

# Solved Scanner Appendix

IPCC Gr. II

(Solution of November - 2014)

**Paper - 7 : Information Technology and Strategic Management**

**Section - A  
Information Technology**

## **Chapter - 1 : Business Process Management & IT**

**2014 - Nov [1] {C} (a)**

- Flow chart presents steps to complete a process whereas Data Flow Diagram presents the flow of data.
- Flow chart does not have any input from or output to an external source, whereas DFD describes the path of data from an external source to internal source or *vice versa*.
- Flow chart shows how to make a system function whereas DFD defines the functionality of a system.
- Flow chart is used in designing a process whereas DFD is used to describes the path.

**2014 - Nov [2] (a), (b)**

**(a)** BPM refers to the closed loop interactive management of business over their complete life cycle. All the key terms of the definition are explained below:

1. **Achievement** : Realizing the strategic objectives as outlined in the organization's strategic plan.

2. **Organization:** The organization in this context refers to an enterprise or parts of an enterprise perhaps a business unit that is discrete in its own right.
  3. **Objectives:** The objectives of a BPM implementation range from the strategic goals of the organization through to the individuals process goals.
  4. **Improvement:** It is about making the business processes more efficient and effective.
  5. **Management:** It refers to the process and people performance measurement and management. It is about organizing all the essential components and subcomponents for a processes.
  6. **Essential:** Not every process in an organization contributes towards the achievement of the organization's strategic objectives. Essential processes are the ones that do.
  7. **Business:** An implementation of BPM must have an impact on the business by delivering benefits.
- (b) • The consumer is often confronted with poor customer service due to broken processes, inefficient processes and manual processes- that is the customer is often confronted (challenged) with the silos of the organisation.
- The same consumer is becoming more and more demanding with respect to delivery time and also demanding higher quality of the products or services.
  - The product or service is becoming more and more personalized supported by increased customer services.

**2014 - Nov [7] (b)**

**Total Quality Management(TQM):** Total Quality Management is a management mechanism designed to improve a product or process by engaging every stakeholder and all members of an organization as well as the customers and aims at improving the quality of the products produced and the process utilized. TQM ultimately aims at complete customer satisfaction through ongoing improvements.

## **Chapter - 2 : Information Systems and IT Fundamentals**

### **2014 - Nov [1] {C} (b)**

Bluetooth is a wireless technology standard for exchanging data over short distances upto 50 meters (164 feet) from fixed and mobile devices, creating personal area networks (PANs) with high level of security. Bluetooth is like a very low-power, short-range radio signal which is secure from the moment they are sent, so unlike any other wireless network we don't have to worry about turning on security.

Few devices that utilize Bluetooth technology are keyboards and mouse, printers, mobile phones and headsets. PDAs (Personal Digital Assistants), desktop and laptop computers, digital cameras and remotes.

### **2014 - Nov [3] (a), (b)**

(a) 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:

**Public Clouds:** 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.

**Private/internal Clouds:** This cloud computing environment resides within the boundaries of an organisation and is used exclusively for the organisation's benefits. They are built primarily by IT departments within enterprises who seek to optimize utilization of infrastructure resources within the enterprise by provisioning the infrastructure with applications using the concepts of grid and virtualization. The private cloud enables and enterprise to manage the infrastructure and have more control.

**Hybrid Controls:** It is a composition of two or more clouds (Private, Community or Public) and is maintained by both internal and external providers. Though they maintain their unique identity, they are bound together by standardized data and application portability. With a hybrid cloud organizations might run non-core applications in a public cloud.

(b) Mobile computing is the use of portable computing devices (such as laptop and hand-held 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 PPA, laptops, mobile phones, MP3 players, digital cameras, tablet PC and pantops on a wireless network.

Mobile computing involves mobile communication. Mobile hardware and Mobile software which are discussed as follows:

**Mobile Communication:** Mobile communication refers to the infrastructure put in place to ensure that seamless and reliable communication goes on. These would include devices such as Protocols, Services, Bundwidth and Portals necessary to facilitate and support the stated services. The data format is also defined at this stage.

**Mobile Hardware:** Mobile hardware includes mobile devices or device components that receive or access the service of mobility. They would range from portable laptops, smart phones, tablet PC's to Personal Digital Assistants. These devices will have receptors that are capable of sensing and receiving signals. These devices are configured to operate in full-duplex whereby they are capable of sending and receiving signals at the same time.

**Mobile Software:** Mobile software is the actual program that runs on the mobile hardware. It deals with the characteristics and requirements of mobile application. This is the engine of that mobile device. In other terms it is the operating system of that appliance. It is the essential component that makes the mobile device operates.

**2014 - Nov [7] (a)**

**Hardware Virtualization:** Hardware is the tangible portion of computer system; something we can touch and see. It basically consists of devices that perform the function of input, processing, data storage and output activities of the computer.

**2014 - Nov [7] (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.

### **Chapter - 3 : Telecommunication and Networks**

**2014 - Nov [1] {C}** (c), (d)

**(c)** A virtual private network (VPN) is a network that uses a public network, such as the internet to provide secure access to organization's private network. A key feature of a VPN is its ability to work over both private networks as well as public networks like the internet. Using a method called tunneling, VPN use the same hardware infrastructure as existing internet or internet skills.

- (d)** ➤ Electronic cheque is in electronic form whereas paper cheque is in paper form.
- Electronic cheque includes credit card, debit card etc. whereas paper cheque includes crossed cheque, bearer cheque etc.
- Electronic cheque functions as a message to the sender's bank to transfer funds whereas paper cheque. The message is given initially to the receiver who in turn endorses the cheque and presents it to the bank to obtain funds.

**2014 - Nov [4] (a), (b)**

**(a)** In a bus network, a single length of wire, cable or optical fiber connects a number of computers.

#### **Advantages:**

- There is no host computer or ride server which makes bus network reliable as well as easy to use and understand.
- If one of the microcomputers fail, it will not affect the entire network.

#### **Disadvantages:**

- Computers interrupting each other can use a lot of bandwidth.
- Each connection between two cables weakness the electrical signal.

**(b) Threats:** Threats originate from individuals who have authorised access to the network. These users either have an account on a server or physical access to the network.

**Vulnerability:** Vulnerability is an internet 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.

**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 password to make it as easy as possible for consumers to set up new systems.

**End users:** Generally users of computer systems are not professionals and are not always security conscious.

**2014 - Nov [7] (c)**

**HTTPS:** Hyper Text 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.

#### **Chapter - 4 : Business Information Systems**

**2014- Nov [5] (a), (b)**

**(a)** To ensure that all information that is generated from system is accurate, complete and reliable for decision making there is a requirement for proper controls.

- (1) **Application controls:** Application controls are the controls on the sequence of processing events. These controls cover all phases of data right from data origination to its final disposal.  
Application controls cover transactions as they recorded in each stage of processing into master parameter and transaction files and include controls relating to transmission and distribution of output through display, electronic media or printed reports.
- (2) **Internal controls :** SA-315 defines the system of internal control as the plan of enterprise and all the methods and procedures adopted by the management of an entity to assist achieving management's objective of ensuring as far as practicable the orderly and efficient conduct of its business including adherence to management policies, the safeguarding of assets, prevention and detection of fraud .

**(b) Decision support systems has four basic components:**

- (1) **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.
- (2) **One or more databases:** Databases contain both routine and non-routine data from both internal and external sources.
- (3) **Planning languages:** Planning languages can either be general purpose or special purpose allowing users to perform routine tasks and specific tasks respectively.
- (4) **Model base:** Model base is the brain of DSS as it performs data manipulation and computations.

**2014 - Nov [7] (d)**

**Extensible Business Reporting Language (XBRL):** XBRL is freely available international standards- based business reporting language developed by accountants for financial reporting.

**Chapter-5: Business Process Automation Through Application Software**

**2014 - Nov [1] {C} (e)**

The success of any business process automation shall only be achieved when BPA ensures:

**Confidentiality:** To ensure that data is only available to persons who have right to see the same;

**Integrity:** To ensure that unauthorized amendments can be made in the data;

**Availability:** To ensure that data is available when asked for; and

**Timelines:** To ensure that data is made available in at the right time.

To ensure that all the above parameters are met, BPA needs to have appropriate internal controls put in place.

**2014 - Nov [6] (a), (b)**

**(a)** E-mail

Internal newsletter

Magazines

Staff briefings

Meeting

Manuals guides and other printed resources.

Social networking sites like facebook, whatsapp etc.

**(b)** Grid computing is a computer network in which each computer's resources are shared with every other computer in the system.

Processing power, memory and data storage are all community resources that authorised users can tap into and leverage for specific tasks.

**Reasons:** Civil engineers collaborate to design, execute and 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 and external resources to support-e-business workload.



<b>Section - B</b> <b>Strategic Management</b>
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**Chapter - 1: Business Environment**

**2014 - Nov [8] {C} (a)**

**Factors relating Micro environment:**

- Consumers/Customers
- Competitor
- Organization
- Market
- Supplier
- Intermediaries

**Factors relating Macro environment:**

- Demographic environment
- Economic environment
- Political-Legal environment
- Socio-Cultural environment
- Technological environment
- Global environment.

**2014 - Nov [14] (a)**

The business organization and its many environments have in numerous interrelationship that at times it becomes difficult to determine exactly where the organization ends and where it begins.

- **Least Resistance:** Some Business just manage to survive by way of coping with their changing external environments. They are simple goal-maintaining units.
- **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.

- **Dynamic response:** At a still higher sophisticated level are those businesses that regard the external environment forces as partially manageable and controllable by their actions.

## **Chapter - 2 : Business Policy and Strategic Management**

### **2014 - Nov [8] {C} (b)**

A strategic vision delineates organisation's aspirations for the business providing a panoramic view of the position where the organisation is going. A strategic vision points an organisation in a particular direction, charts a strategic path for it to follow in preparing for the future and moulds organizational identity. A strategic vision is a road map 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.

### **2014 - Nov [9] (a) (i)**

**Incorrect** Strategic vision and mission statements are needed only by large as well as small business houses.

### **2014 - Nov [11] (b)**

Strategic decision making or strategic planning describes the process of creating a company's mission and objectives and choosing the course of action of company.

Decision making is a managerial process and function of choosing a particular course of action but out of several alternatives courses for the purpose of accomplishment of the organizational goals. Decisions are routine, tactical or strategic in nature. Strategic decisions are different from other decisions that are taken at various levels of the organization during day to-day working of the organizations. They have long term implications, steer organisations to its future path and have organization wide implications and so on. These decisions are taken considering different internal and external factors. They are also taken with partial or no definite knowledge of different factors affecting the decision situation.

### **Chapter - 3 : Strategic Analysis**

**2014 - Nov [8] {C}** (c) Key success factors vary from industry to industry and even from time to time within the same industry as driving forces and competitive conditions change. Rarely an industry has more than three or four key success factors at any one time. And even among these three or four, one or two usually outrank the others in importance.

**2014 - Nov [9]** (a) (ii)

**Correct** An industry can have more than one strategic group.

**2014 - Nov [12]** (a), (b)

- (a) (i) **Market Penetration:** refers to a growth strategy where the business focuses on selling existing products into existing markets.
- (ii) **Diversification:** Diversification refers to a growth strategy where a business markets new products in new markets.
- (iii) **Market Development:** Market Development refers to a growth strategy where the business seeks to sell its existing products into new markets.
- (iv) **Product Development** Product Development refers to a growth strategy where business aims to introduce new products into existing markets.

**(b) Opportunities:**

- Growth of the Nation.
- Growth of Indian Cricket Industry.

**Threats:**

- Increase in corruption.
- Increase in betting.
- Time wasting of people.

### **Chapter - 4: Strategic Planning**

**2014 - Nov [9]** (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.

**2014 - Nov [13] (a)**

- ⇒ Divestment strategy involves the sale or liquidation of a portion of business, or a major division profit centre or SBU while liquidation strategy involves closing down a firm and selling its assets.
- ⇒ 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.
- ⇒ Liquidation strategies is considered as the last resort because it leads to serious consequences such as loss of employment for workers and others termination of opportunities.

**2014 - Nov [14] (b)**

Merger and Acquisition in simple words are defined as a process of combining two or more organizations together. There is a thin line of difference between the two terms but the impact of combination is completely different in both the cases. In a merger two organizations combine to increase their strength and financial gains along with breaking the trade barriers. When one organization take over the other organization and controls all its business operations, it is known as acquisitions.

**Chapter - 5 : Formulation of Functional Strategy**

**2014 - Nov [8] {C} (d)** Research and Development personnel can play an integral part in strategy implementation. Strategies are 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. There must be effective interactions between R&D departments and other functional departments in implementing different types of generic business strategies.

**2014 - Nov [14] (Or) (b)**

Marketing mix is a systematic way of classifying the key decision areas of marketing management. It is the set of controllable marketing variables that the firm blends to produce the response it wants in the target market. The original framework of marketing mix comprises of 4ps-product, price, place and promotion. These are subsequently expanded to highlight certain other key decision areas like people, processes and physical evidence.

**Chapter - 6 : Strategy Implementation and Control**

**2014 - Nov [8] {C} (e)**

- (i) **Recognize the need for change:** The first step is to diagnose which facets of the present corporate culture are strategy supportive and which are not.
- (ii) **Create a shared vision to manage change:** Objectives and vision of both individuals and organisation should coincide. There should be no conflict between them.
- (iii) **Institutionalise the Change:** This is basically an action stage which requires implementation of changed strategy. Creating and sustaining a different attitude towards change is essential to ensure that the firm does not slip back into old ways of thinking.

**2014 - Nov [11] (a)**

Successful implementation of supply management systems require a change from managing individual function to integrating activities into key supply chain processes. It involves collaborative work between buyers and suppliers joint product development, common systems and shared information. A key requirement for successfully implementing supply chain will be network of information sharing and management.

**2014 - Nov [13] (b)**

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. Sudden and unannounced change would be socially destructive and morale lowering.

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.

**Chapter - 7 : Reaching Strategic Edge**

**2014 - Nov [10]**

- The Internet makes it feasible for companies every where to compete in global markets.
- Entry barriers into the e-commerce world are relatively low.
- Internet technologies are advancing rapidly, often in uncertain and unexpected directions.
- The internet results in much faster diffusion of new technology are new idea across the world.
- The e-commerce environment demand that companies move swiftly.
- The internet can be an economical means of delivering customer service.
- The capital for funding potentially profitable e-commerce businesses is readily available.
- Competition in an industry is greatly intensified by the new e-commerce strategic initiatives of existing rivals and by the entry of new, enterprising e-commerce rivals.

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