

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Intermediate Examinations Autumn 2006



September 11, 2006

INFORMATION TECHNOLOGY

(MARKS 100)

Module D

(3 hours)

- Q.1 Aljadeed Engineering (AE) is a large company involved in manufacturing and export of auto parts. The management of AE is considering to computerise its records. In the board meeting held in this regard, Mr. Alif proposed to develop the project using System Development Lifecycle (SDLC) approach. Some of the board members have no idea of SDLC approach. You are required to make a presentation giving brief explanation of various stages of SDLC. (09)
- Q.2 You have recently joined as Manager IT of Ever New Garments (ENG) which is a medium sized manufacturer of ready-made clothes. During your orientation visit you observed that there were sixty computers on ENG's local area network following peer-to-peer networking model. The management of ENG is unaware of the demerits of peer-to-peer networking and the existence of any other networking model. All they know is that the data should be available to all users on timely basis. As this is not a sensible approach, you suggested to the Executive Director of ENG to switch over to file-server model.
- The Executive Director has requested you to compare the file server model with peer-to-peer model to highlight the advantages of file server model. (08)
- Q.3 Management of ABC Limited, a fast moving consumer goods company, is considering changing its secondary sales data capture and analyses software. The management is confused whether to purchase an off-the-shelf packaged software or instead, develop a customised software.
- You are required to apprise the management about the advantages and drawbacks of using off-the-shelf software. (10)
- Q.4 Prototyping is one of the techniques used for developing customised software. You are required to explain:
- (a) the technique of prototyping with an example. (03)
- (b) how prototyping is beneficial to users and developers? What are its main disadvantages? (06)
- Q.5 The employees in the accounts department of Turab and Company are well versed in the use of spreadsheets. You have recently joined the company and wish to introduce a database management system (DBMS). However, your staff feels that DBMS is difficult to learn and are unable to find anything special in it.
- To convince the staff you are required to:
- (a) briefly explain the merits of a DBMS. (05)
- (b) identify and describe the key differences between a system based on spreadsheets and a DBMS as regards security and integrity of data. (03)

Q.6 The World Wide Web (WWW) was designed in 1989 to provide a group of physicists with a mechanism to collaborate on-line in their research. It is technically similar to client/server model. Briefly explain the basic components of WWW. (05)

Q.7 (a) Briefly explain the benefits of high level languages (HLL). (03)
(b) Name any five types of HLL and specify their areas of application. (05)

Q.8 You have recently joined as Manager IT of Shifa Pharma, a small sized pharmaceutical company. Just after joining, you asked your staff to guide you about various IT systems which have been developed in-house. During the discussion you noted that they have not adequately documented the flow of data in the systems and consequently a number of confusions arise. All the details regarding the system have been noted in the form of bullet points but such documentation is not meeting the standard. You are of the view that they should prepare adequate flow charts or should use some other appropriate form of system designing and documentation.

You are required to:

(a) briefly inform them about dataflow diagrams, decision tables and decision trees which are some of the common techniques of system documentation. (06)
(b) advise them about the benefits and advantages of using flow charts. (05)

Q.9 With the increased use of information technology in business environment, the success and failure of businesses are becoming more and more dependent on efficient performance of their information systems. The organizations must prepare themselves to face the risks and threats posed to their information systems and must have a documented and tested disaster recovery plan.

In view of the above perspective, you are required to:

(a) explain the meaning of the term disaster in an IT environment. (02)
(b) briefly describe three broad categories of activities that are addressed by a disaster recovery plan? (06)
(c) list the fundamental rules that should be applied while formulating a disaster recovery plan. (05)

Q.10 Finance and Investment Bank Limited (FBIL) is developing a new integrated system which will work in a real-time, distributed environment covering thirty branches. Management recognises the need for strong controls but there is a concern that business processes may be over-burdened with checks and controls.

You are required to advise the management about the:

(a) key characteristics which should be considered while assessing the appropriateness of controls. (05)
(b) risks that need to be addressed as FBIL is moving to a real-time, distributed environment. (05)

Q.11 The following data represents the share price of XYZ company for a week:

	A	B	C
1		Price (Rs.)	
2	Date	Lowest	Highest
3	21/08/2006	96	99
4	22/08/2006	99	103
5	23/08/2006	101	104
6	24/08/2006	102	106
7	25/08/2006	98	105

(3)

- (a) You are required to calculate the following:
- (i) highest price during the week.
 - (ii) lowest price during the week.
 - (iii) number of days when the price dipped below Rs. 100.
 - (iv) number of days when the price rose above Rs. 100.
 - (v) average of the highest price.
 - (vi) difference between the highest price and lowest price during the week. **(03)**
- (b) Write the Microsoft Excel formulas to calculate the above. **(06)**

(THE END)