

SUGGESTED SOLUTION

INTERMEDIATE M'19 EXAM

SUBJECT- EIS AND S.M.

Test Code - PIN 5045

BRANCH - () (Date:)

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ANSWER-1 (10* 1 = 10 MARKS)

- 1. B
- 2. B
- 3. A
- 4. B
- 5. B
- 6. A
- 7. A
- 8. D
- 9. B
- 10. A

ANSWER-2

ANSWER-A

The Data Warehouse extracts data from one or more of the organization's databases and loads it into another database for storage and analysis purpose. A data warehouse should be designed so that it meets the following criteria:

- a. <u>It uses non-operational data.</u> This means that the data warehouse is using a copy of data from the active databases that the company uses in its <u>day-to-day operations</u>, so the data warehouse must pull data from the <u>existing databases on a regular, scheduled basis.</u>
- **b.** <u>The data is time-variant.</u> This means that whenever data is loaded into the data warehouse, it <u>receives a time stamp, which allows for comparisons between different time periods.</u>
- c. The data is standardized. Because the data in a data warehouse usually comes from several different sources, it is possible that the data does not use the same definitions or units. For the data warehouse to match up different formats, a standard format (for example date) would have to be agreed upon and all data loaded into the data warehouse would have to be converted to use this standard format. This process is called Extraction-Transformation-Load (ETL).
- d. There are two approaches to follow when designing a data warehouse:
 - The <u>Bottom-Up Approach</u> starts by creating small data warehouses called Data Marts to solve specific business problems. As these data marts are created, they can be combined into a larger data warehouse.
 - ii. The <u>Top-Down Approach</u> suggests that we should start by creating an enterprise-wide data warehouse and then, as specific business needs are identified, create smaller data marts from the data warehouse.

(6 MARKS)

ANSWER-B

Pros and Cons of having single software for Accounting and Tax Compliance

S. No.	Particulars	Accounting & Tax Compliance Software	Only Tax Compliance Software
1	Ease of software operation	Less – as this is integrated system of accounting and tax compliance, everything connected with other and making changes at one place may affect other aspects also.	More – as this is used only for one single purpose, i.e. tax compliance, it is less complicated and bound to be easy.
2	Features and facilities	Less – as this system is not an exclusive system for tax compliance, it may have limited features for tax compliance.	More – as this is an exclusive and specifically designed system for tax compliance, naturally more features and facilities shall exist in this system.
3	Time and efforts required	Less – as this is an integrated system, time required to transfer data to compliance software is zero.	More – as this is a separate software, data from accounting software need to put in this for preparation of returns. This may take extra time and efforts.
4	Accuracy	More – As this is an integrated system and hence accounting data and tax compliance data shall always be same. No need to transfer data to compliance software and reconcile the data.	Less – as there are two separate system, reconciliation with accounting data is needed, possibility of mismatch of data is always there.
5	Cost	More – if tax compliance feature is not available in accounting system, getting it customized may require some amount of cost which may be higher than buying separate	Less – as this is specific purpose software, there shall be less complications and the cost also shall be less.

(4 MARKS)

ANSWER-3

ANSWER-A

They occur in many environments where data can be moved asynchronously across telecommunication lines. Data that is waiting to be transmitted are liable to unauthorized access called Asynchronous Attack. These attacks are hard to detect because they are usually very small pin like insertions.

- (a) <u>Data Leakage</u>: This involves leaking information out of the computer by means of dumping files to paper or stealing computer reports and tape.
- (b) <u>Subversive Attacks</u>: 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.
- (c) <u>Wire-tapping</u>: This involves spying on information being transmitted over communication network.
- (d) <u>Piggybacking:</u> 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.

(4*1 = 4 MARKS)

ANSWER-B

An ideal ERP System where a single database is being utilized and contains all data for various software modules includes the following modules:

- a. <u>Manufacturing:</u> Some of the functions include engineering, capacity, workflow management, quality control, bills of material, manufacturing process, etc.
- b. <u>Financials:</u> Accounts payable, accounts receivable, fixed assets, general ledger and cash management, etc.
- c. **Human Resources:** Benefits, training, payroll, time and attendance, etc.
- d. <u>Supply Chain Management:</u> Inventory, supply chain planning, supplier scheduling, claim processing, order entry, purchasing, etc.
- e. **Projects:** Costing, billing, activity management, time and expense, etc.
- f. <u>Customer Relationship Management (CRM)</u>: CRM is a term applied to processes implemented by a company to handle its contact with its customers. CRM software is used to support these processes, storing information on current and prospective customers. Information in the system can be accessed and entered by employees in different departments, such as sales, marketing, customer service, training, professional development, performance management, human resource development and compensation.
- g. <u>Data Warehouse:</u> Usually this is a module that can be accessed by an organization's customers, suppliers and employees. Data warehouse is a repository of an organization's electronically stored data. These are designed to facilitate reporting and analysis, to retrieve and analyse data; tools to extract, transform and load data into the repository; and to manage the data dictionary.

(6 MARKS)

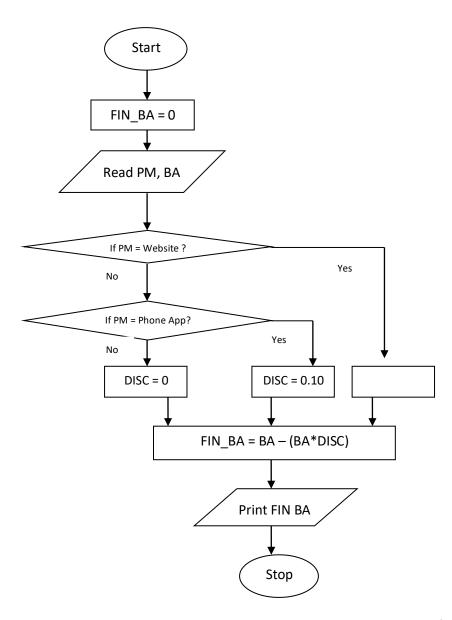
ANSWER-4

ANSWER-A

Let us define the variables first:

PM: Purchase Mode BA: Bill Amount

FIN_BA: Final Bill Amount DISC: Discount



(6 MARKS)

ANSWER-B

(a) <u>Server Consolidation:</u> Virtual machines are used to <u>consolidate many physical servers</u> <u>into fewer servers, which in turn host virtual machines</u>. Each physical server is reflected as a virtual machine "guest" residing on a virtual machine host system. This is also known as <u>"Physical-to-Virtual" or 'P2V' transformation.</u>

<u>Disaster Recovery:</u> Virtual machines can be used as <u>"hot standby"</u> environments for physical production servers. This changes the classical "backup-and-restore" philosophy, by providing backup images that can "boot" into live virtual machines, capable of taking over workload for a production server experiencing an outage.

- (a) <u>Testing and Training:</u> Virtualization can give root access to a virtual machine. This can be very useful such as in kernel development and operating system courses.
- (b) <u>Portable Applications:</u> Portable applications are needed when running an application from a removable drive, without installing it on the system's main disk drive. Virtualization can be used to encapsulate the application with a redirection layer that stores temporary files, windows registry entries and other state information in the application's installation directory and not within the system's permanent file system.
- (c) <u>Portable Workspaces:</u> Recent technologies have used virtualization to create portable workspaces on devices like iPods and USB memory sticks.

(4 MARKS)

ANSWER-5

ANSWER-A

Some examples of Internal Controls that can be implemented in a bank branch to avoid the risks are as below:

- a. Work of one staff member is invariably supervised/ checked by another staff member, irrespective of the nature of work (Maker-Checker process).
- b. A system of job rotation among staff exists.
- c. Financial and administrative powers of each official/ position is fixed and communicated to all persons concerned.
- d. Branch managers must send periodic confirmation to their controlling authority on compliance of the laid down systems and procedures.
- e. All books are to be balanced periodically. Balancing is to be confirmed by an authorized official.
- f. Details of lost security forms are immediately advised to controlling so that they can exercise caution.
- g. 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.

(6 MARKS)

ANSWER-B

Some key aspects in-built into architecture of a CBS are as follows:

- <u>Information flow:</u> Facilitates information flow within the bank and improves the <u>speed and accuracy of decision-making.</u> It deploys systems that streamline <u>integration and unite corporate information</u> to create a comprehensive analytical infrastructure.
- <u>Customer centric</u>: Through a holistic core banking architecture, enables banks to <u>target customers</u> with the right offers at the right time with the right

channel to increase profitability.

- <u>Regulatory compliance</u>: Compliance in case of banks is <u>complex and</u> <u>expensive</u>. CBS has built-in and regularly updated regulatory platform which will <u>ensure compliance</u>.
- <u>Resource optimization</u>: Optimizes utilization of information and resources of banks and lowers costs through <u>improved asset reusability</u>, <u>faster turnaround</u> <u>times</u>, <u>faster processing and increased accuracy</u>.

(4 MARKS)

ANSWER-6

ANSWER-A

- (a) <u>Automated terminal identification:</u> 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 defense 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.
- (d) 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.
- **(e)** <u>Discretionary Access Control:</u> 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. For example, the controller who is owner of the general ledger grants read only privilege to the budgeting department while accounts payable manager is granted both read and write permission to the ledger.
- **(f)** <u>User identification and authentication:</u> The users must be identified and authenticated in a foolproof manner. Depending on risk assessment, more stringent methods like Biometric Authentication or Cryptographic means like Digital Certificates should be employed.

<u>Password management system:</u> An operating system could enforce selection of good passwords. Internal storage of password should use hashing algorithms and the password file should not be accessible to users.

- **(i)** <u>Use of system utilities:</u> System utilities are the programs that help to manage critical functions of the operating system e.g. addition or deletion of users. Obviously, 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.
- (v) 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.

(v) <u>Limitation of connection time:</u> Define the available time slot. Do not allow any transaction beyond this time. For example, no computer access after 8.00 p.m. and before 8.00 a.m. or on a Saturday or Sunday.

(8 MARKS)

ANSWER-B

<u>Front End of a Software:</u> It is part of the overall <u>software which interacts with the user</u> who is using the software. For example - If a user wants to have some information from the Balance Sheet; user will interact with Front End part of the software and request front end to generate the report.

Back End of a Software: It is a part of the overall software which does not directly interact with the user, but interact with Front End only. Front End will receive the instruction from user and pass it on to the back end. Back End will process the data, generate the report and send it to the front end. Front end will then display the information to user. (2 MARKS)

OR

<u>Data Coding Errors:</u> Data Coding errors can cause serious problems in data processing if they go undetected. Two types of errors - Transcription and Transposition errors can corrupt a data code and cause processing errors.

- a. <u>Transcription Errors:</u> It is a <u>special type of data entry error that is commonly made by human operators or by Optical Character Recognition (OCR) programs.</u> These falls into three classes: Addition errors, Truncation errors and Substitution errors.
- b. <u>Transposition Errors:</u> It is a <u>simple error of data entry that occur when two digits that are either individual or part of larger sequence of numbers are reversed (Transpose) when <u>posting a transaction.</u> There are two types of transposition errors: Single transposition and Multiple transposition errors.</u>

(2 MARKS)

ANSWER-7 (10* 1 = 10 MARKS)

- + C
- + D
- + D
- B
- A
- D
- D
- A
- B
- B

ANSWER-8

(2 MARKS X 5 = 10 MARKS)

- 1. <u>Correct:</u> The human resource manager has a significant role to play in developing core competency of the firm. A core competence is a unique strength of an organization which may not be shared by others. Core-competencies can be generated and maintained only through the effective management of human resources and their skills.
- 2. <u>Incorrect:</u> Every company has its own organizational culture. Each has its own business philosophy and principles, its own ways of approaching to the problems and making decisions, its own work climate, work ethics, etc. Therefore, corporate culture is not identical in all organizations. Organizations over a period of time inherit and percolate down its own specific work ethos and approaches.
- 3. <u>Correct</u>: Vision implies the blueprint of the company's future position. It describes where the organization wants to land. It depicts the organisation's aspirations and provides a glimps of what the organization would like to become in future.
- 4. <u>Incorrect:</u> Backward integration is a step towards, creation of effective supply by entering business of input providers. Strategy employed to expand profits and gain greater control over production of a product whereby a company will purchase or build a business that will increase its own supply capability or lessen its cost of production. For example, A large supermarket chain considers to purchase a number of farms that would provide it a significant amount of fresh produce.
- 5. <u>Incorrect:</u> Marketing function and production function complement each other. They need to work in tandem to produce goods as per the needs and preferences of the customers. Marketing links the production with the customers.

ANSWER-9

ANSWER-A

In general, marketing is an activity performed by business organizations. In the present day for business, it is considered to be the activities related to identifying the needs of customers and taking such actions to satisfy them in return of some consideration. The term marketing constitutes different processes, functions, exchanges and activities that create perceived value by satisfying needs of individuals.

Social marketing and service marketing are marketing strategies primarily with different orientations. Social Marketing refers to the design, implementation, and control of programs seeking to increase the acceptability of a social ideas, cause, or practice among a target group. For instance, the publicity campaign for prohibition of smoking or encouraging girl child, etc.

On the other hand, <u>service marketing is applying the concepts, tools, and techniques, of marketing to services.</u> Service is any activity or benefit that one party can offer to another that is essentially intangible and non-perishing. These may be from business to consumer and from business to business.

ANSWER-B

Cost Leadership Strategy

It is a low cost competitive strategy that aims at <u>broad mass market</u>. It requires <u>vigorous</u> <u>pursuit of cost reduction</u> in the areas of procurement, production, storage and distribution of product or service and also economies in overhead costs. A successful cost leadership strategy usually permeates the entire firm, as evidenced by <u>high efficiency</u>, <u>low overhead</u>, <u>limited perks</u>, <u>intolerance of waste</u>, intensive screening of budget requests, wide spans of control, rewards linked to cost containment, and broad employee participation in cost control efforts.

Achieving Cost Leadership Strategy

To achieve cost leadership, following are the actions that could be taken:

- (a) <u>Forecast the demand</u> of a product or service promptly.
- (b) Optimum utilization of the resources to get cost advantages.
- (c) Achieving economies of scale leads to lower per unit cost of product/service.
- (d) <u>Standardization of products</u> for mass production to yield lower cost per unit.
- (e) Invest in **cost saving technologies** and try using advance technology for smart working.
- (f) Resistance to differentiation till it becomes essential.

(2.5 MARKS)

Focus Strategies

Focus strategies are most effective when consumers have <u>distinctive preferences or requirements and when rival firms are not attempting to specialize in the same target segment.</u> Risks of pursuing a focus strategy include the possibility that numerous competitors will recognize the successful focus strategy and copy it, or that consumer preferences will drift toward the product attributes desired by the market as a whole. An organization using a focus strategy may concentrate on a particular group of customers, geographic markets, or on particular product-line segments in order to serve a well-defined but narrow market better than competitors who serve a broader market.

- (a) <u>Focused cost leadership:</u> A focused cost leadership strategy requires competing based on price to target a narrow market. A firm that follows this strategy does not necessarily charge the lowest prices in the industry.
- **Focused differentiation:** A focused differentiation strategy requires offering unique features that fulfill the demands of a narrow market. As with a focused low-cost strategy, narrow markets are defined in different ways in different settings.

Achieving Focused Strategy

To achieve focused cost leadership/differentiation, following are the measures that could be adopted by an organization:

- 1. Selecting specific niches which are not covered by cost leaders and differentiators.
- 2. <u>Creating superior skills</u> for catering to such niche markets.
- 3. **Generating high efficiencies** for serving such niche markets.

4. Developing **innovative ways** in managing the value chain.

(2.5 MARKS)

ANSWER-10

ANSWER-A

<u>Implementation or execution</u> is an operations-oriented, activity aimed at shaping the performance of core business activities in a strategy-supportive manner. In most situations, strategy-execution process includes the following principal aspects:

- <u>Developing budgets</u> that steer ample resources into those activities that are 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.
- <u>Using the best-known practices to perform core business activities</u> 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.
- o Motivating people to pursue the target objectives energetically.
- <u>Creating culture and climate conducive</u> to successful strategy implementation and execution.
- <u>Exerting the internal leadership</u> needed to drive implementation forward and keep improving strategy execution.

(5 MARKS)

ANSWER-B

Yes, strategy is partly proactive and partly reactive. In proactive strategy, organizations will analyze possible <u>environmental scenarios</u> and <u>create strategic framework</u> after proper planning and <u>set procedures and work</u> on these strategies in a predetermined manner. However, in reality no company can forecast both internal and external environment exactly. Everything cannot be planned in advance. It is not possible to anticipate moves of rival firms, consumer behaviour, evolving technologies and so on. There can be <u>significant deviations between what was visualized and what actually happens</u>. Strategies need to be <u>attuned or modified</u> in light of possible environmental changes. There can be significant or major strategic changes when the environment demands. Reactive strategy is triggered by the changes in the environment and provides ways and means to cope with the negative factors or take advantage of emerging opportunities.

(5 MARKS)

ANSWER-11

ANSWER-A

Expanded (Modern) Marketing Mix:

Typically, all organizations use a combination of 4 Ps in some form or the other. However, the above elements of marketing mix are not exhaustive. It is pertinent to discuss a few more elements that may form part of an organizational marketing mix strategy. They have got more currency in recent years. Growth of services has its own share for the inclusion of newer elements in marketing. A few Ps included later are as follows:

- 1. **People:** all human actors who play a part in delivery of the market offering and thus influence the buyer's perception, namely the firm's personnel and the customer.
- 2. **Process:** the actual procedures, mechanisms and flow of activities by which the product / service is delivered.
- 3. **Physical evidence:** the environment in which the market offering is delivered and where the firm and customer interact.

(5 MARKS)

ANSWER-B

XYZ Ltd. is a sick company with accumulated losses that have eroded its net worth. The multi-product company may analyze its various products to take decisions on the viability of each. The company may consider retrenchment strategy. Retrenchment becomes necessary for coping with hostile and adverse situations in the environment and when any other strategy is likely to be suicidal.

<u>Retrenchment strategy is adopted</u> because of continuous losses and unviability and stability can be ensured by reallocation of resources from unprofitable to profitable businesses.

Retrenchment strategy is followed when an organization substantially reduces the scope of its activity. This is done through an attempt to find out the problem areas and diagnose the causes of the problems. Next, steps are taken to solve the problems. These steps result in different kinds of retrenchment strategies as follows:

<u>Turnaround strategy:</u> If the organization chooses to transform itself into a leaner structure and focuses on ways and means to reverse the process of decline, it adopts a turnaround strategy. It may try to reduce costs, eliminate unprofitable outputs, generate revenue, improve coordination, better control, and so on.

<u>Divestment Strategy:</u> Divestment strategy involves the <u>sale or liquidation of a portion of business, or a major division, profit centre or SBU.</u> Divestment is usually a part of <u>rehabilitation or restructuring plan</u> and is adopted when a turnaround has been attempted but has proved to be unsuccessful.

<u>Liquidation Strategy:</u> In the retrenchment strategy, the most <u>extreme and unattractive is liquidation strategy.</u> It involves <u>closing down a firm and selling its assets</u>. It is considered as the last resort because it leads to serious consequences such as loss of employment for

workers and other employees, termination of opportunities where a firm could pursue any future activities, and the stigma of failure.

The management of multiproduct sick company manufacturing various items need to understand pros and cons of each strategic option. The decision will depend upon the specific circumstances of each product and management goals of the company.

(5 MARKS)

ANSWER-12

ANSWER-A

A strategy audit is an examination and evaluation of areas affected by the operation of a strategic management process within an organization. The audit of management performance with regard to its strategies helps an organization identify problem areas and correct the strategic approaches that have not been effective.

Strategy audit is needed under the following conditions:

- When the performance indicators reflect that a strategy is not working properly or is not producing desired outcomes.
- When the goals and objectives of the strategy are not being accomplished.
- When a major change takes place in the external environment of the organization.
- When the top management plans:
 - to fine-tune the existing strategies and introduce new strategies and
 - to ensure that a strategy that has worked in the past continues to be in-tune with subtle internal and external changes that may have occurred since the formulation of strategies.

(4 MARKS)

The difficulties in strategy audit can be explained in terms of following trends:

- A dramatic increase in the environment's complexity.
- The increasing difficulty of predicting the future with accuracy.
- The increasing number of variables in the environment.
- The rapid rate of obsolescence of even the best plans.
- The increase in the number of both domestic and world events affecting organizations.
- The decreasing time span for which planning can be done with any degree of certainty.

(3 MARKS)

ANSWER-B

SWOT analysis is a tool used by organizations for evolving strategic options for the future. The term **SWOT refers to the analysis of strengths, weaknesses, opportunities and threats facing a company.** Strengths and weaknesses are identified in the internal environment, whereas opportunities and threats are located in the external environment.

• <u>Strength:</u> Strength is an <u>inherent capability of the organization</u> which it can use to gain strategic advantage over its competitor.

- <u>Weakness:</u> A weakness is an <u>inherent limitation or constraint</u> of the organization which creates strategic disadvantage to it.
- Opportunity: An opportunity is a <u>favourable condition</u> in the external environment which enables it to strengthen its position.
- <u>Threat:</u> An <u>unfavourable condition</u> in the external environment which causes a risk for, or damage to the organisation's position.

The major purpose of SWOT analysis is to enable the management to create a firm-specific business model that will best align, fit or match an organisational resources and capabilities to the demands for environment in which it operates.

(3 MARKS)