



INFORMATION TECHNOLOGY MANAGEMENT, AUDIT AND CONTROL

(MARKS 100)

Module E

(3 hours)

- Q.1 You are working as IT manager for a large size packaging material manufacturing company. The company is planning to replace its existing system with an ERP system. Being a massive capital investment decision, the management is keen to ensure that the project would be implemented successfully and full benefits of investment would be received.

Required:

You are required to write a memo to the Chief Executive describing the main reasons behind failure of IT projects.

(09)

- Q.2 Adamabad is a large city of a developing country. The city government of Adamabad has passed a resolution in its last meeting to implement the G2C e-commerce model to facilitate its citizens. In this regard mayor of the city has invited leading e-commerce consultants of the country to give presentations on G2C e-commerce model.

Required:

Being one of the recipients of mayor's invitation, you are required to prepare a presentation on G2C model which should include the following:

- (a) Identify the benefits which Adamabad's city government could achieve through G2C initiatives. **(04)**
- (b) Brief explanation of potential challenges which may affect the realization of desired benefits to the city government and its citizens. **(09)**

- Q.3 ABC Company has recently hired a new Chief Information Officer (CIO) to manage its Information Systems (IS). The CIO in his initial report to the Chief Executive has emphasized the need for developing an IS strategy for the company. The Chief Executive was keen to know more about IS strategy planning before reaching any decision, therefore, he asked the CIO to brief him further on IS strategic planning.

Required:

Assuming that you are the CIO of ABC company, give a brief explanation to the Chief Executive regarding:

- (a) The objectives/purposes of IS strategic planning. **(04)**
- (b) Basic components of IS planning process. **(04)**

- Q.4 The rapid expansion of Internet has benefited the consumers, employers, employees, students etc. On the other hand, it has also created opportunities for fraudsters to trick innocent users into becoming victims of Internet fraud.

Required:

Identify and briefly explain any four common types of Internet frauds along with measures that could be taken to prevent them.

(10)

- Q.5 You are working as IT manager at a leading consumer goods manufacturing organization. Your department is involved in developing and maintaining custom-made software solutions for various business areas of the company. Due to nature of its work, the work-load at the department is intense and competition for rewards and recognition is fierce. Recently, staff turnover of the department has increased substantially and the company has hired a consultant to investigate this sudden increase in staff turnover.

The consultant, in his report, has emphasized the need for performance measurement of all IT operations in general and specifically the following IT processes using key performance indicators (KPIs):

- | | |
|---|---|
| (i) IT Strategic Planning | (ii) Management of IT Investment |
| (iii) Communication of management aims and directions | (iv) Human resource management of IT personnel |
| (v) Procurement of IT resources | (vi) Change management of IT operations and processes |

Required:

You have been asked by the management to apprise them on the following:

- (a) Key performance indicators (KPIs) and their characteristics. (04)
- (b) In each of the processes (i) to (vi) mentioned above, identify two relevant KPIs for performance measurement. (06)

- Q.6 AceTel is a mobile phone service provider. The company has been expanding its user network aggressively, based on solid support of its IT infrastructure. The company is conscious of the role its human resources can play in the success of its business plans and ensures that the staff is fully trained and is apprised of best practices in all areas of operations. A similar initiative has been planned regarding end-user computing security.

Required:

As Chief Information Officer of the company, you have been asked to devise information security guidelines for the internal end-users of the company's information systems, clearly explaining what measures should be undertaken and those which should be avoided. (12)

- Q.7 Secure Insurance Company Limited (SICL) is a general insurance company with nation wide presence. You have recently joined SICL as head of its IT operations. During your orientation you found that SICL has implemented adequate IT security measures in all areas of IT operations. However, you were surprised to learn that disaster recovery preparations of SICL have been termed unsatisfactory by the auditors in their last report, as the disaster recovery plan (DRP) had never been tested. Though the auditors had asked to arrange testing of DRP three months ago, it has not been done yet. When you pointed out the auditors' remarks to the Chief Financial Officer of SICL and suggested immediate testing of DRP, he agreed with your suggestion. However, he advised you to prepare a briefing on this issue for the Chief Executive and apprise the management, before testing the DRP.

Required:

You are required to prepare a briefing, explaining the following:

- (a) Purpose of disaster recovery testing. (02)
- (b) At least four types of methods generally used for testing disaster recovery plans. (06)

- Q.8 Solvent (Pvt.) Limited (SPL) is a bulk data entry solution provider which provides services to various public and private sector organizations. Recently the management of SPL conducted an in-house quality assurance exercise over controls and procedures followed in providing services to the clients. In his briefing to the board, on quality assurance exercise, the Chief Executive (CE) of SPL has termed it satisfactory. However, to enhance clients'

confidence, he suggested getting Sys Trust assurance on the reliability of their system. Some of the board members mixed Sys Trust service with Web Trust program and thus opposed to conduct Sys Trust assurance exercise. However, those board members who were aware of Sys Trust service favoured CE's suggestion. In view of the mixed reaction of the board members, the Chairman advised the CE to submit a comprehensive report on Sys Trust assurance.

Required:

You are required to advise the CE on the following:

- (a) Purpose of Sys Trust assurance. (02)
- (b) How the Sys Trust assurance may help SPL to gain competitive advantage. (02)
- (c) Major difference between Sys Trust and Web Trust. (02)
- (d) The principles used to evaluate the system's reliability for the purpose of Sys Trust assurance. (04)

- Q.9 Bank One (BO) is a medium sized commercial bank, having a network of 50 domestic branches. Recently, BO has entered into an agreement with Universal Corporation (UC), a leading fund transfer corporation with global presence. As part of the arrangement, BO would act as agent of UC in the country. All remittances originating from any of the global branches of UC could be received in any of the BO branches. The fund transfer system is fully automated and operates on a secure website of UC. Sender of funds (remitter) is required to provide his personal details and those of the beneficiary on a "Send Money Form" which is input in a computer to update UC's network. The recipient completes a "To Receive Money" form, provides information given by the sender, and shows proper identification. BO makes the payment to the beneficiary after due verification.

You have been appointed as an Information System (IS) Auditor of BO to conduct the IS audit of its system as mentioned above.

Required:

List the audit procedures you would adopt during review of the following:

- (a) Physical controls (03)
- (b) Logical access controls (03)
- (c) Operational controls (05)

- Q.10 Eastern Bank Limited (EBL) is contemplating setting up Biometric ATMs for its customers whereby the ATM holders will be authenticated by their fingerprints. The EBL president has announced that biometric technology will provide a greater degree of security than traditional authentication techniques since the biometric credentials are difficult to steal, lose, forget or compromised. However, he has directed the EBL's internal audit department to identify control issues related to biometric technology.

Required:

Being Manager Internal Audit of EBL, briefly explain the following:

- (a) Major risks associated with biometric technology along with examples and possible countermeasures. (06)
- (b) Major aspects which need to be considered while reviewing performance of the biometric system. (03)

(THE END)