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# Solved SCANNER™ Appendix

## PCC Gr. II Paper - 6 May - 2009

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### Solution of May 2009 Examination

#### Paper - 6A : Information Technology

##### Chapter - 1 : Introduction of Computer

2009 - May [1] (a) Describe briefly the following terms :

- (v) Clock speed. (1 mark)

**Answer :**

- (v) **Clock Speed:** Clock speed is the speed at which the processor performs its most basic operations. It is measured in megahertz, which is a million cycles per second.

2009 - May [1] (b) Explain each of the following :

- (ii) MMX (1 mark)

**Answer :**

- (ii) **MMX:** MMX is the abbreviated form for Multimedia Extensions. These are set of instructions built in to the CPU to improve the performance of multimedia and graphic applications games.

##### Chapter - 3 : Software

2009 - May [1] (a) Describe briefly the following terms :

- (iv) Shareware (1 mark)

**Answer :**

- (iv) **Shareware:** Shareware is a software developed by a company that wants to release a demonstration version of its product or by companies that cannot afford to market their software world wide.

2009 - May [1] (b) Explain each of the following :

- (iii) Online backup  
(v) Operating system. (1 mark each)

*Answer :*

- (iii) **Online Backup:** Online backup is performed by executing the command-line. When this backup process begins, the data base engine externalizes all cached data pages kept in memory to the database files on disk, It continues recording activity in the transaction log file while the database is backed up.

- (v) **Operating System:**

Operating system is a master control program of a computer that manages its internal functions, provides means to control the computer's operations and file system.

They are written by programmers and are different than those in a typical application program.

The codes of the operating system of a computer is stored externally in a series of program files on the computer's hard disk or external memory.

**2009 - May [2]** Answer the following questions :

- (a) Define an Expert system. Describe the components of an Expert system.  
(7 marks)

*Answer :*

Expert systems are systems that allows a person not having specialized knowledge or experience to make decisions comparable to that of an expert. Expert systems contain the knowledge used by an expert in a specific field in the form of "If/then" rules and an engine capable of drawing inference from this knowledge base.

Expert systems are used for complex and ill structured tasks that require experience and specialized knowledge in narrow specific subject areas.

**Components of expert system are :-**

1. **Knowledge Base:** It is the computer equivalent to all the knowledge and insight that an expert or a group of expert develop through years of experience in their field.
2. **Inference Engine:** It is the basic logic and reasoning mechanism that simulates the expert logic process and deliver advice. It uses data obtained from both the knowledge base and user to make associations and inferences from its conclusions and recommend a course of action.
3. **User Interface:** This part or program allows the user to design, create, update, use and communicate with the expert system.
4. **Explanation Facility:** This facility provides the user with an explanation of the logic the expert system used to arrive at its conclusions.
5. **Knowledge Acquisition Facility:** Building a knowledge base referred to as knowledge engineering involves both a human expert and a knowledge engineer. The knowledge engineer is responsible for

extracting an individual's expertise and using the knowledge acquisition facility to enter it into the knowledge base.

**Chapter - 5 : Data Storage, retrieval and DBMS**

**2009 - May [1]** (a) Describe briefly the following terms :

- (ii) Folder
- (iii) DDL compiler (1 mark each)

**Answer :**

- (ii) **Folder:** Folder is a data storage tool for organizing files on a disk. Since it can contain files or other folders, so it is possible to set up a hierarchical system of folders on the computer.
- (iii) **DDL Compiler:** DDL Compiler converts data definition statement into a set of tables, containing meta data concerning the data base.

**2009 - May [1]** (b) Explain each of the following :

- (i) Real time data warehouse (1 mark)

**Answer :**

- (i) **Real time Data Warehouse:** A data warehouse is a repository of an organisations electronically stored data. It is designed to facilitate reporting and supporting data analysis Real time Data warehouse is the stage where data warehouse are updated on a transaction or even basis, every time an operational system performs a transaction.

**2009 - May [2] (Or)** (c) What are the challenges faced by the management of a data centre? (3 marks)

**Answer :**

A data center is a centralized repository for the storage, management and dissemination of data & informations. Data center is a facility used for housing a large amount of electronic equipment, typically computers and communication equipments. The purpose of a data center is to provide space and bandwidth connectivity for server in a reliable, secure and scaleable environment. It also provide facilities like housing websites, providing data serving and other services for companies. Such type of data center may contain a network operations center (NOC) which is restricted access area containing automated system that constantly monitor server activity, web traffic, network performance and report even slight irregularities to engineers, so that they can stop potential problems before they occur.

**Challenges:**

- (i) **Maintaining infrastructure:** A data center needs to set up an infrastructure comprising of a member of electronic equipment, typically computers and band width connectivity for server in a reliable secure and saleable environment.
- (ii) **Skilled Human resources:** A data center needs skilled staff expert at network management having software and hardware operating skill.

- (iii) **Selection of Technology:** A data center also faces the challenge of proper selection of technology crucial to the operational of the data center.
- (iv) **Maintaining system performance:** A data centre has to maintain maximum uptime and system performance, while establishing sufficient redundancy and maintaining security

**2009 - May [3]** (b) What are the various views taken into account, while designing the architecture of a Database. Which view is user dependent and which one is user independent?

Which view is storage device oriented? (3 + 2 + 1 = 6 marks)

**Answer :**

While designing the architecture of a database, the following views are taken into account.

- (i) **External view**
  - ◆ It is also known as user view
  - ◆ As name suggests, it includes only those application programs which are user concerned.
  - ◆ It is described by users/ programmers by means of external schema.
- (ii) **Conceptual view:**
  - ◆ It is also known as global view.
  - ◆ It represents the entire data base and includes all data base entities.
  - ◆ It is defined by conceptual schema and describes all records, relationships, constraints or boundaries.
- (iii) **Internal view:**
  - ◆ It is also known as physical view.
  - ◆ It describes the data structure and the access methods.
  - ◆ It is defined by internal schema and indicates how data will be stored.

Out of the above three External View is user dependent and the rest two are user independent.

Also internal view is user independent.

**2009 - May [3] (OR)** (c) Why documentation is required ? List any 4 types of documentations required to be prepared prior to delivery of customized software to a customer. (2 + 4 = 6)

**Answer :**

**Need for documentation**

- It provides a method to understand the various issues related with software development.
- It provides means to access details related to system study, system development, system testing, system operational details.

- It also provides details associated with further modification of software  
4 types of documentation required to be prepared prior to delivery of customized software to a customer.
  - (i) Strategic and application plans.
  - (ii) Application Systems and Program documentation.
  - (iii) System Software and Utility program documentation.
  - (iv) Database documentation, Operation manual, User Manual, Standard Manual, Backup Manual & other.

**Chapter - 6 : Computer Networks & Networks Security****2009 - May [1]** (a) Describe briefly the following terms :

- (i) VPDN (1 mark)

**Answer :**

- (i) **VPDN stands for Virtual Private dial-up Network.**

**Remote access VPN :** It is a user -to-LAN connection used by a company that has employees who need to connect to the private network from various remote locations. Typically a corporation that wishes to set up a large remote access VPN will outsource to an Enterprise Service Provider (ESP). This ESP sets up a Network Access Server (NAS) and provides the remote users with desktop client software for their computers. The telecommuters can then dial toll-free number to reach the NAS and use their VPN client software to access the corporate network.

**2009 - May [2] (OR)** (b) Describe the ways a computer network can help business. (7 marks)**Answer :**

Networking satisfies a broad range of purposes and meets various requirements. Networking has become essential for the following reasons:

1. **File sharing:** Networking enables an user to share files between all the connected computers. When all data files in an organization are concentrated at one place it becomes easier for staff to share documents & other data.
2. **Print sharing:** When printers are made available over the network, multiple users can print to the same printer. It reduces the number of printers in the organization. Network printers are often faster and more capable than those connected directly to individual workstations.
3. **E-mail:** Internet or group email enables staff in the office to communicate with each other quickly & effectively and also provide capabilities for contact management, scheduling & task assignment.
4. **Shared Databases:** Shared databases are an important subset of file sharing. For an extensive database (e.g. a membership, client, grants or financial accounting database) a network is the only effective way to make the database available to multiple users at the same time.

5. **Communication and Collaboration:** A network allows employees to share files, view other people's work and exchange ideas more efficiently, email and instant messaging tools may be used to communicate quickly and to store messages for future reference.
6. **Fax sharing:** Through the use of a shared modem(s) connected directly to the network server, fax sharing permit users to fax documents directly from their computer without having to print out them on paper.
7. **Fault Tolerance:** Establishing fault tolerance is the process of making sure that there are several lines of defence against accidental data loss (i.e. hard drive failure or deleting a file by mistake). Usually the first line of defence is having redundant hardware especially hard drives. Additional measures include having the server attached to an uninterruptible power supply, so that power failure & block outs do not harm the equipment.
8. **Remote Access:** A highly desirable network function, remote, access allow users to dial into organization's network via telephone and access all of the some network resources they can access when they're in the office.
9. **Internet Access & Security:** When computers are connected via a network they can share a common network connection to the internet. It facilitates email, documents transfer and access to the resources available on the www.A.I. Technology group strongly recommends the use of a firewall to any organization with any type of broadband internet connection.
10. **Organization:** Variety of network scheduling software makes it possible to arrange meetings without constantly checking everyone's schedules. This software includes features such as shared address books and to-do lists.

**2009 - May [3]** (a) Describe in brief the various components of Client Server Architecture. (4 marks)

**Answer :**

Components of client/server architecture are as follows:

1. **Client:** There are basically three types of clients.
  - i. **Non Graphical User Interface:** It requires a minimum amount of human interaction. It include ATM, Cell phones, fax machines and robots.
  - ii. **GUI:** Clients are human interaction models usually involving object/action models like the pull down menus in Windows 3-X.
  - iii. **Object Oriented User Interface:** It take, GUI- Clients even further with expanded visual formats, multiple work places, and object interaction rather than application interaction Example –Windows 95.

2. **Server:** Server await requests from the client and regulate access to shared resources.
  - i. **File servers:** Make possible to share files across a network by maintaining a shared library of document, data and images.
  - ii. **Database server:** For execution of processing power SQL requests from clients.
  - iii. **Transaction servers:** It executes a series of SQL commands, an online transaction-Processing program (OLTP).
  - iv. **Web server:** It allows client and server to communicate with a universal language called HTTP
3. **Middleware:** The network system implemented within the client/server technology is known as middleware. It allows clients and servers to interact. Generally it allows for communication, directory services, queuing, distributed file sharing & printing. Middleware is composed of four layers.
  - i. **Service:** It carries coded instructions and data from software application to the back end-processing layer for encapsulating network-routing instructions.
  - ii. **Network operating System:** This layer adds additional instructions to ensure that the transport layer transfers data packets to its designated receiver efficiently and correctly.
4. **Fat –client fat server:**

**Fat Client:** In this system more of the processing takes place on the client, like with a file server or database server. It is also referred as “2-Tier” systems.

**Fat Server:** It places more emphasis on the server and tries to minimize the processing done by client. Example transaction, groupware and web servers. It is also referred to as “3-Tier” system.
5. **Network:** Network hardware is cabling the communication cords and the device that link the server and the clients. The communication and data flow over the network is managed & maintained by network software. It involves wiring in the wall and function boxes that are usually in closet.

**2009 - May [5] (b) Explain the OSI Model of communication. (5 marks)**

**Answer :**

Open System Interconnection (OSI) has been outlined by International Organization for Standardization (ISO) which is a framework for defining standards for linking heterogeneous computers in a packet switched network. The standardized OSI protocols has made possible for any two computers located anywhere in the world to easily communicate with each other. The ISO –OSI model is designed in a structured 7 layer way, wherein each layer has a specific independent functions:

**Layer 1-Physical Layer:**

It purpose is to: -

- Provide a physical connection for the transmission of data among the network entities.
- Activate and deactivate a physical connection.
- Deal with mechanical, electrical, procedural and functional characteristics of transmission. Network topology is a part of this layer.

**Layer 2- Data Link Layer:**

The function of this layer provides an error free and reliable means of transmitting data across physical link:

- By breaking the input data into data frames sequentially; and
- Process the acknowledgement frames sent back by the receiver.
- Cycle Redundancy Check (CRC) and Parity checks are performed to detect and correct errors in transmission.

**Layer 3- Network Layer:**

This layer makes a choice of the logical path and physical route of transmission.

**Layer4- Transport Layer:** It ensures reliable transfer of data between user processes, assembles and disassembles message packets. This layer provides a network independent transport service to layer 5 (session layer) by accepting data therefrom, splitting it into smaller units and passing these to Layer 1(Network layer).

**Layer 5- Session Layer:** This layer provide user's interface into network where the user can establish, maintain and terminate a dialogue between user processes.

**Layer 6- Presentation Layer:** This layer controls on screen display of data and transforms data to a standard application interface. Encryption data compression is also performed at this level.

**Layer 7: Application Layer:** This is a user oriented layer which supports the end user of the network. The services offered are file transfer, file sharing etc. Database concurrency and deadlocks situation controls are under taken at this layer level.

**Chapter - 7 : Internet and other Technologies**

**2009 May [1] (b)** Explain each of the following :

(iv) Index field

(1 mark)

**Answer :**

**Index Field:** Index fields are used to store relevant informations along with a document. The data input to an index field is used to find those documents when needed. The program provides upto twenty five user definable index fields in an index set.

**2009 - May [5] (a)** What do you understand by the term EFT ? Describe in brief, the different EFT systems in operations. (5 marks)



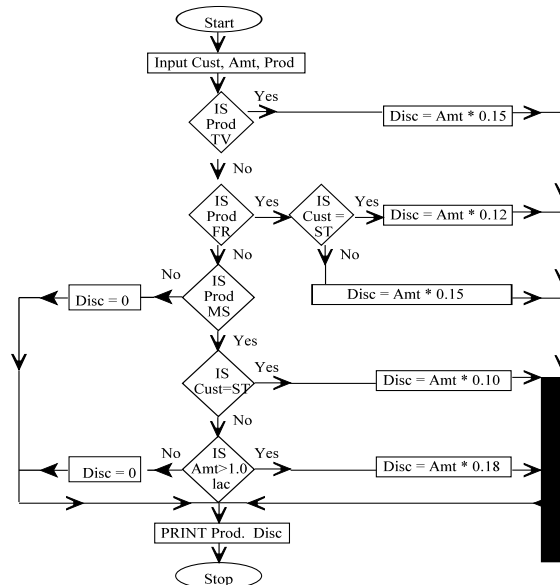
**Answer :**

Electronic fund transfer (EFT) represents the way the business can receive direct deposit of all payments from the financial institution to the company bank account. Once the user signs up, money comes to him directly. It is fast, safe and means that the money will be confirmed in user's bank account quicker than he had to wait for the mail, deposit the cheque and wait for the funds to become available. Following are some examples of EFT systems in operation.

- (i) **Automated Teller Machines (ATM s):** These machines are used with a debit or EFT card and a code, which is often called a personal identification number or PIN.
- (ii) **Point –of-sale (POS) Transactions:** Some debit or EFT cards (referred to as check card) can be used when shopping, to allow the transfer of funds from the consumers A/c to the merchant's.
- (iii) **Preauthorized Transfer:** Under this method funds are automatically deposited or withdrawn from an individual's account, when the account holder authorizes the bank or a third party to do so.
- (iv) **Telephone Transfers:** Funds can be transferred from one account to another from saving to checking e.g. can order payments of specific bills by phone.

**Chapter - 8 : Flowcharting**

**2009 - May [4]** Frame the problem for which the given Flowchart has been drawn. See the Abbreviations defined below :



**Cust** : Client, **Prod** : Product, **Amt** : Amount, **Disc** : Discount, **TV** : Television, **FR** : Fridge, **MS** : Music System, **ST** : Student (10 marks)

**Answer :**

The problem relates to 'Discount Policy' of a company engaged in selling electronic items.

Item	Category of customer	Discount
TV	All	15%
Fridge	Student	12%
	Others	15%
Music System	Student	10%
	Others	18%*

\* irrespective of order value

\*\* subject to order value being more than Rs. 1 lakh.

<b>Paper - 6B : Strategic Management</b>
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### Chapter - 1 : Business Environment

**2009 - May [6]** State with reasons which of the following statements is correct or incorrect :

- (e) The rate and magnitude of changes that can affect organisations are decreasing dramatically. (2 marks)

**Answer :**

**False**, the rate and magnitude of changes that can affect organisations are increasing day by day because of change in business environment due to globalisation and liberalisation that are fast-paced and have far-reaching implications for business, as most of the organisation are dependant on the environmental factors.

**2009 - May [7]** Answer briefly of the following :

- (a) Can a change in the elected government affect the business environment? Explain. (2 marks)

**Answer :**

Change in the elected government is one of the macro factors that affect the organisation. Due to the change in the elected government, there is a change in political environment, legal environment and change in number of fields which may affect the environment or the organisation by number of ways:—

- The new policies and programs brought by the new government may affect the business environment.
- It may also bring changes in business pattern.
- Revision in prices of various commodities, also affect the business.
- Imposition of taxes in new areas also affect the environment.

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

**2009 - May [6]** State with reasons which of the following statements is correct or incorrect :

- (a) Strategic management is a bundle of tricks and magic. (2 marks)

**Answer :**

**Incorrect:** Strategic Management, is not a bundle of tricks and magics. Strategic management mainly deals with the fundamental organisational renewal and growth with the development of the strategies, structures and systems. Determining strategy is the most important area of management, decision making and the most important one to make the to right dicisions. It requires a careful planning and strong conceptual, analytical and visionary skills.

**2009 - May [7]** Answer briefly the following :

- (c) Differentiate clearly between forward and backward integration. (2 marks)

**Answer :**

Forward and backward integration forms a part of vertically integrated diversification. In this firms opt to engage in those business that are vertically related to the existing business of the firm. For increasing the business, firms engaged in those business that are linked forward or backward in the chain and make specific product/ process with the intention of making them into the new business for the firm.

Backward integration is a step towards, creation of effective supply by entering into the existing business to expand profits and gain greater control over production whereas forward integration is moving forward in the value chain and entering in the business that use existing products. Forward integration will also take place where organisations enter into business of distribution channels.

**2009 - May [10]** Read the following case study and answer the questions given at the end:

Meters Limited is a company engaged in the designing, manufacturing, and marketing of instruments like speed meters, oil pressure gauges, and so on, that are fitted into two and four wheelers. Their current investment in assets is around Rs. 5 crores and their last year turnover was Rs. 15 crores, just adequate enough to breakeven. The company has been witnessing over the last couple of years, a fall in their market share prices since many customers are switching over to a new range of electronic instruments from the range of mechanical instruments that have been the mainstay of Meters Limited.

The company has received a firm offer of cooperation from a competitor who is similarly placed in respect of product range. The offer implies the following:

- (i) transfer of the manufacturing line from the competitor to Meters Limited;

- (ii) manufacture of mechanical instruments by Meters Limited for the competitor to the latter's specifications and brand name; and
- (iii) marketing by the competitor.

The benefits that will accrue to Meters Limited will be better utilization of its installed capacity and appropriate financial compensation for the manufacturing effort.

The production manager of Meters Limited has welcomed the proposal and points out that it will enable the company to make profits. The sales manager is doubtful about the same since the demand for mechanical instruments is shrinking. The Chief Executive is studying the offer.

- (a) What is divestment strategy ? Do you see it being practised in the given case ? Explain. (5 marks)
- (b) What is stability strategy ? Should Meters Limited adopt it ? (5 marks)
- (c) What is expansion strategy ? What are the implications for Meters Limited in case it is adopted ? (5 marks)
- (d) What is your suggestion to the Chief Executive? (5 marks)

**Answer :**

- (a) Disinvestment strategy involves the sale or liquidation of a portion of business or a major division to a profit centre organisations or SBU. Divestment is usually a part of rehabilitation or restructuring plan and is adopted by those organisations who is in loss or is unsuccessful in the market.

Yes, it is being practised in the given case study. Here the major reason leading to disinvestment is change in technology. Meters Ltd, is engaged in manufacturing mechanical instruments which is not in demand in the present market. So the market price of instruments is declining and the company is in a situation to withdraw itself from the market. Hence, Meter Ltd's competitor is offering divestment strategy and the company is ready to adopt a proposal of the competitor to withdraw its brand name and manufacture products in the name of the competitor.

- (b) Stability strategy means sustaining moderate growth in line with the existing trends i.e. stays in the market with the same business, same product market posture and functions and maintaining same level of effort as at present.

In the given case, the market share of Meter's Ltd, is declining day by day due to the increased demand of electronic instruments and in this situation if the company will adapt stability strategy it will sooner have a corporate death. So it is important for the company that it does not remain stable but take necessary steps to cope up with the changing environment.

- (c) Expansion strategy is a true growth strategy and involves a redefinition of the business. Expansion strategy is followed when an organisations broadens the scope of its business in order to improve its performance.

In the given case, the market for the products of Meters Ltd. are declining, So if they adapt expansion strategy it may go into mergers and acquisitions to increase its market share. The company adopts the different measures of expansion in order to maintain themselves in the changing business environment.

- (d) After the analysis of situation of Meters Ltd., it is advisable to adopt the expansion strategy in order to maintain their stake in the market. It is adopted because:-

- It may become good when environment demands increase in pace of activity.
- Increasing size may lead to more control over the market as compared to competitors.

Chief executive shall accept the proposals to expand its market share and become a monopoly power in its own range of mechanical products.

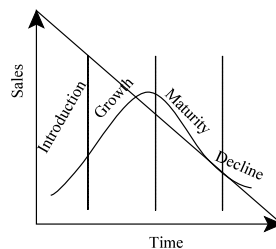
### Chapter - 3 : Strategic Analysis

**2009 - May [6]** State with reasons which of the following statements is correct or incorrect :

- (b) The purpose of SWOT analysis is to rank organisations. (2 marks)  
 (d) PLC is an S shaped curve. (2 marks)

**Answer :**

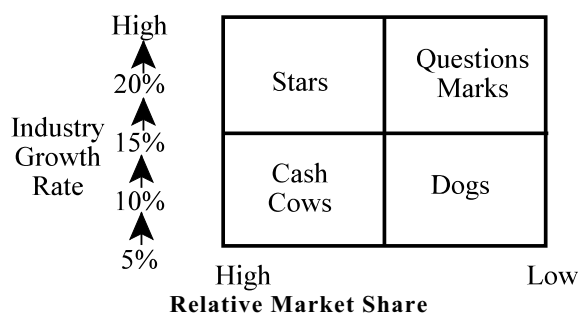
- (b) **False**, Organisations use SWOT analysis to understand the external and internal environment. SWOT refers to strength, weakness, opportunities and threats. Through this analysis, the strengths and weaknesses existing within an organisation can be matched with the opportunities and threats operating in the environment so that an effective strategy can be formulated.
- (d) **True**, PLC is a S-shaped curve showing graphical representation of sales over time that passes through four stages that is, introduction, growth, maturity and decline phase. Identification of PLC stages of any products or service is very helpful in marketing management.



**2009 - May [8]** Describe the construction of BCG matrix and discuss its utility in strategic management. (5 + 5 = 10 marks)

*Answer :*

**Boston consulting Group** (BCG) matrix provides a graphic representation for an organization to examine different businesses in its portfolio on the basis of their relative market shares and industry growth rates. The result of the combination of industry growth rate and relative market share, each along a high and low dimension, is a four-cell matrix. Each cell of the matrix has been given an appropriate name by the Boston Consulting Group.



- The vertical axis denotes the rate of growth of sales in percentage for particular industry.
- The horizontal axis denotes the relative market share and serve as a measure of company Strength in the Market.

The four cells of the BCG Matrix are:—

- (i) **Stars:** Stars are high growth- high market share businesses which are growing rapidly. They require heavy investment to maintain their position and finance their rapid growth potential. They represent an expansion strategy.
- (ii) **Cash Cows:** Cash Cows are businesses which generate large amount of cash but their rate of growth is slow. These are low growth and high market share business or products. They have low cost and needs less investment to maintain their market share. In the long run when the growth rate slows down stars become cash cows.
- (iii) **Question marks:** Business with high industry growth but low market share for a company are questions marks which are also called '**Problem Children**'. They require large amounts of cash to maintain or gain market share. These are usually new products or services so they need heavy investment. It is for business organisation to turn them stars and thin to cash lows when the growth rate reduces.
- (iv) **Dogs:** These are low growth and low share business and products. They may generate enough cash to maintain themselves in the market but do not have much future. Dogs should be minimized by divestment or liquidation.

BCG matrix is useful for classification of products or businesses and for selecting appropriate strategies. It is a powerful tool for strategic planning analysis and choice.

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

**2009 - May [7]** Answer briefly the following :

- (b) Enlist the components of marketing mix. (2 marks)

**Answer :**

Marketing Mix is a systematic way of classifying the important areas of marketing management. It is a set of controllable marketing variables that the firm produces according to the needs of the customer. There are four components of marketing mix called 4Ps—Product, Price, Place and Promotion. The 4P's and their relation with customers i.e. 4C's are :—

- |           |   |  |
|-----------|---|--|
| Product   | – | Related with Customer Solution.          |
| Price     | – | Related with Customer Cost               |
| Place     | – | Related with Customer Convenience        |
| Promotion | – | Related to Communication with Customers. |

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

**2009 - May [6]** State with reasons which of the following statements is correct or incorrect :

- (c) SBU concepts facilitate multi-business operations. (2 marks)

**Answer :**

**True,** SBU concept is composed of different operating units where each unit represents a separate business in which the top level officer delegates responsibilities for day to day operations. It facilitates strategic planning, gaining market-related specialization, cost economies and more rational organisational structure.

**Chapter - 7 : Reaching Strategic Edge**

**2009 - May [9]** Define Business Process Re-engineering. Briefly outline the steps therein. (4 + 6 = 10 marks)

**Answer :**

BPR is defined as the analysis and redesign of workflows and processes both within and between the organization and the external entities like suppliers, distributors and service providers.

BPR is an approach to bring improvement in operating effectiveness through the redesigning of critical business process and supporting business activities.

**The steps of BPR are:—**

- 1. Determining objectives and framework:—** It helps in building a comprehensive foundation for the reengineering process. This will provide the required focus, direction, motivation etc, for redesign process.
- 2. Identify customers and determine their needs:—** The designers have to understand the customers needs and wants, their profits, their steps in

acquiring , using and disposing a product and the purpose is to provide added value to the customer.

3. **Study the existing process:**– This will provide an important base for the redesigners. The purpose of this is to understand the “what” and “why” of the targeted process.
4. **Formulate a redesign a process plan:**– The information gained through the earlier steps is translated into an ideal redesign process. In this step, alternative process are considered and the best is selected.
5. **Implement the Redesign:**– It is easy to formulate new process but to implement them is hard. Implementation of the redesign process and application of other knowledge gained from the previous step is to achieve dramatic improvement.



# SCANNER™ Appendix

## PCC Gr. II Paper - 6 November - 2009

### Question Paper of November 2009 Examination

#### Paper - 6A : Information Technology

##### Chapter-1 : Introduction of Computer

**2009 - Nov [1]** (a) Describe briefly the following terms :

- (i) LSI Circuit
- (ii) USB Connectors
- (iii) Touch Screen (3 × 1 = 3 marks)

**2009 - Nov [1]** (b) Explain each of the following :

- (i) BIOS
- (ii) Random Access
- (iv) FAT (3 × 1 = 3 marks)

##### Chapter-2 : Input & Output Device

**2009 - Nov [2]** Answer the following :

- (a) Define an Image Processing. Describe the steps involved to document imaging. Also mention any five advantages of Image Processing. (5 marks)

##### Chapter-3 : Software

**2009 - Nov [2]** Answer the following :

- (b) What are Decision Support Systems ? Describe various characteristics of a DSS. (5 marks)

##### Chapter-5 : Data Storage, retrieval and DBMS

**2009 - Nov [1]** (a) Describe briefly the following terms :

- (v) Data Dictionary. (1 mark)

**2009 - Nov [1]** (b) Explain each of the following :

- (ii) Transaction Log (1 mark)

**2009 - Nov [3]** (a) Describe the various factors being considered in determining the best file organisation for an application. (5 marks)

##### Chapter-6 : Computer Networks & Networks Security

**2009 - Nov [1]** (a) Describe briefly the following terms :

- (iv) Layer 3 or Network layer (1 mark)

**2009 - Nov [5]** (a) Describe the Ring Network, Discuss its advantages and disadvantages. (5 marks)

- (b) Describe 'Caching Server' and 'Proxy Server' How are they different from each other ? (5 marks)

**Chapter-7 : Internet and other Technologies**

**2009 - Nov [1]** (b) Explain each of the following :

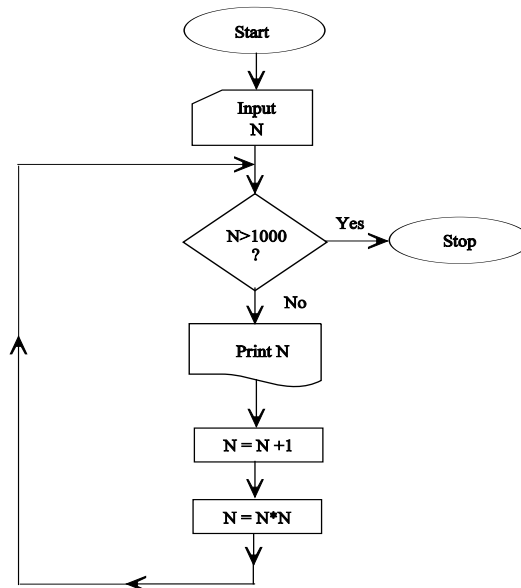
(v) E-mail. (1 mark)

**2009 - Nov [3]** (b) What is meant by 'Electronic Data Interchange'? State some of its advantages. (5 marks)

**Chapter-8 : Flowcharting**

**2009 - Nov [4]** (a) Write the output sequence (at least first five numbers) for the given flowchart, if  $N = 0$  is selected as the value for  $N$  as input. (5 marks)

(b) If the statement " $N = N * N$ " in the computation box of the flowchart is modified as " $N = N * (N - 1)$ ". Write the output sequence (at least first five numbers) for the flowchart with  $N = 0$  as the input value for  $N$ .



(5 marks)

**Paper - 6B : Strategic Management**

**Chapter-1 : Business Environment**

**2009 - Nov [6]** State with reasons which of the following statements is correct or incorrect :

(a) A business, even if it continually remains passive to the relevant changes in the environment, would still grow and flourish. (2 marks)

**2009 - Nov [8]** What are the five competitive forces in an industry as identified by Michael Porter ? Explain. (10 marks)

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

**2009 - Nov [7]** (b) State the points that may be considered while writing a mission statement of a Company. (2 marks)

**Chapter-3 : Strategic Analysis**

**2009 - Nov [7]** (a) Discuss the relevance of Tows Matrix in strategic planning process. (2 marks)

**Chapter-4 : Strategic Planning**

**2009 - Nov [10]** Read the following case and answer the questions given at the end :

The ripple effects of the 2008 Global Economic meltdown had begun to hurt the Rupees 1,268 crore J.K. Paper Ltd. also. Like all other business houses in India, J.K. Paper Ltd. was also finding the going tough. The general trend of soaring prices and contraction in demand had started affecting the sale of J.K. Paper Ltd. products also. Its customers were focusing on correcting their inventory positions (using existing stocks of materials to keep production lines and marketing activities rolling). Consequently, they were not buying much from J.K. Paper Ltd. Even the investors did not like what they saw—J.K. Paper Ltd. stock fell from Rs. 57.20 on 1 January, 2008 to a low of Rs. 14.12 on 12 March, 2009. The company was in the midst of Economic crisis. Mr. Harshpati Singhania, Managing Director of the Company, realised that some strong measures must be taken to extricate the Company from its present crisis. To this end, Mr. Singhania held several brainstorming sessions with the top management team and finally identified the focus areas :

Managing working capital flows, cutting costs and paying attention to employee productivity.

Moving away from the traditional approach one usually follows during the recessionary periods, Mr. Singhania instead of shutting down company's plants and cutting production, decided to continue to operate the Company's two plants at Gujarat and Orissa at 100% capacity. To match sales with production, he planned to reach out to newer customers by widening Company's distribution network. He identified packaging boards to be marketed in rural areas where the meltdown had minimal effect. As the market conditions were still difficult, the company also decided to cut the prices by 2 to 3 per cent. Alongwith the price cut, its marketing thrust in rural areas ensured that the sales were not impacted much. Net sales remained flat throughout 2008-09, though the profitability of the Company suffered because of the lower margins it received from its rural thrust.

For raising capital, the Company did not approach banks and investors, rather it intensified its efforts to recover its debits from its clients. The efforts resulted in fast recovery of crores of rupees. Disputed debts were also settled expeditiously to raise more cash.

To cut costs further, the Company took steps to improve productivity and reduce its wage bill. Inefficient employees were asked to leave. No new appointments were made unless they were critically important. In addition,

employees received lower increments for 2008-09; even Mr. Singhanian did not take any increment.

When the global slowdown sent the international prices of the pulp, the main raw material for the paper industry, crashing from Rs. 36,960 per tonne in April, 2008 to Rs. 18,240 per tonne in September, 2008 the company bought enough pulp to last for about 9 months as against its policy of buying, in the normal course, pulp for about 2-3 months. According to Mr. Singhanian, this decision also resulted in a huge saving.

Mr. Singhanian and his senior management team also re-evaluated the organisational structure to improve efficiency in the organization.

When all the above strategic decisions had been successfully implemented, Mr. Singhanian knew that the worst for the company was over. This was also reflected in gradual increase in the quarterly profits of the company, Mr. Singhanian however sounded very modest about his stewardship of the Company while appreciating his Senior management team for the great job done to ride out the slowdown.

**Questions :**

- (a) Where did the recession hit J.K. Paper Ltd. ? (2 marks)
- (b) Explain with reasoning the corporate strategy the Company had adopted for its survival. (2 marks)
- (c) What functional strategies were undertaken by the Company to overcome its crisis ? (6 marks)
- (d) State the basic responsibilities of a strategic leader in a business house. Explain whether or not Mr. Singhanian provided strategic leadership to the Company. (2 + 2 = 4 marks)
- (e) What lessons are learnt from the experience of J.K. Paper Ltd. to ride out the economic meltdown ? (6 marks)

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

**2009 - Nov [6]** State with reasons which of the following statements is correct or incorrect :

- (b) A corporate culture is always identical in all the organizations.
- (c) There is both opportunity and challenge in 'Change'. (2 × 2 = 4 marks)

**Chapter-7 : Reaching Strategic Edge**

**2009 - Nov [9]** What is Six Sigma ? How is it different from other quality programs ? Explain in brief themes of Six Sigma. (2 + 2 + 6 = 10 marks)

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