Test Series: April 2023

MOCK TEST PAPER - II

INTERMEDIATE GROUP – II

PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT

SECTION – A: Enterprise Information Systems

Time Allowed – 1½ Hours **Maximum Marks: 50 Marks**

Answers

PART I: MULTIPLE CHOICE QUESTIONS

1. **(b)** Tolerate the risk

2. **(a)** Lending history of the subscribers

3. **(d)** Audit Hook

4. **(b)** 4-digit pin or CVV number of the Debit card is required to be entered during payments.

5. **(a)** Internet Banking Channel Server

6. **(d)** Change Management

7. **(d)** (i) – (B), (ii) – (C), (iii) – (A)

8. **(c)** (i) – (C), (ii) – (A), (iii) – (B)

9. **(d)** The Negotiable Instruments Act, 1881

10. **(b)** Monitoring of counterparty, dealer, and market related limits.

PART II: DESCRIPTIVE QUESTIONS

1. **(a)** Issuing 'Letter of Credit' and 'Guarantees' are two important services rendered by banks to customers engaged in business, industrial and commercial activities. These are defined as follows:

- A **Letter of Credit (LC)** is an undertaking by a bank to the payee (the supplier of goods and/ or services) to pay to him, on behalf of the applicant (the buyer) any amount up to the limit specified in the LC, provided the terms and conditions mentioned in the LC are complied with.
- The **Guarantees** are required by the customers of banks for submission to the buyers of their goods/services to guarantee the performance of contractual obligations undertaken by them or satisfactory performance of goods supplied by them, or for submission to certain departments like excise and customs, electricity boards, or to suppliers of goods, etc. in lieu of the stipulated security deposit.

(b) **Detective Controls** are designed to detect errors, omissions or malicious acts that occur and report the occurrence. Detective Controls detect errors or incidents that elude preventive controls. They are basically investigative in nature and provide clear understanding of lawful activities so that anything which deviates from these is reported as unlawful, malicious, etc. Detective controls can also include monitoring and analysis to uncover activities or events that exceed authorized limits or violate known patterns in data that may indicate improper manipulation. For sensitive electronic communications, detective controls indicate that a message has been corrupted or the sender's secure identification cannot be authenticated. These can be surprise checked by supervisor.

Some examples of Detective Controls are as follows:

- Review of payroll reports;
- Compare transactions on reports to source documents;
- Monitor actual expenditures against budget;
- Use of automatic expenditure profiling where management gets regular reports of spend to date against profiled spend;
- Hash totals;
- Check points in production jobs;
- Echo control in telecommunications;
- Duplicate checking of calculations;
- Past-due accounts report, the Internal Audit functions;
- Intrusion Detection System;
- Cash counts and Bank reconciliation and Monitoring expenditures against budgeted amount.

2. (a) No organization/entity operates in a risk-free environment and Enterprise Risk Management (ERM) does not create such an environment. Rather, it enables management to operate more effectively in environments filled with risks. ERM provides enhanced capability to do the following:

- **Align risk appetite and strategy:** Risk appetite is the degree of risk, on a broad-based level that an enterprise (any type of entity) is willing to accept in pursuit of its goals. Management considers the entity's risk appetite first in evaluating strategic alternatives, then in setting objectives aligned with the selected strategy and in developing mechanisms to manage the related risks.
- **Link growth, risk and return:** Entities accept risk as part of value creation and preservation, and they expect return commensurate with the risk. ERM provides an enhanced ability to identify and assess risks and establish acceptable levels of risk relative to growth and return objectives.
- **Enhance risk response decisions:** ERM provides the rigor to identify and select among alternative risk responses – risk avoidance, reduction, sharing and acceptance. ERM provides methodologies and techniques for making these decisions.
- **Minimize operational surprises and losses:** Entities have enhanced capability to identify potential events, assess risk and establish responses, thereby reducing the occurrence of surprises and related costs or losses.
- **Identify and manage cross-enterprise risks:** Every entity faces a myriad of risks affecting different parts of the enterprise. Management needs to not only manage individual risks, but also understand interrelated impacts.
- **Provide integrated responses to multiple risks:** Business processes carry many inherent risks, and ERM enables integrated solutions for managing the risks.
- **Seize opportunities:** Management considers potential events, rather than just risks, and by considering a full range of events, management gains an understanding of how certain events represent opportunities.
- **Rationalize capital:** More robust information on an entity's total risk allows management to assess more effectively overall capital needs and improve capital allocation.

(b) Various controls to protect an e-business from intrusion are as follows:

- **Viruses:** One should check its business website daily for viruses, the presence of which can result in the loss of valuable data. Virus protection gains greater significance in e-commerce operations primarily because most of the users of e-commerce infrastructure are either unknown or are not under the control of business enterprise. These users have their own virus protection environment that may not be secure.
- **Hackers:** Use software packages to carry out regular assessments of how vulnerable your website is to hackers.
- **Passwords:** Ensure employees change these regularly and that passwords set by former employees of your organization are defunct.
- **Regular software updates:** A business website should always be up to date with the newest versions of security software. If it is not done regularly, the website may become vulnerable to attack.
- **Sensitive data:** Consider encrypting financial information and other confidential data (using encryption software). Hackers or third parties will not be able to access encrypted data without a key. This is particularly relevant for any e-commerce sites that use a shopping cart system.
- Know the details of your payment service providers' contract.

3. (a) The processing subsystem of an Information Systems responsible for computing, sorting, classifying, and summarizing data have some controls implemented in it which are as follows:

(i) **Processor Controls:** Following are the Controls to reduce expected losses from errors and irregularities associated with Central processors.

- **Error Detection and Correction:** Occasionally, processors might malfunction because of design errors, manufacturing defects, damage, fatigue, electromagnetic interference, and ionizing radiation. For the transient (that disappears after a short period) and intermittent errors (that reoccurs periodically); re-tries and re-execution might be successful, whereas for permanent errors (that does not correct with time), the processor must halt and report error.
- **Multiple Execution States:** It is important to determine the number of and nature of the execution states enforced by the processor. This helps auditors to determine which user processes will be able to carry out unauthorized activities, such as gaining access to sensitive data maintained in memory regions assigned to the operating system or other user processes.
- **Timing Controls:** An operating system might get stuck in an infinite loop. In the absence of any control, the program will retain use of processor and prevent other programs from undertaking their work.
- **Component Replication:** In some cases, processor failure can result in significant losses. Redundant processors allow errors to be detected and corrected. If processor failure is permanent in multicomputer or multiprocessor architectures, the system might reconfigure itself to isolate the failed processor.

(ii) **Real Memory Controls:** This comprises the fixed amount of primary storage in which programs or data must reside for them to be executed or referenced by the central processor. Real memory controls seek to detect and correct errors that occur in memory cells and to protect areas of memory assigned to a program from illegal access by another program.

(iii) **Virtual Memory Controls:** Virtual Memory exists when the addressable storage space is larger than the available real memory space. To achieve this outcome, a control mechanism must be in place that maps virtual memory addresses into real memory addresses. When an executing

program references virtual memory addresses, the mechanism then translates these addresses into real memory addresses.

(iv) **Application Software Controls:** These perform validation checks to identify errors during processing of data. They are required to ensure both the completeness and the accuracy of data being processed. Normally, the processing controls are enforced through database management system that stores the data.

(v) **Audit Trail Controls:** This maintains the chronology of events from the time data is received from the input or communication subsystem to the time data is dispatched to the database, communication, or output subsystems.

- **Accounting Audit Trail:** This includes the data items like- to trace and replicate the processing performed on a data item that enters into the processing subsystem, to follow triggered transactions from end to end by monitoring input data entry, intermediate results and output data values, to check for existence of any data flow diagrams or flowcharts that describe data flow in the transaction, and whether such diagrams or flowcharts correctly identify the flow of data and to check whether audit log entries recorded the changes made in the data items at any time including who made them.
- **Operations Audit Trail:** This includes a comprehensive log on hardware consumption – CPU time used, secondary storage space used, and communication facilities used and comprehensive log on software consumption – compilers, subroutine libraries, file management facilities and communication software used.

(b) The important features of XBRL (eXtensible Business Reporting Language) are as follows:

- **Clear Definitions:** XBRL allows the creation of reusable, authoritative definitions, called taxonomies that capture the meaning contained in all the reporting terms used in a business report, as well as the relationships between all the terms. Taxonomies are developed by regulators, accounting standards setters, government agencies and other groups that need to clearly define information that needs to be reported upon. XBRL doesn't limit what kind of information is defined: it's a language that can be used and extended as needed.
- **Testable Business Rules:** XBRL allows the creation of business rules that constrain what can be reported. Business rules can be logical or mathematical, or both and can be used, for example, these business rules can be used to:
    - stop poor quality information being sent to a regulator or third party, by being run by the preparer while the report is in draft.
    - stop poor quality information being accepted by a regulator or third party, by being run at the point that the information is being received. Business reports that fail critical rules can be bounced back to the preparer for review and resubmission.
    - flagging or highlighting questionable information, allowing prompt follow up, correction or explanation.
    - create ratios, aggregations, and other kinds of value-added information, based on the fundamental data provided.
- **Multi-lingual Support:** XBRL allows concept definitions to be prepared in as many languages as necessary. Translations of definitions can also be added by third parties. This means that it's possible to display a range of reports in a different language to the one that they were prepared in, without any additional work. The XBRL community makes extensive use of this capability as it can automatically open up reports to different communities.
- **Strong Software Support:** XBRL is supported by a very wide range of software from large and small vendors, allowing a very wide range of stakeholders to work with the standard.

4. **(a)** Common types of Virtualizations are as follows:

- **Hardware Virtualization:** Hardware Virtualization or Platform Virtualization refers to the creation of a virtual machine that acts like a real computer with an operating system. Software executed on these virtual machines is separated from the underlying hardware resources. This enables the users to run different operating systems on the same machine simultaneously. For example, a computer that is running Microsoft Windows may host a virtual machine that looks like a computer with Linux operating system-based software that can be run on the virtual machine.

  The basic idea of hardware virtualization is to consolidate many small physical servers into one large physical server so that the processor can be used more effectively. The software that creates a virtual machine on the host hardware is called a Hypervisor or Virtual Machine Manager that controls the processor, memory, and other components by allowing several different operating systems to run on the same machine without the need for a source code.

- **Network Virtualization:** Network Virtualization is a method of combining the available resources in a network by splitting up the available bandwidth into channels, each of which is independent from the others, and each of which can be assigned (or reassigned) to a particular server or device in real time. This allows a large physical network to be provisioned into multiple smaller logical networks and conversely allows multiple physical LANs to be combined into a larger logical network. This behavior allows administrators to improve network traffic control, enterprise, and security. Network virtualization involves platform virtualization, often combined with resource virtualization.

  Various equipment and software vendors offer network virtualization by combining any of the Network hardware such as switches and Network Interface Cards (NICs); Network elements such as firewalls and load balancers; Networks such as Virtual LANs (VLANs); Network storage devices; Network machine-to-machine elements such as telecommunications devices; Network mobile elements such as laptop computers, tablet computers, smart phones, and Network media such as Ethernet and Fiber Channel. Network virtualization is intended to optimize network speed, reliability, flexibility, scalability, and security.

- **Storage Virtualization:** Storage Virtualization is an apparent pooling of data from multiple storage devices, even different types of storage devices into what appears to be a single device that is managed from a central console. Storage virtualization helps the storage administrator perform the tasks of backup, archiving, and recovery more easily and in less time by disguising the actual complexity of a Storage Area Network (SAN). Administrators can implement virtualization with software applications or by using hardware and software hybrid appliances. The servers connected to the storage system are not aware of where the data really is. Storage virtualization is sometimes described as “abstracting the logical storage from the physical storage”.

(b) The impact of technology in Banking industry is as follows:

- In the CBS environment, technology encompasses all the four critical components which are business processes, policies and procedures, regulatory requirements, and organization structure. All controls relevant for all four components are embedded inside and facilitated through technology. The same technology platform is configured as per the specific business style of the bank to provide new products and services.
- The dependence on technology in a bank is very high. If it fails, then none of the business processes can be performed. Hence, it is important to understand how the four components of banking business are configured, maintained, and updated using technology.
- As per policy directives of regulators, the banking software should be configured or updated. The controls also need to be implemented and updated at different layers of technology such as system software, network, database, application software, etc.

- Earlier, technology was a tool and used in specific departments of the bank but now with CBS, technology has become all-pervasive and has become integral for doing banking.
- Further, all the business and control aspects of the bank as a whole such as banking business processes, policies and procedures of the bank, regulatory and compliance requirements applicable to the bank and the organization structure of the bank are in-built into the technology through configuration, setting of parameters and controls at different layers of technology.

5. **(a)** Various challenges involved in Business Process Automation (BPA) are as follows:

- **Automating Redundant Processes:** Sometimes organizations start off an automation project by automating the processes they find suitable for automation without considering whether such processes are necessary and create value or not. In other cases, some business processes and tasks require a high amount of tacit knowledge that cannot be documented and transferred from one person to another and therefore seek employees to use their personal judgment. These processes are generally not good candidates for automation as these processes are hard to encode and automate.
- **Defining Complex Processes:** BPA requires reengineering of some business processes that requires significant amount of time to be allocated and spent at this stage. This requires a detailed understanding of the underlying business processes to develop an automated process.
- **Staff Resistance:** In most cases, human factor issues are the main obstacle to the acceptance of automated processes. Staff may see the automation process as a way of reducing their decision-making power. This is due to the reason that with automated processes, the management has a greater visibility of the process and can make decisions that used to be made by the staff earlier. Moreover, the staff may perceive automated processes as threat to their jobs.
- **Implementation Cost:** The implementation of automated processes may be an expensive proposition in terms of acquisition/development cost of automated systems and special skills required to operate and maintain these systems.

(b) A **Business Process** is a prescribed sequence of work steps performed to produce a desired result for the organization. A business process is initiated by a kind of event, has a well-defined beginning and end, and is usually completed in a relatively short period.

Or

A **Business Process** consists of a set of activities that are performed in coordination in an organizational and technical environment. These activities jointly realize a business goal. Each business process is enacted by a single organization, but it may interact with business processes performed by other organizations.

To manage a business process, following activities are involved:

- The first task is to **define** it. This involves defining the steps (tasks) in the process and mapping the tasks to the roles involved in the process.
- Once the process is mapped and implemented, **performance measures** can be established. Establishing measurements creates a basis to improve the process.
- The last piece of the process management definition describes the **organizational setup** that enables the standardization and adherence to the process throughout the organization. Assigning enterprise process owners and aligning employees' performance reviews and compensation to the value creation of the processes could accomplish this.

SECTION – B: STRATEGIC MANAGEMENT

SUGGESTED ANSWERS/HINTS

1. (A)

(1)	(2)	(3)	(4)	(5)
(a)	(b)	(d)	(c)	(c)

(B) (c)

(C) (a)

(D) (a)

(E) (b)

(F) (a)

(G) (d)

2. The case highlights the concept of Product Life Cycle (PLC), which outlines the various stages a product goes through, including introduction, growth, maturity and decline. Successful businesses must adapt their strategies to each stage to remain profitable.

Product Life Cycle (PLC) is a useful concept for guiding strategic choice. Essentially, PLC is S-shaped curve which exhibits the relationship of sales with respect of time for a product that passes through the four successive stages of introduction (slow sales growth), growth (rapid market acceptance) maturity (slowdown in growth rate) and decline (sharp downward drift). If businesses are substituted for product, the concept of PLC could work just as well.

The first stage of PLC is the introduction stage in which competition is almost negligible, prices are relatively high, and markets are limited. The growth in sales is at a lower rate because of lack of knowledge on the part of customers.

The second stage of PLC is growth stage. In the growth stage, the demand expands rapidly, prices fall, competition increases, and market expands. The customer has knowledge about the product and shows interest in purchasing it.

The third stage of PLC is maturity stage. In this stage, the competition gets tough, and market gets stabilised. Profit comes down because of stiff competition. At this stage organisations may work for maintaining stability.

The fourth stage of PLC is declining stage in which the sales and profits fall down sharply due to some new product replaces the existing product. So, a combination of strategies can be implemented to stay in the market either by diversification or retrenchment.

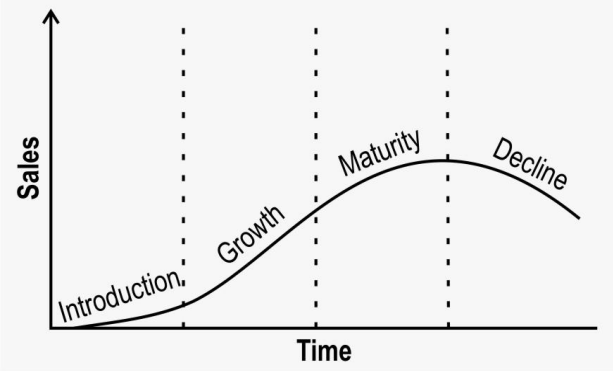

Figure: Product Life Cycle

3. (a) **Yes,** agreeing with the top management's argument. Corporate strategy is basically the growth design of the firm; it spells out the growth objective- the direction, pace and timing of the firm's growth. It also spells out the strategy for achieving the growth. Corporate strategy ensures the growth of the firm because of the following arguments:

- **It ensures the correct alignment of the firm with its environment.** It also serves as the design for filling the strategic planning gap.
- **It gives importance to combination, sequence, timing, direction and depth of various moves and action initiatives taken by managers** to handle environmental uncertainties and complexities.
- **It helps build the relevant competitive advantages for the firm**. Masterminding and working out the right fit between the firm and its external environment.
- **It is to harness the opportunities available in the environment, countering the threats embedded therein.**

(b) Following are the differences between the market development and product development:

Market Development	**Product Development**
Meaning • 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. **Strategy Application** • 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.	**Meaning** • 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** • 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.

4. (a) Pulkit may be facing exit barriers due to his investment in the real estate spaces. Exit barriers are factors that make it difficult for a company to exit a particular market or industry. In this case, Pulkit's investment in the real estate spaces may make it difficult for him to exit the cloud kitchen industry or switch to a different business model. If Pulkit is unable to find new spaces or make the necessary renovations, he may be forced to continue operating in the hideous localities, which may impact his brand image and customer experience. This can create an exit barrier for Pulkit as it may be difficult for him to turn to a different business model or exit the industry entirely.

Additionally, Pulkit may have incurred significant sunk costs in the purchase and renovation of the real estate spaces, which can create a further exit barrier. Sunk costs refer to costs that have already been incurred and cannot be recovered. If Pulkit has invested a significant amount of money in the real estate spaces, he may be hesitant to exit the industry or switch to a different business model as it may mean that he has to write off the sunk costs.

Therefore, Pulkit may be facing exit barriers due to his investment in the real estate spaces, which may make it difficult for him to adapt to the new requirements or exit the industry entirely.

(b) Some of the common elements of benchmarking process are as under:

- **Identifying the need for benchmarking**: This step will define the objectives of the benchmarking exercise. It will also involve selecting the type of benchmarking. Organizations identify realistic opportunities for improvements.
- **Clearly understanding existing decisions processes:** The step will involve compiling information and data on performance.
- **Identify best processes:** Within the selected framework best processes are identified. These may be within the same organization or external to them**.**
- **Comparison of own process and performance with that of others:** Benchmarking process also involves comparison of performance of the organization with performance of other organization. Any deviation between the two is analysed to make further improvements.
- **Prepare a report and implement the steps necessary to close the performance gap:** A report on benchmarking initiatives containing recommendations is prepared. Such a report also contains the action plans for implementation.
- **Evaluation:** Business organizations evaluate the results of the benchmarking process in terms of improvements vis-à-vis objectives and other criteria set for the purpose. It also periodically evaluates and reset the benchmarks in the light of changes in the conditions that impact the performance.

5. (a) The primary activities of the organization are grouped into five main areas: inbound logistics, operations, outbound logistics, marketing and sales, and service.

- ***Inbound logistics*** are the activities concerned with receiving, storing and distributing the inputs to the product/service. This includes materials handling, stock control, transport etc.
- ***Operations transform these inputs into the final product or service:*** machining, packaging, assembly, testing, etc.
- ***Outbound logistics*** collect, store and distribute the product to customers. For tangible products this would be warehousing, materials handling, transport, etc. In the case of services, it may be more concerned with arrangements for bringing customers to the service, if it is a fixed location (e.g., sports events).
- ***Marketing and sales*** provide the means whereby consumers/users are made aware of the product/service and are able to purchase it. This would include sales administration, advertising, selling and so on. In public services, communication networks which help users' access a particular service are often important.
- ***Service*** are all those activities, which enhance or maintain the value of a product/service, such as installation, repair, training and spares.

(b) 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.

6. (a) Yummy foods are proactive in its approach. On the other hand, Tasty Food is reactive. Proactive strategy is planned strategy whereas reactive strategy is adaptive reaction to changing circumstances. A company's strategy is typically a blend of proactive actions on the part of managers to improve the company's market position and financial performance and reactions to unanticipated developments and fresh market conditions.

If organisational resources permit, it is better to be proactive rather than reactive. Being proactive in aspects such as introducing new products will give you advantage in the mind of customers.

At the same time, crafting a strategy involves stitching together a proactive/intended strategy and then adapting first one piece and then another as circumstances surrounding the company's situation change or better options emerge-a reactive/adaptive strategy. This aspect can be accomplished by Yummy Foods.

(b) Objectives are organizations performance targets – the results and outcomes it wants to achieve. They function as yardstick for tracking an organization's performance and progress.

Objectives with strategic focus relate to outcomes that strengthen an organization's overall business position and competitive vitality. Objectives, to be meaningful to serve the intended role, must possess the following characteristics:

- Objectives should define the organization's relationship with its environment.
- Objectives should be facilitative towards achievement of mission and purpose.
- Objectives should provide the basis for strategic decision-making.
- Objectives should provide standards for performance appraisal.
- Objectives should be understandable.
- Objectives should be concrete and specific.
- Objectives should be related to a time frame.
- Objectives should be measurable and controllable.
- Objectives should be challenging.
- Different objectives should correlate with each other.
- Objectives should be set within constraints.