

**PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC
MANAGEMENT**

SECTION – A: ENTERPRISE INFORMATION SYSTEMS

QUESTIONS

Multiple Choice Questions

Since 1990s, RS Ltd. has been one of the leading companies in India dealing in the business of pulses. Lately in 2019, with the purpose to expand its business, the management of RS Ltd. decided to start its business in the field of spices as well. To develop infrastructure and procure necessary processing equipment in order to promote cross sell activities, the management used various data analytics techniques to predict customer's behavior and probability of equipment failure. Based on the results of said analysis, the management of RS Ltd. selected a supplier XY Ltd. and obtained the requisite equipment from it so as to increase its production and to provide quality products to its customers. At that time, XY Ltd. had a policy to offer a discount of 2% to its customers if the cash payment was made within 7 days. However, RS Ltd. made the payment of Rs. 5 lakh after 10 days using Real Time Gross Settlement (RTGS) facility and didn't avail the discount offered by XY Ltd.

RS Ltd. installed these new procured machines in its various operational units and to operate them, the workforce of RS Ltd. was strengthened. Furthermore, RS Ltd. decided to expand its business ventures through online mode by collaborating with various renowned e-commerce websites where it can offer its products to customers under various discounts and schemes. These websites would display the electronic catalogue of RS Ltd. and in return RS Ltd. shall pay these websites suitable commission charges from the sales revenue generated from these sites.

With the business expansion, the management of RS Ltd. noticed to bring out following changes in their existing automated setup:

- Their organization's security policy shall be made more robust and Business Continuity Plans shall be formulated.
- To mitigate the risk of unauthorized entries in their working environment, the RS Ltd. switched its manual attendance system to biometric system.
- To enhance the physical security like the deployment of security guards, installation of CCTV cameras is required to supervise the visitor's access.

Based on the above case scenario, answer the Question No(s) 1 to 5.

1. The company RS Ltd. decides to buy new equipment for its latest business of spices. Which risk management strategy is being exercised by the management, if they decided to buy new machineries from XY Ltd.?
(a) Tolerate the risk

2

INTERMEDIATE EXAMINATION: NOVEMBER, 2022

- (b) Terminate the risk
 - (c) Transfer the risk
 - (d) Treat the risk
2. Which type of Core Banking Services is being used by RS Ltd. to make the payment to XY Ltd. for the purchase of necessary processing equipments?
- (a) Remittances
 - (b) Collection
 - (c) Clearing
 - (d) Granting of Advances
3. For new business of spices, RS Ltd. decides to collaborate with renowned e-commerce websites for selling its products through online mode. Which of the following term related to e-marketing fits best in this case?
- (a) e-Malls
 - (b) Buyer Aggregator
 - (c) e-auction
 - (d) e-distribution
4. Considering the expansion of business, RS Ltd. uses various data analytics tools to predict customers' behavior. Which advance data analytics tool you think has been used by the company?
- (a) Numerical Analysis
 - (b) Data Warehouse
 - (c) Predictive Analysis
 - (d) Data Mining
5. RS Ltd. decides to restrict the unauthorized access in the company by changing its employee attendance system from manual to biometric system. Which Control under Application Control Framework deals with biometric authentication?
- (a) Input Control
 - (b) Processing Control
 - (c) Boundary Control
 - (d) Communication Control

Descriptive Questions

Chapter 1: Automated Business Processes

6. Risks are not always countered by implementing controls. Based on the types of risks and its significance to business, certain risk management strategies can be used in isolation or in combination. Briefly explain the risk management strategies that can be used to manage various risks associated with any business.
7. As technology is taking new forms every day, the business processes and standards adapted by various enterprises should consider different set of IT related risks and challenges from time to time. Discuss them.

Chapter 2: Financial and Accounting Systems

8. An organization ABC Ltd. has well implemented Enterprise Resource Planning (ERP) in its working environment. Mr. Karan is hired to conduct audit of ABC Ltd.'s ERP system for which he decides to segregate the audit in two parts- Audit of data and Audit of processes. What aspects shall he consider under these audits?
9. The ERP environment of an organization consists of many business process modules. These processes have either a direct or indirect effect on financial status of the organization, out of which Controlling module is one such module. Discuss its key features.

Chapter 3: Information Systems and its Components

10. An efficient and effective telecommunication network gives an organization the capability to move information rapidly among various employees and suppliers to cooperate with each other from anywhere and anytime. Discuss the types of computer network and also its benefits.
11. For an organization XYZ Ltd., the data is critical resource which needs to be managed and controlled properly. Discuss various Data Resource Management controls that should be well implemented in the organization to achieve this objective.

Chapter 4: E-Commerce, M-Commerce and Emerging Technologies

12. It has been observed that in most of the organizations, computer nodes in their network remain underutilized leading to wastage of the computing resources at large. Identify the computing technology that may address this issue and further discuss its benefits.
13. In an e-business environment, all the e-commerce and m-commerce transactions have various risks associated with them. Discuss various risks that prevail in any e-business environment.

Chapter 5: Core Banking Systems

14. The technology components of Core Banking Systems allow the banks to deploy new state of art and innovative banking services. As prescribed under Cyber Security

Framework of RBI, highlight key measures that are required to implement Network Security and secure Configuration of Core Banking System.

15. Most of the banks offer Credit card as the key product service to their customers. The process flow of credit cards may have certain amount of risks that may differ from bank to bank. Discuss various risks involved in credit card process of bank along with their corresponding controls.

SUGGESTED ANSWERS

1. (b) Terminate the risk
2. (a) Remittances
3. (a) e-Malls
4. (c) Predictive Analysis
5. (c) Boundary Control
6. The various risk management strategies that can be used to manage various risks associated with any business are as follows:
 - **Tolerate/Accept the risk.** One of the primary functions of management is managing risk. Some risks may be considered minor because their impact and probability of occurrence is low. In this case, consciously accepting the risk as a cost of doing business is appropriate. The risks should be reviewed periodically to ensure that their impact remains low. A common example of risk acceptance is planning for potential production delays (within a reasonable time range) since it's often difficult to predict a precise delivery schedule in advance.
 - **Terminate/Eliminate the risk.** Especially in the case of risks that have high probability and impact values, it may be best to modify any project strategy to avoid them altogether. For example - it is possible for a risk to be associated with the use of a technology, supplier, or vendor. The risk can be eliminated by replacing the technology with more robust products and by seeking more capable suppliers and vendors.
 - **Transfer/Share the risk.** Risk mitigation approaches can be shared with trading partners and suppliers. A good example is outsourcing infrastructure management. In such a case, the supplier mitigates the risks associated with managing the IT infrastructure by being more capable and having access to more highly skilled staff than the primary organization. Risk also may be mitigated by transferring the cost of realized risk to an insurance provider.
 - **Treat/mitigate the risk.** Where other options have been eliminated, suitable controls must be devised and implemented to prevent the risk from manifesting itself

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 5

or to minimize its effects. A good example of risk mitigation is planning for the eventuality in case an enterprise won't have sufficient capacity or supplies to deal with a very high demand. In that case, enterprise shall have a mitigation strategy in place that allows them to rapidly scale their capacity, or to subcontract some of the work to other parties to meet the high demand.

7. The IT related risks and challenges that an enterprise should consider from time to time are as follows:
- (i) **Downtime due to technology failure:** Information system facilities may become unavailable due to technical problems or equipment failure. A common example of this type of failure is non-availability of system due to server failure.
 - (ii) **Frequent changes or obsolescence of technology:** Technology keeps on evolving and changing constantly and becomes obsolete very quickly. Hence, there is always a challenge that the investment in technology solutions unless properly planned may result in loss to the organization due to risk of obsolescence.
 - (iii) **Multiplicity and complexity of systems:** The technology architecture used for services could include multiple digital platforms and is quite complex. Hence, this requires the personnel to have knowledge about requisite technology skills or the management of the technology could be outsourced to a company having the relevant skill set.
 - (iv) **Different types of controls for different types of technologies/systems:** Deployment of technology often gives rise to new types of risks. These risks need to be mitigated by relevant controls as applicable to the technology/information systems deployed.
 - (v) **Proper alignment with business objectives and legal/regulatory requirements:** Organizations must ensure that the systems implemented cater to all the business objectives and needs, in addition to the legal/regulatory requirements envisaged.
 - (vi) **Dependence on vendors due to outsourcing of IT services:** In systems' environment, the organization requires staff with specialized domain skills to manage IT deployed. Hence, these services could be outsourced to vendors and there is heavy dependency on vendors and gives rise to vendor risks which should be managed by proper contracts, controls and monitoring.
 - (vii) **Vendor related concentration risks:** There may not be one but multiple vendors providing different services. For example, network, hardware, system software and application software services may be provided by different vendor or these services may be provided by a single vendor. Both these situations result in higher risks due to heavy dependence on vendors.
 - (viii) **Segregation of Duties (SoD):** Organizations may have a highly-defined organization structure with clearly defined roles, authority and responsibility. The Segregation of Duties as per organization structure should be clearly mapped. This

is a high-risk area since any SoD conflicts can be a potential vulnerability for fraudulent activities. For example, if a single employee can initiate, authorize and disburse a loan, the possibility of misuse cannot be ignored.

- (ix) **External threats leading to cyber frauds/ crime:** The system environment provides access to customers anytime, anywhere using internet. Hence, information system which was earlier accessible only within and to the employees is now exposed as it's open to be accessed by anyone from anywhere. Making the information available is business imperative but this is also fraught with risks of increased threats from hackers and others who could access the software to commit frauds/crime.
 - (x) **Higher impact due to intentional or unintentional acts of internal employees:** Employees in a technology environment are the weakest link in an enterprise. Employees are expected to be trusted individuals that are granted extended privileges, which can easily be abused.
 - (xi) **New social engineering techniques employed to acquire confidential credentials:** Fraudsters use new social engineering techniques such as socializing with employees and extracting information which is used to commit frauds. For example: extracting information about passwords from staff acting as genuine customer and using it to commit frauds.
 - (xii) **Need for governance processes to adequately manage technology and information security:** Controls in system should be implemented from macro and business perspective and not just from function and technology perspective. With BPA, technology becomes the key enabler for the organization and is implemented across the organization. The senior management should be involved in directing how technology is deployed in and approve appropriate policies. This requires governance process to implement security as required.
 - (xiii) **Need to ensure continuity of business processes in the event of major exigencies:** The high dependence on technology makes it imperative to ensure resilience to ensure that failure does not impact the organization's services. Hence, a documented business continuity plan with adequate technology and information systems should be planned, implemented and monitored.
8. Auditing aspects that Mr. Karan should consider in case of the ERP system of ABC Ltd. are as follows:
- (i) **Auditing of Data**
 - **Physical Safety** – Ensuring physical control over data.
 - **Access Control** – Ensuring access to the system is given on “need to know” (a junior accountant need not view Profit & Loss Account of the business) and “need to do basis” (HR executive need not record a Purchase Order).

(ii) **Auditing of Processes**

- **Functional Audit** – This includes testing of different functions / features in the system and testing of the overall process or part of process in the system and its comparison with actual process. For example- Purchase Process, Sales Process, Salary Calculation Process, Recruitment Process, etc. Auditor may check this process in the system and compare it with actual process. It is quite possible that all the aspect present in the actual process may not be integrated in the ERP system. There may be some manual intervention.
- **Input Validations** – These stands for checking of rules for input of data into the system. For example- a transaction of cash sales on sales counter must not be recorded in a date other than today (not a future date or a back date), amount field must not be zero, stock item field shall not be empty, etc. Input validations shall change according to each data input form.

9. The key features of Controlling Module of ERP are as follows:

- **Cost Element Accounting:** This component provides overview of the costs and revenues that occur in an organization. The cost elements are the basis for cost accounting and enable the user the ability to display costs for each of the accounts that have been assigned to the cost element. Examples of accounts that can be assigned are Cost Centres, Internal Orders, and Work Breakdown Structures (WBS).
- **Cost Centre Accounting:** This provides information on the costs incurred by the business. Cost Centres can be created for such functional areas as Marketing, Purchasing, Human Resources, Finance, Facilities, Information Systems, Administrative Support, Legal, Shipping/Receiving, or even Quality. Some of the benefits of Cost Centre Accounting are that the managers can set budget / cost Centre targets; Planning; Availability of Cost allocation methods; and Assessments / Distribution of costs to other cost objects.
- **Activity-Based-Accounting:** This analyse cross-departmental business processes and allows for a process-oriented and cross-functional view of the cost centres.
- **Internal Orders:** Internal Orders provide a means of tracking costs of a specific job, service, or task. These are used as a method to collect those costs and business transactions related to the task. This level of monitoring can be very detailed but allows management the ability to review Internal Order activity for better-decision making purposes.
- **Product Cost Controlling:** This calculates the costs that occur during the manufacture of a product or provision of a service and allows the management the ability to analyse their product costs and to make decisions on the optimal price(s) to market their products.

- **Profitability Analysis:** This allows the management to review information with respect to the company's profit or contribution margin by individual market segment.
 - **Profit Centre Accounting:** This evaluates the profit or loss of individual, independent areas within an organization.
10. The types of computer network are as follows:
- ◆ **Connection Oriented networks:** Wherein a connection is first established between the sender and the receiver and then data is exchanged like it happens in case of telephone networks.
 - ◆ **Connectionless Networks:** Where no prior connection is made before data exchanges. Data which is being exchanged in fact has a complete contact information of recipient and at each intermediate destination, it is decided how to proceed further like it happens in case of postal networks.

The important benefits of a computer network are as follows:

- (i) **Distributed nature of information:** There would be many situations where information must be distributed geographically. For example- In the case of Banking Company, accounting information of various customers could be distributed across various branches but to make Consolidated Balance Sheet at the year-end, it would need networking to access information from all its branches.
- (ii) **Resource Sharing:** Data could be stored at a central location and can be shared across different systems. Even resource sharing could be in terms of sharing peripherals like printers, which are normally shared by many systems. For example- In the case of a Core Banking System, Bank data is stored at a Central Data Centre and could be accessed by all branches as well as ATMs.
- (iii) **Computational Power:** The computational power of most of the applications would increase drastically through load balancing when the processing is distributed amongst computer systems. For example- processing in an ATM machine in a bank is distributed between ATM machine and the central Computer System in a Bank, thus reducing load on both.
- (iv) **Reliability:** Many critical applications should be available 24x7, if such applications are run across different systems which are distributed across network, then the reliability of the applications would be high. For example- In a city, there could be multiple ATM machines so that if one ATM fails, one could withdraw money from another ATM.
- (v) **User communication:** Networks allow users to communicate using e-mail, newsgroups, video conferencing, etc.

11. Various Data Resource Management controls under the management control framework are as follows:
- (i) **Definition Controls:** These controls are placed to ensure that the database always corresponds and comply with its definition standards.
 - (ii) **Existence/Backup Controls:** These controls ensure the existence of the database by establishing backup and recovery procedures. Backup refers to making copies of the data so that these additional copies may be used to restore the original data after a data loss. Backup controls ensure the availability of system in the event of data loss due to unauthorized access, equipment failure or physical disaster; the organization can retrieve its files and databases. Various backup strategies like dual recording of data; periodic dumping of data; logging input transactions and changes to the data may be used.
 - (iii) **Access Controls:** These controls are designed to prevent unauthorized individual from viewing, retrieving, computing, or destroying the entity's data. User Access Controls are established through passwords, tokens and biometric controls; and Data Encryption controls are established by keeping the data in database in encrypted form.
 - (iv) **Update Controls:** These controls restrict update of the database to authorized users in two ways either by permitting only addition of data to the database or allowing users to change or delete existing data.
 - (v) **Concurrency Controls:** These controls provide solutions, agreed-upon schedules, and strategies to overcome the data integrity problems that may arise when two update processes access the same data item at the same time.
 - (vi) **Quality Controls:** These controls ensure the accuracy, completeness, and consistency of data maintained in the database. This may include traditional measures such as program validation of input data and batch controls over data in transit through the organization.
12. **Grid Computing** is the computing technology that may address the issue of underutilization of computing resources.
- The benefits of Grid Computing are as follows:
- (i) **Making use of Underutilized Resources:** In most organizations, there are large amounts of underutilized computing resources including even the server machines. Grid computing provides a framework for exploiting these underutilized resources and thus has the possibility of substantially increasing the efficiency of resource usage. Grid computing (more specifically, a data grid) can be used to aggregate this

unused storage into a much larger virtual data store, possibly configured to achieve improved performance and reliability over that of any single machine.

- (ii) **Resource Balancing:** For applications that are grid-enabled, the grid can offer a resource balancing effect by scheduling grid jobs on machines with low utilization. This feature of grid computing handles occasional peak loads of activity in parts of a larger organization. An unexpected peak can be routed to relatively idle machines in the grid; and if the grid is already fully utilized, the lowest priority work being performed on the grid can temporarily be suspended or even cancelled and performed again later to make room for the higher priority work.
- (iii) **Parallel CPU Capacity:** The potential for usage of massive parallel CPU capacity is one of the most common vision and attractive feature of a grid. A CPU-intensive grid application can be thought of as many smaller sub-jobs, each executing on a different machine in the grid. To the extent that these sub-jobs do not need to communicate with each other, the application becomes more scalable. A perfectly scalable application will, for example, finish in one tenth of the time if it uses ten times the number of processors.
- (iv) **Virtual resources and virtual organizations for collaboration:** Grid computing provides an environment for collaboration among a wider audience. The users of the grid can be organized dynamically into several virtual organizations each with different policy requirements. These virtual organizations can share their resources such as data, specialized devices, software, services, licenses, and so on, collectively as a larger grid. The grid can help in enforcing security rules among them and implement policies, which can resolve priorities for both resources and users.
- (v) **Access to additional resources:** In addition to CPU and storage resources, a grid can provide access to other resources as well. For example, if a user needs to increase their total bandwidth to the Internet to implement a data mining search engine, the work can be split among grid machines that have independent connections to the Internet. In this way, total searching capability is multiplied, since each machine has a separate connection to the Internet.
- (vi) **Reliability:** High-end conventional computing systems use expensive hardware to increase reliability. The machines also use duplicate processors in such a way that when they fail, one can be replaced without turning the other off. Power supplies and cooling systems are duplicated. The systems are operated on special power sources that can start generators if utility power is interrupted. All of this builds a reliable system, but at a great cost, due to the duplication of expensive components.
- (vii) **Management:** The goal to virtualize the resources on the grid and more uniformly handle heterogeneous systems create new opportunities to better manage a larger, more distributed IT infrastructure. The grid offers management of priorities among

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 11

different projects. Aggregating utilization data over a larger set of projects can enhance an organization's ability to project future upgrade needs. When maintenance is required, grid work can be rerouted to other machines without crippling the projects involved.

13. The various risks that prevail in any e-business environment are as follows:
- (i) **Privacy and Security:** When an organization uses internet to engage in e-commerce, it exposes itself to additional security threats and privacy issues. There are often issues of security and privacy due to lack of personalized digital access and knowledge. The nature of e-commerce operations is an important factor determining the security risks perceptions of any e-commerce installation. For example, if the type of industry is banking and finance, it would require more stringent deployment of security solutions than would be for manufacturing industry.
 - (ii) **Quality issues:** There are quality issues raised by customers as the original product differs from the one that was ordered.
 - (iii) **Delay in goods and Hidden Costs:** When goods are ordered from another country, the shipment may be delayed due to factors such as port congestion, bad weather, custom clearances, etc. Moreover, e-commerce companies may have these hidden costs.
 - (iv) **Needs Access to internet and lack of personal touch:** The e-commerce requires an internet connection which is an extra expense and lacks personal touch.
 - (v) **Security and credit card issues:** The credit card and debit card information may be stolen and misused which poses a security threat. There is also possibility of cloning of credit cards and debit cards.
 - (vi) **Infrastructure:** There is a greater need of not only digital infrastructure but also network expansion of roads and railways which remains a substantial challenge in developing countries.
 - (vii) **Problem of anonymity:** There is a need to identify and authenticate users in the virtual global market where anyone can sell to or buy from anyone, anything from anywhere.
 - (viii) **Repudiation of contract:** There is possibility that the electronic transaction in the form of contract, sale order or purchase by the trading partner or customer may be denied.
 - (ix) **Lack of authenticity of transactions:** The electronic documents that are produced during an e-commerce transaction may not be authentic and reliable.

- (x) **Data Loss or theft or duplication:** The data transmitted over the Internet may be lost, duplicated, tampered with, or replayed.
 - (xi) **Attack from hackers:** Web servers used for e-commerce may be vulnerable to hackers. A hacker is an unauthorized user who attempts to or gains access to the system with/without the intention to steal or modify data or to insert viruses or worms to cause damage to the system.
 - (xii) **Denial of Service:** Service to customers may be denied due to non-availability of system as it may be affected by viruses, e-mail bombs and by transmitting so many data packets to a server that it cannot process them all. The denial of service may cause a network to shut down, making it impossible for users to access the site. For busy e-commerce sites such as Flipkart, these attacks are costly; while the site is shut down, customers cannot make purchases. Moreover, the longer a site is shut down, the more damage is done to a site's reputation.
 - (xiii) **Non-recognition of electronic transactions:** e-Commerce transactions, as electronic records and digital signatures may not be recognized as evidence in courts of law in some countries.
 - (xiv) **Lack of audit trails:** Audit trails in e-Commerce system may be lacking and the logs may be incomplete, too voluminous, or easily tampered with.
 - (xv) **Problem of piracy:** Intellectual property such as copyright may not be adequately protected when such property is transacted through e-Commerce.
14. The following key measures are required to be implemented to have Network Security and Secure Configuration under cyber security framework of Core Banking System :
- Multi-layered boundary defense through properly configured proxy servers, firewalls, intrusion detection systems to protect the network from any malicious attacks and to detect any unauthorized network entries.
 - Different LAN segments for in-house/onsite ATM and CBS/branch network to confirm the adequacy of bandwidth to deal with the volume of transactions so as to prevent slowing down and resulting in lower efficiency.
 - To ensure secure network configuration; proper usage of routers, hubs and switches should be envisaged.
 - Periodic security review of systems and terminals to assess the network's vulnerability and identify the weaknesses.
 - Identification of the risks to ensure that risks are within the bank's risk appetite and are managed appropriately.

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 13

15. The various risks involved in credit card process of bank are as follows:

S. No.	Risks	Key Controls
1.	Credit Line setup is unauthorized and not in line with the bank's policy	The credit committee checks that the Financial Ratios, the Net-worth, the Risk factors and its corresponding mitigating factors, the Credit Line offered and the Credit amount etc. is in line with Credit Risk Policy and that the Client can be given the Credit Line.
2.	Credit Line setup is unauthorized and not in line with the bank's policy.	Access rights to authorize the credit limit in the credit card system should be restricted to authorized personnel.
3.	Masters defined for the customer are not in accordance with the Pre-Disbursement Certificate.	Access rights to authorize the customer master in credit card system should be restricted to authorized personnel, SoD exist in credit card system such that the system restricts the maker having checker rights to approve the facilities booked by self in the credit card system.
4.	Credit Line setup can be breached.	Transaction cannot be made if the aggregate limit of out-standing amount exceeds the credit limit assigned to customer.
5.	Inaccurate interest / charge being calculated in the Credit Card system.	Interest on fund-based credit cards and charges are automatically calculated in the credit card system as per the defined masters.
6.	Inaccurate reconciliations performed.	Daily reconciliation for the balances received from credit card network with the transactions updated in the credit card system on card network level.

SECTION – B: STRATEGIC MANAGEMENT

Multiple Choice Questions

1. In July 2014, Fresh Air Hospitality and Resorts launched a major project called 'Fit in Future' after being in losses for three consecutive years. According to analysis by senior management many customers were not returning and repeat sales of rooms were low. The costs were also high with a lot of wastage in kitchen. If the losses were allowed to continue the survival of the organisation was doubtful.

'Fit in Future' project was organisation-wide, employee driven initiative that focused in reversing the trend and find ways to find out how the organisation can survive. Focus was to provide high-quality services while finding new ways of delivery to improve customer satisfaction and reduce costs. The idea was to create a conducive organisational culture and work climate. At the time, Shailja Mehta joined the organisation as the new Resident Manager. She brought with her considerable experience in improving the quality of services in restaurants, banquet sale and room reservations. She immediately set about spending two months talking to staff on the front line followed by a series of meetings, where discussions were held about bringing a guest-first approach. Some of the staff members expressed frustration that their suggestions on improving services were often not heard making them demotivated. The new manager noted their concerns. Over time, she offered enthusiasm and inspired staff to exert them for the good of the organization.

As an outcome of the project, it was decided that both in internal as well as external interactions, customers will be called guests and treated accordingly. There was general agreement that reducing wastages and improving the quality of services shall be chief priority from top to bottom. It was decided that the team leaders shall always work together with front-line staff for speedy decisions. Focussed training programmes were organised to train the front-line staff to remain well-groomed and courteous to guests at all times. Accordingly, a new system was put in place from January 2015. As a result of the efforts, the satisfaction level of guests improved, and their loyalty reflected in form of increase in repeat sales over next two years.

After two years, while the organisation was able to make some profits, they were still low considering the capital employed. In July 2018, Shailja Mehta suggested to make extensive study to radically redesign existing ways of doing work and deliver services.

Based on the above case scenario answer the following multiple-choice questions:

- (i) 'Fit in Future' project can be best related to:
- (a) Improving leadership
 - (b) Improving morale
 - (c) Coordination

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 15

- (d) Turnaround
 - (ii) Name the strategic tool to measure and set goals for wastage in kitchen as per best practices.
 - (a) Benchmarking
 - (b) Cost control
 - (c) Loss assessment
 - (d) Turnaround
 - (iii) The leadership style of Shailja Mehta can be best described as
 - (a) Autocratic
 - (b) Motivational
 - (c) Transactional
 - (d) Transformational
 - (iv) The suggestions made by Shailja Mehta in July 2018 are related to:
 - (a) Business Process Reengineering
 - (b) Leverage
 - (c) Organisational redesign
 - (d) Strategic Control
 - (v) To succeed Fresh Air Hospitality and Resorts needs to:
 - (i) Deliver better value to customers.
 - (ii) Improve efficiencies.
 - (iii) Fix minimum profit percentage over costs.
 - (a) (i) and (ii)
 - (b) (i) and (iii)
 - (c) (ii) and (iii)
 - (d) (i), (ii) and (iii)
2. Which of the following is more radical organisation design and is also called as non-structure which virtually eliminates in house business functions and outsources many of them?
- (a) Network Structure
 - (b) Strategic Business Unit
 - (c) Hourglass Structure

- (d) Divisional Structure
3. Smooth Ride and Comfort Ride are two car engine component manufacturers, manufacturing identical auto parts. Both units are almost identical in every aspect. As a Strategic Manager of Comfort Ride, which process would you suggest to the management so that it has an edge over its competitor Smooth Ride.
- (a) Management Business Process
(b) Strategic Business Process
(c) Business Process Reengineering
(d) Management Reengineering Process
4. Which approach of R & D to implement strategic decisions is a glamorous and exciting strategy but also a dangerous one?
- (a) Market new technology product
(b) Innovate imitator of successful products
(c) To be a low cost provider
(d) None of the above
5. Jaipur Mart an online marketplace where people from all over Rajasthan come and sell their goods is charging zero commission for listing goods but they take 1% of the sales per month from the seller. It is defined as?
- (a) Business Intent
(b) Business Idea
(c) Business Definition
(d) Business Model
6. Hupo a honey brand decided to start a new brand for making honey ginger candies to meet the rising demand. Identify their growth strategy?
- (a) Conglomerate Diversification
(b) Concentric Diversification
(c) Vertical Integration
(d) Horizontal Integration

Descriptive Questions

Chapter 1-Introduction to Strategic Management

7. "Each organization must build its competitive advantage keeping in mind the business warfare. This can be done by following the process of strategic management." Considering this statement, explain major benefits of strategic management.

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 17

8. Discuss the challenges faced by public sector units while designing for their organisations.

Chapter 2-Dynamics of Competitive Strategy

9. Distinguish between Market Development and Product Development under Ansoff's Product Market Growth Matrix.
10. Woodworld Ltd. is a company manufactures a variety of household furniture items. They offered traditional designs, low cost furniture items to low income group customers. During the last couple of years, the company has been observing a fall in the market share. This is due to the change in the taste and preferences, designing, better quality, increase in purchasing power of buyers towards the household furniture. The customers are switching away traditional designs and material that have been the backbone of Woodworld Ltd.

As a CEO of Woodworld Ltd., what can be the strategic options available with you.

Chapter 3-Strategic Management Process

11. What should be the major components of a good mission statement?
12. Explain briefly the key areas in which the strategic planner should concentrate his mind to achieve desired results.

Chapter 4-Corporate Level Strategies

13. Write a short note on Merger and Acquisition Strategy.
14. Airlines industry in India is highly competitive with several players. Businesses face severe competition and aggressively market themselves with each other. Luxury Jet is a private Delhi based company with a fleet size of 9 small aircrafts with seating capacity ranging between 6 seats to 9 seats. These aircrafts are chartered by big business houses and high net worth individuals for their personalised use. With customised tourism packages their aircrafts are also often hired by foreigners. Identify and explain the Michael Porter's Generic Strategy followed by Luxury Jet.

Chapter 5-Business Level Strategies

15. Rajiv Arya is owner of an electrical appliance company that specializes in manufacturing of domestic vacuum cleaners. There are four other manufacturers with similar products and sales volume. Current rival firms also own a number of patents related to the product. The supplier base for procurement of raw material is also very large as there are multiple suppliers.
Identify Porter's Five Forces that may be classified as significant for the company? Explain.
16. A startup company is thinking of launching of a low cost detergent powder in the market. The market of the said product is already dominated by a big FMCG player.

You are advised to put forward your suggestions to the management of the company to deal with the problems of 'Entry Barrier' while launching the low cost detergent powder.

Chapter 6-Functional Level Strategies

17. "Projected financial statement analysis is a central strategy-implementation technique." Justify the statement.
18. Modern marketing is highly promotion oriented. Discuss citing major direct promotional methods for products.

Chapter 7-Organisation and Strategic Leadership

19. 'A strategy-supportive culture promotes good strategy execution.' - Explain.
20. "Samar Electronics Limited" is engaged in manufacturing and sale of consumer electronic goods globally. The company is rated 'best' in "customer satisfaction survey" for 5 years in a row. The spread of the current pandemic has affected the internal and external environment of the company adversely. Such adverse impact has negatively impacted the revenue of the company. In order to survive and retain the business, the company decided to outsource a major part of its organisational activities, like manufacturing, distribution channels, after sales service etc. Now the organisation's business functions are scattered worldwide with a small headquarter connected to independent business units digitally.

What type of organisational structure is the company transitioning into? List the basic features of this new structure and the disadvantages that the company may face in future in this new structural arrangement.

Chapter 8-Strategy Implementation and Control

21. Zumba Robots, an electronic robot manufacturing company is a leader in its business segment. Over a period of time, it started losing its grip on the market as its overall position started to weaken. Discuss the type of audit that you would like to suggest to analyse the situation of the company?
22. What is strategic control? Briefly explain the different types of strategic control?

SUGGESTED ANSWERS

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

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 19

7. Each organization has to build its competitive advantage over the competitors in the business warfare in order to win. This can be done only by following the process of strategic management. Strategic Management is very important for the survival and growth of business organizations in dynamic business environment. Other major benefits of strategic management are as follows:
- ◆ Strategic management helps organizations to be more proactive rather than reactive in dealing with its future. It facilitates to work within vagaries of environment and remains adaptable with the turbulence or uncertain future. Therefore, they are able to control their own destiny in a better way.
 - ◆ It provides better guidance to entire organization on the crucial point – what it is trying to do. Also provides frameworks for all major business decisions of an enterprise such as on businesses, products, markets, organizational structures, etc.
 - ◆ It facilitates to prepare the organization to face the future and act as pathfinder to various business opportunities. Organizations are able to identify the available opportunities and identify ways and means as how to reach them.
 - ◆ It serves as a corporate defence mechanism against mistakes and pitfalls. It helps organizations to avoid costly mistakes in product market choices or investments.
 - ◆ Over a period of time strategic management helps organization to evolve certain core competencies and competitive advantages that assist in the fight for survival and growth.
8. Central, state, municipal agencies, Public Sector Units, departments are responsible for formulating, implementing, and evaluating strategies that use taxpayers' money in the most cost-effective way to provide services and programs. The Challenges faced by the public sector units while designing their organizations are on account of basic nature of such organizations.

Public sector units face the following challenges while designing strategies for their organizations:

- Operating with less strategic autonomy.
- Cannot diversify into unrelated businesses or merge with other firms.
- Strategists usually enjoy little freedom while altering the organization's mission or redirecting objectives when needed.
- Legislators and politicians control over major decisions and resources.
- Fear of media debate over the strategic issues.
- Chances of politicization of issues resulting fewer strategic choice.

9. Following are the differences between the market development and product development:

Market Development	Product Development
Meaning <ul style="list-style-type: none">It 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 current company products.	Meaning <ul style="list-style-type: none">It refers to a growth strategy where business aims to introduce new products into existing markets. It is a strategy for company growth by offering modified or new products to current markets.
Strategy Application <ul style="list-style-type: none">It may be achieved through new geographical markets, new product dimensions or packaging, new distribution channels or different pricing policies to attract different customers or create new market segments.	Strategy Application <ul style="list-style-type: none">It is for company's growth and requires the development of new competencies and the business to develop modified products which can appeal to existing markets.

10. Woodworld is having a product portfolio that is evidently in the decline stage. The product is being replaced with the latest designs with better quality of the product. Strategically, the company should minimize their dependence on the existing products and identify other avenues for the survival and growth. As a CEO of Woodworld Ltd., following can be the strategic options available with the CEO:
- Invest in new product development and switchover to the latest designs. Woodworld Ltd. also need time to invest in hiring interior designers.
 - They can acquire or takeover a competitor, provided they have or are able to generate enough financial resources.
 - They may also consider unrelated growth and identify other areas for expansion. This will enable Woodworld Ltd. to spread their risks.
 - In longer run, they should divest the existing products. However, they may continue with the existing products in a limited manner for such time there is demand for the product.
11. Mission statements broadly describe an organizations' present capabilities, customer focus, activities, and business makeup. Following points are useful while writing a good mission statement of a company:
- Good mission statement is highly personalized – unique to the organization for which it is developed.

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 21

- *Mission statement should emphasize on giving an organization its own special identity, business emphasis and path for development.
 - *Mission statement should clearly specify that, what needs it is trying to satisfy, customer groups it is targeting, technologies and competencies it uses and the activities it performs.
 - Technology, competencies and activities are important in defining a company's business because they indicate the boundaries on its operation.
 - The mission should not be to make profit.
12. A strategic manager defines the strategic intent of the organisation and take it on the path of achieving the organisational objectives. There can be a number of areas that a strategic manager should concentrate on to achieve desired results. They commonly establish long-term objectives in seven areas as follows.
- Profitability.
 - Productivity.
 - Competitive Position.
 - Employee Development.
 - Employee Relations.
 - Technological Leadership.
 - Public Responsibility.
13. 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 companies come together to expand their business operations. In such a case the deal gets finalized on friendly terms and both the organizations share profits in the newly created entity. In a merger two organizations combine to increase their strength and financial gains along with breaking the trade barriers.

When one organization takes over the other organization and controls all its business operations, it is known as acquisitions. In this process of acquisition, one financially strong organization overpowers the weaker one. Acquisitions often happen during recession in economy 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 where the powerful organization either consumes the operation or a company in loss is forced to sell its entity.

14. The Airlines industry faces stiff competition. However, Luxury Jet has attempted to create a niche market by adopting focused differentiation strategy. A focused differentiation strategy requires offering unique features that fulfil the demands of a narrow market.

Luxury Jet compete in the market based on uniqueness and target a narrow market which provides business houses, high net worth individuals to maintain strict schedules. The option of charter flights provided several advantages including, flexibility, privacy, luxury and many a times cost saving. Apart from conveniences, the facility will provide time flexibility. Travelling by private jet is the most comfortable, safe and secure way of flying your company's senior business personnel.

Chartered services in airlines can have both business and private use. Personalized tourism packages can be provided to those who can afford it.

15. The competitive rivalry will be a significant force in case of company of Rajiv Arya as all the rivals are similar in sizes and are manufacturing similar products. It is difficult for any single manufacturer to dominate the market. Large number of patents will make it difficult for new entrants to break into the market. Further, as there are a large number of small suppliers the power that suppliers can exert will also be low.

There is no information relating to substitutes and bargaining power of customers in the information given in scenario. However, a domestic vacuum cleaner will directly compete with other options such as house maids. Availability of house maids at low cost can significantly disturb the sales of products.

Further, as the products are similar customers can easily shift from one company to another. This will only enhance competitive rivalry.

The competitive rivalry will be significant in Rajiv Arya's dealing industry as all rivals are similar in sizes and manufacture similar products, making it difficult for anyone manufacturer to dominates the market or gain market share. The large number of patents will make it hard for new entrants to break into the market, while the fact that Rajiv Arya buys from a large number of small suppliers suggests that supplier power is also low. Finally, there is no information relating to substitutes and bargaining power of customers in the information given in scenario.

16. There are number of factors that can act as entry barrier for the start-up company. An FMCG, big in size, is already dominating the market space and will act as a strong deterrent for the new start-up. The following will be some suggestions to the management of the start-up to deal with the problem of entry barriers:
1. The company is working on producing low cost detergent. Keeping other expenses also on the lower side the management can create price advantage that is competitive to the existing established players including the large FMCG.
 2. The company focussing on single product in comparison to multiple products of an FMCG can develop competencies to produce and sell the low cost detergent that

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 23

are difficult to deploy by the FMCG by its strategy that addresses needs of multiple products.

3. The start-up needs to have strong financial strength to sustain the onslaught from the dominant FMCG and other players. The start-up can identify sources of capital well in advance and be able to use it judiciously to their advantage.
 4. The start-up should identify the customer segments that are likely to switch to the product well in advance so as to target the same and generate the initial hold on the market. Once the product gets some hold and their brands get some identity, the market can be further developed to address other customers.
 5. The start-up should identify the environmental factors that go to their advantage. These may include special scheme of the government to encourage entrepreneurs, tax holiday, low interest rates, advantages available to small and medium sized enterprises alike.
 6. It has to create an image in the market that its products are qualitative and 'Made in India' to attract a particular segment of customers.
 7. They need to have a team of experts and dedicated management professionals who can implement strategies formulated by top management.
17. Projected financial statement analysis is a central strategy-implementation technique because it allows an organization to examine the expected results of various actions and approaches. This type of analysis can be used to forecast the impact of various implementation decisions. Nearly all financial institutions require a projected financial statement whenever a business seeks capital.

A projected income statement and balance sheet allow an organization to compute projected financial ratios under various strategy-implementation scenarios. When compared to prior years and to industry averages, financial ratios provide valuable insights into the feasibility of various strategy-implementation approaches.

A financial budget is also a document that details how funds will be obtained and spent for a specified period of time. Fundamentally, financial budgeting is a method for specifying what must be done to complete strategy implementation successfully.

Financial budgeting is a method for obtaining the most productive and profitable use of an organization's resources. Financial budgets can be viewed as the planned allocation of a firm's resources based on forecasts of the future.

18. Modern marketing is highly promotional oriented and include personal selling, advertising, publicity and sales promotion.

Personal selling – involves face to face interaction of salespersons with the prospective customers and provides a high degree of personal attention. It involves working with one customer at a time and hence not cost effective. The intention of oral communication is sale.

Advertising – is a non-personal, flexible and dynamic promotion method. The media for advertising are several and choice of an appropriate one is important for effectiveness of message. Sale of the product and the amount of expenditure cannot be directly measured.

Publicity – is also non-personal but no payments are made to the media. 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. It could be through press releases, press conferences, reports, etc.

Sales promotion – 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, exhibitions etc. are included.

19. Strong cultures promote good strategy execution when there's fit and hurt execution when there's negligible fit. A culture grounded in values, practices, and behavioral norms that match what is needed for good strategy execution helps energize people throughout the organization to do their jobs in a strategy-supportive manner. A culture built around such business principles as listening to customers, encouraging employees to take pride in their work, and giving employees a high degree of decision-making responsibility. This is very conducive to successful execution of a strategy of delivering superior customer service.

A work environment where the culture matches the conditions for good strategy execution provides a system of informal rules and peer pressure regarding how to conduct business internally and how to go about doing one's job.

A strong strategy-supportive culture makes employees feel genuinely better about their jobs and work environment and the merits of what the company is trying to accomplish. Employees are stimulated to take on the challenge of realizing the organizational vision, do their jobs competently and with enthusiasm, and collaborate with others.

20. Samar Electronics Limited transitioning into **network structure**. It is a newer and somewhat more radical organisational design. Its essential features are as follows:
1. It is termed as "non-structure" as it eliminates in house functions and outsources many of them.
 2. An organisation organised in this manner is often called "virtual organisation" because it is composed of a series of project groups or collaborations linked by constantly changing nonhierarchical, cob-web like structures.
 3. Network structures become most useful when the environment of a firm is unstable and is expected to remain so. Under such conditions, there is usually a strong need for innovation and quick response.
 4. Instead of having salaried employees, it may contract with people for a specific project or length of time.

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT 25

5. Long term contracts with suppliers and distributors replace services that company could provide for itself.

However, network structure does have following disadvantages that the company may face in future:

1. The availability of numerous potential partners can be a source of trouble.
 2. Co-ordination among the functioning of business partners is perhaps, the biggest problem for the management in the networking structure.
 3. Employees may lack the level of confidence necessary to participate actively in organisation sponsored learning experiences.
21. The audit of management performance with regard to its strategies helps 'Zumba Robots' identify problem areas and correct the strategic approaches that have not been effective so far. A strategy audit is a review of a company's business plan and strategies to identify weaknesses and shortcomings and enable a successful development of the company. An assessment of the external environment shows where changes happen and where organization's strategic management no longer match the demands of the marketplace. Based on such analysis, Zumba Robots can improve business performance by periodically conducting such an audit.
22. Strategic Control focuses on the dual questions of whether: (1) the strategy is being implemented as planned; and (2) the results produced by the strategy are those intended.

There are four types of strategic control:

- ◆ **Premise control:** A strategy is formed on the basis of certain assumptions or premises about the environment. Premise control is a tool for systematic and continuous monitoring of the environment to verify the validity and accuracy of the premises on which the strategy has been built.
- ◆ **Strategic surveillance:** Strategic surveillance is unfocussed. It involves general monitoring of various sources of information to uncover unanticipated information having a bearing on the organizational strategy.
- ◆ **Special alert control:** At times, unexpected events may force organizations to reconsider their strategy. Sudden changes in government, natural calamities, unexpected merger/acquisition by competitors, industrial disasters and other such events may trigger an immediate and intense review of strategy.
- ◆ **Implementation control:** Managers implement strategy by converting major plans into concrete, sequential actions that form incremental steps. Implementation control is directed towards assessing the need for changes in the overall strategy in light of unfolding events and results.