



INFORMATION TECHNOLOGY MANAGEMENT, AUDIT AND CONTROL

(MARKS 100)

Module E

(3 hours)

- Q.1 The newly appointed CEO of Digital Corporation (DC) is of the view that the company's General Ledger (GL) application developed by a renowned software house suffers from many limitations. Some of its modules are of little use to the company. The CEO feels that cost incurred for development of software was very high besides he also has doubts on the accuracy of the data being produced. He has appointed RBC & Company to carry out an assessment of the effectiveness, efficiency and relevance of the system.

Required:

- (a) Identify the documents which RBC's team would review to gain an understanding of the GL application. Also, explain briefly the importance of each of the identified document. **(06)**
- (b) Identify and briefly explain the various types of controls which could satisfy RBC about the effectiveness of the system and the reliability of data. Explain how they would test their effectiveness. **(10)**
- Q.2 Prestige Communications (PC) and Natural Technologies (NT) have recently entered into a reciprocal agreement which will allow each party to use the processing facilities available with the other, in case of disaster. PC has requested their IT Manager to review the reciprocal agreement to ensure that it covers all critical areas.

Required:

- Prepare a questionnaire for the IT Manager to help him ensure that the agreement is complete in all aspects. **(10)**
- Q.3 (a) Automated Teller Machines (ATMs) have tremendous utility for banking customers. However, the concerned bank needs to carry out constant review and monitoring of the controls installed as a safeguard against fraudulent activities.

Required:

- Identify five major tasks that should be performed during information systems audit of ATM and its overall mechanism. **(05)**
- (b) An effective and efficient management of software inventory is generally carried out with the help of an automated mechanism known as Software Library Management System.

Required:

- Identify any five key capabilities of a Software Library Management System that helps in overall management of software inventory. **(05)**

Q.4 The CEO of Jalib Securities & Exchange Company is concerned about the rising number of frauds being reported in the industry specially those carried out by insiders. Recently another financial institution in the same region had suffered a loss of Rs. 10 million due to a fraud which was committed by a senior executive who was responsible for carrying out a number of key responsibilities related to information systems. The CEO has requested you to advise the company on prevention and detection measures against such threats to their information systems.

Required:

(a) Discuss the principle of segregation of duties? What could occur if adequate segregation of duties does not exist? (03)

(b) Suggest other best practices for preventing and detecting frauds that may be committed by key information systems personnel. (List at least six points) (06)

Q.5 The risk management process involves the identification and classification of assets, assessing the threats associated with the identified assets, identifying vulnerabilities or lack of controls and assessing the impact of the identified threats.

Required:

You are required to identify four types of information assets associated with information technology and identify the following:

- At least two threats associated with each asset.
- The possible impact of the identified threats.
- At least two controls for mitigating the risk associated with each threat. (12)

Q.6 Smart Industries Limited is using many computer-based applications most of whom have been developed in-house. They are considering to replace them with applications using web based technologies.

Required:

Explain how can the following e-business models assist the company in improving its business:

- (a) Business-to-Consumer model.
- (b) Business-to-Business model. (10)

Q.7 Techno International is in the process of acquiring new software which will replace their existing accounting system completely and fulfill other user requirements which are not being catered in the existing software. The management has formed a project team to prepare the Request for Proposal (RFP) for the acquisition of software and conduct the acquisition process in a transparent manner.

Required:

(a) List the important information to be contained in the RFP to be issued by the project team. (List at least twelve points) (09)

(b) Describe how the project team can ensure that the proposals are received and recorded in a transparent manner. (03)

(c) List the steps involved in short listing the received proposals transparently. (03)

(d) What steps the project team should take to validate the vendor's responses. (List any four points) (03)

Q.8 Hi-Fi Solutions has recently developed a core banking application software for the Real Bank Limited (RBL) which has more than sixty branches. One of the main distinguishing features of the new system is that it is able to provide online connectivity to all branches. Prior to implementing the application, management of RBL wants to know the measures taken by the Hi-Fi Solutions for ensuring the availability of the system when multiple users will access it simultaneously. The management is also concerned about the change over strategies that can be adopted for replacing the existing system and the associated risks which may be faced during change over process.

Required:

On behalf of Hi-Fi Solutions, apprise the management of RBL on:

- (a) At least two types of tests performed by HI-Fi Solutions to ensure that the system will remain available and its efficiency will not be compromised on account of simultaneous log in by a number of users. **(03)**
- (b) Possible changeover techniques for the complete deployment of new system. **(06)**
- (c) Major steps involved in change over from old to new system. **(03)**
- (d) The risks which the management may face during the change over process. **(03)**

(THE END)