THE ASSOCIATION OF ACCOUNTING TECHNICIANS OF SRI LANKA

INTERMEDIATE EXAMINATION – JULY 2014

(55) INFORMATION MANAGEMENT & APPLICATION IN BUSINESS

Time: 03 hours

Instructions to candidates:

1. This paper consists of two (02) Sections A & B.
2. Five (05) questions should be answered as follows:
   • Question No.01 of Section A
   • Any four (04) questions from Section B
3. Answers should be in the medium applied for, in the booklets provided.
4. 100 Marks.

SECTION - A

Multiple Choice Questions
Answer all questions of this Section
40 marks

01. Select from (1), (2), (3) and (4) the most correct answer to each of the following questions. Write the number of the selected answer in your answer booklet with the English letter assigned to the question.

(A) When considering a company which manufactures plastic chairs as a system, which of the following could be considered as a sub-system?
   (1) Government Auditor General’s Department.
   (2) Production department of the company.
   (3) Loans department of a bank in which the company maintains loan accounts.
   (4) General public who purchase chairs manufactured by the company.

(B) Which of the following is not a sub discipline of Information Technology?
   (1) Computing Technology.
   (2) Information Management Technology.
   (3) Human Resources Management Technology.
   (4) Communication Technology.

(C) When considering functions performed by an Information System (IS), which one of the following is correct?
   (1) IS stores information for later use.
   (2) IS converts information into data.
   (3) IS always utilises Artificial Intelligence.
   (4) IS always encrypts data.
(D) A computerised billing system used in a supermarket is a good example for which one of the following systems?

(1) Computer Based Information System.
(2) Automated Teller Machine System.
(3) Decision Support System.
(4) Manufacturing System.

(E) Employee Attendance Information, Pay Raises and History of Salaries, Disciplinary Actions taken are typical information processed by which of the following Information Systems?

(1) Sales and Marketing System.
(2) Manufacturing System.
(3) Finance and Accounting System.
(4) Human Resources Information System.

(F) \(2^{24}\) bits is equivalent to:

(1) 1 Megabits.  
(2) 2 Megabits.  
(3) 1 Giga Byte.  
(4) 2 Mega Bytes.

(G) Which one of the following types of input devices may use a stylus pen for its operation?

(1) Flatbed Scanner.  
(2) Digitizing Tablet.  
(3) Joystick.  
(4) Trackball Mouse.

(H) When considering personal computers sold today, which one of the following can be considered as a typical value for the Random Access Memory (RAM) specification?

(1) 4 GB  
(2) 8 MB  
(3) 4 TB  
(4) 1 KB

(I) Select from the following, an advantage of using a USB Pen drive:

(1) It is not affected by Viruses.
(2) It is a read only device.
(3) It is not fragile as a magnetic hard disk.
(4) None of the above.
(J) The technology which can be used to automate the marking of answers to Multiple Choice Question (MCQ) papers is known as:

(1) MICR. (2) OCR. (3) OMR. (4) Barcode.

(K) Features such as Icons and Buttons are used for which one of the following User Interface?


(L) Windows Mobile is the name of a / an:

(1) Mobile Phone. (2) Operating System. (3) Company which manufactures Mobile Phones. (4) Vehicle which runs on Windows.

(M) The word “SELECT” is an example of a command which is used to select data from a table in which of the following language?

(1) SQL (2) Machine Language (3) JavaScript (4) Java

(N) Which of the following is a popular spreadsheet software?

(1) Microsoft Outlook (2) Microsoft Publisher (3) Microsoft Excel (4) Microsoft Project

(O) A student is typing a mathematical equation as shown in the figure below to explain the relationship between the Area (A) and the radius (r) in a popular word processing software. The word processor feature used to square r (r²) when typing is known using which of the following terms?

(1) Function (2) Subscript (3) Superscript (4) Underline

(P) Web pages are often created using HTML language. HTML refers to:

Which of the following is used by ADSL technology, for connecting computers to the Internet?

(1) Fixed telephone lines.  (2) Mobile phones.

A threat on an Information System designed to interrupt normal function by sending a flood of fake requests to a server is commonly known as:

(1) Phishing.  (2) Denial of Service Attack.
(3) Virus.  (4) Spyware.

In certain situations, organisations may decide to delegate functions performed by them to external entities which specialise in that activity. This includes software, hardware and even human resources. This concept is referred to as:

(1) Prototyping.  (2) Outsourcing.
(3) End user development.  (4) Direct conversion.

Which one of the following technologies creates a secure network connection over a public network such as the Internet?

(1) Wireless Network.  (2) Hyper Text Transfer Protocol.
(3) Check Digit.  (4) Virtual Private Network.

02. (a) Define the term “Information”.   (02 marks)
(b) Draw a diagram to illustrate the steps involved in data processing.  (04 marks)
(c) List three(03) types of information stored in an Information System applicable for each of the following situations.
   (i) A primary school
   (ii) A retail shop in a village  (06 marks)
(d) State three(03) characteristics of strategic information.  (03 marks)

(Total 15 marks)
03. (a) Process Controlling System (PCS) is a type of an Information System commonly used in organisations. Briefly explain the purpose served by a PCS. (03 marks)

(b) “A Transaction Processing System (TPS) in a supermarket can be used to identify future opportunities in the field”. Can you agree with this statement? Justify your answer. (03 marks)

(c) Briefly explain the internal sub processes within a TPS by using a diagram to clearly show the information flow. (05 marks)

(d) Explain the purposes served by a Decision Support System (DSS) by considering the use of a DSS to calculate the Economic Order Quantity (EOQ) for items in an organisation’s inventory. (04 marks)

(Total 15 marks)

04. (a) “Information generated from an Information System should be prepared to meet the needs of the user”. By considering a company which manufactures plastic chairs, categorize two(02) types of information each suitable for use by the Company’s Managing Director and the Quality Control Supervisor. (04 marks)

(b) A Computer can be defined as a “Programmable, Multipurpose and Multimedia Electronic Machine that can process data into information.” What is meant by each of the following five(05) terms used in this definition?

(i) Programmable
(ii) Multipurpose
(iii) Multimedia
(iv) Electronic
(v) Machine (05 marks)

(c) List three(03) types of man-made disasters that can affect Information Systems in an organisation. (03 marks)

(d) “One of the most important aspects of Disaster Recovery Planning is business continuity”. Can you agree with this statement? Justify your answer. (03 marks)

(Total 15 marks)

05. (a) What is meant by “Machine Language”? (02 marks)

(b) “Software suites are one of the most popular application software in the market.” Briefly explain what is meant by Software Suites and state one(01) example for such a software suite available for use today. (03 marks)
(c) Explain the difference between web-based email clients and standalone e-mail clients, with two (02) examples for each category. (06 marks)

(d) A popular Operating System introduced by Microsoft Corporation was recently in the news, as support and security updates provided by the manufacturer ended on April 8th, 2014. Identify this Operating System. If one was using this Operating System, explain one (01) possible solution to address this issue. (04 marks)

(Total 15 marks)

06. (a) Briefly explain the task performed by each of the following three (03) features available in spreadsheet software:

(i) Function.
(ii) Formula.
(iii) Worksheet. (06 marks)

(b) State the difference between the terms “Database” and “Data Warehouse” as used in Information Systems. (02 marks)

(c) The System Development Life Cycle (SDLC) method is a popular Information System development approach. List the steps in the SDLC and draw a diagram to illustrate the flow of activities. (07 marks)

(Total 15 marks)

07. (a) Maintaining profiles on Internet based social networks such as Facebook is increasingly popular especially among the younger generation.

(i) What type of information is shared using such networks?
(ii) What are the benefits of joining such networks?
(iii) What are the risks of joining such networks?
(iv) What steps can be taken to reduce the risks mentioned in 07. (a)(iii) above? (08 Marks)

(b) Information System Controls can be divided into three categories. List these three (03) categories. (03 marks)

(c) Many Organisations use Firewalls to protect their computers. Explain the purpose served by a Firewall. Your explanation must be supported by a Diagram. (04 marks)

(Total 15 marks)