



Information Technology

Intermediate Examinations – Autumn 2010
Module D

September 6, 2010
60 marks – 1¾ hours

Q.1 Patoki Limited is a small but growing organization. Presently it is using standalone computers only. However, in view of ever increasing need, it has hired you to connect its computers using a suitable network topology.

Required:

Write a report to the management explaining the architecture of Bus, Star and Ring topologies and how they differ in respect of the following.

- (i) Single point of failure
- (ii) Network expansion
- (iii) Centralized control system
- (iv) Security
- (v) Cost

(12 marks)

Q.2 A recent report from an international body has highlighted the rise in undocumented economy in Pakistan and its serious repercussions. In a recent seminar a senior government official has pointed out that the situation can be improved by promoting the use of e-commerce. He has requested the IT professionals to come forward and give their input on this issue.

Required:

Give recommendations (any eight) to the government which in your opinion would facilitate the growth of e-commerce in the country. *(08 marks)*

Q.3 Source data automation has gained significant popularity during the last decade and it is being used by a large number of organizations.

Required:

What do you understand by source data automation? Give two advantages of the use of source data automation and identify any two types of businesses where it is more commonly used. *(04 marks)*

Q.4 Forward Bank Limited is considering the use of smart cards which would replace the currently used magnetic stripe cards. The idea has been questioned by some of the board members as the initial costs are considerably high.

Required:

Identify any seven advantages of smart cards over magnetic stripe cards. *(07 marks)*

Q.5 The System Development Life Cycle (SDLC) approach has helped standardize the process of system development by devising a set of activities which could be applied to the development of almost all types of systems. SDLC approach has been used successfully over a long period of time, however, it has its own limitations and drawbacks.

Required:

Briefly describe the drawbacks (any seven) of SDLC. *(07 marks)*

Q.6 Kotri Enterprises (KE) is a supplier of computer and electronic hardware. Its management has recently decided to use e-commerce to boost its sales. In this regard, the CEO of the company held a meeting with the heads of IT and Finance in which he emphasized upon the following:

- (i) Continuous availability of the website
- (ii) Confidentiality of the customers' information
- (iii) Controls over e-payment transactions

Required:

List the important measures that should be taken to address the above issues. *(05 marks)*

Q.7 Sualeh Enterprises is engaged in a variety of businesses. It relies heavily on its IT systems for conducting its operations. An investigation report on a recent incident of information security breach has highlighted strong deficiencies in preventive and detective controls over the company's IT systems. An emergency meeting has been called to discuss the issue. The head of IT believes that some of the controls could not be implemented due to constraints related to high costs and availability of human resources.

Required:

For the purpose of presentation in the meeting, briefly describe the purpose of preventive and detective controls. Identify any three preventive and three detective controls which could not be implemented due to the constraints specified by the head of IT. *(06 marks)*

Q.8 Password is an effective tool in avoiding unauthorized access. However, it may provide a false sense of security and could be easily bypassed if not managed properly.

Required:

List the best practices (any six) that should be part of an effective password policy. *(06 marks)*

Q.9 Sujawal Limited is engaged in the production and sale of consumer products. Its products are marketed through wholesalers located in all the major cities of Pakistan. During an annual get together of major stakeholders, a large number of wholesalers have identified the following issues:

- (i) Frequent stock-out of popular products.
- (ii) Delays in processing of their orders.
- (iii) Improper response from customer services on their queries and complaints.

Required:

Explain what role can be played by the company's IT department in addressing the above complaints. *(05 marks)*

(THE END)