



THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Intermediate Examinations Spring 2006

March 13, 2006

INFORMATION TECHNOLOGY

(MARKS 100)

Module D

(3 hours)

- Q.1 Rettalic is a healthcare organization having subsidiaries in seven countries. All seven subsidiaries have their own computerized systems. The management is now considering the possibility of integrating the inventory and personnel functions of all the seven subsidiaries in a single computerized system.

Required:

Describe briefly the key features of an 'Inventory Management System' and 'Personnel System'. (12)

- Q.2 Management of Mind Care, a private hospital, is considering ways to enhance the use of Information Technology in order to maintain its competitive advantage. A consultant who has been hired recently has advised to introduce an expert system.

Required:

What do you understand by an expert system? Give two suitable examples. (05)

- Q.3 The Systems Development Life Cycle (SDLC) is a conceptual model used in project management that describes the stages involved in an information system development project, from an initial feasibility study to maintenance of the completed application.

Required:

What is a feasibility study? Briefly explain any three key areas in which an IT solution has to be feasible in order to be selected? (08)

- Q.4 Tijarat Limited (TL) is a trading company using an IT based application to process daily operational activities. Recently, the company has been facing problems with the software. The management has considered several options to solve the issue and is inclined to develop a new application. However CEO of the company desires that a cost benefit analysis should be conducted prior to making any decision.

Required:

- (a) Briefly describe the different costs of a new system. (06)
(b) Briefly explain any three commonly used methods of cost benefit analysis which may be used by the management of TL. (06)

- Q.5 Riwayat Company (RC) has more than 100 standalone computers and each computer has its own data files. The management is planning to introduce the concept of networking to get the benefit of data sharing and avoid duplication of data. Moreover, this would help improve data processing and decision making. You have been recently hired as an IT Manager by RC and have been given the task to evaluate the suitability of a particular LAN system configuration. However, the management wants you to give them a presentation regarding various network topologies before finalizing any solution.

Required:

Apprise the management about the term 'Network Topology' and its various types with suitable examples. (10)

- Q.6 The performance of a network is dependent on the bandwidth and the media used for data transmission.

Required:

You are required to list and describe the main features of any four types of data transmission media. (08)

- Q.7 (a) Microsoft Excel provides features that help in tracking down problems on worksheets. Most of these are available either as menu commands or on the Auditing toolbar. Briefly explain the function of the following options available in the Auditing toolbar:

- (i) Trace Precedents
- (ii) Trace Dependents
- (iii) Circle Invalid Data (03)

- (b) Reviewing toolbar is an excellent feature of Microsoft Word. Briefly explain the function of the following options available in the Reviewing toolbar:

- (i) Track Changes
- (ii) Accept Change (02)

- (c) One of the most popular features of Microsoft office family members is the ability to copy and move information from one application to another. Briefly explain the following in Microsoft Windows environment:

- (i) Clipboard (03)
- (ii) Difference between 'copy' and 'cut' operation (02)

- Q.8 Cancer Cure Centre (CCC) is a large hospital for diagnosis and treatment of cancer. Patients' bills are processed and approved by the computer. A discount is given to patients who cannot afford to pay the hospital bill. Management has laid down the following rules:

- (i) For patient bill above Rs. 100,000, a discount of Rs. 15,000 plus 50% of the amount exceeding Rs. 100,000 is given, provided the patient does not have any outstanding dues.

(3)

- (ii) For patient bill above Rs. 50,000 and upto Rs. 100,000, a 30% discount is given on amount exceeding Rs. 50,000, provided the patient does not have any outstanding dues.
- (iii) For patient bill less than Rs. 50,000 no discount is given.
- (iv) If the patient has any outstanding dues, the case is referred to the Financial Counselor.
- (v) Details of payments are printed out after each record has been processed.

Required:

Construct a flowchart for CCC's payment operations. (11)

- Q.9 Point Consulting has approached Mr. Rahman a senior member of the company to conduct a workshop on audit of computer based systems which would help the staff conduct the IT audits more effectively and efficiently. The CEO of Point Consulting has specially requested Mr. Rahman to focus on 'General Controls' in his presentation.

Required:

Prepare notes for Mr. Rahman's presentation on General Controls – its meaning and examples in the following areas:

- (i) Environment
- (ii) Development
- (iii) Maintenance and operation (10)

- Q.10 Computer Aided Software Engineering (CASE) techniques aim to automate the document production process. Briefly describe two types of CASE tools. (04)

- Q.11 In view of rapid change in the Information Technology environment, the vulnerability of the information systems has increased. To address this issue, management should identify threats to its information systems and develop a risk based approach.

Required:

Explain the stages involved in managing the risk in the information systems. (10)

(THE END)