(GI-7, VI-VDI-SI-3)

DATE: 08.03.20212   **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.   Ans. b
2.   Ans. a
3.   Ans. a
4.   Ans. b
5.   Ans. a
6.   Ans. a
7.   Ans. d
8.   Ans. b   **{1 M each}**
9.   Ans. a
10.   Ans. c
11.   Ans. b
12.   Ans. d
13.   Ans. c
14.   Ans. c
15.   Ans. b

Answer 2:
(a)   Internal Controls in Banks
Risks are mitigated by implementing internal controls as appropriate to the business environment. These types of controls must be integrated in the IT solution implemented at the bank's branches. Some examples of internal controls in bank branch are given here:

- 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.
- 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 anauthorized official.
- 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, traveler's cheques and other such security forms are in the custody of at least two officials of the branch.

**(1/2 Mark for any 5 Point)**

(b)   IT Controls in Banks
IT risks need to be mitigated by implementing the right type and level of controls in the automated environment. This is done by integrating controls into IT. Sample list of IT related controls are:

- The system maintains a record of all log-ins and log-outs.
  If the transaction is sought to be posted to a dormant (or inoperative) account, the processing is halted and can be proceeded with only with a supervisory password.
- The system checks whether the amount to be withdrawn is within the drawing power.
- The system flashes a message if the balance in a lien account would fall below the lien amount after the processing of the transaction.
- Access to the system is available only between stipulated hours and specified days only.
- Individual users can access only specified directories and files. Users should be given access only on a "need-to-know basis" based on their role in the bank. This is applicable for internal users of the bank and customers.
- Exception situations such as limit excess, reactivating dormant accounts, etc. can be handled only with a valid supervisory level password.
- A user timeout is prescribed. This means that after a user logs-in and there is no activity for a pre-determined time, the user is automatically logged- out of the system.
- Once the end-of-the-day process is over, the ledgers cannot be opened without a supervisory level password.

(1/2 M for any 5 Point)

Answer 3:

(a) The variables are defined as follows:

C = Code No;   Val_Spl = Value of Supply;
T_It = Types of Item   N = Counter; Cal_Tax = Calculated Tax after GST
The required flowchart is as below:
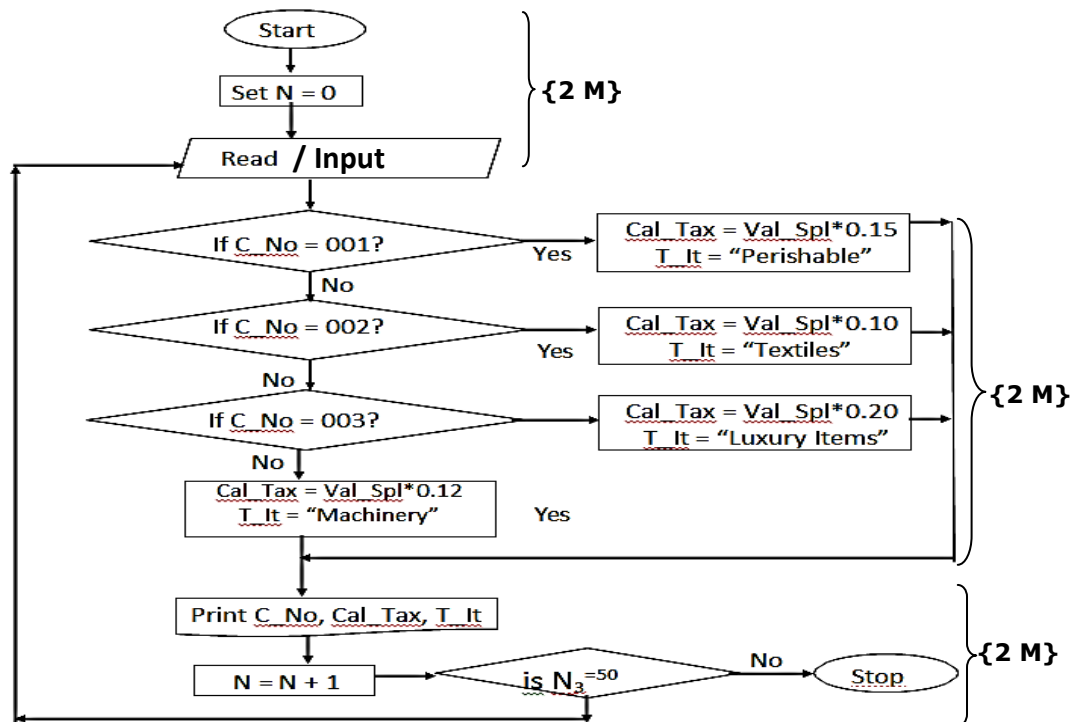
Answer:

(b) From the perspective of e-commerce in India, the IT Act, 2000 and its provisions contain many positive aspects which are asfollows:

♦ The implications for the e-businesses is that email is now a valid and legal form of communication in India that can be duly produced and approved inacour to flaw.

♦ Companies shall now be able to carry out electronic commerce using the legal infrastructure provided by the Act.

♦ Digital Signatures have been given legal validity and sanction in the Act.

♦ The Act throws open the doors for the entry of corporate companies in the business of being Certifying Authorities for issuing Digital Signatures Certificates.

♦ The Act allows Government to issue notification on the web thus heralding e-governance.

♦ The Act enables the companies to file any form, application or any other document with any office, authority, body or agency owned or controlled by the appropriate Government in electronic form by means of such electronic form as may be prescribed by the appropriate Government.

♦ The IT Act also addresses the important issues of security, which are so critical to the success of electronic transactions.

♦ The Act has given a legal definition to the concept of secure digital signatures that would be required to have been passed through a system of a security procedure, as stipulated by the Government at a later date.

Under the IT Act, 2000, it shall now be possible for corporates to have a statutory remedy in case if anyone breaks into their computer systems or network and causes damages or copies data. The remedy provided by the Act is in the form of monetary damages, not exceeding Rs.1 crore.

(1 M for any 4 point)

Answer 4:

(a)   Some of the new methods of Digital Payments are as follows:

- Unified Payment Interface (UPI) Apps
- Immediate Payment Service (IMPS)
- BHIM (Bharat Interface for Money) - Mobile App
- Mobile Wallets
- Aadhar Enabled Payment Service(AEPS)
- Unstructured Supplementary Service Data (USSD)
- The explanation of these Digital

Payments is as follows:

(i) **Unified Payment Interface (UPI):** UPI is a payment mode which is used to make fund transfers through the mobile app. UPI App is a system that powers multiple bank accounts of participating banks, several banking services features like fund transfer, and merchant payments in a single mobile application. User can transfer funds between two accounts using UPI Apps. User must register for mobile banking to use UPI apps.

(ii) **Immediate Payment Service (IMPS):** It is an instant interbank electronic fund transfer service through mobile phones. It is also being extended through other channels such as ATM, Internet Banking, etc.

(iii) **Mobile Apps:** BHIM (Bharat Interface for Money) is a Mobile App developed by National Payments Corporation of India (NPCI) based on UPI (Unified Payment Interface). It facilitates e-payments directly through banks and supports all Indian banks which use that platform. It is built on the Immediate Payment Service infrastructure and allows the user to instantly transfer money between the bank accounts of any two parties. BHIM works on all mobile devices and enables users to send or receive money to other UPI payment addresses.

(1 M each 6 point)

(iv) **Mobile Wallets:** It is defined as Virtual wallets that stores payment card information on a mobile device. Mobile Wallets provide a convenient way for a user to make-in- store payments and can be used that merchants listed with the mobile wallet service providers. There are mobile wallets like Paytm, Freecharge, Buddy, Mobikwik etc. Some of these are owned by banks and some are owned by private companies.

(v) **Aadhar Enabled Payment Service(AEPS):** AEPS is an Aadhaar based digital payment mode. Customer needs only his or her Aadhaar number to pay to any merchant. AEPS allows bank to bank transactions which means the money that you pay will be deducted from your account and credited to the payee's account directly. Customers will need to link their AADHAR numbers to their bank accounts. APES once launched can be used at POS terminals also.

(vi) **Unstructured Supplementary Service Data(USSD):** A revolutionary idea, where to make payments through mobiles there is neither need for internet nor any smart phone. USSD banking or *99# Banking is a mobile banking based digital payment mode. User does not need to have a smartphone or internet connection to use USSD banking. S/he can easily use it with any normal feature phone. USSD banking is as easy as checking of mobile balance. S/he can use this service for many financial and non-financial operations such as checking balance, sending money, changing Mobile Banking Personal Identification number (MPIN) and getting Mobile Money Identifier (MMID).

Answer:

(b) **Preventive Controls:** These controls prevent errors, omissions, or security incidents from occurring. **{1 M}**

Examples include simple data-entry edits that block alphabetic characters from being entered in numeric fields, access controls that protect sensitive data/ system resources from unauthorized people, and complex and dynamic technical controls such as anti virus software, firewalls, and intrusion prevention systems. In other words, Preventive Controls are those inputs, which are designed to prevent an error, omission or malicious act occurring. Some of the examples of Preventive Controls are as follows:

Any control can be implemented in both manual and computerized environment for the same purpose. Only, the implementation methodology may differ from one environment to the other. Some of the examples of preventive controls can be Employing qualified personnel; Segregation of duties; Access control; Vaccination against diseases; Documentation; Prescribing appropriate books for a course; Training and retraining of staff; Authorization of transaction; Validation, edit checks in the application; Firewalls; Anti-virus software (sometimes this acts like a corrective control also), etc., and Passwords. The above list contains both of manual and computerized, preventive controls. **{3 M}**

Answer 5:

(a) An **Operating System (OS)** is a set of computer programs that manages computer hardware resources and acts as an interface with computer applications programs. The operating system is a vital component of the system software in a computer system. Application programs usually require an operating system to function that provides a convenient environment to users for executing their programs. Computer hardware with operating system can thus be viewed as an extended machine, which is more powerful and easy to use. Some prominent Operating systems used nowadays are Windows 7, Windows 8, Linux, UNIX, etc. **{1 M}**

All computing devices run an operating system. For personal computers, the most popular operating systems are Microsoft's Windows, Apple's OS X, and different versions of Linux. Smart phones and tablets run operating systems as well, such as Apple's iOS, Google Android, Microsoft's Windows Phone OS, and Research in Motion's Blackberry OS.

A variety of activities are executed by Operating systems which include:

- **Performing hardware functions:** Application programs to perform tasks must obtain input from keyboards, retrieve data from disk & display output on monitors. Achieving all this is facilitated by operating system. Operating system acts as an intermediary between the application program and the hardware.
- **User Interfaces:** An important function of any operating system is to provide user interface. If we remember DOS days, it had a command based User Interface (UI) i.e. text commands were given to computer to execute any command. But today we are more used to Graphic User Interface (GUI) which uses icons & menus like in the case of Windows. So, how we interface with our system will be provided by Operating system.
- **Hardware Independence:** Every computer could have different specifications and configurations of hardware. If application developer would have to rewrite code for every configuration s/he would be in a big trouble. Fortunately, we have operating system, which provides Application Program Interfaces (API), which can be used by application developers to create application software, thus obviating the need to understand the inner workings of OS and hardware. Thus, OS gives us hardware independence.
- **Memory Management:** Memory Management features of Operating System allow controlling how memory is accessed and maximize available memory & storage. Operating systems also provides Virtual Memory by carving an area of hard disk to supplement the functional memory capacity of RAM. In this way, it augments memory by creating a virtual RAM.
- **Task Management:** Task Management feature of Operating system helps in allocating resources to make optimum utilization of resources. This facilitates a user to work with more than one application at a time i.e. multitasking and allows more than one user to use the system i.e. time sharing.
- **Networking Capability:** Operating systems can provide systems with features & capabilities to help connect computer networks. Like Linux & Windows 8 give us an excellent capability to connect to internet.
- **Logical Access Security:** Operation systems provide logical security by establishing a procedure for identification & authentication using a User ID and Password. It can log the user access thereby providing security control.
- **File management:** The operating system keeps a track of where each file is stored and who can access it, based on which it provides the file retrieval.

(1 M for any 5 point)

Answer :

(b) Types of Business Risks

Businesses face all kinds of risks related from serious loss of profits to even bank ruptcy and are discussed below:

- Strategic
  Risk that would prevent an organization from accomplishing its objectives (meeting its goals).
- Financial
  Risk that could result in a negative financial impact to the organization (waste or loss of assets).

(1 M for any 4 point)

♦   Regulatory (Compliance)
      Risk that could expose the organization to fines and penalties from a regulatory agency due to non-compliance with laws and regulations.
♦   Reputational
      Risk that could expose the organization to negative publicity.
♦   Operational
      Risk that could prevent the organization from operating in the most effective and efficient manner or be disruptive to other operations.

Answer 6:

(a) Material Management (MM) Module manages materials required, processed and produced in enterprises. Different types of procurement processes are managed with th is system. Some of the popular sub-components in MM module are vendor master data, consumption based planning, purchasing, inventory management, invoice verification and so on. Material management also deals with movement of materials via other modules like logistics, Supply Chain Management, sales and delivery, warehouse management, production and planning. The overall purchase process includes the following sub-processes: **{1 M}**

- **Purchase Requisition from Production Department –** Production department sends a request to purchase department for purchase of raw material required for production.
- **Evaluation of Requisition -** Purchase department shall evaluate the requisition with the current stock position and purchase order pending position and shall decide about accepting or rejection the requisition.
- **Asking for Quotation -** If requisition is accepted, quotations shall be asked to approve vendors for purchase of material.
- **Evaluation of quotations -** Quotations received shall be evaluated and compared.
- **Purchase Order -** This is a transaction for letting an approved vendor know what we want to purchase, how much we want to purchase, at what rate we want to purchase, by what date we want the delivery, where we want the delivery. Hence a typical purchase order shall have following information.
  - o Description of **stock items** to be purchased.
  - o **Quantity** of these stock items.
  - o **Rate** for purchases.
  - o **Due Date** by which material is to be received.
  - o **Godown** where material is to be received.
- **Material Receipt -** This is a transaction of receipt of material against purchase order. This is commonly known as Material Receipt Note (MRN) or Goods Receipt Note (GRN). This transaction shall have a linking with Purchase Order. Information in Purchase Order is automatically copied to Material Receipt Voucher for saving time and effort sofuser. Stock is increase dafter recording of this transaction.
- **Issue of material -** Material received by stores shall be issued to production department as per requirement.
- **Purchase Invoice -** This is a financial transaction. Trial balance is affected due this transaction. Material Receipt transaction does not affect trial balance. This transaction shall have a linking with Material Receipt Transaction and all the details of material received shall be copied automatically in purchase invoice. As stock is increased in Material Receipt transaction, it will not be increased again after recording of purchase invoice.

(1 M for any 5 point)

- **Payment to Vendor -** Payment shall be made to vendor based on purchase invoice recorded earlier. Payment transaction shall have a linking with purchase invoice.

Answer :

(b) Some of the important characteristics of Computer Based Information Systems are given as follows:

- All systems work for predetermined objectives and the system is designed and developed accordingly.
- In general, a system has several interrelated and interdependent subsystems or components. No subsystem can function in isolation; it depends on other subsystems for its inputs.
- If one subsystem or component of a system fails; in most of the cases, the whole system does not work. However, it depends on 'how the subsystems are interrelated'.
- The way a subsystem works with another subsystem is called interaction. The different subsystems interact with each other to achieve the goal of the system.
- The work done by individual subsystems is integrated to achieve the central goal of the system. The goal of individual subsystem is of lower priority than the goal of the entire system.

(1 M for any 4 point)

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

Answer 7:

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

Answer 8:

Yes, strategy is partly proactive and partly reactive. In proactive strategy, organizations will analyze possible environmental scenarios and create strategic framework after proper planning and set procedures and work on these strategies in a predetermined manner. **{2 M}**

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 significant deviations between what was visualized and what actually happens. Strategies need to be attuned or modified in the 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. **{3 M}**

Answer 9:

(a) A strategy manager has many different leadership roles to play: visionary, chief entrepreneur and strategist, chief administrator, culture builder, resource acquirer and allocator, capabilities builder, process integrator, crisis solver, spokesperson, negotiator, motivator, arbitrator, policy maker, policy enforcer, and head cheerleader. Managers have five leadership roles to play in pushing for good strategy execution: **{1 M for each valid point}**

1. Staying on top of what is happening, closely monitoring progress, working through issues and obstacles.
2. Promoting a culture that mobilizes and energizes organizational members to execute strategy and perform at a high level.

3. Keeping the organization responsive to changing conditions, alert for new opportunities and remain ahead of rivals in developing competitively valuable competencies and capabilities.
4. Ethical leadership and insisting that the organization conduct its affairs like a model corporate citizen.
5. Pushing corrective actions to improve strategy execution and overall strategic performance.

Answer:

(b) Benchmarking is an approach of setting goals and measuring productivity of firms based on best industry practices or against the products, services and practices of its competitors or other acknowledged leaders in the industry. It developed out of need to have information against which performance can be measured. Benchmarking helps businesses in improving performance by learning from the best practices and the processes by which they are achieved. Thus, benchmarking is a process of continuous improvement in search for competitive advantage. Firms can use benchmarking practices to achieve improvements in diverse range of management functions like product development, customer services, human resources management, etc. **{2 M}**

The various steps in Benchmarking Process are as under:

(i) 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. **{1/2 M}**

(ii) Clearly understanding existing decisions processes: The step will involve compiling information and data on performance. **{1/2 M}**

(iii) Identify best processes: Within the selected framework best processes are identified. These may be within the same organization or external to them. **{1/2 M}**

(iv) 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. **{1/2 M}**

(v) 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. **{1/2 M}**

(vi) 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. They also periodically evaluate and reset the benchmarks in the light of changes in the conditions that impact the performance. **{1/2 M}**

Answer 10:

(a) Through SWOT analysis organisations identify their strengths, weaknesses, opportunities and threats. While conducting the SWOT Analysis managers are often not able to come to terms with the strategic choices that the outcomes demand. Heinz Weihrich developed a matrix called TOWS matrix by matching strengths and weaknesses of an organization with the external opportunities and threats. The incremental benefit of the TOWS matrix lies in systematically identifying relationships between these factors and selecting strategies on their basis. The matrix is outlined below: **{1 M}**

TOWS Matrix

{1 M}
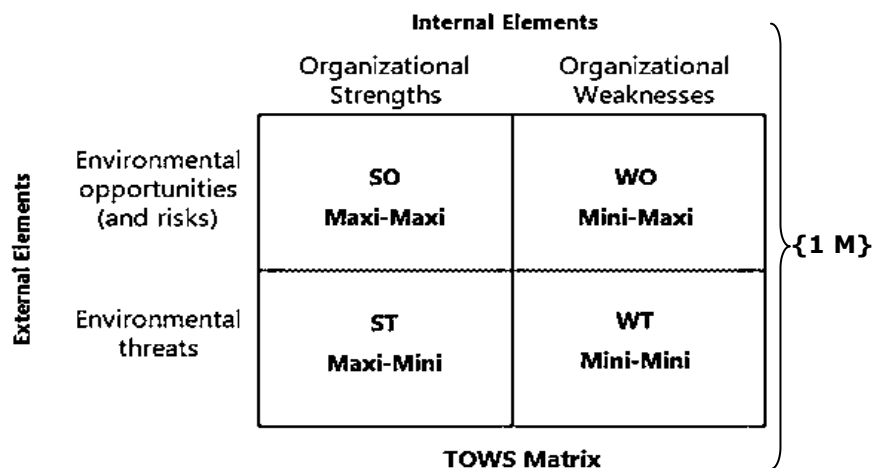
The TOWS Matrix is tool for generating strategic options. Through TOWS matrix four distinct alternative kinds of strategic choices can be identified.

SO (Maxi-Maxi): SO is a position that any firm would like to achieve. The strengths can be used to capitalize or build upon existing or emerging opportunities. Such firms can take lead from their strengths and utilize the resources to build up the competitive advantage.

{1 M}

ST (Maxi-Mini): ST is a position in which a firm strives to minimize existing or emerging threats through its strengths.

WO (Mini-Maxi): The firm needs to overcome internal weaknesses and make attempts to exploit opportunities to maximum.

{1 M}

WT (Mini-Mini): WT is a position that any firm will try to avoid. A firm facing external threats and internal weaknesses may have to struggle for its survival. WT strategy is a strategy which is pursued to minimize or overcome weaknesses and as far as possible, cope with existing or emerging threats.

{1 M}

Answer:
(b)   The Ansoff's product market growth matrix (proposed by Igor Ansoff) is an useful tool that helps businesses decide their product and market growth strategy. With the use of this matrix, a business can get a fair idea about how its growth depends upon its markets in new or existing products in both new and existing markets.
The Ansoff's product market growth matrix is as follows:

Ansoff's Product Market Growth Matrix

{2 M}
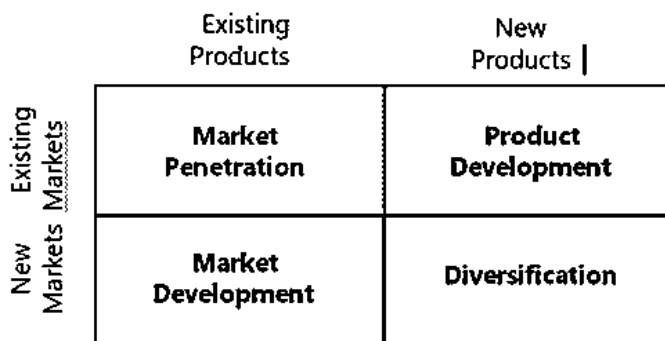
Based on the matrix, Aurobindo may segregate its different products. Being in pharmaceuticals, development of new products is result of extensive research and involves huge costs. There are also social dimensions that may influence the decision of the company. It can adopt penetration, product development, market development or diversification simultaneously for its different products.

Market penetration refers to a growth strategy where the business focuses on selling existing products into existing markets. It is achieved by making more sales to present customers without changing products in any major way. Market development 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 the existing products of the company. Product development is 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. Diversification refers to a growth strategy where a business markets new products in new markets. It is a strategy by starting up or acquiring businesses outside the company's current products and markets. {3 M}

As market conditions change overtime, a company may shift product-market growth strategies. For example, when its present market is fully saturated a company may have no choice other than to pursue new market.

Answer 11:

(a) Human resource management has been accepted as a strategic partner in the formulation of organization's strategies and in the implementation of such strategies through human resource planning, employment, training, appraisal and reward systems. The following points should be kept in mind as they can have a strong influence on employee competence: {1 M}

   i.   Recruitment and selection: The workforce will be more competent if a firm can successfully identify, attract, and select highly competent applicants.

   ii.   Training: The workforce will be more competent if employees are well trained to perform their jobs properly. {1 M}

   iii.   Appraisal of performance: The performance appraisal is to identify any performance deficiencies experienced by employees due to lack of competence. Such deficiencies, once identified, can often be solved through counselling, coaching or training. {2 M}

   iv.   Compensation: A firm can usually increase the competency of its workforce by offering pay, benefits and rewards that are not only attractive than those of their competitors but also recognizes merit. {1 M}

Answer:

(b) **Meaning of Supply Chain management:** The term supply chain refers to the linkages between suppliers, manufacturers and customers. Supply chains involve all activities like sourcing and procurement of material, conversion, and logistics. Planning and control of supply chains are important components of its management. Naturally, management of supply chains include closely working with channel partners – suppliers, intermediaries, other service providers and customers.

Supply chain management is defined as the process of planning, implementing, and controlling the supply chain operations. It is a cross-functional approach to managing the movement of raw materials into an organization and the movement of finished goods out of the organization toward the end-consumer who are to be satisfied as efficiently as possible. It encompasses all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption. Organizations are finding that they must rely on the chain to successfully compete in the global market. {2¹/² M}

Modern organizations are striving to focus on core competencies and reduce their ownership of sources of raw materials and distribution channels. These functions can be outsourced to other business organizations that specialize in those activities and can perform in better and cost effective manner. In a way organizations in the supply chain do tasks according to their core-competencies. Working in the supply chain improve trust and collaboration amongst partners and thus improve flow and management of inventory.

Is logistic management same as supply chain management? Supply chain management is an extension of logistic management. However, there is difference between the two. Logistical activities typically include management of inbound and outbound goods, transportation, warehousing, handling of material, fulfilment of orders, inventory management, supply/demand planning. Although these activities also form part of Supply chain management, the latter has different components. Logistic management can be termed as one of its part that is related to planning, implementing, and controlling the movement and storage of goods, services and related information between the point of origin and the point of consumption. $\{2^{1/2}$ M$\}$

Supply chain management includes more aspects apart from the logistics function. It is a tool of business transformation and involves delivering the right product at the right time to the right place and at the right price. It reduces costs of organizations and enhances customer service.

Answer 12:

(a) Divestment strategy involves the sale or liquidation of a portion of business, or a major division, profit centre or SBU. For a multiple product company, divestment could be a part of rehabilitating or restructuring plan called turnaround. $\{1$ M$\}$

A divestment strategy may be adopted due to various reasons:

$\{1$ M for each valid point max 4 mark$\}$

- When a turnaround has been attempted but has proved to be unsuccessful.
- A business that had been acquired proves to be a mismatch and cannot be integrated within the company.
- Persistent negative cash flows from a particular business create financial problems for the whole company.
- Severity of competition and the inability of a firm to cope with it.
- Technological upgradation is required if the business is to survive but where it is not possible for the firm to invest in it.
- A better alternative may be available for investment.

Answer:

(b) Cost leadership emphasizes producing standardized products at a very low per- unit cost for consumers who are price-sensitive. Differentiation is a strategy aimed at producing products and services considered unique industry wide and directed at consumers who are relatively price-insensitive.

A primary reason for pursuing forward, backward, and horizontal integration strategies is to gain cost leadership benefits. But cost leadership generally must be pursued in conjunction with differentiation. $\{2^{1/2}$ M$\}$

Different strategies offer different degrees of differentiation. A differentiation strategy should be pursued only after a careful study of buyers' needs and preferences to determine the feasibility of incorporating one or more differentiating features into a unique product. A successful differentiation strategy allows a firm to charge a higher price for its product and to gain customer loyalty. $\{2^{1/2}$ M$\}$

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