The Institute of Chartered Accountants of Pakis[tan]

Information Technology

Intermediate Examination   9 September 2013
Autumn 2013   60 marks – 1¾ hours
Module D   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   Capturing data through Keyboard is one of the classical and most commonly used method. However, with the increasing quantum of data entry many other data capturing processes have been evolved. Among such processes, "Character recognition processes" introduced a revolutionised way of data capturing.

 (a)   Briefly explain the Magnetic Ink Character Recognition (MICR) process and identify its *three* main advantages.   **(06)**

 (b)   State why application of MICR is limited.   **(02)**

 (c)   Identify an appropriate data input device which is required in each of the following cases:
  (i)   Voice recording   (ii)   Capturing photographs electronically
  (iii) Uploading paper photographs to   (iv)   Transforming images of handwritten
         facebook   text into machine-editable text   **(02)**

Q.2   (a)   Briefly explain the three levels of Management Information System. Give two examples of the information generated at each of the above level.   **(07)**

 (b)   During the past decade, e–commerce has gained increasing popularity. Most of us are now using e–commerce either directly or indirectly. Identify any *six* areas where e–commerce technology is used.   **(03)**

Q.3   Dynamic Limited intends to develop a computer program for the purpose of calculating annual performance bonus for its employees. There are two types of employees viz., permanent and contractual. All the employees have been classified into three categories A, B and C. Managerial staff is placed in category A whereas non-managerial staff are placed in either category B or category C.

Employees in category A, contractual employees and employees whose service period is less than nine months are not eligible for the award of bonus.

On a scaled score of 1 to 100, the amount of bonus for the eligible employees is determined as follows:

Scaled Score	No. of Basic Salaries
80 and above	2.0
65 – 79	1.5
50 – 64	1.0
Less than 50	0.0

Prepare a program flowchart showing the process of calculation of bonus.   **(10)**

Q.4   Knock Tel (KT) is a mobile service provider and is planning to initiate mobile banking services in association with a leading bank. As the head of marketing, you have been assigned to assess the prospects of launching such a scheme and report to the CEO of the company.

As part of your assignment, you are required to:

(a)   Identify *six* types of services which can be offered to mobile banking customers.   **(03)**

(b)   Briefly describe *two* challenges which KT might have to face in launching the mobile banking services.   **(03)**

(c)   Identify *four* benefits that the Bank may secure by partnering in the above project.   **(04)**

Section-B

Q.5   (a)   Segregate the following into preventive, detective and corrective controls and give brief justification in support of your choice.
(i)   Reviewing credit card bill before payment.
(ii)   Keeping ATM card PIN separate from ATM card.
(iii)   Monitoring expenditures against budgeted amounts.
(iv)   Submitting revised invoices after correction.
(v)   Updating IT access lists if individual's role changes.
(vi)   Review of implemented controls by internal auditor.
(vii)   Mandatory change of computer passwords after every 45 days.   **(07)**

(b)   Identify any *six* uses of audit trail in a computerized environment.   **(03)**

Q.6   Return Exchange (RE) is a foreign exchange dealer. Presently RE is using spread sheets to keep record of its transactions and generate operational level reports. However, its business has grown over the years and now it is operating branches in all major cities across the country. The management is planning to acquire integrated software from a local software house to meet its increasing needs.

Identify any *five* logical access controls that may be embedded in the above software to ensure the security of data and identify *one* type of security breach which each control is expected to cover.   **(10)**

Q.7   (a)   Describe Hot site and Cold site and in each case, give examples of *three* types of businesses which would prefer to use them.   **(07)**

(b)   As part of Business Continuity Plan, Unified International (UI) envisages to set up its own hot site. Identify the factors which determine the extent of costs that UI would have to incur on setting up such a site.   **(03)**

(THE END)