

**INTERMEDIATE (IPC)  
GROUP II - PAPER 7  
INFORMATION TECHNOLOGY  
& STRATEGIC MANAGEMENT**

**NOV 2014**

Roll No. ....

Total No. of Questions – 14

Total No. of Printed Pages – 11

Time Allowed – 3 Hours

Maximum Marks – 100

**TPJ-H**

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

Answers to Sections – A and B should be given in separate sets of answer books.

**SECTION – A**

Question No. 1 is compulsory.

Answer any five questions from the rest.

**Marks : 50**

**Marks**

1. Answer all the following questions in brief :

**2×5  
=10**

- (a) Differentiate between flow-chart and data flow diagram.
- (b) What is Bluetooth ? Name any two devices that utilize Bluetooth technology.
- (c) Define Virtual Private Networks (VPN).
- (d) What is the difference between electronic cheque and paper cheque ?
- (e) What are the objectives of business process automation ?

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**P.T.O.**

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**Marks**

2. (a) What are the various key factors to be considered in implementing Business Process Management (BPM) in an enterprise? 4
- (b) What are the major reasons for failure of Business Process Management System (BPMS)? 4
3. (a) What is cloud computing? Describe any three types of clouds in cloud computing environment. 4
- (b) What is mobile computing? What are the three major concerns related to mobile computing? 4
4. (a) What is Bus Topology? List its two advantages and two disadvantages. 3
- (b) What do you mean by threat and vulnerability? Explain any three facts responsible for occurrence of vulnerabilities in the software. 5
5. (a) Briefly explain the two main approaches to establish access controls in Software Systems. 4
- (b) Explain the different components of Decision Support Systems. 4
6. (a) List out different types of delivery channels through which information is delivered to the user. 4
- (b) Briefly explain Grid Computing. What are possible reasons of using grid computing? 4

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(3)

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**Marks**

7. Write short notes on any **four** of the following :

2×4

=8

- (a) Hardware Virtualization
- (b) Total Quality Management (TQM)
- (c) HTTPS
- (d) eXtensible Business Reporting Language (XBRL)
- (e) Software as a Service (SaaS)

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**P.T.O.**

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Marks

SECTION – B

Question No. 8 is compulsory.

Answer any five questions from the rest.

Marks : 50

8. (a) You have been hired as a consultant by a company to advise it on factors it need to consider for environmental scanning. Explain briefly these factors. 3
- (b) "A strategic vision is a road map of a company's future." Comment. Draft a strategic vision statement of any well known national level Educational Institution you are familiar with. 3
- (c) In your view what are the Key Success Factors for operating in a competitive market place ? 3
- (d) How would you argue that Research and Development Personnel are important for effective strategy implementation ? 3
- (e) What steps would you suggest to change a company's problem culture ? 3
9. (a) State with reasons which of the following statements is correct or incorrect : 2×2 =4
- (i) Strategic vision and mission statements are needed only by large business houses.
- (ii) An industry can have more than one strategic group.
- (b) What is meant by backward integration ? Name any two backward integration strategies that hospitals may pursue. 1+2 =3
10. How does the Internet Technology influence an industry's competitive environment ? Explain. 7

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(5)

TPJ-H

Marks

11. (a) "Management of internal linkages in the value chain could create competitive advantage in a number of ways." Briefly explain. 4
- (b) How strategic decisions differ in nature from other routine decisions taken in day-to-day working of an organization ? Explain. 3
12. (a) In the context of Ansoff's Product-Market Growth Matrix, identify with reasons, the type of growth strategies followed in the following cases : 4
- (i) A leading producer of tooth paste, advises its customers to brush teeth twice a day to keep breath fresh.
- (ii) A business giant in hotel industry decides to enter into dairy business.
- (iii) One of India's premier utility vehicles manufacturing company ventures to foray into foreign markets.
- (iv) A renowned auto manufacturing company launches ungeared scooters in the market.
- (b) To which industries the following developments offer opportunities and threats ? 3
- "Increasing trend in India to organize IPL (Cricket) type of tournaments in other sports also."
13. Distinguish between :
- (a) Divestment strategy and Liquidation strategy. 4
- (b) Unfreezing the situation and Refreezing – the two stages of Kurt Lewin change process. 3
14. Write short notes on the following :
- (a) Strategic responses to business environment. 4
- (b) Expansion through acquisitions and mergers. 3

OR

Expanded Marketing Mix.

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(Hindi Version)

उन परीक्षार्थियों को छोड़कर जिन्होंने हिन्दी माध्यम चुना है, प्रश्नों के उत्तर केवल अंग्रेजी में ही देने हैं ।

वह परीक्षार्थी जिसने हिन्दी माध्यम नहीं चुना है, यदि हिन्दी में उत्तर देता है,

तो उसके हिन्दी में दिये गये उत्तरों का मूल्यांकन नहीं होगा ।

भाग-अ और भाग-ब के उत्तर अलग-अलग उत्तर-पुस्तिकाओं में दीजिए ।

Marks : 50

भाग-अ

प्रश्न संख्या 1 अनिवार्य है ।

शेष प्रश्नों में से किन्हीं पाँच प्रश्नों के उत्तर दीजिए ।

Marks

1. निम्नलिखित सभी प्रश्नों का संक्षेप में उत्तर दीजिए :

2×5

(अ) फ्लो-चार्ट (Flow-chart) और डाटा फ्लो डायग्राम (DFD) में अंतर कीजिए ।

=10

(ब) ब्ल्यूटूथ (Bluetooth) क्या होता है ? किन्हीं दो उपकरण (Devices) के नाम लिखिए जिसमें ब्ल्यूटूथ तकनीक (Technology) का इस्तेमाल होता है ।

(स) वर्चुअल प्राइवेट नेटवर्क (Virtual Private Network) की परिभाषा दीजिए ।

(द) इलेक्ट्रॉनिक चेक (Electronic cheque) और कागज़ी चेक (Paper cheque) में अंतर समझाइए ।

(इ) व्यापार की क्रियाओं के कम्प्यूटरीकरण (Business Process Automation) के क्या लक्ष्य हैं ?

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Marks

2. (अ) किसी भी संस्था में बिज़नेस प्रोसेस मैनेजमेंट (Business Process Management) को क्रियान्वित करने के लिए ऐसे कौन से महत्वपूर्ण तत्त्व हैं जिनका ध्यान रखा जाना चाहिए ? 4
- (ब) बिज़नेस प्रोसेस मैनेजमेंट सिस्टम (Business Process Management System) की असफलता के प्रमुख कारण क्या होते हैं ? 4
3. (अ) क्लाउड कम्प्यूटिंग (Cloud Computing) क्या होती है ? किन्हीं तीन तरह के क्लाउड जो क्लाउड कम्प्यूटिंग वातावरण (Cloud Computing Environment) में पाये जाते हैं, उल्लेख कीजिए । 4
- (ब) मोबाइल कम्प्यूटिंग (Mobile Computing) क्या होती है ? मोबाइल कम्प्यूटिंग से संबंधित ऐसे कौन से तीन महत्वपूर्ण चिंता के विषय हैं ? वर्णन कीजिए । 4
4. (अ) बस संरचना (Bus Topology) क्या होती है ? इस संरचना के कोई दो लाभ और दो हानियाँ लिखिए । 3
- (ब) खतरे और कमजोरियों (threats and vulnerabilities) से क्या अभिप्राय है ? सॉफ्टवेयर (software) में कमजोरी (vulnerability) के लिए कौन से तथ्य जिम्मेवार हैं ? किन्हीं तीन का उल्लेख कीजिए । 5

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Marks

5. (अ) सॉफ्टवेयर सिस्टम (Software System) में प्रवेश नियंत्रण (Access Control) हेतु 4  
किन्हीं दो तरीकों को निर्धारित करने का वर्णन संक्षिप्त में कीजिए ।
- (ब) डिसिजन सपोर्ट सिस्टम (Decision Support System) के विभिन्न प्रकार के अवयवों का 4  
उल्लेख कीजिए ।
6. (अ) किसी भी जानकारी (information) को यूजर (user) में वितरण करने के लिए कौन से 4  
निर्दिष्ट मार्ग (delivery channels) का प्रयोग किया जाता है ? उल्लेख कीजिए ।
- (ब) ग्रिड कम्प्यूटिंग (Grid Computing) से क्या अभिप्राय है ? ग्रिड कम्प्यूटिंग के प्रयोग में लाने 4  
के क्या सम्भावित कारण हैं ?
7. निम्नलिखित में से किन्हीं चार शब्दावलियों (Terms) की संक्षेप में व्याख्या कीजिए : 2×4  
=8
- (अ) हार्डवेयर वर्चुअलाइजेशन (Hardware Virtualization)
- (ब) टोटल क्वालिटी मैनेजमेंट (Total Quality Management)
- (स) एच टी टी पी एस (HTTPS)
- (द) XBRL
- (इ) सॉफ्टवेयर-एस-ए सर्विस (SaaS)

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Marks

भाग-ब

प्रश्न संख्या 8 अनिवार्य है।

शेष में से किन्हीं पाँच प्रश्नों के उत्तर दीजिए।

Marks : 50

8. (अ) किसी कम्पनी ने आपको परामर्शदाता के रूप में परिवेशगत परीक्षण के विचारार्थ कारकों के बारे में परामर्श देने के लिए नियुक्त किया है। संक्षिप्त में इन कारकों का वर्णन कीजिए। 3
- (ब) "रणनीतिक दृष्टि कम्पनी के भविष्य का चित्र है।" इस कथन की समीक्षा कीजिए। किसी एक राष्ट्रीय स्तर के शैक्षणिक संस्थान जिससे आप परिचित हैं के लिए रणनीतिक दृष्टि (Strategic Vision) घोषवाक्य तैयार कीजिए। 3
- (स) आपके विचार में स्पर्धात्मक बाज़ार में किसी भी संस्थान के संचालन में सफलता के मुख्य कारक (Key Success Factors) क्या हैं? वर्णन कीजिए। 3
- (द) "शोध एवं विकास विभाग रणनीति के प्रभावशाली क्रियान्वयन में महत्वपूर्ण भूमिका निभा सकता है।" इस कथन के पक्ष में आप क्या तर्क देंगे? 3
- (इ) कंपनी की समस्यामूलक संस्कृति में परिवर्तन हेतु आप कौन से कदम उठाने का परामर्श देंगे? 3
9. (अ) कारण सहित बताइये कि निम्नलिखित में से कौन सा कथन सत्य या असत्य है : 2x2  
=4
- (i) रणनीतिक दृष्टि और मिशन घोषवाक्य केवल बड़े व्यावसायिक संस्थानों के लिए ही आवश्यक होते हैं।
- (ii) किसी भी उद्योग में एक से अधिक रणनीतिक समूह भी हो सकते हैं।
- (ब) 'पीछे की ओर' एकीकृतिकरण (Backward integration) का क्या अर्थ है? कोई सी भी दो 'पीछे की ओर' एकीकृतिकरण रणनीतियाँ बताइये जो कि अस्पताल अपना सकते हैं। 1+2  
=3

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Marks

10. इंटरनेट प्रौद्योगिकी (Internet Technology) उद्योगों के प्रतिस्पर्धात्मक परिवेश को किस प्रकार से प्रभावित करती है ? व्याख्या कीजिए । 7
11. (अ) "मूल्य शृंखला में आंतरिक लिंकेज (Internal Linkages) का प्रबंधन विभिन्न प्रकार से स्पर्धात्मक लाभ का सृजन कर सकता है ।" संक्षिप्त में इस कथन का वर्णन कीजिए । 4
- (ब) रणनीतिक निर्णय संस्थान के रोजमरा के कार्यवहन में लिए गये नित्यक्रम निर्णयों से किस प्रकार से भिन्न हैं ? व्याख्या कीजिए । 3
12. (अ) अनसौफ के उत्पाद-बाजार विकास मैट्रिक्स (Ansoff's Product-Market Growth Matrix) के संदर्भ में कारण सहित बताइए कि निम्नलिखित उदाहरणों में किस प्रकार की विकासात्मक रणनीतियों को अपनाया गया है ? 4
- (i) एक प्रमुख टूथपेस्ट (Toothpaste) निर्माता कम्पनी ने अपने ग्राहकों को ताज़ा श्वासों हेतु दिन में दो बार दाँत साफ करने का परामर्श दिया है ।
- (ii) होटल उद्योग के एक विशाल व्यावसायिक संस्थान का दुग्ध व्यवसाय में प्रवेश करना ।
- (iii) यूटिलिटी गाड़ी (utility vehicles) बनाने वाली एक प्रमुख भारतीय कम्पनी ने अब विदेशों में भी इन गाड़ियों को बेचने की तैयारी की है ।
- (iv) एक प्रसिद्ध मोटर निर्माता का गियर रहित स्कूटर (ungeared scooter) को बाजार में लाने का निर्णय ।
- (ब) किन उद्योगों में निम्नलिखित वातावरण उद्घाटन अवसर और चुनौतियाँ पेश करती है ? 3
- "भारत में अन्य खेलों में भी IPL (क्रिकेट) के पैटर्न पर प्रतियोगिताओं के आयोजन में बढ़ती हुई प्रवृत्ति ।"

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Marks

13. निम्नलिखित में अन्तर कीजिए :

(अ) हरण रणनीति और समापन रणनीति

4

(ब) कर्त लेविन (Kurt Lewin) की परिवर्तन प्रक्रिया में 2 चरण – स्थिति से नियंत्रणों को हटाना (unfreezing the situation) और पुनःनियंत्रित करना (Refreezing)

3

14. निम्नलिखित पर संक्षिप्त टिप्पणियाँ लिखिए :

(अ) व्यवसाय परिवेश सम्बन्धी रणनीतिक प्रत्युत्तर

4

(ब) अधिग्रहण और विलयन के माध्यम से विस्तार

3

अथवा

विस्तृत विपणन मिश्रण

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## **DISCLAIMER**

The Suggested Answers hosted in the website do not constitute the basis for evaluation of the students' answers in the examination. The answers are prepared by the Faculty of the Board of Studies with a view to assist the students in their education. While due care is taken in preparation of the answers, if any errors or omissions are noticed, the same may be brought to the attention of the Director of Studies. The Council of the Institute is not in anyway responsible for the correctness or otherwise of the answers published herein.

**PAPER – 7 : INFORMATION TECHNOLOGY AND STRATEGIC MANAGEMENT**

**SECTION – A : INFORMATION TECHNOLOGY**

*Question No. 1 is compulsory*

*Answer any **five** questions from the rest.*

**Question 1**

Answer **all** the following questions in brief:

- (a) Differentiate between flow-chart and data flow diagram.
- (b) What is Bluetooth? Name any two devices that utilize Bluetooth technology.
- (c) Define Virtual Private Networks (VPN).
- (d) What is the difference between electronic cheque and paper cheque?
- (e) What are the objectives of business process automation? (2 x 5 = 10 Marks)

**Answer**

(a)

<b>Flowchart</b>	<b>Data Flow Diagram</b>
Flow chart presents steps to complete a process.	Data Flow Diagram presents the flow of data.
Flow chart does not have any input from or output to an external source.	DFD describes the path of data from an external source to internal source or vice versa.
The timing and sequence of the process is aptly shown by a flowchart.	Whether processing of data is taking place in a particular order or several processes are taking place simultaneously is described by a DFD.
Flow chart shows how to make a system function.	DFD defines the functionality of a system.
Flow chart is used in designing a process.	DFD is used to describe the path of data that will complete the process.
Types of Flow charts – System, Data, Document and Program.	Types of DFD – Physical data flow and Logical data flow.

- (b) **Bluetooth:** Bluetooth is a wireless technology standard for exchanging data over short distances up to 50 meters (164 feet) from fixed and mobile devices, creating Personal Area Networks (PANs) with high levels of security. Bluetooth is like a very low-power, short-range radio signal. Bluetooth signals are secure from the moment they're sent.

Few devices that utilize Bluetooth technology are as follows:

- Keyboards;
  - Mice;
  - Printers;
  - Mobile Phones;
  - Headsets;
  - PDAs (Personal Digital Assistants);
  - Desktop;
  - Laptop Computers;
  - Digital Cameras; and
  - Remotes.
- (c) **Virtual Private Network:** It is a private network that uses a public network (usually the Internet) to connect remote sites or users together. By using a VPN, businesses ensure security – anyone intercepting the encrypted data can't read it. VPN is a secure network that uses the Internet as its main backbone network, but relies on the firewalls and other security features of the Internet and Intranet connections and those of participating organizations.
- (d) An e-cheque is an instrument where one person issues it to pay another person but there is no paper involved. Everything is electronic. An electronic cheque can be protected against any fraud by encoding sender's account number with the bank's public key thereby not revealing the sender's account number to the merchant. As with the SET protocol, digital certificates can be used to authenticate the payer, the payer's bank, and bank account. However, no such encoding of sender's account number is possible in case of paper cheque. E-cheque is faster and more convenient than paper cheque. It is environmentally friendly too.
- (e) The objectives of Business Process Automation are as follows:
- **Confidentiality:** To ensure that data is only available to persons who have right to see the same;
  - **Integrity:** To ensure that no un-authorized amendments can be made in the data;
  - **Availability:** To ensure that data is available when asked for; and
  - **Timeliness:** To ensure that data is made available in at the right time.

### Question 2

- (a) What are the various key factors to be considered in implementing Business Process Management (BPM) in an enterprise? (4 Marks)

- (b) What are the major reasons for failure of Business Process Management System (BPMS)? (4 Marks)

**Answer**

- (a) Various key factors to be considered in implementing Business Process Management (BPM) in an enterprise are as follows:

Factors	Key Considerations
Scope	A single process, a department, the entire company.
Goals	Process understanding, Process Improvement, Process Automation/ Optimization and Process re-engineering.
Methods to be used	Six Sigma, BPM Life Cycle Method, TQM, Informal methods.
Skills Required	Consultants, Train Employees, Formal Certification, Basic Education, Existing Skill sets.
Tools to be used	White-Boards, Sticky Notes, Software For Mapping, Documenting, Software for Simulation, Comprehensive BPMS.
Investments to Make	Training, Tools, Time.
Sponsorship/Buy-in Needed	Executive Level, Department Level, Process Owner Level, Employee Level.

- (b) Major reasons for the failure of Business Process Management Systems (BPMS) include the following:
- Inadequate investment in ongoing training for involved personnel;
  - Lack of corporate policy protecting the integrity of the data in the BPM Systems;
  - Superficial or deficient executive involvement;
  - Deficient project management;
  - Breakdown in gap analysis;
  - Limited options for customization of the BPM software are required;
  - Not flexible enough or too complicated to be customized to meet the precise workflow and business process;
  - Failure to identify future business needs;
  - Inadequate assessment of the need for change management;
  - Persistent compatibility problems with the diverse legacy systems of the partners;
  - Resources not available when desirable;
  - Software fails to meet business needs;



- System may be over-engineered when compared to the actual requirements; and
- Technological obsolescence.

**Question 3**

- (a) What is cloud computing? Describe any three types of clouds in cloud computing environment. (4 Marks)
- (b) What is mobile computing? What are the three major concerns related to mobile computing? (4 Marks)

**Answer**

- (a) **Cloud Computing:** Cloud computing is the use of various services, such as software development platforms, servers, storage, and software, over the Internet, often referred to as the "Cloud."

The Cloud Computing environment can consist of multiple types of clouds based on their deployment and usage. They are **Public Cloud**, **Private/Internal Cloud**, **Community Cloud** and **Hybrid Cloud**.

- **Public Cloud:** The public cloud is made available to the general public or a large industry group. They are administrated by third parties or vendors over the Internet, and services are offered on pay-per-use basis. It is widely used in the development, deployment and management of enterprise applications, at affordable costs; and allows organizations to deliver highly scalable and reliable applications rapidly and at more affordable costs.
  - **Private/Internal Cloud:** This cloud computing environment resides within the boundaries of an organization and is used exclusively for the organization's benefits. They are built primarily by IT departments within enterprises who seek to optimize utilization of infrastructure resources within the enterprise and have more control.
  - **Community Cloud:** This refers to the sharing of computing infrastructure in between organizations of the same community. For example, all Government organizations within India may share computing infrastructure on the cloud to manage data. The risk is that data may be stored with the data of competitors.
  - **Hybrid Cloud:** It is a composition of two or more clouds (Private, Community or Public) and is maintained by both internal and external providers. They are bound together by standardized data and application portability. With a hybrid cloud, organizations might run non-core applications in a public cloud, while maintaining core applications and sensitive data in-house in a private cloud.
- (b) **Mobile Computing:** Mobile Computing is the use of portable computing devices (such as laptop and handheld computers) in conjunction with mobile communication technologies to enable users to access the Internet and data on their home or work computers from

anywhere in the world. Mobile computing is enabled by use of mobile devices (portable and hand held computing devices) such as PDA, laptops, mobile phones, MP3 players, digital cameras, tablet PC and Palmtops on a wireless network.

Major concerns relating to mobile computing are given as follows:

- Mobile computing has its fair share of security concerns as any other technology.
- Dangers of misrepresentation - Another problem plaguing mobile computing are credential verification.
- Power consumption - When a power outlet or portable generator is not available, mobile computers must rely entirely on battery power.
- Potential health hazards.

#### Question 4

- (a) What is Bus Topology? List its two advantages and two disadvantages. (3 Marks)
- (b) What do you mean by threat and vulnerability? Explain any three facts responsible for occurrence of vulnerabilities in the software. (5 Marks)

#### Answer

- (a) **Bus Topology:** In a Bus Topology, a single length of wire, cable, or optical fiber connects a number of computers. All communications travel along this cable, which is called a bus.

Advantages of Bus Topology include the following:

- There is no host computer or file server, which makes bus network reliable as well as easy to use and understand.
- If one of the microcomputers fails, it will not affect the entire network.
- It requires the least amount of cable to connect the computers together and therefore is less expensive than other cabling arrangements.
- It is easy to extend. Two cables can be easily joined with a connector, making a longer cable for more computers to join the network.
- A repeater can also be used to extend a bus configuration.

Disadvantages of Bus Topology include the following:

- Heavy network traffic can slow a bus considerably since any computer can transmit at any time.
- Each connection between two cables weakens the electrical signal.
- The bus configuration can be difficult to troubleshoot. A cable break or malfunctioning computer can be difficult to find and can cause the whole network to stop functioning.

- (b) **Threat:** A threat is anything that can disrupt the operation, functioning, integrity, or availability of a network or system.

**Vulnerability:** Vulnerability is an inherent weakness in the design, configuration, or implementation of a network or system that renders it susceptible to a threat.

The following facts are responsible for occurrence of vulnerabilities in the software:

- **Software Bugs** - Software bugs are so common that users have developed techniques to work around the consequences, and bugs that make saving work necessary every half an hour or crash the computer every so often are considered to be a normal part of computing. For example - buffer overflow, failure to handle exceptional conditions, access validation error, input validation errors are some of the common software flaws.
- **Timing Windows** - This problem may occur when a temporary file is exploited by an intruder to gain access to the file, overwrite important data, and use the file as a gateway for advancing further into the system.
- **Insecure default configurations** - Insecure default configurations occur when vendors use known default passwords to make it as easy as possible for consumers to set up new systems. Unfortunately, most intruders know these passwords and can access systems effortlessly.
- **Trusting Untrustworthy information** - This is usually a problem that affects routers, or those computers that connect one network to another. When routers are not programmed to verify that they are receiving information from a unique host, bogus routers can gain access to systems and do damage.
- **End users** - Generally, users of computer systems are not professionals and are not always security conscious. For example, when the number of passwords of a user increases, user may start writing them down, in the worst case to places from where they are easy to find. In addition to this, users do human errors, for example save confidential files to places where they are not properly protected.

#### Question 5

- (a) Briefly explain the two main approaches to establish access controls in Software Systems. (4 Marks)
- (b) Explain the different components of Decision Support Systems. (4 Marks)

#### Answer

- (a) The two main approaches to establish access controls in Software systems are as follows:
- **Role-based Access Control (RBAC):** RBAC largely eliminates discretion when providing access to objects. Instead, administrators or automated systems place subjects into roles. Subjects receive only the rights and permissions assigned to

those roles. RBAC uses a centrally administered set of controls to determine how subjects and objects interact. When an employee changes jobs, all previous access is removed, and the rights and permissions of the new role are assigned. RBAC enforces static constraints based on a user's role. It is the best system for an organization that has high turnover.

- **Rules-based Access Control (RAC):** RAC is largely context-based that takes into account the data affected, the identity attempting to perform a task, and other triggers governed by business rules. RAC uses specific rules that indicate what can and cannot happen between a subject and an object. A manager, for example, has the ability to approve his/her employees' hours worked. However, when s/he attempts to approve his/her own hours, a rule built into the application compares the employee record and the user, sees they are the same, and temporarily removes approval privilege. It is not necessarily identity based.
- (b) The components of Decision Support Systems (DSS) are as follows:
- (i) **The user:** The user is usually a manager with an unstructured or semi-structured problem to solve and may be at management - level of an organization.
  - (ii) **One or more databases:** Databases contain both routine and non-routine data from both internal and external sources.
  - (iii) **Planning languages:** Planning languages can either be general-purpose or special purpose allowing users to perform routine tasks and specific tasks respectively.
  - (iv) **Model Base:** Model base is the brain of the DSS as it performs data manipulations and computations with the data provided to it by the user and the database. The planning language in DSS allows the user to maintain a dialogue with the model base.

### Question 6

- (a) List out different types of delivery channels through which information is delivered to the user. (4 Marks)
- (b) Briefly explain Grid Computing. What are possible reasons of using grid computing? (4 Marks)

### Answer

- (a) Delivery channels refer to the mode through which information or products are delivered to users. Delivery Channels for Information include the following:
  - Intranet: Network within the company/enterprise;
  - E-mail: The most widely used delivery channel for information today;
  - Internal newsletters and magazines;
  - Staff briefings, meetings and other face-to-face communications methods;

- Notice boards in communal areas;
  - Manuals, guides and other printed resources;
  - Hand-held devices (PDAs, etc.); and
  - Social networking sites like Facebook, WhatsApp etc.
- (b) **Grid Computing:** Grid Computing is a computer network in which each computer's resources are shared with every other computer in the system. In the ideal grid computing system, every resource is shared, turning a computer network into a powerful supercomputer. With the right user interface, accessing a grid computing system is no different than accessing a local machine's resources.

Some of the reasons of using Grid Computing are as follows:

- Civil engineers collaborate to design, execute, & analyze shake table experiments.
- An insurance company mines data from partner hospitals for fraud detection.
- An application service provider offloads excess load to a compute cycle provider.
- An enterprise configures internal & external resources to support e-Business workload.
- Large-scale science and engineering are done through the interaction of people, heterogeneous computing resources, information systems and instruments, all of which are geographically and organizationally dispersed.

#### Question 7

Write short notes on any **four** of the following:

- (a) Hardware Virtualization
- (b) Total Quality Management (TQM)
- (c) HTTPS
- (d) eXtensible Business Reporting Language (XBRL)
- (e) Software as a Service (SaaS) (2 x 4 = 8 Marks)

#### Answer

- (a) **Hardware Virtualization:** Hardware Virtualization refers to the creation of a virtual machine that acts like a real computer with an operating system. Software executed on these virtual machines is separated from the underlying hardware resources. Hardware virtualization can give root access to a virtual machine.
- (b) **Total Quality Management (TQM):** It is the organization-wide effort to install and make permanent a climate in which it continuously improves its ability to deliver high-quality products and services to customers.

- (c) **HTTPS:** HyperText Transfer Protocol Secure (HTTPS) is a communications protocol for secure communication over a computer network, with especially wide deployment on the Internet. The security of HTTPS uses long term public and secret keys to exchange a short term session key to encrypt the data flow between client and server.
- (d) **eXtensible Business Reporting Language (XBRL):** XBRL is freely available international standards-based business reporting language developed by accountants for financial reporting. It is a single reporting language to report to government.
- (e) **Software as a Service (SaaS):** It includes a complete software offering on the cloud. Users can access a software application hosted by the cloud vendor on pay-per-use basis. SaaS is a model of software deployment where an application is hosted as a service provided to customers across the Internet by removing the need to install and run an application on a user's own computer. SaaS can alleviate the burden of software maintenance and support but users relinquish control over software versions and requirements.

**SECTION – B**

*Question No. 8 is compulsory*

*Answer any **five** questions from the rest*

**Question 8**

- (a) *You have been hired as a consultant by a company to advise it on factors it need to consider for environmental scanning. Explain briefly these factors. (3 Marks)*
- (b) *“A strategic vision is a road map of a company's future.” Comment. Draft a strategic vision statement of any well known national level Educational Institution you are familiar with. (3 Marks)*
- (c) *In your view what are the Key Success Factors for operating in a competitive market place? (3 Marks)*
- (d) *How would you argue that Research and Development Personnel are important for effectively strategy implementation? (3 Marks)*
- (e) *What steps would you suggest to change a company's problem culture? (3 Marks)*

**Answer**

- (a) Organizational environment consists of both external and internal factors. Environment must be scanned so as to determine development and forecasts of factors that will influence organizational success. The factors that need to be considered are explained below:
- **Events:** Events are important and specific happenings in the internal or external organisational environment which can be observed and tracked.
  - **Trends:** Trends are grouping of similar or related events that tend to move in a given direction, increasing or decreasing in strength or frequency of observation.
  - **Issues** are the current concerns that arise in response to events and trends. Identifying an emerging issue is more difficult.
  - **Expectations** are the demands made by interested groups in the light of their concern for issues.
- (b) A Strategic vision is a roadmap of a company's future – providing specifics about technology and customer focus, the geographic and product markets to be pursued, the capabilities it plans to develop, and the kind of company that management is trying to create.

The vision of ICAI is - World's leading accounting body, a regulator and developer of trusted and independent professionals with world class competencies in accounting, assurance, taxation, finance and business advisory services.

- (c) KSFs are the rules that shape whether a company will be financially and competitively successful. Important key success factors for operating in competitive markets are:
- ◆ Cost structure of the market.
  - ◆ The price sensitivity of the market.
  - ◆ Technological structure of the market.
  - ◆ The existing distribution system of the market.
  - ◆ Is the market mature?

- (d) Research and development (R&D) personnel can play an integral part in strategy implementation. These individuals are generally charged with developing new products and improving old products in a way that will allow effective strategy implementation. R&D employees and managers perform tasks that include transferring complex technology, adjusting processes to local raw materials, adapting processes to local markets, and altering products to particular tastes and specifications.

Strategies such as product development, market penetration, and concentric diversification require that new products be successfully developed and that old products be significantly improved. But the level of management support for R&D is often constrained by resource availability.

- (e) 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.

The menu of culture-changing actions includes revising policies and procedures, altering incentive compensation, recruiting and hiring new managers and employees, replacing key executives, communication on need and basis to employees and so on.

#### Question 9

- (a) State with reasons which of the following statements is correct or incorrect:
- (i) Strategic vision and mission statements are needed only by large business houses.
  - (ii) An industry can have more than one strategic group. (2 x 2 = 4 Marks)



- (b) *What is meant by backward integration? Name any two backward integration strategies that hospitals may pursue.* (1 + 2 = 3 Marks)

**Answer**

- (a) (i) **Incorrect:** Every organization whether it is large or small requires strategic vision and mission statements. Organisations irrespective of their size face similar business environment and have to sail through competition. Small organizations have to plan strategies for their survival in the market where large organizations are also present.
- (ii) **Correct:** An industry contains only one strategic group when all sellers pursue essentially identical strategies and have comparable market positions. At the other extreme, there are as many strategic groups as there are competitors when each rival pursues a distinctively different competitive approach and occupies a substantially different competitive position in the marketplace.
- (b) 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.

In case of hospitals there can be number of businesses that can be entered. Following are indicative list of backward integration strategies that hospitals may pursue:

- Drugs and pharmaceuticals – Specific drugs can be manufactured or traded.
- Business of gases required in hospitals – oxygen.
- Pathology labs / diagnostic services. This can be created in-house if not available already. Alternatively, a chain can be started.
- Blood Banks.
- Ambulance services.

**Question 10**

*How does the Internet Technology influence an industry's competitive environment? Explain.*

(7 Marks)

**Answer**

The impact of the Internet and the rapidly emerging e-commerce environment is substantial and widespread. Growing use of the Internet by businesses and consumers reshapes the economic landscape and alters traditional industry boundaries. Characteristics of E-commerce environment changing competitive scenario are as under:

- (a) The Internet makes it feasible for companies everywhere to compete in global markets.

- (b) There are new e-commerce strategic initiatives of existing rivals and new entrants in form of e-commerce rivals.
- (c) Entry barriers into the e-commerce world are relatively low.
- (d) Increased bargaining power of customers to compare the products, prices and other terms.
- (e) Possibility for business organizations to locate the best suppliers across the world to gain cost advantage and collaborate closely with them to achieve efficiency gains and cost savings.
- (f) Internet and PC technologies are advancing rapidly, often in uncertain and unexpected directions. Such changes are often bringing in new opportunities and challenges.
- (g) Organisations in emerging countries and elsewhere can use the internet to monitor the latest technological developments and to stay abreast of what is happening in developed markets.
- (h) The e-commerce environment demands that companies move swiftly. In the exploding e-commerce world, speed is a condition of survival.
- (i) E-commerce technology opens up a host of opportunities for reconfiguring industry and company value chains.
- (j) The Internet can be an economical means of delivering customer service. Organisations are discovering ways to deliver service in a centralised manner – online or through telephone.
- (k) The capital for funding potentially profitable e-commerce businesses is readily available.
- (l) The needed e-commerce resource in short supply is human talent-in the form of both technological expertise and managerial know-how.

**Question 11**

- (a) *“Management of internal linkages in the value chain could create competitive advantage in a number of ways”. Briefly explain. (4 Marks)*
- (b) *How strategic decisions differ in nature from other routine decisions taken in day-to-day working of an organization? Explain. (3 Marks)*

**Answer**

- (a) The management of internal linkages in the value chain could create competitive advantage in a number of ways:
  - There may be important linkages between the primary activities. For example, a decision to hold high levels of finished stock might ease production scheduling problems and provide for a faster response time to the customer. However, an assessment needs to be made whether the value added to the customer by this faster response through holding stocks is greater than the added cost.

- It is easy to miss this issue of managing linkages between primary activities in an analysis if, for example, the organization's competences in marketing activities and operations are assessed separately. The operations may look good because they are geared to high-volume, low-variety, low-unit-cost production. However, at the same time, the marketing team may be selling speed, flexibility and variety to the customers. So competence in separate activities need to be compatible.
  - The management of the linkages between a primary activity and a support activity may be the basis of a core competence. It may be key investments in systems or infrastructure which provides the basis on which the company outperforms competition. Computer-based systems have been exploited in many different types of service organization and have fundamentally transformed the customer experience.
  - Linkages between different support activities may also be the basis of core competences. For example, the extent to which human resource development is in tune with new technologies has been a key feature in the implementation of new production and office technologies. Many companies have failed to become competent in managing this linkage properly and have lost out competitively.
- (b) Strategic decisions are different in nature than all other decisions which are taken at various levels of the organization during day-to-day working of the organizations. The major dimensions of strategic decisions are given below:
- ◆ Strategic issues require top-management decisions.
  - ◆ Strategic issues involve the allocation of large amounts of company resources.
  - ◆ Strategic issues are likely to have a significant impact on the long term prosperity of the firm.
  - ◆ Strategic issues are future oriented.
  - ◆ Strategic issues usually have major multifunctional or multi-business consequences.
  - ◆ Strategic issues necessitate consideration of factors in the firm's external environment.

#### Question 12

- (a) *In the context of Ansoff's Product-Market Growth Matrix, identify with reasons, the type of growth strategies followed in the following cases:*
- (i) *A leading producer of tooth paste, advises its customers to brush teeth twice a day to keep breath fresh.*
  - (ii) *A business giant in hotel industry decides to enter into dairy business.*
  - (iii) *One of India's premier utility vehicles manufacturing company ventures to foray into foreign markets.*

- (iv) A renowned auto manufacturing company launches ungeared scooters in the market. (4 Marks)
- (b) To which industries the following developments offer opportunities and threats?  
 "Increasing trend in India to organize IPL (Cricket) type of tournaments in other sports also." (3 Marks)

**Answer**

- (a) The Ansoff's product market growth matrix (proposed by Igor Ansoff) is a useful tool that helps businesses decide their product and market growth strategy. This matrix further helps to analyse different strategic directions. According to Ansoff there are four strategies that organisation might follow.
- (i) **Market Penetration:** A leading producer of toothpaste, advises its customers to brush teeth twice a day to keep breath fresh. It refers to a growth strategy where the business focuses on selling existing products into existing markets.
- (ii) **Diversification:** A business giant in hotel industry decides to enter into dairy business. It refers to a growth strategy where a business markets new products in new markets.
- (iii) **Market Development:** One of India's premier utility vehicles manufacturing company ventures to foray into foreign markets. It refers to a growth strategy where the business seeks to sell its existing products into new markets.
- (iv) **Product Development:** A renowned auto manufacturing company launches ungeared scooters in the market. It refers to a growth strategy where business aims to introduce new products into existing markets.
- (b) An opportunity is a favourable condition in the organisation's environment which enables it to strengthen its position. On the other hand a threat is an unfavourable condition in the organisation's environment which causes a risk for, or damage to, the organisation's position. An opportunity is also a threat in case internal weaknesses do not allow organization to take their advantage in a manner rivals can.

The IPL (Cricket) tournament is highly profit and entertainment driven. A number of entities and process are involved in this IPL type tournament. So financial opportunity are for:

- Stadiums.
- Sports Industry.
- Manufactures of sports items.
- Media Industry – Sports channels / television, advertisers. It is also threat to entertainment industry as competitors will be fighting for same viewers.
- Tourism and hotel Industry.

- Event Management.

**Question 13**

*Distinguish between:*

- (a) *Divestment strategy and Liquidation strategy.* (4 Marks)
- (b) *Unfreezing the situation and Refreezing - the two stages of Kurt Lewin change process.* (3 Marks)

**Answer**

- (a) **Divestment Strategy:** Divestment strategy involves the sale or liquidation of a portion of business, or a major division, profit centre or SBU. Divestment is usually a part of rehabilitation or restructuring plan and is adopted when a turnaround has been attempted but has proved to be unsuccessful. The option of a turnaround may even be ignored if it is obvious that divestment is the only answer.

**Liquidation Strategy:** Liquidation as a form of retrenchment strategy is considered as the most extreme and unattractive. It involves closing down a firm and selling its assets. It is considered as the last resort because it leads to serious consequences such as loss of employment for workers and other employees, termination of opportunities a firm could pursue, and the stigma of failure.

- (b) **Unfreezing the situation:** The process of unfreezing simply makes the individuals or organizations aware of the necessity for change and prepares them for such a change. Lewin proposes that the changes should not come as a surprise to the members of the organization. Unfreezing is the process of breaking down the old attitudes and behaviours, customs and traditions so that they start with a clean slate. This can be achieved by making announcements, holding meetings and promoting the ideas throughout the organization.

**Refreezing:** Refreezing occurs when the new behaviour becomes a normal way of life. The new behaviour must replace the former behaviour completely for successful and permanent change to take place. In order for the new behaviour to become permanent, it must be continuously reinforced so that this new acquired behaviour does not diminish or extinguish.

**Question 14**

*Write short notes on the following:*

- (a) *Strategic responses to business environment.* (4 Marks)
- (b) *Expansion through acquisitions and mergers.* (3 Marks)

OR

*Expanded Marketing Mix.*

**Answer**

- (a) The business organization and its many environments have innumerable interrelationship that at times it becomes difficult to determine exactly where the organization ends and where its environment begins. It is also difficult to determine exactly what business should do in response to a particular situation in the environment. Strategically, the businesses should make efforts to exploit the opportunity and avoid the threats.

In this context following are the approaches:

- (i) **Least resistance:** Some businesses just manage to survive by way of coping with their changing external environments. They are simple goal-maintaining units. They are very passive in their behaviour and are solely guided by the signals of the external environment. They are not ambitious but are content with taking simple paths of least resistance in their goal-seeking and resource transforming behaviour.
  - (ii) **Proceed with caution:** At the next level, are the businesses that take an intelligent interest to adapt with the changing external environment. They seek to monitor the changes in that environment, analyse their impact on their own goals and activities and translate their assessment in terms of specific strategies for survival, stability and strength. This is a sophisticated strategy than to wait for changes to occur and then take corrective-adaptive action.
  - (iii) **Dynamic response:** At a still higher sophisticated level, are those businesses that regard the external environmental forces as partially manageable and controllable by their actions. Their feedback systems are highly dynamic and powerful. They not merely recognise and ward off threats; they convert threats into opportunities. They are highly conscious and confident of their own strengths and the weaknesses of their external environmental 'adversaries'. They generate a contingent set of alternative courses of action to be picked up in tune with the changing environment.
- (b) Acquisitions and mergers are basically combination strategies. Some organizations prefer to grow through mergers. Merger is considered to be a process when two or more companies come together to expand their business operations. In such a case the deal gets finalized on friendly terms and both the organizations share profits in the newly created entity. In a merger two organizations combine to increase their strength and financial gains along with breaking the trade barriers.

When one organization takes over the other organization and controls all its business operations, it is known as acquisition. In this process of acquisition, one financially strong organization overpowers the weaker one. Acquisitions often happen during recession in economy or during declining profit margins. In this process, one that is financially stronger and bigger establishes its power. The combined operations then run under the name of the powerful entity. A deal in case of an acquisition is often done in an unfriendly manner, it is more or less a forced association where the powerful organization either consumes the operation or a company in loss is forced to sell its entity.

**OR**

**Expanded Marketing Mix:** Typically, all organizations use a combination of 4 Ps in some form or the other. However, the above elements of marketing mix are not exhaustive. There are a few more elements that may form part of an organizational marketing mix strategy as follows:

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