



**THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN**

**Final Examinations Winter 2005**

**December 05, 2005**

**INFORMATION TECHNOLOGY MANAGEMENT, AUDIT AND CONTROL**

**(MARKS 100)**

**(3 hours)**

Q.1 It is rightly said that the negative aspects of human minds cannot be stopped by any control or punishment. This saying is also relevant to human threats that are faced by an information system, particularly, an information system based on networking. Computer based crimes are becoming more and more common in the IT world with a speed higher than the speed of development of mitigating controls.

**Required:**

You are required to describe very briefly, any six types of computer based crimes and frauds and provide controls for their prevention and detection.

**(09)**

Q.2 Being the Manager Budgeting and Cost, you are responsible for the capital and revenue budgets of your organization. This year, based on the management's decision, IT department has submitted a proposal for purchase of hardware related to networking, to develop communication links within the head office and with the sales offices located throughout the country. Such proposal has been included in the capital budget which you are now presenting to the Board. A member of the Board, who is not familiar with the networking terms, has asked you to define all the items listed in the budget proposal. The purchase requirements include the following items:

- |                 |                            |
|-----------------|----------------------------|
| (a) File server | (f) Multiplexer            |
| (b) Router      | (g) Network Interface Card |
| (c) Firewall    | (h) Mail Server            |
| (d) Hub         | (i) ISDN                   |
| (e) Switch      | (j) Wireless Modem         |

**Required:**

Define each of the above item and its function in networking.

**(10)**

Q.3 The Manager in-charge of the audit of a large manufacturing company has analysed that the IT systems being used by the company are a bit complex and the accounting system is largely dependent on the reports generated by the IT systems. Accordingly, you, having the expertise of Information Systems (IS) audit, have been requested to assist in carrying out the audit relating to IT systems of the company. The audit manager has particularly sought your help with regard to application of CAATs.

**Required:**

(a) Briefly describe CAATs and identify the avenues where these can generally be

(2)

- (b) List down the decision factors which are considered by an auditor while deciding whether he should apply CAATs.
- (c) Identify and describe very briefly, four basic types of CAATs that can be applied in the given circumstances.

Q.4 During the audit of a large financial institution, which is also involved in online transactions on the internet and through ATMs, you have observed that the management has developed adequate disaster recovery plan. Your understanding is based on the discussions you had with the client officials. Your Manager in-charge does not appear to be satisfied with your observation and is of the view that mere existence of disaster recovery plan is not enough and proper audit procedures should be performed to ensure that such plan is effective.

**Required:**

List down the steps you will perform to audit the disaster recovery planning by the management in respect of risk analysis, functional user procedures and procedures for testing and recovery.

(08)

Q.5 You are the Chief Financial Officer of a large pharmaceutical company. The Company is growing at a fast pace and the present computer systems which were developed around ten years back on an in-house, phase-to-phase development basis are now considered to be redundant. Based on various discussions, the management has reached a conclusion that now it should adopt an ERP system. You are, therefore, developing a budget for acquisition and implementation of such a system. Along with the budget, you have to submit a summary regarding ERPs available in the market.

**Required:**

- (a) How would you describe an ERP system? (02)
- (b) List down any four generally used ERP systems. (02)
- (c) Elaborate how you would implement an ERP package in your organisation, in the light of the IFAC guideline on the Implementation of the Information Technology Solutions. Please discuss in detail the two phases of such implementation and the respective critical success factors, major risks and deliverables for each of the phases (08)

Q.6 You are working as a Finance Manager in a Fast Moving Consumer Goods (FMCG) company. A debate is going on in your organization regarding development of SFA and CRM modules for the information systems. The issue under debate is the decision as to whether a centralized environment would be appropriate or a decentralized or distributed processing environment would be more feasible, keeping in view the number of sales force and sales offices involved and the vast customer base. Majority of senior officials is inclined towards a decentralized system or rather a distributed data processing approach. Being a layman in IT terminology and functions, your General Manager Finance has asked you to prepare a write-up for the top management in this respect.

**Required:**

Prepare a note for the top management covering the following:

- What is distributed data processing and how does it work?

- Q.7 After failure of some of the large global corporations, corporate governance has taken a center stage position in international business scene. Good governance practices are not limited to corporate governance and corporate governance is not just a function of the Board and the audit committee. It encompasses entire business spectrum of the organization. IT is one of the core elements of business these days, especially for the organizations with large volumes and multiple operating locations.

**Required:**

Explain the term "IT Governance" and list down its key elements.

**(06)**

- Q.8 High cost of licensing proprietary software has made every cost conscious CEO and CFO to look for alternatives. Once seen as flaky, cheap and the work of amateur developers, open source has emerged blinking into the daylight. With unrestricted access to the source code to run or modify at will, and support coming from an ad hoc collection of software developers and fellow users, the open-source model is very different from proprietary software. But it is nevertheless proving attractive enough for CEOs to make the switch.

**Required:**

List any eight key characteristics of open source software.

**(04)**

- Q.9 IT function of any organization involves hardware, software and the personnel that manage the function. Although hardware and software are of critical importance, personnel element is the most important. Any installation can fail despite state of the art hardware and best of the breed software if the staff is not trained or motivated to make it a success. This requires careful selection and grooming of the staff.

**Required:**

Explain, what should be the key considerations while deciding the following:

- (a) Personnel Recruitment
- (b) Personnel Development
- (c) Personnel Termination

**(03)****(03)****(03)**

- Q.10 Evaluating efficiency of computer systems may be needed to identify that whether a system upgrade is required or just re-configuration would be sufficient or it is more of a personnel problem rather than system issue. In order to find out answers to these questions, a planned and systematic approach is needed.

**Required:**

List the steps required to carry out an effective system evaluation.

**(06)**

- Q.11 IT creates value in the business and this is not only becoming apparent but is being widely accepted. But everything has a life span. If you retire a system too early you lose money – if the decision is delayed you lose money. Knowing when to retire a system is a critical decision and requires a lot of serious thinking, especially on the part of the finance person since IT personnel may be more inclined either for an early retirement to gain knowledge of new technologies or to delay it to make their presence known and visible.

**Required:**

Discuss and explain the factors that should be considered while taking this decision.

**(06)**

(4)

Q.12 Information security policy is one of the key policies in an IT environment. It is always recommended that a formal statement of Information Security Policy be developed and disseminated within the organisation in a manner that it becomes known to all the employees of the organization. Many organizations prefer to have it signed by all the concerned employees and managers.

**Required:**

Develop a formal Information Security Policy for a medium sized organization which relies heavily on the computers for its information processing needs.

(10)

(THE END)