



Information Technology

Intermediate Examination
Spring 2013
Module D

11 March 2013
60 marks – 1¾ hours
Additional reading time - 15 minutes

Instructions to Candidates:

- (i) *All the Questions from Section-A are compulsory.*
- (ii) *Attempt any TWO out of THREE Questions from Section-B.*

Section-A

Q.1 Connect Communications Limited (CCL) is a telecommunication service provider. On the instructions of the management its IT Manager has recently carried out a review of its invoicing operation, which is presently outsourced to OSC. The IT Manager has recommended that CCL should introduce e-billing. He also believes that the outsourcing arrangement should be terminated immediately and the invoicing function should be carried out in-house.

Presently CCL has 0.3 million post-paid customers. Details of the outsourcing arrangement with OSC are as follows:

- OSC charges Rs. 40 per invoice, subject to a minimum of Rs. 6.0 million per month. The charges include cost of stationery (papers and envelopes), printing, packing (inserting invoices and sealing the envelopes) and delivery of invoices to the customers.
- OSC is required to complete the assignment within ten days of the receipt of data.
- Proof of delivery of individual invoices is also provided to CCL.

However, CCL's CFO is of the view that it should introduce e-billing but should not discontinue the outsourcing arrangement immediately.

- (a) Briefly describe various types of costs that may be incurred if CCL decides to carry out the invoicing operation in-house. (04)
- (b) Suggest whether CCL should implement the IT Manager's advice. Substantiate your suggestion with appropriate arguments. (04)

Q.2 (a) Identify and briefly explain any **four** types of reports that may be generated from a data processing system. Give one example of each type of report. (08)

(b) Identify the types of data processing that is being performed in the following situations. Give appropriate reason(s) to support your answer.

- (i) Employees' attendance is marked in an ERP system through a biometric interface. The system updates the employees' attendance record, on a daily basis at midnight.
- (ii) Sohail inserted his debit card in the ATM machine. After entering the current password he:
 - cancelled the transaction
 - withdrew Rs. 20,000

(04)

Q.3 (a) Kamil Super Store (KSS) is considering to replace its existing cash registers with electronic point-of-sales (EPOS) system.

- (i) Identify any **three** issues that KSS should consider before making a final decision. (03)
- (ii) List any **six** benefits that KSS may obtain by implementing EPOS system. (03)

- (b) Effective risk management plays an important role in the success of any information system project. Identify the key tasks that are generally performed in the following stages of risk management:
- Risk Assessment
 - Risk Minimisation
 - Risk Transfer
- (04)

- Q.4 (a) You have been appointed as head of operations of a company which is about to set up a call centre. The company is in the process of purchasing a PABX system for the call centre.

Specify the features of a PABX system which may be particularly useful in the above situation. (04)

- (b) Identify any six activities that are required to be performed by a Network Administrator. (06)

Section-B

- Q.5 The last few years have witnessed significant growth in the use of Internet for downloading information and software which poses many risks.

- (a) Specify any **five** precautions which one should take while downloading software from the Internet. (05)

- (b) List any **two** utility programs which may safeguard the data stored on computers from risks associated with downloading software. Briefly describe how these programs perform their tasks. (05)

- Q.6 While reviewing the system documentation of EWC Limited you have noticed that:

- The programmers seem to be ignorant with the use of sub-routines.
- Appropriate program maintenance controls do not exist.

Prepare a note for the guidance of the information systems development team, covering the following:

- (a) the usefulness of sub-routines in writing efficient programs; and (03)

- (b) the importance of controlling the changes to the programs. Also list any **six** controls that should be implemented in this regard. (07)

- Q.7 The Government of Toyland is planning to replace the National Identity Cards of its citizens with a computerised National Identity Card. In this respect, it is considering either to use Magnetic Stripe Card or Smart Card.

- (a) Which option would you prefer? Give any **six** advantages to support your answer. (06)

- (b) Identify the main purposes for which your preferred choice could be used. (04)

(THE END)