



INFORMATION TECHNOLOGY MANAGEMENT, AUDIT AND CONTROL

(MARKS 100)

Module E

(3 hours)

- Q.1 High Fly Airways (HFA) is a small domestic airline. The airline has traditionally relied on sale of tickets through its travel agents. Recently the company has initiated online seat reservations through its website. For this purpose, the web-server has been connected to the back-end reservation system of the airline. However, after the introduction of online reservation, the system has been brought down twice by hacking attempts. An IT security consultant has recommended the use of firewall to protect the company's systems.

Required:

Prepare a note for the management of HFA identifying the characteristics, benefits and limitations of a firewall.

(10)

- Q.2 REACH (Pvt.) Limited is a leading leasing firm of the country and has its regional and branch offices in numerous cities and towns of the country. Most of the processes and operations of the company are manual and semi-automated. For better customer service, cost saving and overall efficiency, the company has decided to automate its processes and operations for its major domains i.e. leasing, finance, budgeting, administration and human resources. The company is considering whether to develop in-house software or opt for the Enterprise Resource Planning (ERP) applications available in the market from reliable vendors. Mr. Afridi has been appointed as consultant to advise in selecting the appropriate option.

Required:

- (a) On behalf of Mr. Afridi, you are required to mention at least three merits and three demerits of the two options being considered.
- (b) If the management prefers to buy an ERP system, identify a brief roadmap which they would be required to follow for its selection and implementation.

(06)

(06)

- Q.3 A well designed data entry form can enhance the efficiency and accuracy of the data input process. Briefly explain the factors which should be considered while designing data input forms.

(04)

- Q.4 Testing a business continuity plan is very crucial for the success of the plan. The test is conducted to ensure that the plan is effective in case of all eventualities.

Required:

- (a) What matters would you consider while evaluating a business continuity plan?
- (b) Give your views about the working conditions and the suitable timings for testing business continuity plan.

(07)

(03)

- Q.5 Physical and logical access exposures can result in financial loss, legal repercussions, loss of credibility and loss of competitive edge. An Information System Auditor should be aware of these exposures and their mitigating controls.

Required:

- (a) Identify the possible authorized and unauthorized perpetrators. (04)
- (b) Identify and explain controls to prevent losses on account of such exposures. (07)

- Q.6 Mr. Butt has been appointed as consultant for ZAM Enterprises which is planning to introduce a Customer Relationship Management (CRM) solution. As part of his assignment he has a scheduled meeting with the co-ordination committee which has been formed to help implement the CRM. The primary purpose of the meeting is to share information with the key personnel which will help in selecting the CRM solution.

Required:

Prepare a note for Mr. Butt clearly explaining:

- (a) Key factors to be considered in selecting a CRM application. (05)
- (b) What benefits the management shall be able to derive after the implementation of the solution. (04)

- Q.7 Kamran Oil Company (KOC) is a large oil marketing company operating for the last 30 years. The recent boom in information technology has forced the company to automate its business procedures. However, the absence of an IT strategy has resulted in difficulties and waste of resources. This issue has been placed on the agenda of the next Board meeting and the IT head of the company is required to present a report thereon.

Required:

On behalf of the IT head of KOC, prepare a report for the Board meeting covering the following:

- (a) Responsibilities of the CEO and the Board in the determination of IT strategy and its implementation. (05)
- (b) Reasons why KOC should develop an IT strategic plan. (03)

- Q.8 Fortune Bank Limited (FBL) has decided to install a utility bill payment system via telephone for its customers holding ATM cards. The system will allow customers to dial a number to enter the system. A voice feedback system will instruct customer about completing each step of the transaction.

Required:

Prepare a note for the management of FBL, specifically covering the following:

- (a) Suitable access control mechanism. (04)
- (b) The measures to be taken for ensuring the security of the customers' information. (03)

- Q.9 With the increasing role of information technology in business, training has become an essential factor of success. All levels of management are required to have relevant training at appropriate time.

Required:

For any organization where information technology is extensively used in all aspects of business, you are required to:

- (a) List four specific situations in which training is essential. (02)
- (b) Identify at least two levels of management and list the areas in which they may be trained. (04)

- Q.10 Ultimate Fund Transfer Services (UFTS) is a new, rapidly expanding medium size organization that offers electronic funds transfer facilities to financial institutions. The Board of Directors of UFTS comprises of one representative from each of the four organizations that are major shareholders in UFTS, plus the Chief Executive Officer (CEO) who has strong information technology background.

You have been appointed to perform the first information systems audit of UFTS. During your review of the controls, you note that there is no IT Steering Committee. The CEO is of the opinion that an IT Steering Committee is not needed as the Board of Directors is performing most of its functions.

Required:

- (a) Briefly explain the role and responsibilities of IT Steering Committee. (02)
- (b) Explain the risk or threats involved in case the Board of UFTS performs the functions of IT Steering Committee. (03)
- (c) What impact, if any, does the absence of a steering committee have on the way you will approach the IS audit? (02)
- (d) If the company decides to form an IT Steering Committee, give your views on the composition of such a Committee in the above circumstances. (04)

- Q.11 Bendy Garments (Pvt.) Ltd (BGL) is a medium sized manufacturer and exporter of cotton T-shirts. In the last quarter, the company's performance was far below the expected level. Shipments were delayed and the company incurred a huge loss. When the staff was given a chance to clarify the situation, all of them posted the blame on supply chain and complained that the material required for production was not received on time. On the other hand, the suppliers were of the view that the orders were not placed on time. After carefully observing the situation the management has decided to adopt an e-business model to minimize such time lapses.

Required:

You are required to explain the following:

- (a) An appropriate e-business model which BGL may adopt along with brief explanation of the model and the key characteristics which distinguish it from traditional business transactions. (04)
- (b) The benefits of the e-business model recommended by you which may help improve the profitability of BGL. (04)
- (c) Barriers in implementing the suggested model. (List at least eight points) (04)

(THE END)