MULTIPLE CHOICE QUESTIONS

1. (a) Business Process Automation
2. (c) Integration Testing
3. (a) Design
4. (b) Today itself based on past years’ experience and future projected increase
5. (b) Internet of Things (IoT)
6. (a) Confidentiality
7. (b) Data
8. (d) Walkie - Talkie
9. (b) Weakness of controls
10. (d) Auditor Suggesting Controls

DESCRIPTIVE QUESTIONS

1. (a) Role-Based Access Control (RBAC): In computer systems security, RBAC also referred as Role-Based Security is an approach to restricting system access to authorized users. It is used by most enterprises and can implement mandatory access control or discretionary access control. RBAC is a policy neutral access control mechanism defined around roles and privileges. The components of RBAC such as role-permissions, user-role and role-role relationships make it simple to perform user assignments. RBAC can be used to facilitate administration of security in large organizations with hundreds of users and thousands of permissions. Roles for staff are defined in organization and access to the system can be given according to the role assigned. E.g. a junior accountant in accounting department is assigned a role of recording basic accounting transactions, an executive in human resource department is assigned a role of gathering data for salary calculations on monthly basis, etc.

(b) The key technology components of Core Banking System (CBS) are as follows:
- Database Environment
- Application Environment
- Web Environment
- Security solution
- Connectivity to the Corporate Network and the Internet
- Data Centre and Disaster Recovery Centre
- Network Solution architecture to provide total connectivity
- Enterprise Security architecture
- Branch and Delivery channel environment
- Online Transaction monitoring for fraud risk management
2. (a) **Power Spikes**: This is caused due to a very short pulse of energy in a power line.

**Controls for Environmental Exposures**: Some of the major ways of protecting the installation against power spikes as follows:

- The risk of damage due to power spikes can be reduced using Electrical Surge Protectors that are typically built into the Un-interruptible Power System (UPS).
- **Un-interruptible Power System (UPS)/Generator**: In case of a power failure, the UPS provides the back up by providing electrical power from the battery to the computer for a certain span of time. Depending on the sophistication of the UPS, electrical power supply could continue to flow for days or for just a few minutes to permit an orderly computer shutdown.
- Voltage regulators and circuit breakers protect the hardware from temporary increase or decrease of power.
- **Emergency Power-Off Switch**: When the need arises for an immediate power shut down during situations like a computer room fire or an emergency evacuation, an emergency power-off switch at the strategic locations would serve the purpose. They should be easily accessible and yet secured from unauthorized people.

**Water Damage**: Water damage to a computer installation can be the outcome of water pipes burst. Water damage may also result from other resources such as cyclones, tornadoes, floods etc

**Controls for Environmental Exposures**: Some of the major ways of protecting the installation against water damage are as follows:

- Wherever possible have waterproof ceilings, walls and floors;
- Ensure an adequate positive drainage system exists;
- Install alarms at strategic points within the installation;
- In flood areas have the installation above the upper floors but not at the top floor;
- Water proofing; and
- Water leakage Alarms

(b) The success of any Business Process Automation shall only be achieved when BPA ensures the following:

- **Confidentiality**: To ensure that data is only available to persons who have right to see the same;
- **Integrity**: To ensure that no un-authorized amendments can be made in the data;
- **Availability**: To ensure that data is available when asked for; and
- **Timeliness**: To ensure that data is made available at the right time.

To ensure that all the above parameters are met, BPA needs to have appropriate internal controls put in place.

3. (a) **Non-Master Data**: It is a data which is expected to change frequently, again and again and not a permanent data. E.g. Amounts recorded in each transaction shall be different every time and expected to change again and again. Date recorded in each transaction is expected to change again and again and will not be constant in all the transactions.

**Master Data**: Master data is relatively permanent data that is not expected to change again and again. It may change, but not again and again. In accounting systems, there may be following types of master data.
a. **Accounting Master Data** – This includes names of ledgers, groups, cost centres, accounting voucher types, etc. E.g. Capital Ledger is created once and not expected to change frequently. Similarly, all other ledgers like, sales, purchase, expenses and income ledgers are created once and not expected to change again and again. Opening balance carried forward from previous year to next year is also a part of master data and not expected to change.

b. **Inventory Master Data** – This includes stock items, stock groups, godowns, inventory voucher types, etc. Stock item is something which bought and sold for business purpose, a trading goods. E.g. If a person is into the business of dealing in white goods, stock items shall be Television, Fridge, Air Conditioner, etc. For a person running a medicine shop, all types of medicines shall be stock items for him/her.

c. **Payroll Master Data** – Payroll is another area connecting with Accounting Systems. Payroll is a system for calculation of salary and recoding of transactions relating to employees. Master data in case of payroll can be names of employees, group of employees, salary structure, pay heads, etc. These data are not expected to change frequently. E.g. Employee created in the system will remain as it is for a longer period of time, his/her salary structure may change but not frequently, pay heads associated with his/her salary structure will be relatively permanent.

d. **Statutory Master Data** – This is a master data relating to statute/law. It may be different for different type of taxes. E.g. Goods and Service Tax (GST), Nature of Payments for Tax Deducted at Source (TDS), etc. This data also shall be relatively permanent. We don’t have any control on this data as statutory changes are made by Government and not by us. In case of change in tax rates, forms, categories, we need to update/change our master data.

All business process modules must use common master data.

(b) Various benefits of an e-commerce transaction to Customer / Individual / User are as follows:

- **Convenience**: Every product at the tip of individual’s fingertips on internet.
- **Time saving**: Number of operations that can be performed both by potential buyers and sellers increase.
- **Various Options**: There are several options available for customers which are not only being easy to compare but are provided by different players in the market.
- **Easy to find reviews**: There are often reviews about a site or product from the previous customers which provides valuable feedback.
- **Coupon and Deals**: There are discount coupons and reward points available for customers to encourage online transaction.
- **Anytime Access**: Even midnight access to the e commerce platforms is available which brings in customer suitability.

4. (a) The deployment and implementation of Core Banking Systems(CBS) should be controlled at various stages to ensure that banks automation objectives are achieved:

- **Planning**: Planning for implementing the CBS should be done as per strategic and business objectives of bank.
- **Approval**: The decision to implement CBS requires high investment and recurring costs and will impact how banking services are provided by the bank. Hence, the decision must be approved by the board of directors.
- **Selection**: Although there are multiple vendors of CBS, each solution has key differentiators. Hence, bank should select the right solution considering various parameters as defined by the bank to meet their specific requirements and business objectives.
• **Design and Develop/Procure:** CBS solutions used to be earlier developed in-house by the bank. Currently, most of the CBS deployment are procured. There should be appropriate controls covering the design or development or procurement of CBS for the bank.

• **Testing:** Extensive testing must be done before the CBS is live. The testing is to be done at different phases at procurement stage to test suitability to data migration to ensure all existing data is correctly migrated and testing to confirm processing of various types of transactions of all modules produces the correct results.

• **Implementation:** CBS must be implemented as per pre-defined and agreed plan with specific project milestones to ensure successful implementation.

• **Maintenance:** CBS must be maintained as required. E.g. program bugs fixed, version changes implemented, etc.

• **Support:** CBS must be supported to ensure that it is working effectively.

• **Update:** CBS modules must be updated based on requirements of business processes, technology updates and regulatory requirements.

• **Audit:** Audit of CBS must be done internally and externally as required to ensure that controls are working as envisaged.

(b) In an e-business environment, controls are necessary for all persons in the chain that include the following:

• **Users:** This is important to ensure that the genuine user is using the e-commerce/m-commerce platform. There is risk if user accounts are hacked and hackers buy products/services.

• **Sellers/Buyers/Merchants:** These people need to proper framework in place to ensure success of business. Many e-commerce businesses have lost huge amount of money as they did not have proper controls put in place. These include controls on Product catalogues; Price catalogues; Discounts and promotional schemes; Product returns and Accounting for cash received through Cash on Delivery mode of sales.

• **Government:** Governments across the world and in India have few critical concerns vis-à-vis electronic transactions, namely Tax accounting of all products/services sold and all products/services are sold.

• **Network Service Providers:** They need to ensure availability and security of network. Any downtime of network can be disastrous for business.

• **Technology Service Providers:** These include all other service provider other than network service provider, for example, cloud computing back-ends, applications back-ends and like. They are also prone to risk of availability and security.

• **Logistics Service Providers:** Success or failure of any e-commerce/m-commerce venture finally lies here. Logistics service providers are the ones who are finally responsible for timely product deliveries.

• **Payment Gateways:** E-commerce vendors’ business shall run only when their payment gateways are efficient, effective and foolproof.

Each participant needs to put in place controls in an e-commerce environment.

5. (a) Given below is a list of the controls for the Purchase to Pay cycle, which is broken down to four main components:

• **Purchases:** When an employee working in a specific department (i.e., marketing, operations, sales, etc.) wants to purchase something required for carrying out the job, he/she will submit a Purchase Requisition (PR) to a manager for approval. Based on the approved PR, a
Purchase Order (PO) is raised. The PO may be raised manually and then input into the computer system or raised directly by the computer system.

- **Goods Receipt:** The PO is then sent to the vendor, who will deliver the goods as per the specifications mentioned in the PO. When the goods are received at the warehouse, the receiving staff checks the delivery note, PO number etc. and acknowledges the receipt of the material. Quantity and quality are checked and any unfit items are rejected and sent back to the vendor. A Goods Receipt Note (GRN) is raised indicating the quantity received. The GRN may be raised manually and then input into the computer system or raised directly by computer system.

- **Invoice Processing:** The vendor sends the invoice to the accounts payable department who will input the details into the computer system. The vendor invoice is checked with the PO to ensure that only the goods ordered have been invoiced and at the negotiated price. Further the vendor invoice is checked with the GRN to ensure that the quantity ordered has been received.

- **Payment:** If there is no mismatch between the PO, GRN and vendor invoice; the payment is released to the vendor based on the credit period negotiated with the vendor.

(b) Subversive Attacks and Piggybacking are the types of Asynchronous Attacks. However, they differ in following aspects:

**Subversive Attacks:** These can provide intruders with important information about messages being transmitted and the intruder may attempt to violate the integrity of some components in the sub-system.

**Piggybacking:** This is the act of following an authorized person through a secured door or electronically attaching to an authorized telecommunication link that intercepts and alters transmissions. This involves intercepting communication between the operating system and the user and modifying them or substituting new messages.
1. (i) d  (ii) b  (iii) a  (iv) a  (v) b  (vi) b  (vii) d  (viii) d  (ix) d  (x) d
2. (xi) c  (xii) c  (xiii) a  (xiv) a  (xv) b

2. Infant care is opting for differentiation strategy. A one-stop shop is a benefit for this type of customers, seeking convenience in a time. Infant care is catering the products only related to infants that is perceived by the customers as unique. Because of differentiation, the Infant care is charging a premium for its product.

3. (a) The presence of strategic management cannot counter all hindrances and always achieve success as there are limitations attached to strategic management. These can be explained in the following lines:
   - Environment is highly complex and turbulent. It is difficult to understand the complex environment and exactly pinpoint how it will shape-up in future. The organisational estimate about its future shape may awfully go wrong and jeopardise all strategic plans. The environment affects as the organisation has to deal with suppliers, customers, governments and other external factors.
   - Strategic Management is a time-consuming process. Organisations spend a lot of time in preparing, communicating the strategies that may impede daily operations and negatively impact the routine business.
   - Strategic Management is a costly process. Strategic management adds a lot of expenses to an organization. Expert strategic planners need to be engaged, efforts are made for analysis of external and internal environments devise strategies and properly implement. These can be really costly for organisations with limited resources particularly when small and medium organisation create strategies to compete.
   - In a competitive scenario, where all organisations are trying to move strategically, it is difficult to clearly estimate the competitive responses to the strategies.

(b) Steps to understand the competitive landscape:
   (i) **Identify the competitor:** The first step to understand the competitive landscape is to identify the competitors in the firm’s industry and have actual data about their respective market share.
   (ii) **Understand the competitors:** Once the competitors have been identified, the strategist can use market research report, internet, newspapers, social media, industry reports, and various other sources to understand the products and services offered by them in different markets.
   (iii) **Determine the strengths of the competitors:** What are the strength of the competitors? What do they do well? Do they offer great products? Do they utilize marketing in a way that comparatively reaches out to more consumers. Why do customers give them their business?
   (iv) **Determine the weaknesses of the competitors:** Weaknesses (and strengths) can be
identified by going through consumer reports and reviews appearing in various media. After all, consumers are often willing to give their opinions, especially when the products or services are either great or very poor.

(v) **Put all of the information together:** At this stage, the strategist should put together all information about competitors and draw inference about what they are not offering and what the firm can do to fill in the gaps. The strategist can also know the areas which need to be strengthened by the firm.

4. (a) In most situations, strategy-execution process includes the following principal aspects:

- Developing budgets that steer ample resources into those activities critical to strategic success.
- Staffing the organization with the needed skills and expertise, consciously building and strengthening strategy-supportive competencies and competitive capabilities, and organizing the work effort.
- Ensuring that policies and operating procedures facilitate rather than impede effective execution.
- Using the best-known practices to perform core business activities and pushing for continuous improvement.
- Installing information and operating systems that enable company personnel to better carry out their strategic roles day in and day out.
- Motivating people to pursue the target objectives energetically.
- Creating a company culture and work climate conducive to successful strategy implementation and execution.
- Exerting the internal leadership needed to drive implementation forward and keep improving strategy execution. When the organization encounters stumbling blocks or weaknesses, management has to see that they are addressed and rectified quickly.

Good strategy execution involves creating strong “fits” between strategy and organizational capabilities, between strategy and the reward structure, between strategy and internal operating systems, and between strategy and the organization’s work climate and culture.

(b) 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.

5. (a) To gain a deep understanding of a company’s industry and competitive environment, managers do not need to gather all the information they can find and waste a lot of time digesting it. Rather, the task is much more focused. A powerful and widely used tool for systematically diagnosing the significant competitive pressures in a market and assessing the strength and importance of each is the Porter’s five-forces model of competition. This model holds that the state of competition in an industry is a composite of competitive pressures operating in five areas of the overall market:

- Competitive pressures associated with the market manoeuvring and jockeying for buyer patronage that goes on among rival sellers in the industry.
- Competitive pressures associated with the threat of new entrants into the market.
• Competitive pressures coming from the attempts of companies in other industries to win buyers over to their own substitute products.

• Competitive pressures stemming from supplier bargaining power and supplier-seller collaboration.

• Competitive pressures stemming from buyer bargaining power and seller-buyer Collaboration.

(b) Supply chain management is an extension of logistic management. However, there are differences between the two. Logistical activities typically include management of inbound and outbound goods, transportation, warehousing, handling of material, fulfillment of orders, inventory management and supply/demand planning. Although these activities also form part of supply chain management, the latter is much broader. Logistic management can be termed as one of its part that is related to planning, implementing, and controlling the movement and storage of goods, services and related information between the point of origin and the point of consumption.

Supply chain management is an integrating function of all the major business activities and business processes within and across organisations. Supply Chain Management is a systems view of the linkages in the chain consisting of different channel partners – suppliers, intermediaries, third-party service providers and customers. Different elements in the chain work together in a collaborative and coordinated manner. Often it is used as a tool of business transformation and involves delivering the right product at the right time to the right place and at the right price.

6. (a) The most important phenomenon which often distinguishes one organisation with another is its corporate culture. Corporate culture refers to a company’s values, beliefs, business principles, traditions, and ways of operating and internal work environment. Every corporation has a culture that exerts powerful influences on the behaviour of managers.

(i) As a strength: Culture can facilitate communication, decision making and control and instill cooperation and commitment. An organization’s culture could be strong and cohesive when it conducts its business according to clear and explicit set of principles and values, which the management devotes considerable time to communicating to employees and which values are shared widely across the organisation.

(ii) As a weakness: Culture, as a weakness can obstruct the smooth implementation of strategy by creating resistance to change. An organization’s culture could be characterised as weak when many sub-cultures exists, few values and behavioural norms are shared and traditions are rare. In such organizations, employees do not have a sense of commitment, loyalty and sense of identity.

(b) 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 associated with incremental steps and actions.

Strategic implementation control is not a replacement to operational control. Strategic implementation control, unlike operational controls continuously monitors the basic direction of the strategy. The two basic forms of implementation control are:

(i) Monitoring strategic thrusts: Monitoring strategic thrusts help managers to determine whether the overall strategy is progressing as desired or whether there is need for readjustments.

(ii) Milestone Reviews. All key activities necessary to implement strategy are segregated in terms of time, events or major resource allocation. It normally involves a complete reassessment of the strategy. It also assesses the need to continue or refocus the direction of an organization.