(GI-2, GI-6, GI-7, VI-1, VDI-1, DRIVE & FMT)
DATE: 11.10.2023   **MAXIMUM MARKS: 100**   **TIMING: 3¼ Hours**

EIS & SM

SECTION – A : ENTERPRISE INFORMATION SYSTEMS AND MANAGEMENT
Q. No. 1 & 2 is Compulsory,
Answer any three questions from the remaining four questions

Answer 1:
1. (i)   Ans. a
   (ii)   Ans. d
   (iii) Ans. c
   (iv) Ans. b
   (v)   Ans. b
2.   Ans. b
3.   Ans. b
4.   Ans. c   **{1 M Each}**
5.   Ans. b
6.   Ans. b
7.   Ans. d
8.   Ans. b
9.   Ans. d
10.   Ans. a
11.   Ans. a

Answer 2:
When risks are identified and analyzed, it is not always appropriate to implement controls to counter them. Some risks may be minor, and it may not be cost effective to implement expensive control processes for them. Risk management strategy is explained below:

- **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, as well as periodically reviewing the risk to ensure its impact remains low.

- **Terminate/Eliminate the risk:** 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 or to minimize its effects.

- **Turn back:** Where the probability or impact of the risk is very low, then management may decide to ignore the risk.

{1 M Each for correct 5 points}

Answer 3:
(a)   Operating System protection can be achieved using following steps.

- **Automated terminal identification :** This will help to ensure that a specified session could only be initiated from a certain location or computer terminal.
- **Terminal log-in procedures :** A log-in procedure is the first line of defence against unauthorized access as it does not provide unnecessary help or information, which could be misused by an intruder. When the user initiates the log-on process by entering user-id and password, the system compares the ID and password to a database of valid users and accordingly authorizes the log-in.
- **Access Token :** If the log on attempt is successful, the Operating System creates an access token that contains key information about the user including user-id, password, user group and privileges granted to the user. The information in the access token is used to approve all actions attempted by the user during the session.

{2 M}

- **Access Control List :** This list contains information that defines the access privileges for all valid users of the resource. When a user attempts to access a resource, the system compasses his or her user-id and privileges contained in the access token with those contained in the access control list. If there is a match, the user is granted access.
- **Discretionary Access Control :** The system administrator usually determines; who is granted access to specific resources and maintains the access control list. However, in distributed systems, resources may be controlled by the end-user. Resource owners in this setting may be granted discretionary access control, which allows them to grant access privileges to other users.
- **User identification and authentication :** The users must be identified and authenticated in a fool-proof manner. Depending on risk assessment, more stringent methods like Biometric Authentication or Cryptographic means like Digital Certificates should be employed.

{2 M}

- **Password management system :** An operating system could enforce selection of good passwords. Internal storage of password should use one-way hashing algorithms and the password file should not be accessible to users.
- **Use of system utilities :** System utilities are the programs that help to manage critical functions of the operating system e.g. addition or deletion of users. This utility should not be accessible to a general user. Use and access to these utilities should be strictly controlled and logged.
- **Duress alarm to safeguard users :** If users are forced to execute some instruction under threat, the system should provide a means to alert the authorities.
- **Terminal time out :** Log out the user if the terminal is inactive for a defined period. This will prevent misuse in absence of the legitimate user.
- **Limitation of connection time :** Define the available time slot. Do not allow any transaction beyond this time.

{2 M}

Answer:
(b)   Major advantages of Database Management System (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 repeatedly. Minimizing redundancy reduces significantly the cost of storing information on 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 must be made in one place in DBMS ensuring Integrity.

♦ **Program and File consistency :** Using a DBMS, file formats and programs are standardized. The level of consistency across files and programs makes it easier to manage data when multiple programmers are involved as the same rules and guidelines apply across all types of data.

♦ **User-friendly :** DBMS makes the data access and manipulation easier for the user. DBMS also reduces the reliance of users on computer experts to meet their data needs.

♦ **Improved security :** DBMS allows multiple users to access the same data resources in a controlled manner by defining the security constraints. Some sources of information should be protected or secured and only viewed by select individuals. Using passwords, DBMS 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 base 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 need.

{1/2 M Each for correct 8 points}

Answer 4:

(a) Some examples of Internal Controls in bank's branch are as below:

- Work of one staff member is invariably supervised/ checked by another staff member, irrespective of the nature of work (Maker-Checker process).
- A system of job rotation among staff exists.
- Financial and administrative powers of each official/ position is fixed and communicated to all persons concerned.

{2 M}

- Branch managers must send periodic confirmation to their controlling authority on compliance of the laid down systems and procedures.
- All books are to be balanced periodically. Balancing is to be confirmed by an authorized official.

{2 M}

- Details of lost security forms are immediately advised to controlling so that they can exercise caution.
- Fraud prone items like currency, valuables, draft forms, term deposit receipts, traveller's cheques and other such security forms are in the custody of at least two officials of the branch.

{2 M}

Answer:

(b) Stages of Money Laundering are as follows:

i. **Placement :** The first stage involves the Placement of proceeds derived from illegal activities - the movement of proceeds frequently currency from the scene of the crime to a place, or into a form, less suspicious and more convenient for the criminal.

{1 M}

ii. **Layering:** Layering involves the separation of proceeds from illegal source using complex transactions designed to obscure the audit trail and hide the proceeds. The criminals frequently use shell corporations, offshore banks or countries with loose regulation and secrecy laws for this purpose. Layering

{2 M}

involves sending the money through various financial transactions to change its form and make it difficult to follow. Layering may consist of several banks to bank transfers or wire transfers between different accounts in different names in different countries making deposit and withdrawals to continually vary the amount of money in the accounts changing the money's currency purchasing high value items to change the form of money- making it hard to trace.

iii. **Integration:** Integration involves conversion of illegal proceeds into apparently legitimate business earnings through normal financial or commercial operations. Integration creates the illusion of a legitimate source for criminally derived funds and involves techniques as numerous and creative as those used by legitimate businesses. **{1 M}**

Answer 5:

(a) In Accounting Information System, the data is stored in following two ways:

A. **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 type of master data. **{1 M}**

- **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.
- **Inventory Master Data :** This includes stock items, stock groups, godowns, inventory voucher types, etc. Stock item is something which is bought and sold for business purpose, trading goods. For a person running a medicine shop, all types of medicines shall be stock items for him/her. **{2 M}**
- **Payroll Master Data :** 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.
- **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). In case of change in tax rates, forms, categories, we need to update/change our master data. **{2 M}**

All business process modules must use common master data.

B. **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. **{1 M}**

Answer:

(b) Various risks associated with technology while implementing ERP are as following:

- **Software Functionality :** ERP systems offer a myriad of features and functions, however, not all organizations require those many features. Implementing all the functionality and features just for the sake of it can be disastrous for an organization. **{1 M}**
- **Technological Obsolescence :** With the advent of more efficient technologies every day, the ERP system also becomes obsolete as time goes on. **{1 M}**
- **Enhancement and Upgrades :** ERP Systems are not upgraded and kept up-to-date. Patches and upgrades are not installed and the tools are **{1 M}**

underutilised.

- **Application Portfolio Management :** These processes focus on the selection of new business applications and the projects required delivering them. **{1 M}**

Answer 6:

(a) Various components of e-Commerce transaction are as follows:

(i) **User:** This may be individual / organization or anybody using the e-commerce platforms. As e-commerce, has made procurement easy and simple, just on a click of button, e-commerce vendors need to ensure that their products are not delivered to wrong users.

(ii) **E-commerce Vendors:** This is the organization / entity providing the user, goods/services asked for. E-commerce vendors further needs to ensure Suppliers and Supply Chain Management, Warehouse operations, Shipping and returns, e- Commerce catalogue and product display, Marketing and loyalty programs, Showroom and offline purchase, different ordering Methods, Guarantees, Privacy Policy and Security etc. for better, effective and efficient transaction. **{2 M}**

(iii) **Technology Infrastructure:** The computers, servers, database, mobile apps, digital libraries, data interchange enabling the e-commerce transactions.

- **Computers, Servers and Database :** These are the backbone for the success of the venture. Big e-commerce organization invest huge amount of money/time in creating these systems.
- **Mobile Apps :** A mobile app is a software application programmed to run specifically on a mobile device. Smartphone's and tablets have become a dominant form of computing, with many more smartphones being sold than personal computers.
- **Digital Library :** A Digital Library is a special library with a focused collection of digital objects that can include text, visual material, audio material, video material, stored as electronic media formats, along with means for organizing, storing, and retrieving the files and media contained in the library collection. **{2 M}**
- **Data Interchange:** Data Interchange is an electronic communication of data. For ensuring the correctness of data interchange between multiple players in e-commerce, business specific protocols are being used. There are defined standards to ensure seamless / exact communication in e-commerce.

(iv) **Internet/Network :** This is the key to success of e-commerce transactions. Internet connectivity is important for any e-commerce transactions to go through. The faster net connectivity leads to better e-commerce. At a global level, it is linked to the countries capability to create a high-speed network.

(v) **Web portal :** This shall provide the interface through which an individual/ organization shall perform e-commerce transactions. Web Portal is an application through which user interacts with the e-commerce vendor. The front end through which user interacts for an e-commerce transaction. These web portals can be accessed through desktops/laptops/PDA/hand-held computing devices/mobiles and now through smart TVs also. **{2 M}**

(vi) **Payment Gateway :** Payment gateway represents the way e-commerce vendors collects their payments. These assures seller of receipt of payment from buyer of goods/services from e-commerce vendors. Presently numerous methods of payments by buyers to sellers are being used,

including Credit / Debit Card Payments, Online bank payments, Vendors own payment wallet, Third Party Payment wallets, Cash on Delivery (CoD) and Unified Payments Interface (UPI).

Answer:

(b)   The Service Model provided by vendor XYZ to ABC university is Infrastructure as a Service (IaaS).

Characteristics of Infrastructure as a Service (IaaS) of Cloud Computing are as follows:

♦   **Web access to the resources :** The IaaS model enables the IT users to access infrastructure resources over the Internet. When accessing a huge computing power, the IT user need not get physical access to the servers.

♦   **Centralized Management :** The resources distributed across different parts are controlled from any management console that ensures effective resource management and effective resource utilization.

{2 M}

♦   **Elasticity and Dynamic Scaling :** Depending on the load, IaaS services can provide the resources and elastic services where the usage of resources can be increased or decreased according to the requirements.

♦   **Shared infrastructure :** IaaS follows a one-to-many delivery model and allows multiple IT users to share the same physical infrastructure and thus ensure high resource utilization.

{2 M}

♦   **Metered Services :** IaaS allows the IT users to rent the computing resources instead of buying it. The services consumed by the IT user will be measured, and the users will be charged by the IaaS providers based on the amount of usage.

SECTION – B : STRATEGIC MANAGEMENT
Q. No. 7&8 is Compulsory,
Answer any threequestions from the remaining four questions

Answer 7:
1.   Ans. d
2.   Ans. a
3.   Ans. c
4.   Ans. b
5.   Ans. d
6.   Ans. b
7.   Ans. a
8.   Ans. d   **{1 M Each}**
9.   Ans. b
10.   Ans. c
11.   Ans. d
12.   Ans. d
13.   Ans. d
14.   Ans. c
15.   Ans. d

Answer 8:
The presence of strategic management cannot counter all hindrances and always achieve success. 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.   **{1¹/² M Each}**

♦   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.   **{1 M Each}**

♦   In a competitive scenario, where all organisations are trying to move strategically, it is difficult to clearly estimate the competitive responses to a firm's strategies.

Answer 9:
(a)   Strategic intent can be understood as the philosophical base of strategic management. It implies the purposes, which an organization endeavours to achieve. It is a statement that provides a perspective. Strategic intent gives an idea of what the organization desires to attain in future. Strategic intent provides the framework within which the firm would adopt a predetermined direction and would operate to achieve strategic objectives. Elements of strategic management are as follows:

   (i)   Vision: Vision implies the blueprint of the company's future position. It describes where the organisation wants to land. It depicts the organisation's aspirations and provides a glimps of what the organization would like to become in future. Every sub system of the organization is required to follow its vision.

(ii)   Mission: Mission delineates the firm's business, its goals and ways to reach the goals. It explains the reason for the existence of the firm in the society. A mission statement helps to identify, 'what business the company undertakes.' It defines the present capabilities, activities, customer focus and role in society.

(iii) Business Definition: It seeks to explain the business undertaken by the firm, with respect to the customer needs, target markets, and alternative technologies. With the help of business definition, one can ascertain the strategic business choices.

(iv)   Business Model: Business model, as the name implies is a strategy for the effective operation of the business, ascertaining sources of income, desired customer base, and financial details. Rival firms, operating in the same industry rely on the different business model due to their strategic choice. **{1 M Each}**

(v)   Goals and Objectives: These are the base of measurement. Goals are the end results, that the organization attempts to achieve. On the other hand, objectives are time-based measurable targets, which help in the accomplishment of goals. These are the end results which are to be attained with the help of an overall plan. However, in practice, no distinction is made between goals and objectives and both the terms are used interchangeably.

Answer:

(b)   A strategic alliance is a relationship between two or more businesses that enables each to achieve certain strategic objectives which neither would be able to achieve on its own. The strategic partners maintain their status as independent and separate entities, share the benefits and control over the partnership, and continue to make contributions to the alliance until it is terminated. The advantages of strategic alliance can be broadly categorised as follows: **{1 M}**

(a)   Organizational: Strategic alliance helps to learn necessary skills and obtain certain capabilities from strategic partners. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain.

(b)   Economic: There can be reduction in costs and risks by distributing them across the members of the alliance. Greater economies of scale can be obtained in an alliance, as production volume can increase, causing the cost per unit to decline.

(c)   Strategic: Rivals can join together to cooperate instead of compete. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development. **{1 M Each}**

(d)   Political: Sometimes strategic alliances are formed with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry.

Answer 10:

(a)   Buyers of an industry's products or services can exert considerable pressure on existing firms to secure lower prices or better services. This is evident in situations where buyers enjoy superior position than the seller of product. This leverage is particularly evident when:

(i)   Buyers have full knowledge of the sources of products and their substitutes. **}{1$^{1/2}$ M}**

(ii)   They spend a lot of money on the industry's products, i.e., they are big buyers. **}{1$^{1/2}$ M}**

    (iii)   The industry's product is not perceived as critical to the buyer's needs and buyers are more concentrated than firms supplying the product. They can easily switch to the substitutes available. **{2 M}**

Answer:

(b)   Aditya Bandopadhyay, an effective strategic leader of KaAthens Ltd. must be able to deal with the diverse and cognitively complex competitive situations that are characteristic of today's competitive landscape.

A Strategic leader has several responsibilities, including the following:

♦   Making strategic decisions. **}{1/2 M}**

♦   Formulating policies and action plans to implement strategic decision.**}{1 M}**

♦   Ensuring effective communication in the organisation.**}{1/2 M}**

♦   Managing human capital (perhaps the most critical of the strategic leader's skills). **}{1 M}**

♦   Managing change in the organisation. **}{1/2 M}**

♦   Creating and sustaining strong corporate culture. **}{1 M}**

♦   Sustaining high performance over time. **}{1/2 M}**

Answer 11:

(a)   A strategic business unit (SBU) is any part of a business organization which is treated separately for strategic management purposes. The concept of SBU is helpful in creating an SBU organizational structure. It is discrete element of the business serving product markets with readily identifiable competitors and for which strategic planning can be concluded. It is created by adding another level of management in a divisional structure after the divisions have been grouped under a divisional top management authority based on the common strategic interests. **{2 M}**

Advantages of SBU are:

♦   Establishing coordination between divisions having common strategic interests.

♦   Facilitates strategic management and control on large and diverse organizations.

♦   Fixes accountabilities at the level of distinct business units.

♦   Allows strategic planning to be done at the most relevant level within the total enterprise.

♦   Makes the task of strategic review by top executives more objective and more effective.

♦   Helps allocate corporate resources to areas with greatest growth opportunities.

{1/2 M Each points}

Answer:

(b)   The orientation of redesigning efforts involves total deconstruction and rethinking of business process BPR involves the following steps:

    i.   Determining objectives: Objectives are the desired end results of the redesign process. They will provide the required focus, direction, and motivation for the redesign process and help in building a comprehensive foundation for the reengineering process.

    ii.   Identify customers and determine their needs: The process designers have to understand customers. The purpose is to redesign business process that clearly provides value addition to the customer.

    iii.   Study the existing processes: The study of existing processes will provide an important base for the process designers. The purpose is to gain an understanding of the 'what', and 'why' of the targeted process.

{1 M Each points}

iv.   Formulate a redesign process plan: Formulation of redesign plan is the real crux of the reengineering efforts. Customer focused redesign concepts are identified and formulated. In this step alternative processes are considered and the best is selected.

v.   Implement the redesigned process: It is easier to formulate new process than to implement them. Implementation of the redesigned process and application of other knowledge gained from the previous steps is key to achieve dramatic improvements.

Answer 12:

(a)   The prominent areas where the human resource manager can play strategic role are as follows:

(a)   Providing purposeful direction: The human resource manager must be able to lead people and the organization towards the desired direction involving people right from the beginning. The most important task of a HR manager is to ensure that the objectives of an organization are internalized by everyone.

(b)   Building core competency: The human resource manager has a great role to play in developing core competency by the firm. A core competence is a unique strength of an organization which may not be shared by others. This may be in the form of human resources, marketing capability, or technological capability.

(c)   Creating competitive advantage: Creating and maintaining a competitive advantage in the globalized market is the object of any organization. There are two important ways a business can achieve a competitive advantage over the others. The first is cost leadership and second is differentiation.

(d)   Facilitation of change: The human resource manager will be more concerned with substance rather than form, accomplishments rather than activities, and practice rather than theory. The HR function will be responsible for furthering the organization and devote more time to promote changes than to maintain the status quo.

(e)   Managing workforce diversity: In modern organizations, management of diverse workforce is a great challenge. Workforce diversity can be observed in terms of male and female workers, young and old workers, educated and uneducated workers, unskilled and professional employee, etc.

(f)   Empowerment of human resources: Empowerment means authorizing every member of an organization to take up his/her own destiny realizing his/her full potential. It involves giving more power to those who, at present, have little control what they do and little ability to influence the decisions being made around them.

(g)   Development of works ethic and culture: Greater efforts will be needed to achieve cohesiveness because employees will have transient commitment to groups. As changing work ethic requires increasing emphasis on individuals, jobs will have to be redesigned to provide challenge. A vibrant work culture will have to be developed in the organizations to create an atmosphere of trust and encourage creative ideas.

{1 M Each any 5 points}

Answer:

(b)   Industry and competitive conditions of organisation change as environmental forces are in motion. The most dominant forces are called driving forces because they have the biggest influence on what kinds of changes will take place in the industry's structure and competitive environment. Analyzing driving forces has two steps: identifying what the driving forces are and assessing the impact they will have on the industry.

Many events can affect an industry powerfully enough to qualify as driving forces. Some are unique and specific to a particular industry situation, but many drivers of change fall into general category affecting different industries simultaneously. Some of the categories/examples of drivers are:

♦   The internet and the new e-commerce opportunities and threats it breeds in the industry. **{1 M}**
♦   Increasing globalization. **}{1/2 M}**
♦   Changes in the long-term industry growth rate. **}{1/2 M}**
♦   Product innovation. **}{1/2 M}**
♦   Marketing innovation. **}{1/2 M}**
♦   Entry or exit of major forms. **}{1/2 M}**
♦   Diffusion of technical know-how across more companies and more countries. **}{1 M}**
♦   Changes in cost and efficiency. **}{1/2 M}**

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