

December 06, 2004

**INFORMATION TECHNOLOGY MANAGEMENT, AUDIT
AND CONTROL**

(MARKS 100)

(3 hours)

Q.1 Pak Greetings Ltd. is a medium-sized company that produces and sells greeting cards and various gift items. It is planning to market its products on the Internet. You have been retained as a consultant to advise them on suitability of electronic payment system.

(a) Briefly describe the following systems, their target markets, advantages and disadvantages to Pak Greetings Ltd.:

(i) Payment through electronic cheques

(ii) Payment through credit cards

(05)

(b) Recommend which of the above should be adopted by Pak Greetings Ltd. keeping in view its nature of business

(01)

Q.2 The advances made in information and communications technologies over the last few years have made it possible to interact with the citizens in a faster and economical way. Citizens are also becoming more aware and knowledgeable of their environment and their demand for information and expectation of services from government has increased manifold. The advent of the Internet has made awareness of government information and government services accessible and available to citizens across borders.

The key forces of change including globalization, the rise of knowledge economies and new technology are transforming the relationship between government, business and society. Public attitudes and expectations of government are changing quickly. Governments around the world are responding to the information age society and Pakistan is no exception. Government of Pakistan has initiated a number of e-Government Projects. This is guided by a vision, which describes objectives of e-Government.

Briefly explain the objectives of e-Government and how it can improve service deliveries to citizens.

(08)

Q.3 In the following scenarios, identify the appropriate risk and recommendation(s) to address the risk:

(a) Lack of an appropriately defined Strategic IT plan

(b) Lack of procedures designed to ensure compliance with external requirements

(c) The failure to perform risk assessments

(d) Ineffective project management

(e) Lack of established procedures to acquire and maintain application software

Q.4 You are reviewing the business continuity plan of a medium sized organization. List down at least eight items that the plan should include.

Q.5 To secure an organization's data from external threats to its network, a very popular form of protection is usually the firewall. A firewall operates according to certain properties.

- (a) Briefly describe the properties of the firewall. **(04)**
- (b) List at least four benefits of firewalls. **(04)**
- (c) Identify at least four risks that are created by firewalls. **(04)**

Q.6 Muneef Associates Limited started business some thirty years ago as a small pharmacy near a key hospital of the provincial capital. Soon the founders realized the need of manufacturing a few drugs locally which were being mixed by them for patients as alternate to expensive imported medicines. They immediately ventured into the manufacturing business and have been growing ever since. Being a family owned business every area of the business was being looked after by one of the family members. This was being done on rotation basis. IT has suffered significantly from this approach. Each new head of IT has tried his best to use IT for business improvement but resulted in different policies during different periods sometimes into totally opposite directions. Now the Chairman of the company and his grandson who is the current head of IT has felt that specific direction should be selected and maintained. This can only be achieved through IT Steering Committee.

You are required to:

- (a) Define an IT Steering Committee. **(02)**
- (b) List key responsibilities of IT Steering Committee. **(06)**

Q.7 Developing software, specially business applications is a lengthy and time consuming exercise. Special care is required during design phase. It is said that correction of error in design can cost as much as 100 times the cost of original development of the concerned area. It is therefore very important for a system manager to understand different documents in design phase so that he can properly evaluate the application design to reduce chances of future corrections.

Describe what is the purpose of following documents and what are their key contents:

- (a) Requirement Specifications **(03)**
- (b) Functional Specifications **(03)**
- (c) Technical Specifications **(03)**
- (d) Database Specifications **(03)**

Q.8 Computer knowledge of average user in an office has been increasing at a phenomenal speed. This has resulted in dramatic rise in the amount of user controlled computing, at all levels of an organization. While opening up endless opportunities, this has necessitated establishment of strong policies to mitigate threats / risks and to ensure realization of benefits.

Describe at least five benefits and five threats/dangers of end-user computing. **(10)**

(3)

Q.9 Testing business applications is a very important part of IS auditing. There are two basic approaches to business application testing namely Black Box Testing and White Box Testing.

- (a) Define and differentiate between Black Box and White Box testing approaches. (04)
- (b) List down and describe at least four common types of tests of controls used in white box approach. (08)

Q.10 An information technology plan supports the business goals and strategies within the business plan. The objective of the information technology plan is to provide a road-map of the information technology required to support the business direction of an organization, outlining the resources that are required and the benefits that will be realized on implementation of the plan. While each information technology plan is unique to the needs and circumstances of an organization, it is generally formulated using a few core principles.

Describe core principles for developing an information technology plan as identified by IFAC guidelines. (10)

(THE END)