SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- EIS AND S.M.

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SECTION –A : ENTERPRISE INFORMATION SYSTEM (50 MARKS)

ANSWER-1

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

ANSWER-1

ANSWER-A

The key functions of Reserve Bank of India (RBI) are as follows:

i. **Monetary Authority:** This function formulates, implements and monitors the monetary policy with the objective of maintaining price stability and ensuring adequate flow of credit to productive sectors.

ii. **Regulator and supervisor of the financial system:** It prescribes broad parameters of banking operations within which the country's banking and financial system functions with the objective of maintaining public confidence in the system, protect depositors' interest and provide cost- effective banking services to the public.

iii. **Issuer of currency:** It deals with issuing and exchanging or destroying currency and coins not it for circulation with the objective to give the public adequate quantity of supplies of currency notes and coins and in good quality.

(3*1 = 3 MARKS)

ANSWER-B

The inherent risks involved in Business Process Automation (BPA) are classified as below:

- **Input & Access:** All input transaction data may not be accurate, complete and authorized.
- **File & Data Transmission:** All files and data transmitted may not be processed accurately and completely, due to network error.
- **Processing:** Valid input data may not have been processed accurately and completely due to program error or bugs.
- **Output:** IT may not be complete and accurate due to program error or bugs and is distributed to unauthorized personnel due to weak access control.
- **Data:** Master data and transaction data may be changed by unauthorized personnel due to weak access control.
- **Infrastructure:** All data and programs could be lost if there is no proper backup in the event of a disaster and the business could come to a standstill.

(2 MARKS)

ANSWER-2

ANSWER-A

The protection of an organization from harmful elements can be achieved through the following Network Access Controls:

i. **Policy on use of network services:** An enterprise wide policy applicable to internet service requirements aligned with the business need for using the Internet services is the first step. Selection of appropriate services and approval to access them should be part of this policy.

ii. **Enforced path:** Based on risk assessment, it is necessary to specify the exact path or route connecting the networks; e.g. internet access by employees will be routed through a firewall and proxy.

iii. **Segregation of networks:** Based on the sensitive information handling function; say a Virtual Private Network (VPN) connection between a branch office and the head- office, this network is to be isolated from the internet usage service.

iv. **Network connection and routing control:** The traffic between networks should be restricted, based on identification of source and authentication access policies implemented across the enterprise network facility.

v. **Security of network services:** The techniques of authentication and authorization policy should be implemented across the organization's network.

vi. **Firewall:** A Firewall is a system that enforces access control between two networks. To accomplish this, all traffic between the external network and the organization's Intranet must pass through the firewall that will allow only authorized traffic between the organization and the outside to pass through it. The firewall must be immune to penetrate from both outside and inside the organization.

vii. **Encryption:** Encryption is the conversion of data into a secret code for storage in databases and transmission over networks. The sender uses an encryption algorithm with a key to convert the original message called the Clear text into Cipher text. This is decrypted at the receiving end.

viii. **Call Back Devices:** It is based on the principle that the key to network security is to keep the intruder off the Intranet rather than imposing security measure after the criminal has connected to the intranet. The call- back device requires the user to enter a password and then the system breaks the connection. If the caller is authorized, the call back device dials the caller's number to establish a new connection. This limit access only from authorized terminals or telephone numbers and prevents an intruder masquerading as a legitimate user. This also helps to avoid the call forwarding and man-in-the middle attack.

(6 MARKS)

ANSWER-B

The risks associated with Bring Your Own Device (BYOD) program are classified as below:

i. **Network Risks:** It is normally exemplified and hidden in 'Lack of Device Visibility'. When company-owned devices are used by all employees within an organization, the organization's IT practice has complete visibility of the devices connected to the network. This helps to analyze traffic and data exchanged over the Internet. As BYOD permits employees to carry their own devices (smart phones, laptops for business use), the IT practice team is unaware about the number of devices being connected to the network. As network visibility is of high importance, this lack of visibility can be hazardous.

ii. **Device Risks:** It is normally exemplified and hidden in 'Loss of Devices'. A lost or stolen device can result in an enormous financial and reputational embarrassment to an organization as the device may hold sensitive corporate information. Data lost from stolen or lost devices ranks as the top security threats as per the rankings released by Cloud Security Alliance. With easy access to company emails as well as corporate intranet, company trade secrets can be easily retrieved from a misplaced device.

iii. **Application Risks:** It is normally exemplified and hidden in 'Application Viruses and Malware'. A related report revealed that most employees' phones and smart devices that were connected to the corporate network weren't protected by security software. With an increase in mobile usage, mobile vulnerabilities have increased concurrently. Organizations are not clear in deciding that 'who is responsible for device security – the organization or the user'.

iv. **Implementation Risks:** It is normally exemplified and hidden in 'Weak BYOD Policy'. The effective implementation of the BYOD program should not only cover the technical issues mentioned above but also mandate the development of a robust implementation policy. Because corporate knowledge and data are key assets of an organization, the absence of a strong BYOD policy would fail to communicate employee expectations, thereby increasing the chances of device misuse.

(4*1 = 4 MARKS)

ANSWER-3

ANSWER-A

Technical Exposures: Technical exposures include unauthorized implementation or modification of data and software. Technical exposures include the following:

- **Data Diddling:** This **involves the change of data before or after they entered the system**. A limited technical knowledge is required to data diddle and the worst part with this is that it occurs before computer security can protect the data.
- **Bomb:** Bomb is a **piece of bad code deliberately planted by an insider or supplier of a program**. An event, which is logical, triggers a bomb or time based. The bombs explode when the conditions of explosion get fulfilled causing the damage immediately. However, these programs cannot infect other programs. Since, these programs do not circulate by infecting other programs; chances of a widespread epidemic are relatively low.
- **Christmas Card:** It is a **well-known example of Trojan and was detected on internal E-mail of IBM system .**On typing the word 'Christmas', it will draw the Christmas tree as expected, but in addition, it will send copies of similar output to all other users connected to the network. Because of this message on other terminals, other users cannot save their half –finished work.
- **Worm:** A worm does not require a host program like a Trojan to relocate itself. Thus, a **Worm program copies itself to another machine on the network**. Since, worms are stand-alone programs, and they can be detected easily in comparison to Trojans and computer viruses. Examples of worms are Existential Worm, Alarm clock Worm etc. The Alarm Clock worm places wake-up calls on a list of users. It passes through the network to an outgoing terminal while the sole purpose of existential worm is to remain alive. Existential worm does not cause damage the system, but only copies itself to several places in a computer network.
- **Rounding Down:** This refers to **rounding of small fractions of a denomination and transferring these small fractions into an authorized account**. As the amount is small, it gets rarely noticed.

- **Salami Techniques:** This **involves slicing of small amounts of money from a computerized transaction or account.** A Salami technique is slightly different from a rounding technique in the sense a fix amount is deducted. For example, in the rounding off technique, Rs.21,23,456.39 becomes Rs.21,23,456.40, while in the Salami technique the transaction amount Rs. 21,23,456.39 is truncated to either Rs.21,23,456.30 or Rs.21,23,456.00, depending on the logic.
- **Trap Doors:** Trap doors allow **insertion of specific logic,** such as program interrupts that permit are view of data. They also permit insertion of unauthorized logic.
- **Spoofing:** A spoofing attack **involves forging one's source address**. One machine is used to impersonate the other in spoofing technique. Spoofing occurs only after a particular machine has been identified as vulnerable. A penetrator makes the user think that s/he is interacting with the operating system. For example, a penetrator duplicates the login procedure, captures the user's password, attempts for a system crash and makes the user login again.

(6 MARKS)

ANSWER-B

Tips to protect any e-Commerce business from intrusion are as follows:

- **Viruses:** Check your website daily for viruses, the presence of which can result in the loss of valuable data.
- **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:** Your site should always be **up to date with the newest versions of security software.** If you fail to do this, you leave your website 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 provider** contract.

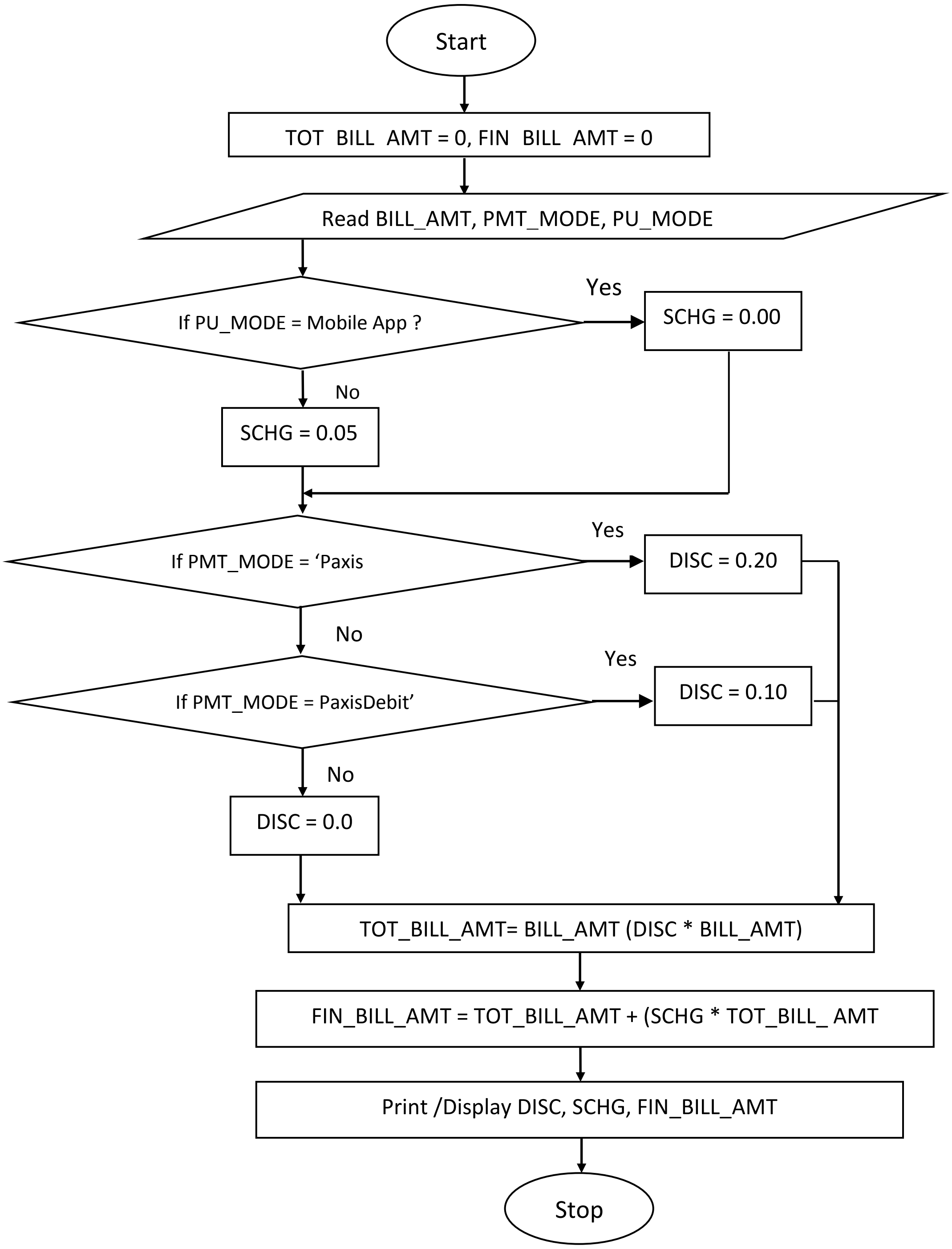
(4 MARKS)

ANSWER-4

ANSWER-A

Variables need be defined implying following :

PU_MODE	: Purchase Mode	**BILL_AMT**	: Initial Bill Amount
TOT_BILL _AMT	: Bill Amount after Discount	**SCHG**	: Surcharge
FIN_BILL_AMT	: Final Bill Amount after Surcharge	**DISC**	: Discount
PMT_MODE	: Payment Mode		



(6 MARKS)

ANSWER-B

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

A. Master Data: Master data is relatively permanent data that is not expected to change again and again. It may change, but not again and again. In accounting systems, there may be following type of master data.

- **Accounting Master Data –** This includes names of ledgers, groups, cost centres, accounting voucher types, etc. E.g. Capital Ledger is created once and not expected to change frequently.
- **Inventory Master Data –** This includes stock items, stock groups, godowns, inventory voucher types, etc. Stock item is something which is bought and sold for business purpose, trading goods. For a person running a medicine shop, all types of medicines shall be stock items for him/her.

- **Payroll Master Data –** Payroll is a system for calculation of salary and recoding of transactions relating to employees. Master data in case of payroll can be names of employees, group of employees, salary structure, pay heads, etc. These data are not expected to change frequently.
- **Statutory Master Data –** This is a master data relating to statute/law. It may be different for different type of taxes. E.g. Goods and Service Tax (GST). In case of change in tax rates, forms, categories, we need to update/change our master data.

  All business process modules must use common master data.

B. **Non-Master Data:** It is a data which is expected to change frequently, again and again and not a permanent data. E.g. Amounts recorded in each transaction shall be different every time and expected to change again and again. Date recorded in each transaction is expected to change again and again and will not be constant in all the transactions.

(4 MARKS)

ANSWER-5

ANSWER-A

Section 3 of Prevention of Money Laundering Act (PMLA), 2002 defines **'Money Laundering'** as: 'whosoever directly or indirectly attempts to indulge or knowingly assists or knowingly is a party or is actually involved in any process or activity connected with the proceeds of crime and projecting it as untainted property shall be guilty of the o ffence of money-laundering".

In other words, **Money laundering** may be defined as 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.

Stages of Money Laundering are as follows:

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

ii. **Layering:** Layering involves the separation of proceeds from illegal source using complex transactions designed to obscure the audit trail and hide the proceeds. Layering involves sending the money through various financial transactions to change its form and make it difficult to follow. Layering may consist of several banks to bank transfers or wire transfers between different accounts in different names in different countries making deposit and withdrawals to continually vary the amount of money in the accounts changing the money's currency purchasing high value items (boats, houses cars, diamonds) to change the form of money, thus making it hard to trace.

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

(6 MARKS)

ANSWER-B

(i) Regulatory Compliance describes the goal that organizations aspire to achieve in their efforts to ensure that they are aware of and take steps to comply with relevant laws, policies, and regulations. This approach is used to ensure that all necessary governance requirements can be met without the unnecessary duplication of effort and activity from resources.

In other words, Regulatory Compliance is an organization's adherence to laws, regulations, guidelines and specifications relevant to its business. Violations of regulatory compliance regulations often result in legal punishment, including interest, penalty and prosecution in some cases.

The compliance and regulatory requirements can be classified in two types as under.

- **General –** Applicable to all irrespective of anything.
- **Specific –** Applicable to specific type of businesses only.

(ii) The layers of Three Tier Architecture of Application Software are as below:

- The **Application Layer** receives the inputs from the users and performs certain validations like, if the user is authorized to request the transaction.
- The **Operating System Layer** then carries these instructions and processes them using the data stored in the database and returns the results to the application layer.
- The **Database Layer** stores the data in a certain form. For a transaction to be completed, all the three layers need to be invoked. Most application software is built on this model these days.

(4 MARKS)

SECTION –B : STRATEGIC MANAGEMENT (50 MARKS)

ANSWER-1

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

14.C
15.D

ANSWER-1

Organo is a large supermarket chain. By opting backward integration and purchase a number of farms, it will have greater control over its supply chain. 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.

(5 MARKS)

ANSWER-2

ANSWER-A

Decision making is a **managerial process of selecting the best course of action out of several alternative courses for the purpose of accomplishment of the organizational goals**. Decisions may be operational, i.e., which relate to general day-to-day operations. They may also be strategic in nature.

(1 MARK)

As owner manager at the top level in the company, Shri Alok Kumar should concentrate on strategic decisions. These are higher level decisions having organisation wide implications. The major dimensions of strategic decisions are as follows:

- Strategic decisions **require top-management involvement as they involve thinking in totality of the organization.**
- Strategic decisions **involve significant commitment of organizational resources**.
- Strategic decisions **necessitate consideration of factors in the firm's external environment.**
- Strategic decisions are **likely to have a significant impact on the long-term prosperity of the firm.**
- Strategic decisions are **future oriented**.
- Strategic decisions usually have **major multifunctional or multi-business consequences.**

(4 MARKS)

ANSWER-B

Four specific criteria of sustainable competitive advantage that firms can use to determine those capabilities that are core competencies. Capabilities that are valuable, rare, costly to imitate, and non-substitutable are core competencies. **(1 MARK)**

i. **Valuable:** Valuable capabilities are the ones that allow the firm to exploit opportunities or avert the threats in its external environment. A firm created value for customers by effectively using capabilities to exploit opportunities. Finance companies build a valuable competence in financial services. In addition, to make such competencies as financial services highly successful require placing the right people in the right jobs. Human capital is important in creating value for customers.

ii. **Rare:** Core competencies are very rare capabilities and very few of the competitors possess this. Capabilities possessed by many rivals are unlikely to be sources of competitive advantage for any one of them. Competitive advantage results only when firms develop and exploit valuable capabilities that differ from those shared with competitors.

iii. **Costly to imitate:** Costly to imitate means such capabilities that competing firms are unable to develop easily. *For example*: Intel has enjoyed a first-mover advantage more than once because of its rare fast R&D cycle time capability that brought SRAM and DRAM integrated circuit technology, and brought microprocessors to market well ahead of the competitor. The product could be imitated in due course of time, but it was much more difficult to imitate the R&D cycle time capability.

iv. **Non-substitutable:** Capabilities that do not have strategic equivalents are called non- substitutable capabilities. This final criterion for a capability to be a source of competitive advantage is that there must be no strategically equivalent valuable resources that are themselves either not rare or imitable.

(4*1 = 4 MARKS)

ANSWER-3

ANSWER-A

To gain a deep understanding of a company's industry and competitive environment, managers do not need to gather all the information they can find and waste a lot of time digesting it. Rather, the task is much more focused. A powerful and widely used tool for systematically diagnosing the significant competitive pressures in a market and assessing the strength and importance of each is the Porter's five-forces model of competition. This model holds that the state of competition in an industry is a composite of competitive pressures operating in five areas of the overall market: **(1 MARK)**

- Competitive pressures associated with the **market manoeuvring and jockeying** for buyer patronage that goes on among rival sellers in the industry.
- Competitive pressures associated with the **threat of new entrants into the market**.
- Competitive pressures coming from the **attempts of companies in other industries to win buyers over to their own substitute products**.
- Competitive pressures stemming from **supplier bargaining power and supplier-seller collaboration**.
- Competitive pressures stemming from **buyer bargaining power and seller-buyer Collaboration**.

(5*1 = 5 MARKS)

ANSWER-B

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

Advantages of SBU are:

- Establishing coordination between divisions having common strategic interests.

- Facilitates strategic management and control on large and diverse organizations.
- Fixes accountabilities at the level of distinct business units.
- Allows strategic planning to be done at the most relevant level within the total enterprise.
- Makes the task of strategic review by top executives more objective and more effective.
- Helps allocate corporate resources to areas with greatest growth opportunities.

(4 MARKS)

ANSWER-4

ANSWER-A

Strategy implementation is missing in HQ. Implementation is the **managerial exercise of putting a chosen strategy into action**. It deals with the managerial exercise of supervising the ongoing pursuit of strategy, making it work, improving the competence with which it is executed and showing measurable progress in achieving the targeted results.

Strategic implementation is **concerned with translating a strategic decision into action, which presupposes that the decision itself** (i.e., the strategic choice) was made with some thought being given to feasibility and acceptability. The allocation of resources to new courses of action will need to be undertaken, and there may be a need for adapting the organization's structure to handle new activities as well as training personnel and devising appropriate systems.

It is crucial to realize the difference between the formulation and implementation because they both require very different skills. Also, a company will be successful only when the strategy formulation is sound and implementation is excellent.

(5 MARKS)

ANSWER-B

It is **true that evaluating the worth of a business is central to strategy implementation**. There are circumstances where it is important to evaluate the actual worth of the business. These circumstances can be wide and varied. At a higher level they may include acquisition, mergers or diversification. They may also include other situations such as fixing of share price in an issue. Acquisition, merger, retrenchment may require establishing the financial worth or cash value of a business to successfully implement such strategies. **(2 MARKS)**

Various methods for determining a business's worth can be grouped into three main approaches.

(i) **Net worth or stockholders' equity:** Net worth is the total assets minus total outside liabilities of an individual or a company.

(ii) **Future benefits to owners through net profits:** These benefits are considered to be much greater than the amount of profits. A conservative rule of thumb is to establish a business's worth as five times the firm's current annual profit. A five-year average profit level could also be used.

(iii) **Market-determined business worth:** This, in turn, involves three methods. **First, the firm's worth may be based on the selling price of a similar company. The second approach is called the price-earnings ratio method whereby the market price of the firm's equity**

shares is divided by the annual earnings per share and multiplied by the firm's average net income for the preceding years. The third approach can be called the outstanding shares method whereby one has to simply multiply the number of shares outstanding by the market price per share and add a premium.

(3*1 = 3 MARKS)

ANSWER-5

ANSWER-A

A strategic alliance is a relationship between two or more businesses that enables each to achieve certain strategic objectives which neither would be able to achieve on its own. The strategic partners maintain their status as independent and separate entities, share the benefits and control over the partnership, and continue to make contributions to the alliance until it is terminated.

Advantages of Strategic Alliance

Strategic alliance usually is only formed if they provide an advantage to all the parties in the alliance. These advantages can be broadly categorised as follows:

1. **Organizational:** Strategic alliance helps to learn necessary skills and obtain certain capabilities from strategic partners. Strategic partners may also help to enhance productive capacity, provide a distribution system, or extend supply chain. Strategic partners may provide a good or service that complements thereby creating a synergy. Having a strategic partner who is well-known and respected also helps add legitimacy and creditability to a new venture.
2. **Economic:** There can be reduction in costs and risks by distributing them across the members of the alliance. Greater economies of scale can be obtained in an alliance, as production volume can increase, causing the cost per unit to decline. Finally, partners can take advantage of co-specialization, creating additional value.
3. **Strategic:** Rivals can join together to cooperate instead of compete. Vertical integration can be created where partners are part of supply chain. Strategic alliances may also be useful to create a competitive advantage by the pooling of resources and skills. This may also help with future business opportunities and the development of new products and technologies. Strategic alliances may also be used to get access to new technologies or to pursue joint research and development.
4. **Political:** Sometimes strategic alliances are formed with a local foreign business to gain entry into a foreign market either because of local prejudices or legal barriers to entry. Forming strategic alliances with politically-influential partners may also help improve your own influence and position.

(5 MARKS)

ANSWER-B

Education is considered to be a noble profession. An educational institution often functions as a not-for-profit organization managed by trusts and societies. They include schools, colleges and universities. Being inherently non-commercial in nature, educational organizations do not have cut-throat competition as in case of their commercial counterparts. However, as the number of institutions belonging to both public and private sector are increasing, the competition is gradually rising. Key reasons for use of strategic management techniques in educational institutes are as follows:

- Getting better name and recognition.
- Adopt different strategies for attracting best students.

- Appointing and retaining quality faculty for teaching.
- Deliver education to make graduates more employable.
- Nurturing responsible citizens.

(5 MARKS)