orientation.

To create newer demands and position themselves against the local farming practice changes, they reached out to West Asian and African Nations for their farm inputs, just like many other small traders from their segment. Accordingly, they ordered dry fruits from Afghanistan, whole wheat from Nigeria, and citrus fruits from Turkey. This has helped them get raw inputs at cheaper than usual rates and even better contractual terms, thus, reducing input costs and thereby, passing on the surplus margins to customers.

Further, the marketing team roped in big cricket stars and many social media influencers to aware customers about the brand's customer orientation and product benefits. But, as the focus was on minimal spending, the team smartly locked in affiliate marketing terms with the influencers and even celebrities, instead of upfront promotion fee. This also helped in saving a lot of cost initially.

With the changing environment in the Indian subcontinent around agriculture production, the team is confident with its strategic positioning. The sales have been just at the break-even bars for now, and the projected CAGR is 19% year on year, taking the sales volume to 10X in the next 4 years.

Farming has been a respected profitable business with big players as huge as oil companies. Nonetheless, it is complex, as it involves a lot of stakeholders, especially as it still remains a labour intensive industry.

Based on the above Case Scenario, answer the Multiple Choice Questions.

- (i) O-Farm's new strategy implementation as a result of amendment of Agriculture laws by the government, resonates with which of the following statements?
- (a) Organisational operations are highly influenced by ripple effect of environmental changes.
  - (b) Organisational structure is highly influenced by ripple effect of environmental changes.

- (c) Organisational operations are not affected by the ripple effect of environmental changes.
    - (d) Organisational structure can influence the environmental changes.
  - (ii) The shift of O-Farm from “Kisaan Kalyan” to “Upbhokta Sewa” is a change in?
    - (a) Mission
    - (b) Vision
    - (c) Promotion
    - (d) Product
  - (iii) Which of the following was the first and major advantage for O-Farm that helped them achieve Cost Leadership in the market?
    - (a) Economies of Scale was achieved very early on
    - (b) Prompt forecast of product’s demand
    - (c) Becoming customer oriented
    - (d) Well negotiated purchase contracts
  - (iv) O-Farm’s marketing strategy is an example of which of the following marketing strategies?
    - (a) Person Marketing
    - (b) Augmented Marketing
    - (c) Enlightened Marketing
    - (d) Synchro Marketing
  - (v) The brand has achieved cost leadership through multiple strategies, but it would be a constant challenge to sustain this leadership because of which of the following reasons?
    - (a) Competitors would imitate its modus operandi.
    - (b) Marketing cost will be huge as volumes increase given its choice of marketing strategy.
    - (c) Change in Agriculture Laws shall disrupt its supply chain time and gain.
    - (d) Sales volume will have to outperform its own targets and even that of competitors.
2. *Drishti Care* is a not-for profit eye hospital and research centre. Which one of the following statements is likely to relate to *Drishti Care*’s vision, rather than its mission statement?
- (a) *Drishti Care* places patient care before all else.

- (b) Drishti Care will be the global leader in cutting edge eye surgery.
  - (c) Drishti Care offers the highest level of patient care throughout country.
  - (d) Drishti Care consultants strive to continually improve surgical techniques.
3. ABC is a marketing consultancy business. ABC's most recent corporate analysis has identified that three new businesses have recently entered its market and started aggressively targeting ABC's key client. As part of ABC's corporate analysis, these three new businesses would be a
- (a) Strength
  - (b) Opportunity
  - (c) Weakness
  - (d) Threat
4. *Trekking Poles* is a small company based in the Himalayan ranges in India. It is known in the region for its hill walking sticks. *Trekking Poles* sell specialist walking equipment in their small shop at the foot of the mountains. They do not have a website yet are able to sell their products at premium prices. Which of the following one of Porter's generic strategies best fits *Trekking Poles*?
- (a) Cost leadership
  - (b) Differentiation
  - (c) Focused cost leadership
  - (d) Focused differentiation
5. A Ltd. has recently decided to install a new IT system to improve the efficiency of its payroll function. A Ltd. believes this will reduce the cost of running the payroll system by 20%. Which one of the following levels of strategy is the above IT system most closely linked to?
- (a) Corporate level
  - (b) Functional level
  - (c) Business level
  - (d) Strategic level
6. An organisation during its strategy planning envisaged entire scenarios and created a strategy framework. But in mean time after implementation, it realised that its framework is not effective in certain unique scenarios. What is the reason for the same?
- (a) Strategy is "partly proactive and Partly reactive"
  - (b) Lack of analysis and proper planning.



- (c) Strategy is highly reactive and highly proactive.
- (d) Improper creation of strategic framework

### Descriptive Questions

#### Chapter 1-Business Environment

7. *Easy Access* is a marketing services company providing consultancy to a range of business clients. *Easy Access* and its rivals have managed to persuade the Government to require all marketing services companies to complete a time-consuming and bureaucratic registration process and to comply with an industry code of conduct. Do you think that by doing this *Easy Access* and its rivals has an advantage in some way to fight off competitors? Explain.
8. Assume that you are an entrepreneur who has an intense desire to get into the business. What types of information relating to macro environment would you need to determine external opportunities and threats?

#### Chapter 2-Business Policy and Strategic Management

9. Mr. Mehta sharing with his friend in an informal discussion that he has to move very cautiously in his organization as the decisions taken by him has organisation wide impact and involves large commitments of resources. He also said that his decisions decide the future of his organisation. Where will you place Mr. Mehta in the organizational hierarchy and explain his role in the organization.
10. How strategic decisions differ in nature from other routine decisions taken in day-to-day working of an organization? Explain.

#### Chapter 3-Strategic Analysis

11. Ajanta & Sons Limited are manufacturers of domestic household security alarms for high income group homeowners in India. The company is currently reviewing two strategic options.  
**Option 1:** Selling the same alarms although with different coverings to smaller and low-income group households at a lower price.  
**Option 2:** Development of new, more sophisticated alarms and a wide range of security services (guards and surveillance) for sale to industrial clients for higher prices.  
The senior management team of Ajanta & Sons Limited are keen to analyse the two options using Ansoff's matrix.
12. Explain the concept of Experience Curve and highlight its relevance in strategic management.

**Chapter 4-Strategic Planning**

13. *Leatherite Ltd.* was started as a leather company to manufacture footwear. Currently, they are in the manufacturing of footwears for males and females. The top management desires to expand the business in the leather manufacturing goods. To expand they decided to purchase more machines to manufacture leather bags for males and females.

Identify and explain the strategy opted by the top management of *Leatherite Ltd.*

14. Explain the term Merger and Acquisition as a growth strategy. Differentiate between both of them. State the situations in which such strategies are considered by any organization.

**Chapter 5-Formulation of Functional Strategy**

15. State the factors of human resource that influence employee's competence.
16. Write short note on Publicity and Sales Promotion.

**Chapter 6-Strategy Implementation and Control**

17. *Connect Group* was one of the leading makers of the mobile handsets till a few years ago and which went at the bottom of the heap. *Connect Group* didn't adapt to the current market trends which eventually lead to its downfall. Which would have helped *Connect Group* to change, adapt and survive? Explain the steps to initiate the change.
18. How can you differentiate between transformational and transactional leaders?

**Chapter 7-Reaching Strategic Edge**

19. Elaborate the following principles that guide the Total Quality Management Philosophy:
- (i) Universal Quality Responsibility
  - (ii) Preventing Rather than Detecting Defects
  - (iii) Continuous Improvement and Learning
20. Describe briefly the use of Strategic Management techniques in Educational Institutions.

**SUGGESTED ANSWERS**

1. (i) (d) (ii) (c) (iii) (c) (iv) (b) (v) (b)
2. (c)
3. (a)
4. (c)
5. (b)
6. (b)

7. Yes, *Easy Access* and its rivals get advantage by this move. The new bureaucratic process is making it more complicated for organizations to start up and enter in *Easy Access* market, increasing barriers to entry and thereby reducing the threat of new entrants. New entrants can reduce an industry's profitability, because they add new production capacity, leading to increase in supply of the product, sometimes even at a lower price and can substantially erode existing firm's market share position. However, New entrants are always a powerful source of competition. The new capacity and product range they bring in throws up a new competitive pressure. The bigger the new entrant, the more severe the competitive effect. New entrants also place a limit on prices and affect the profitability of existing players, which is known as Price War.
8. Macro environment mainly consists of economic, technological, political, legal and socio-cultural elements. For an entrepreneur it is important to identify those factors that are likely to affect the new business. Each of the elements can have a bearing on the opportunities and the threats.

Particularly, he should scan the relevant changes that have happened in recent past that can provide competitive edge. For example, a technological innovation in the production process can be opportunity. Incentives such as cheaper land, tax free periods can be other form of opportunities. Entrepreneur has to identify such opportunities that can be capitalized to enter markets or provide an edge over the competitors. Entrepreneur has to also take care as these opportunities can also act as threats when competitors are able to exploit them.

9. Mr. Mehta works in an organization at top level. He participates in strategic decision making within the organization. The role of corporate-level managers is to oversee the development of strategies for the whole organization. This role includes defining the mission and goals of the organization, determining what businesses it should be in, allocating resources among the different businesses, formulating and implementing strategies that span individual businesses, and providing leadership for the organization.
10. Strategic decisions are different in nature than all other decisions which are taken at various levels of the organization during day-to-day working of the organizations. The major dimensions of strategic decisions are given below:
  - ◆ Strategic issues require top management decisions.
  - ◆ Strategic issues involve the allocation of large amounts of company resources.
  - ◆ Strategic issues are likely to have a significant impact on the long term prosperity of the organisation.
  - ◆ Strategic issues are future oriented.
  - ◆ Strategic issues usually have major multifunctional or multi-business consequences.
  - ◆ Strategic issues necessitate consideration of factors in the organisation's external environment.

11. Selling the same alarms with different coverings to smaller and low income group households at a lower price represents *Market Development* as the same products are being sold into a new market. Market development refers to a growth strategy where the business seeks to sell its existing products into new markets. It is a strategy for company growth by identifying and developing new markets for the existing products of the company.

While the development of new and more sophisticated alarms and a wide range of security services (guards and surveillance) for sale to industrial clients for higher prices is classified as *Diversification*, because it involves a new product, being sold in a new market. Diversification refers to a growth strategy where a business markets new products in new markets. It is a strategy by starting up or acquiring businesses outside the company's current products and markets.

12. Experience curve is similar to learning curve which explains the efficiency gained by workers through repetitive productive work. Experience curve is based on the commonly observed phenomenon that unit costs decline as a firm accumulates experience in terms of a cumulative volume of production. The implication is that larger firms in an industry would tend to have lower unit costs as compared to those of smaller organizations, thereby gaining a competitive cost advantage. Experience curve results from a variety of factors such as learning effects, economies of scale, product redesign and technological improvements in production.

The concept of experience curve is relevant for a number of areas in strategic management. For instance, experience curve is considered a barrier for new firms contemplating entry in an industry. It is also used to build market share and discourage competition.

13. *Leatherite Ltd.* is currently manufacturing footwears for males and females and its top management has decided to expand its business by manufacturing leather bags for males and females. Both the products are similar in nature within the same industry. The strategic diversification that the top management of *Leatherite Ltd.* has opted is concentric in nature. They were in business of manufacturing leather footwears and now they will manufacture leather bags as well. They will be able to use existing infrastructure and distribution channel. Concentric diversification amounts to related diversification.

In concentric diversification, the new business is linked to the existing businesses through process, technology or marketing. The new product is a spin-off from the existing facilities and products/processes. This means that in concentric diversification too, there are benefits of synergy with the current operations.

14. Acquisition or merger with an existing concern is an instant means of achieving expansion. It is an attractive and tempting proposition in the sense that it circumvents the time, risks and skills involved in screening internal growth opportunities, seizing them and building up the necessary resource base required to materialise growth.

Apart from the urge to grow, acquisitions and mergers are resorted to for purposes of achieving a measure of synergy between the parent and the acquired enterprises. Synergy may result from such bases as physical facilities, technical and managerial skills, distribution channels, general administration, research and development and so on.

Many organizations in order to achieve quick growth, expand or diversify with the use of mergers and acquisitions strategies. Merger and acquisition in simple words are defined as a process of combining two or more organizations together. There is a thin line of difference between the two terms but the impact of combination is completely different in both the cases.

**Merger** is considered to be a process when two or more organizations join together to expand their business operations. In such a case the deal gets finalized on friendly terms. Owners of pre-merged entities have right over the profits of new entity. In a merger two organizations combine to increase their strength and financial gains.

While, when one organization takes over the other organization and controls all its business operations, it is known as **acquisition**. In the process of acquisition, one financially strong organization overpowers the weaker one. Acquisitions often happen during economic recession or during declining profit margins. In this process, one that is financially stronger and bigger establishes its power. The combined operations then run under the name of the powerful entity. A deal in case of an acquisition is often done in an unfriendly manner, it is more or less a forced association.

15. Human resource management has been accepted as a strategic partner in the formulation of organization's strategies and in the implementation of such strategies through human resource planning, employment, training, appraisal and reward systems. The following points should be kept in mind as they can have a strong influence on employee competence:
  - i. **Recruitment and selection:** The workforce will be more competent if a firm can successfully identify, attract, and select highly competent applicants.
  - ii. **Training:** The workforce will be more competent if employees are well trained to perform their jobs properly.
  - iii. **Appraisal of performance:** The performance appraisal is to identify any performance deficiencies experienced by employees due to lack of competence. Such deficiencies, once identified, can often be solved through counselling, coaching or training.
  - iv. **Compensation:** A firm can usually increase the competency of its workforce by offering pay, benefits and rewards that are not only attractive than those of their competitors but also recognizes merit.
16. Publicity and Sales promotion are adopted by organizations when they are undertaking promotion in the overall marketing mix.

Publicity is a non-personal form of promotion similar to advertising. However, no payments are made to the media as in case of advertising. Organizations skillfully seek to promote themselves and their product without payment. Publicity is communication of a product, brand or business by placing information about it in the media without paying for the time or media space directly.

Thus, it is way of reaching customers with negligible cost. Basic tools for publicity are press releases, press conferences, reports, stories, and internet releases. These releases must be of interest to the public.

Sales promotion is an omnibus term that includes all activities that are undertaken to promote the business but are not specifically included under personal selling, advertising or publicity. Activities like discounts, contests, money refunds, installments, kiosks, exhibitions and fairs constitute sales promotion. All these are meant to give a boost to the sales. Sales promotion done periodically may help in getting a larger market share to an organization.

17. *Connect Group* has to do strategic change for its survival. The changes in the environmental forces often require businesses to make modifications in their existing strategies and bring out new strategies. Strategic change is a complex process that involves a corporate strategy focused on new markets, products, services and new ways of doing business. Unless companies embrace change, they are likely to be freeze and unless companies prepare to deal with sudden, unpredictable, discontinuous, and radical change, they are likely to be extinct.

Three steps for initiating strategic change are:

- (i) **Recognise the need for change** – The first step is to diagnose the which facets of the present corporate culture are strategy supportive and which are not.
  - (ii) **Create a shared vision to manage change** – Objectives of both individuals and organisation should coincide. There should be no conflict between them. This is possible only if the management and the organisation members follow a shared vision.
  - (iii) **Institutionalise the change** – This is an action stage which requires the implementation of the changed strategy. Creating and sustaining a different attitude towards change is essential to ensure that the firm does not slip back into old ways of doing things.
18. Difference between transformational and transactional leadership
- 1. Transformational leadership style uses charisma and enthusiasm to inspire people to exert them for the good of organization. Transactional leadership style uses the authority of its office to exchange rewards such as pay, status symbols etc.
  - 2. Transformational leadership style may be appropriate in turbulent environment, in industries at the very start or end of their cycles, poorly performing organisations, when there is a need to inspire a company to embrace major changes. Transactional

leadership style can be appropriate in static environment, in growing or mature industries and in organisations that are performing well.

3. Transformational leaders inspire employees by offering excitement, vision, intellectual stimulation and personal satisfaction. Transactional leaders prefer a more formalized approach to motivation, setting clear goals with explicit rewards or penalties for achievement and non-achievement. Transactional leaders focus mainly to build on existing culture and enhance current practices.
19. (i) **Universal quality responsibility:** TQM requires that everyone takes responsibility for quality. The responsibility for quality is not restricted to an organization's quality assurance department, but is a guiding philosophy shared by everyone in an organization.
  - (ii) **Preventing rather than detecting defects:** TQM is a management philosophy that seeks to prevent poor quality in products and services, rather than simply to detect and sort out defects. This saves cost, time and wastages.
  - (iii) **Continuous improvement and learning:** TQM adopts a philosophy of continuous improvement in all areas. Improvement and learning need to be embedded in the way an organization operates. They should be a regular part of daily work, seeking to eliminate problems at their source.
20. Education is considered to be a noble profession. An educational institution often functions as a not-for-profit organization managed by trusts and societies. They include schools, colleges and universities. Being inherently non-commercial in nature, educational organisations do not have cut-throat competition as in case of their commercial counterparts. However, as the number of institutions belonging to both public and private sector are increasing, the competition is gradually rising. Through the use of strategic management techniques such institutions are expected to concentrate attention towards:
    - Getting better name and recognition.
    - Attracting talented students.
    - Designing the curriculum in such a way to provide better citizenry and employability.
    - Appointing and retaining quality faculty for teaching.
    - Preparing students for the future challenges by capacity building.