

SUGGESTED SOLUTION

INTERMEDIATE N'19 EXAM

SUBJECT-EIS AND S.M.

Test Code - PIN 5050

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SECTION -A

ANSWER-1

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

ANSWER-1

ANSWER-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 gathering data for salary calculations on monthly basis, etc.

(3 MARKS)

ANSWER-B

Money Laundering is the process by which the proceeds of the crime and the true ownership of those proceeds are concealed or made opaque so that the proceeds appear to come from a legitimate source. The objective in money laundering is to conceal the existence, illegal source, or illegal application of income to make it appear legitimate. Money laundering is commonly used by criminals to make "dirty" money appear "clean" or the profits of criminal activities are made to appear legitimate. **(2 MARKS)**

ANSWER-2

ANSWER-A

Validation Controls: Input validation controls are intended to detect errors in the transaction data before the data are processed. There are three levels of input validation controls:

 Field Interrogation: It involves programmed procedures that examine the characters of the data in the field. The following are some common types of field interrogation. Various field checks used to ensure data integrity have been described below:

- o Limit Check: This is a basic test for data processing accuracy and may be applied to both the input and output data. The field is checked by the program against predefined limits to ensure that no input/output error has occurred or at least no input error exceeding certain pre-established limits has occurred.
- o **Picture Checks:** These checks against entry into processing of incorrect/invalid characters.
- Valid Code Checks: Checks are made against predetermined transactions codes, tables or order data to ensure that input data are valid. The predetermined codes or tables may either be embedded in the programs or stored in (direct access) files.
- o **Check Digit:** One method for detecting data coding errors is a check digit. A check digit is a control digit (or digits) added to the code when it is originally assigned that allows the integrity of the code to be established during subsequent processing. The check digit can be located anywhere in the code, as a prefix, a suffix, or embedded someplace in the middle.
- o **Arithmetic Checks:** Simple Arithmetic is performed in different ways to validate the result of other computations of the values of selected data fields.
- o **Cross Checks:** may be employed to verify fields appearing in different files to see that the result tally.
- Record Interrogation: These are discussed as follows:
 - o **Reasonableness Check:** Whether the value specified in a field is reasonable for that particular field?
 - o **Valid Sign:** The contents of one field may determine which sign is valid for a numeric field.
 - o **Sequence Check:** If physical records follow a required order matching with logical records.
- File Interrogation: These are discussed as follows:
 - Version Usage: Proper version of a file should be used for processing the data correctly.
 In this regard, it should be ensured that only the most current file be processed.
 - o **Internal and External Labeling:** Labeling of storage media is important to ensure that the proper files are loaded for process. Where there is a manual process for loading files, external labeling is important to ensure that the correct file is being processed. Where there is an automated tape loader system, internal labeling is more important.
 - o **Data File Security:** Unauthorized access to data file should be prevented, to ensure its confidentiality, integrity and availability. These controls ensure that the correct file is used for processing.
 - o **Before and after Image and Logging:** The application may provide for reporting of before and after images of transactions. These images combined with the logging of events enable re-constructing the data file back to its last state of integrity, after which the application can ensure that the incremental transactions/events are rolled back or forward.

- o **File Updating and Maintenance Authorization:** Sufficient controls should exist for file updating and maintenance to ensure that stored data are protected. The access restrictions may either be part of the application program or of the overall system access restrictions.
- o **Parity Check:** When programs or data are transmitted, additional controls are needed.

Transmission errors are controlled primarily by detecting errors or correcting codes.

(6 Marks)

ANSWER-B

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 more effectively assess overall capital needs and improve capital allocation.

(4 Marks)

ANSWER-3

ANSWER-A

Limitations of Mobile Computing are as follows:

• Insufficient Bandwidth: Mobile Internet access is generally slower than direct cable connections using technologies such as General Packet Radio Service (GPRS) and Enhanced Data for GSM (Global System for Mobile Communication), 3G and more recently 4G networks. These networks are usually available within range of commercial cell phone towers. Higher speed wireless LANs are inexpensive but have very limited

range.

- Security Standards: When working mobile, one is dependent on public networks, requiring careful use of Virtual Private Network (VPN). Security is a major concern while concerning the mobile computing standards on the fleet. One can easily attack the VPN through a huge number of networks interconnected through the line.
- Power consumption: When a power outlet or portable generator is not available, mobile computers must rely entirely on battery power. Combined with the compact size of many mobile devices, this often means unusually expensive batteries must be used to obtain the necessary battery life. Mobile computing should also consider Greener IT in such a way that it saves the power or increases the battery life.
- ◆ **Transmission interferences:** Weather, terrain, and the range from the nearest signal point can all interfere with signal reception. Reception in tunnels, some buildings, and rural areas is often poor.
- Potential health hazards: People who use mobile devices while driving are often distracted from driving are thus assumed more likely to be involved in traffic accidents. Cell phones may interfere with sensitive medical devices. There are allegations that cell phone signals may cause health problems.
- ♦ Human interface with device: Screens and keyboards tend to be small, which may make them hard to use. Alternate input methods such as speech or handwriting recognition require training.

(6 Marks)

ANSWER-B

Some of the advantages of continuous audit techniques are as under:

- ◆ Timely, Comprehensive and Detailed Auditing Evidence would be available more timely and in a comprehensive manner. The entire processing can be evaluated and analyzed rather than examining the inputs and the outputs only.
- ◆ Surprise test capability As evidences are collected from the system itself by using continuous audit techniques, auditors can gather evidence without the systems staff and application system users being aware that evidence is being collected at that particular moment. This brings in the surprise test advantages.
- Information to system staff on meeting of objectives Continuous audit techniques provides information to systems staff regarding the test vehicle to be used in evaluating whether an application system meets the objectives of asset safeguarding, data integrity, effectiveness, and efficiency.
- ◆ Training for new users Using the Integrated Test Facilities (ITF)s, new users can submit data to the application system, and obtain feedback on any mistakes they make via the system's error reports.

(4*1 = 4 Marks)

ANSWER-4

ANSWER-A

Business Reporting is defined as the public reporting of operating and financial data by a business enterprise, or the regular provision of information to decision-makers within an organization to support them in their work. This reporting process involves querying data sources with different logical models to produce a human readable report - for example, a computer user must query the Human Resources databases and the Capital Improvements databases to show how efficiently space is being used across an entire corporation.

Through reporting, organizations communicate with their stakeholders about:

- mission, vision, objectives, and strategy;
- governance arrangements and risk management;
- trade-offs between the shorter- and longer-term strategies; and
- financial, social, and environmental performance (how they have fared against their objectives in practice).

The need of Business Reporting is for following reasons:

- Effective and transparent business reporting allows organizations to present a cohesive explanation of their business and helps them engage with internal and external stakeholders, including customers, employees, shareholders, creditors, and regulators.
- High-quality business reporting is at the heart of strong and sustainable organizations, financial markets, and economies, as this information is crucial for stakeholders to assess organizational performance and make informed decisions with respect to an organization's capacity to create and preserve value.
- Many organizations are increasingly complex, and have larger economic, environmental, and social footprints. Thus, various stakeholder groups require ESG (Environmental, Social and Governance) information, as well as greater insight into how these factors affect financial performance and valuations.
- High-quality reports also promote better internal decision-making. High-quality information is integral to the successful management of the business, and is one of the major drivers of sustainable organizational success.

(6 Marks)

ANSWER-B

Internal Control System: Internal Control System means all the policies and procedures adopted by the management of an entity to assist in achieving management's objective of ensuring, as far as practicable, the orderly and efficient conduct of its business, including adherence to management policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information. An Internal Control System:

- facilitates the effectiveness and efficiency of operations.
- helps ensure the reliability of internal and external financial reporting.
- assists compliance with applicable laws and regulations.
- helps safeguarding the assets of the entity.

Limitations of Internal Control System are as follows:

- The fact that most internal controls do not tend to be directed at transactions of unusual nature. The potential for human error, such as, due to carelessness, distraction, mistakes of judgement and misunderstanding of instructions.
- The possibility of circumvention of internal controls through collusion with employees or with parties outside the entity.
- The possibility that a person responsible for exercising an internal control could abuse that responsibility, for example, a member of management overriding an internal control.
- Manipulations by management with respect to transactions or estimates and judgements required in the preparation of financial statements.

(4 Marks)

ANSWER-5

ANSWER-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 or procured:** CBS solutions used to be earlier developed inhouse 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.
- **Updation:** 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.

Fundamentally, in a CBS, all the bank's branches access applications from centralized data-centers. All transactions are routed through core systems, which are available 24x7 and accessible from anywhere, anytime and through multiple devices such as desktops, laptops, ATM, Internet, mobile phone, tablets, etc.

(5 MARKS)

ANSWER-B

The most suitable choice is **Community Cloud** which is the cloud infrastructure provisioned for exclusive use by a specific community of consumers from organizations that have shared concerns (eg. mission security requirements, policy, and compliance considerations). It may be owned, managed, and operated by one or more of the organizations in the community, a third party or some combination of them, and it may exist on or off premises. In this, a private cloud is shared between several organizations. This model is suitable for organizations that cannot afford a private cloud and cannot rely on the public cloud either.

Advantages of Community Cloud are as follows:

- It allows establishing a low-cost private cloud.
- It allows collaborative work on the cloud.
- It allows sharing of responsibilities among the organizations.
- It has better security than the public cloud.

The **limitation of the Community Cloud** is that the autonomy of the organization is lost and some of the security features are not as good as the private cloud. It is not suitable in the cases where there is no collaboration.

(5 Marks)

SECTION-B

ANSWER-1 (15*1 = 15 MARKS)

- 1. C
- 2. A
- 3. B
- 4. C
- 5. C
- 6. D
- **7.** B
- 8. B
- 9. D
- 10.D
- 11.B
- 12. A

- 13. A
- 14. A
- 15. A

ANSWER-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.

(5 Marks)

ANSWER-3

ANSWER-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.

(5 Marks)

ANSWER-B

Shree can opt for turnaround strategy which is a highly-targeted effort to return the company to profitability and increase positive cash flows to a sufficient level. Organizations those have faced a significant crisis that has negatively affected operations require turnaround strategy. Once turnaround is successful the organization may turn to focus on growth.

Conditions for turnaround strategies

When firms are losing their grips over market, profits due to several internal and external factors, and if they have to survive under the competitive environment they have to identify

danger signals as early as possible and undertake rectification steps immediately. These conditions may be, inter alia cash flow problems, lower profit margins, high employee turnover and decline in market share, capacity underutilization, low morale of employees, recessionary conditions, mismanagement, raw material supply problems and so on.

Action plan for turnaround strategy

- Stage One Assessment of current problems
- Stage Two Analyze the situation and develop a strategic plan
- Stage Three Implementing an emergency action plan
- Stage Four Restructuring the business
- Stage Five Returning to normal

(5 Marks)

ANSWER-4

ANSWER-A

Mr Dutta should adopt business process reengineering (BPR). It is an approach to unusual improvement in operating effectiveness through the redesigning of critical business processes and supporting business systems. It is revolutionary redesign of key business processes that involves examination of the basic process itself. BPR refers to the analysis and redesign of workflows and processes both within the organization and between the organization and the external entities like suppliers, distributors, and service providers.

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.
- iv. **Formulate a redesign process plan:** Formulation of redesign plan is the real crux of the reengineering efforts. Customer focussed 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.

(5 Marks)

ANSWER-B

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

(5 Marks)

ANSWER-5

ANSWER-A

A strategic group consists of those rival firms which have similar competitive approaches and positions in the market. Companies in the same strategic group can resemble one another in any of the several ways — have comparable product-line breadth, same price/quality range, same distribution channels, same product attributes, identical technological approaches, offer similar services and technical assistance and so on.

The procedure for constructing a strategic group map and deciding which firms belong in which strategic group is as follows:

- Identify the competitive characteristics that differentiate firms in the industry typical variables are price/quality range (high, medium, low); geographic coverage (local, regional, national, global); degree of vertical integration (none, partial, full); product- line breadth (wide, narrow); use of distribution channels (one, some, all); and degree of service offered (no-frills, limited, full).
- ♦ Plot the firms on a two-variable map using pairs of these differentiating characteristics.
- Assign firms that fall in about the same strategy space to the same strategic group.
- Draw circles around each strategic group making the circles proportional to the size of the group's respective share of total industry sales revenues.

(5 Marks)

ANSWER-B

Strategic management involves developing the company's vision, environmental scanning, strategy formulation, implementation, evaluation and control. It emphasises the monitoring and evaluation of external opportunities and threats in the light of a company's strengths and weaknesses and designing strategies for the survival and growth. It helps in creation of competitive advantage to outperform the competitors and also guide the company successfully through all changes in the environment.

The major benefits of strategic management are:

- Strategic management gives a direction to the company to move ahead. It defines the goals and mission.
- It helps organizations to be proactive instead of reactive in shaping its future.
- ♦ It provides framework for all major decisions of an enterprise such as decisions on businesses, products, markets, manufacturing facilities, investments and organizational structure. It provides better guidance to entire organisation on the crucial point what it is trying to do.
- It helps organisations to identify the available opportunities and identify ways and means to achieve them.
- ♦ It serves as a corporate defence mechanism against mistakes and pitfalls.
- It helps to enhance the longevity of the business.
- It helps the organisation to develop certain core competencies and competitive advantages that would facilitate survival and growth.

(5 Marks)

ANSWER-6

ANSWER-A

Multidivisional (M-form) structure is composed of operating divisions where each division represents a separate business to which the top corporate officer delegates responsibility for day-to-day operations and business unit strategy to division managers. By such delegation, the corporate office is responsible for formulating and implementing overall corporate strategy and manages divisions through strategic and financial controls.

Multidivisional or M-form structure was developed in the 1920s, in response to coordinationand control-related problems in large firms. Functional departments often had difficulty dealing with distinct product lines and markets, especially in coordinating conflicting priorities among the products.

Costs were not allocated to individual products, so it was not possible to assess an individual product's profit contribution. Loss of control meant that optimal allocation of firm resources between products was difficult (if not impossible). Top managers became over - involved in solving short-run problems (such as coordination, communications, conflict resolution) and neglected long-term strategic issues. Multidivisional structure calls for:

- Creating separate divisions, each representing a distinct business.
- ♦ Each division would house its functional hierarchy.
- ◆ Division managers would be given responsibility for managing day-to-day operations.

A small corporate office that would determine the long-term strategic direction of the firm and exercise overall financial control over the semi-autonomous divisions.

(5 Marks)

ANSWER-B

Successful strategy implementation often requires additional capital. Besides net profit from operations and the sale of assets, two basic sources of capital for an organization are debt and equity. Being a financial manager to determine an appropriate mix of debt and equity in a firm's capital structure can be vital to successful strategy implementation. Fixed debt obligations generally must be met, regardless of circumstances. This does not mean that stock issuances are always better than debt for raising capital. If ordinary stock is issued to finance strategy implementation; ownership and control of the enterprise are diluted. This can be a serious concern in today's business environment of hostile takeovers, mergers, and acquisitions.

The major factors regarding which strategies have to be made by a financial manager are: capital structure; procurement of capital and working capital borrowings; reserves and surplus as sources of funds; and relationship with lenders, banks and financial institutions. Strategies related to the sources of funds are important since they determine how financial resources will be made available for the implementation of strategies. Organizations have a range of alternatives regarding the sources of funds. While one company may rely on external borrowings, another may follow a policy of internal financing.

(5 Marks)