



The Institute of Chartered Accountants of Pakistan

Information Technology Management, Audit and Control

Final Examinations
Module E – Summer 2011

Reading time – 15 minutes

June 6, 2011
100 marks – 3 hours

- Q.1 As Business Development Manager of Softera Solutions Limited you are presently conducting negotiations with the management of Prime Foods Limited (PFL) for automation and integration of its sales and distribution systems.

PFL produces 15 different varieties of confectionary products and distributes them to the retail outlets through its own fleet of 30 vans. Every morning the products are dispatched from the warehouse in PFL's vans. Each van follows a pre-defined route for delivery of products to the retail outlets. Sales invoices are prepared manually by the salesmen. The original invoice is issued to the customer and a carbon copy is submitted to the Accounts Department, at the end of each trip.

Individual accounts are maintained in respect of credit customers only. Each salesman deposits the cash amount on the basis of inventory delivered to him in the morning after adjusting the credit sales and the stock returned. The aggregate record of inventory received and issued is maintained on Excel Sheets by the Warehouse Superintendent.

Required:

Prepare a Sales Proposal for submission to PFL covering the following:

- (a) Weaknesses in the existing Van Sales Distribution System (VSDS). (03 marks)
- (b) The Tools and Technology available for automation of the VSDS with a brief description of how the system would work. (04 marks)
- (c) Any **six** advantages which would accrue to PFL after automation of the VSDS. (06 marks)

- Q.2 Vivid Securities Limited (VSL) is a medium-sized stock brokerage house. A recent study of the internal operating procedures has convinced VSL's management of the need for rightsizing in all the departments. At present, the IT Department consists of eight employees as listed below:

- | | |
|----------------------------|-----------------------------|
| (i) System Analyst | (ii) Software Developer |
| (iii) Tape Librarian | (iv) Database Administrator |
| (v) Security Administrator | (vi) Network Administrator |
| (vii) Help Desk Officer | (viii) Data Entry Operator |

VSL's management is of the opinion that certain functions can be consolidated to reduce the number of personnel in the IT Department. However, VSL's internal auditor is of the viewpoint that segregation of certain IT functions are of prime importance as their consolidation would compromise the security aspects of VSL's operations.

Required:

- (a) Prepare a "Separation of Duties Matrix" for the above IT functions and identify the duties which, in your opinion, should not be clubbed together. (06 marks)
- (b) In the event it is considered necessary to combine the functions of Software Developer and Database Administrator, identify any four controls which in your opinion would mitigate the associated risks. (04 marks)

- Q.3 Internet has developed systems for storage and sharing of information in a convenient, efficient and economical manner. Consequently, various organizations have demonstrated widespread reliance on use of Internet facilities. However, storage and exchange of sensitive information on Internet exposes the organisation to various types of threats. A firewall is considered an appropriate safeguard for companies whose networks are connected to the Internet.

Required:

- (a) Distinguish between passive and active attacks. Briefly describe any three passive and three active attacks to which an organisation is exposed due to the connection of its network with the Internet. *(08 marks)*
- (b) Identify the primary functions of a firewall and briefly describe any three types of firewall. *(09 marks)*

- Q.4 Marvi Hospital (MH) is a large sized hospital. It uses an integrated application for recording and maintaining the patients' medical history. As the IS auditor of the hospital, data privacy is one of the major concerns requiring your attention.

Required:

List the key questions that you would like to ask for assessing the data privacy risks, to which MH may be exposed to. *(10 marks)*

- Q.5 Management of Wee Limited is dissatisfied with the performance of the IT function. It has hired you to carry out an objective assessment and recommend suitable measures for improvement. As part of your review you have interviewed key users and have tested the main procedures. The management has also provided you various important documents including strategies and plans, budgets, security policy, business continuity plan and organizational structure of the IT department.

Required:

In respect of each of the above mentioned documents, describe the information that you would be interested in and how would it be used for the purpose of your review. *(10 marks)*

- Q.6 Bright Solutions Limited (BSL) is a leading firm of software developers and services providers. It runs various critical applications for its clients, most of which operate on 24×7 basis. In view of the sensitive nature of its IT operations, BSL is entering into a contract whereby Shiny Limited would be responsible to provide hot site facility to BSL at an agreed cost.

Required:

Identify the key factors which should be considered by BSL prior to entering into the hot site agreement. *(10 marks)*

- Q.7 Golden Chemicals Limited (GCL) is engaged in the business of trading of industrial chemicals. GCL makes extensive use of information technology in various routine business operations and has adequate controls over input, output and processing of data. However, GCL has witnessed rapid growth during the past few years and consequently the management feels that it needs to strengthen the process of monitoring. It has therefore decided to hire a senior person with the sole responsibility of strategic planning, development and monitoring of IT function.

Required:

- (a) Give reasons, which in your opinion, may have prompted the management to take the above decision. *(03 marks)*
- (b) List possible advantages that GCL may expect to obtain, after implementation of the above decision. *(06 marks)*

- Q.8 Sunny Bank Limited (SBL) has recently entered into an arrangement with Glitter Inc. (GI), which provides facilities for world-wide transfer of funds. GI has installed a dedicated system application covering all branches of SBL, for electronic transfer of funds and interchange of data. The installed application will run over a Value Added Network.

Required:

As the SBL's Internal IS Auditor, identify and briefly explain any twelve controls which you would look for, in the GI's application. *(12 marks)*

- Q.9 Brilliant Bank Limited is a large commercial bank. It has a progressive management which seeks pride in offering innovative services to its clients. New applications are developed on a regular basis with the objective of achieving high degree of customer satisfaction.

On the recommendation of the newly appointed HR Director, the management wants to develop Key Performance Indicators (KPIs) in all critical areas.

Required:

List any three KPIs in respect of each of the following areas:

- (a) IT projects performance
- (b) IT operational support
- (c) IT infrastructure availability
- (d) IT security environment

(09 marks)

(THE END)