

**MOCK TEST PAPER-I**  
**INTERMEDIATE (IIPC): GROUP – II**  
**PAPER – 7: ENTERPRISE INFORMATION SYSTEMS AND STRATEGIC MANAGEMENT**  
**SECTION – A: ENTERPRISE INFORMATION SYSTEMS**

**ANSWERS**

**Part I: MULTIPLE CHOICE QUESTIONS (Answer 1-5 are based on case scenario)**

1. (b) Automating Redundant processes
2. (b) Back up arrangement needs to be strong.
3. (c) Software as a Service
4. (b) Preventive control
5. (d) Existence of Configuration/customization in the application to perform NPA classification as per relevant RBI guidelines.
6. (c) Access Token
7. (b) Business to Consumer e-Commerce
8. (b) Layering
9. (a) XBRL runs on XML technologies such as XML schema, and ensures that financial and non-financial data is tagged to form a comparable reporting format.
10. (b) Vulnerability

**Part II: Descriptive Answers**

1. (a) The key features of a banking business are as follows:
  - The custody of large volumes of monetary items, including cash and negotiable instruments, whose physical security should be ensured.
  - Dealing in large volume (in number, value and variety) of transactions.
  - Operating through a wide network of branches and departments, which are geographically dispersed.
  - Increased possibility of frauds as banks directly deal with money making it mandatory for banks to provide multi-point authentication checks and the highest level of information security.
- (b) The disadvantages of Database Management System are as follows:
  - ◆ **Cost:** Implementing a DBMS in terms of both system and user-training can be expensive and time-consuming, especially in large enterprises. Training requirements alone can be quite costly.
  - ◆ **Security:** Even with safeguards in place, it may be possible for some unauthorized users to access the database. If one gets access to database, then it could be an all or nothing proposition.
2. (a) The success of implementation of Enterprise Resource Planning (ERP) system majorly depends upon issues related people, process and technology, however the risk related to other implementation issues of ERP are as follows:

- **Lengthy implementation time:** ERP projects are lengthy that takes anywhere between 1 to 4 years depending upon the size of the organization. Due to technological developments happening every day, the business and technological environment during the start and completion of the project will never be the same. Employee turnover is another problem.
  - **Insufficient Funding:** The budget for ERP implementation is generally allocated without consulting experts and then implementation is stopped along the way, due to lack of funds.
  - **Data Safety:** As there is only one set of data, if this data is lost, whole business may come to stand still.
  - **Speed of Operation:** As data is maintained centrally, gradually the data size becomes more and more and it may reduce the speed of operation.
  - **System Failure:** As everybody is connected to a single system and central database, in case of failure of system, the whole business may come to stand still may get affected badly.
  - **Data Access:** Data is stored centrally and all the departments access the central data. This creates a possibility of access to non-relevant data.
- (b) The commercial laws applicable to e-commerce and m-commerce transactions are as follows:
- Income Tax Act, 1961
  - Companies Act, 2013
  - Foreign Trade (Development and Regulation) Act, 1992
  - The Factories Act, 1948
  - The Customs Act, 1962
  - The Goods and Services Tax (GST) Act, 2017
  - Indian Contract Act, 1872
  - The Competition Act, 2002
  - Foreign Exchange Management Act (FEMA 1999)
  - Consumer Protection Act, 1986
3. (a) The technical exposures that are used to protect unauthorized implementation of data and software are as follows:
- ◆ **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 to 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 a review 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 user login again.

(b) The technological risks related to Enterprise Resource Planning are as follows:

- **Software Functionality:** ERP systems offer a myriad of features and functions, however, not all organizations require those many features. Implementing all the functionality and features just for the sake of it can be disastrous for an organization.
- **Technological Obsolescence:** With the advent of more efficient technologies every day, the ERP system also becomes obsolete as time goes on.
- **Enhancement and Upgrades:** ERP Systems are not upgraded and kept up-to-date. Patches and upgrades are not installed and the tools are underutilised.
- **Application Portfolio Management:** These processes focus on the selection of new business applications and the projects required delivering them.

4. (a) Various types of cards used as digital payment mode are as follows:

- **Credit Cards:** A small plastic card issued by a bank, or issuer etc., allowing the holder to purchase goods or services on credit. It contains a unique number linked with an account. It has also a magnetic strip embedded in it which is used to read credit card via card readers. In this mode of payment, the buyer's cash flow is not immediately

impacted. User of the card makes payment to card issuer at end of billing cycle. Credit Card issuer charge customers per transactions / fixed amount as transaction fees.

- o **Debits Cards:** Debit card, is also a small plastic card with a unique number linked with bank account number. It is required to have a bank account before getting debit card from bank. It enables cardholder to pay for his/her purchases directly through his/her account. The major difference between debit card and credit card is that in case of payment through debit card, amount gets deducted from card's bank account immediately and there should be sufficient balance in bank account for the transaction to get completed; whereas in case of credit card there is no such compulsion.
  - o **Smart Card:** Smart card is a prepaid card similar to credit card and debit card in appearance, but it has a small microprocessor chip embedded in it. It has capacity to store customer's personal information such as financial facts, private encryption keys, credit card information, account information, and so on. Smart cards combine the advantages of both debit card and credit card and are available to anyone, regardless of credit ratings or income of applicant of smart card. Moreover, these are not linked to any bank account. For this reason, smart card holder is not mandated to have a bank account. It is also used to store money which is reduced as per usage. Mondex and Visa Cash cards are examples of smart cards. The smart card holder has to load money onto the card by paying cash or through transfer from his/her bank account. After loading the money onto the card, the cardholder can use the card to spend money up to the limit of loaded amount in the same way as using a credit or debit card. Once the loaded amount is spent, the cardholder may reload money onto the card.
- (b) The automation of the business processes is susceptible to challenges, which are as follows:
- ◆ **Automating Redundant Processes:** Sometimes organizations start off an automation project by automating the processes they find suitable for automation without considering whether such processes are necessary and create value. In other cases, some business processes and tasks require high amount of tacit knowledge (that cannot be documented and transferred from one person to another) and therefore seek employees to use their personal judgment. These processes are generally not good candidates for automation as these processes are hard to encode and automate.
  - ◆ **Defining Complex Processes:** BPA requires reengineering of some business processes that requires significant amount of time to be allocated and spent at this stage. This requires a detailed understanding of the underlying business processes to develop an automated process.
  - ◆ **Staff Resistance:** In most cases, human factor issues are the main obstacle to the acceptance of automated processes. Staff may see process automation as a way of reducing their decision-making power. This is due to the reason that with automated processes, the management has a greater visibility of the process and can make decisions that used to be made by the staff earlier. Moreover, the staff may perceive automated processes as threat to their jobs.
  - ◆ **Implementation Cost:** The implementation of automated processes may be an expensive proposition in terms of acquisition/development cost of automated systems and special skills required to operate and maintain these systems.
5. (a) The various cyber-crime scenarios which can attract prosecution as per the penalties and offences prescribed in Information Technology Act, 2000 that Mr Amar could have incorporated in

his advisory are as follows.

- ◆ **Harassment via fake public profile on social networking site:** A fake profile of a person is created on a social networking site with the correct address, residential information or contact details but he/she is labelled as 'prostitute' or a person of 'loose character'. This leads to harassment of the victim. Section 67 of the IT Act, 2000 is applicable here.
  - ◆ **Email Account Hacking:** If victim's email account is hacked and obscene emails are sent to people in victim's address book. Sections 43, 66, 66A, 66C, 67, 67A and 67B of IT Act, 2000 are applicable in this case.
  - ◆ **Credit Card Fraud:** Unsuspecting victims would use infected computers to make online transactions. Sections 43, 66, 66C, 66D of IT Act, 2000 are applicable in this case.
  - ◆ **Web Defacement:** The homepage of a website is replaced with a pornographic or defamatory page. Government sites generally face the wrath of hackers on symbolic days. Sections 43 and 66 of IT Act and Sections 66F and 67 of IT Act, 2000 also apply in some cases.
  - ◆ **Introducing Viruses, Worms, Backdoors, Rootkits, Trojans, and Bugs:** All these are some sort of malicious programs which are used to destroy or gain access to some electronic information. Sections 43 and 66 of IT Act, 2000 are applicable in this case.
  - ◆ **Cyber Terrorism:** Cyber terrorism is the terrorism conducted in cyberspace, where the criminals attempt to damage or disrupt computer systems or telecommunication services. Examples are hacking into computer systems, introducing viruses to vulnerable networks, web site defacing, denial-of-service attacks, or terroristic threats made via electronic communication. Many terrorists use virtual (Drive, FTP sites) and physical storage media (USB's, hard drives) for hiding information and records of their illicit business. Sections 43, 66, 66A of IT Act, 2000 are applicable in this case.
  - ◆ **Online sale of illegal Articles:** Where sale of narcotics, drugs, weapons and wildlife is facilitated by the Internet.
  - ◆ **Cyber Pornography:** Among the largest businesses on Internet, pornography may not be illegal in many countries, but child pornography is. Sections 67, 67A and 67B of the IT Act, 2000 are applicable in this case.
  - ◆ **Phishing and Email Scams:** Phishing involves fraudulently acquiring sensitive information through masquerading oneself as a trusted entity (e.g. usernames, Passwords, credit card information). Sections 66, 66C and 66D of IT Act, 2000 are applicable in this case.
  - ◆ **Theft of Confidential Information:** Many business organizations store their confidential information in computer systems. This information is targeted by rivals, criminals and disgruntled employees. Sections 43, 66 and 66B of IT Act, 2000 are applicable in this case.
  - ◆ **Source Code Theft:** A Source code generally is the most coveted and important "crown jewel" asset of a company. Sections 43, 65, 66 and 66B of IT Act, 2000 are applicable in this case.
- (b) The deployment and implementation of Core Banking System (CBS) should be controlled at various stages to ensure that objective of DFK corporative bank are achieved. The detail is as follows:
- **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 which is scalable and where different interfaces are readily available 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 in-house by the bank. Currently, most of the CBS deployments 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.

## SECTION – B: STRATEGIC MANAGEMENT

### SUGGESTED ANSWERS/HINTS

1. (A)

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

(B) (a)

(C) (a)

(D) (b)

(E) (a)

(F) (b)

(G) (a)

2. According to Porter, strategies allow organizations to gain competitive advantage from three different bases: cost leadership, differentiation, and focus. Porter called these base generic strategies.

X-Olympus is facing cutthroat competition due to saturation of market and price wars as there is no clear leader out of the numerous competitors. For this, the strategy adopted by X-Olympus is **Product Differentiation** by introducing a unique product to cater the customer needs at a lesser cost which would insulate it from the fierce competition and never-ending price wars.

3. (a) Yes, strategy is partly proactive and partly reactive. In proactive strategy, organisations will analyse possible environmental scenarios and create strategic framework after proper planning and set procedures and work on these strategies in a pre-determined 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 significant deviations between what was visualised and what actually happens. 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.

(b) As industry's Key Success Factors (KSFs) are those things that most affect industry members' ability to prosper in the market place – the particular strategy elements, product attributes, resources, competencies, competitive capabilities and business outcomes that spell the difference between profit & loss and ultimately, between competitive success or failure. KSFs by their very nature are so important that all firms in the industry must pay close attention to them. They are the prerequisites for industry success, or, to put it in another way, KSFs are the rules that shape whether a company will be financially and competitively successful.

4. (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 organisational goals. Decisions may be operational, i.e., which relate to general day-to-day operations. They may also be strategic in nature.

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 organisation.
  - ◆ Strategic decisions involve significant commitment of organisational 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.
- (b) Corporate culture refers to company's values, beliefs, business principles, traditions, ways of operating and internal work environment. Changing problem cultures is very difficult because of deeply held values and habits. It takes concerted management action over a period of time to replace an unhealthy culture with a healthy culture or to root out certain unwanted cultural obstacles and instil ones that are more strategy-supportive.
- ◆ The first step is to diagnose which facets of the present culture are strategy supportive and which are not.
  - ◆ Then, managers have to talk openly and forthrightly to all concerned about those aspects of the culture that have to be changed.
  - ◆ The talk has to be followed swiftly by visible, aggressive actions to modify the culture-actions that everyone will understand are intended to establish a new culture more in tune with the strategy.

Management through communication has to create a shared vision to manage changes. The menu of culture-changing actions includes revising policies and procedures, altering incentive compensation, shifting budgetary allocations for substantial resources to new strategy projects, recruiting and hiring new managers and employees, replacing key executives, communication on need and benefit to employees and so on.

5. (a) Stability strategies, as name suggests, are intended to safeguard the existing interests and strengths of business. It involves organisations to pursue established and tested objectives, continue on the chosen path, maintain operational efficiency and so on. A stability strategy is pursued when a firm continues to serve in the same or similar markets and deals in same products and services. In stability strategy, few functional changes are made in the products or markets, however, it is not a 'do nothing' strategy. This strategy is typical for mature business organizations. Some small organizations also frequently use stability as a strategic focus to maintain comfortable market or profit position.

On the other hand, expansion strategy is aggressive strategy as it involves redefining the business by adding the scope of business substantially, increasing efforts of the current business. In this sense, it becomes opposite to stability strategy. Expansion is a promising and popular strategy that tends to be equated with dynamism, vigor, promise and success. Expansion also includes diversifying, acquiring and merging businesses. This strategy may take the enterprise along relatively unknown and risky paths, full of promises and pitfalls.

- (b) There are at least three major R&D approaches for implementing strategies.
- i. **Be the leader:** The first strategy is to be the first firm to market new technological products. This is a glamorous and exciting strategy but also a dangerous one. Firms such as 3M and General Electric have been successful with this approach, but many other pioneering firms have fallen, with rival firms seizing the initiative.

- ii. **Be an innovative imitator:** A second R&D approach is to be an innovative imitator of successful products, thus minimizing the risks and costs of startup. This approach entails allowing a pioneer firm to develop the first version of the new product and to demonstrate that a market exists. Then, laggard firms develop a similar product. This strategy requires excellent R&D personnel and an excellent marketing department.
- iii. **Be a low cost producer:** A third R&D strategy is to be a low-cost producer by mass-producing products similar to but less expensive than products recently introduced. As a new product accepted by customers, price becomes increasingly important in the buying decision. Also, mass marketing replaces personal selling as the dominant selling strategy. This R&D strategy requires substantial investment in plant and equipment, but fewer expenditures in R&D than the two approaches described earlier.

6. (a) Following are the differences between the market development and product development:

Market Development	Product Development
<ul style="list-style-type: none"> <li>• <b>Meaning</b> It refers to a growth strategy where the business seeks to sell its existing products into new markets. It is a strategy for company growth by identifying and developing new markets for current company products.</li> <li>• <b>Strategy Application</b> It may be achieved through new geographical markets, new product dimensions or packaging, new distribution channels or different pricing policies to attract different customers or create new market segments.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Meaning</b> It refers to a growth strategy where business aims to introduce new products into existing markets. It is a strategy for company growth by offering modified or new products to current markets.</li> <li>• <b>Strategy Application</b> It is for company's growth and requires the development of new competencies and the business to develop modified products which can appeal to existing markets.</li> </ul>

(b) Although inextricably linked, strategy implementation is fundamentally different from strategy formulation in the following ways:

Strategy Formulation	Strategy Implementation
<ul style="list-style-type: none"> <li>◆ Strategy formulation focuses on effectiveness.</li> <li>◆ Strategy formulation is primarily an intellectual process.</li> <li>◆ Strategy formulation requires conceptual intuitive and analytical skills.</li> <li>◆ Strategy formulation requires coordination among the executives at the top level.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Strategy implementation focuses on efficiency.</li> <li>◆ Strategy implementation is primarily an operational process.</li> <li>◆ Strategy implementation requires motivation and leadership skills.</li> <li>◆ Strategy implementation requires coordination among the executives at the middle and lower levels.</li> </ul>