(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 one language, 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) Which one of the following statements is correct pertaining to data and information?
   (1) Data is processed Information.
   (2) Processing is the last stage in Data Processing.
   (3) Data processing cannot be done by Computers.
   (4) The first stage in Data processing is Input.

(B) LankaTeas Ltd. is an exporter of tea leaves which makes use of Information at all levels in their management structure. Which of the following examples contain Information that is most suited to meet the strategic management needs of LankaTeas Ltd.?
   (1) Attendance of employees in the first week of December 2012.
   (2) Shipping cost of a container of Tea to Russia in November 2012.
   (3) Month-wise Revenue from Export of Tea during the year 2012.
   (4) Grievances of the employees in December 2012.

(C) Personnel of a company consists of positions such as Supervisors, Foremen and Section Officers. They assign jobs and tasks to various workers. Which one of the following management levels is closely related to the above positions?
   (1) Top Level Management
   (2) Strategic Level Management
   (3) Middle Level Management
   (4) Operational Level Management
(D) Which of the following can be considered as a Functional Information System?

(1) Manufacturing and Production System.
(2) Enterprise Resource Planning System.
(3) Executive Information System.
(4) Management Information System.

(E) In defining the term “Computer”, different characteristics of it are highlighted. Select from the following, most suitable word when defining the term Computer:

(1) Programmable.  (2) Human.

(F) 2 Kilo Bits is equivalent to:

(1) 2,048 Mega Bits.  (2) 256 Bytes.
(3) 2,048 Tera Bytes.  (4) 2,048 Bytes.

(G) The Apple iPad is an example for a:

(1) Smart Phone.  (2) Tablet PC.
(3) Desktop PC.  (4) Super Computer.

(H) Which one of the following is considered as an Output Device of a Computer System?

(1) Trackball.  (2) Joystick.
(3) Flat Panel Monitor.  (4) Light Pen.

(I) The character font displayed on the above picture is known as:

(1) OCR  (2) MICR  (3) OMR  (4) Plotter

(J) The latest version of Microsoft Windows Operating Systems used on Personal Computers is known as:

(K) Which of the following is **not** a component of an Operating System?

1. File Manager.
2. Process Manager.
3. Photo Editor.
4. Memory Manager.

(L) History, Open New Tab, Open New Window and Bookmarks are features pertaining to which of the following type of Application Software?

1. Word Processor.
2. Presentation Assistant.
3. Accounting Software.
4. Web Browser.

(M) Which of the following is an example for a function that is typed on a cell in spreadsheet software?

1. \(=C3+A3\)
2. \(=\text{AVERAGE}(A1:A3)\)
3. \(=A3^2\)
4. \(=2013/01/01\)

(N) Which one of the following is a suitable example of an Electronic Commerce Transaction between the Government and Citizen?

1. Paying Income Tax using a Credit Card.
2. Buying a book from Amazon.com using a Credit Card.
3. Applying for a Job at the Department of Education via E-mail.
4. Posting a question at the Bulletin Board of the Website for Department of Examinations.

(O) When one accesses a web page which sends confidential information such as passwords or credit card details, it is possible to note the term HTTPS appearing on the address bar of the browser. HTTPS refers to:

1. High Tension Transmission Procedure System.
4. Historical Transfer To Password Secrets.

(P) In the E-mail address "**officedrsl@sltnet.lk**", the user name is:

1. officedrsl
2. officedrsl@sltnet
3. sltnet
4. .lk

(Q) DOS attacks have been increasingly used to attack Information Systems, and they have brought down several prominent websites in recent years. DOS Refers to:

1. Denial Of Service.
2. Disk Operating System.
3. Data Open Source.
“In Developing Information Systems, one approach involves building an experimental system rapidly and inexpensively for users to evaluate. Once operational, this system is supposed to be refined continuously until it matches user requirement”.

This approach is better known as:

(1) Waterfall Method.  
(2) SDLC Method.  
(3) End User Development.  
(4) Prototyping Method.

Select from the following, the correct statement pertaining to backup systems maintained to ensure Disaster Recovery:

(1) Large Organisations such as Banks need only Hot Sites to prevent data loss.  
(2) Large Organisations such as Banks need to take backups on a weekly basis.  
(3) Large Organisations such as Banks need to maintain Hot Sites and Cold Sites to prevent data loss.  
(4) The best device to store backups is Flash Memory Media.

Wikipedia is a popular website among Information Seekers on the World Wide Web. Which one of the following services does Wikipedia provide?

(1) Microblogging.  
(2) Voice over IP.  
(3) Search Engine.  
(4) Internet Encyclopedia.

SECTION - B

Answer any four (04) questions only from this Section

60 marks

02. (a) Define the terms “Data” and “Information”.  
(02 marks)

(b) Explain the difference between Data and Information considering activities conducted at a Supermarket using two(02) examples. You are required to clearly identify examples for data and corresponding information.  
(04 marks)

(c) List Five(05) tasks / responsibilities carried out by personnel at Tactical Management Level (Middle Level of Management) of an Organisation.  
(05 marks)

(d) List Four(04) characteristics of good information.  
(04 marks)

(Total 15 marks)
03. (a) List the meaning of the following abbreviations as described in relation to Organisational Information.
   (i) CBIS
   (ii) ESS
   (iii) PCS
   (iv) TPS  (04 marks)

   (b) A hospital is planning to utilise a computerized Management Information System to streamline its operations. A friend of the CEO has suggested that purchasing an off-the shelf software such as Microsoft Excel should be sufficient for this purpose. Can you agree with this statement? Justify your answer. (05 marks)

   (c) Briefly explain the difference between Enterprise Resource Planning (ERP) Systems and Functional Information Systems. Your explanation must contain two(02) diagrams to illustrate how each system interacts. (06 marks)

   (Total 15 marks)

04. ABC Professional Educational Institute receives completed Application Forms from applicants for its Examinations. Assume that the institute is interested in electronically storing this information to enable efficient retrieval. You may assume that a photocopier is not used for this task, and there are 4,096 students who have applied to sit the examination in January 2013, and each application consists of three(03) A4 sized sheets.

   (a) What is the most suitable input device to digitize this information. Justify your selection. (03 marks)

   (b) In storing such documents for later data retrieval, list two(02) file types which can be used to save the documents. You may assume that each applicant’s three(03) A4 pages are stored as a single file. (04 marks)

   (c) If each A4 page takes a maximum of 512 Kilo Byte, calculate the total storage requirement in Giga Bytes to store the Examination Applications of applicants who sit the examination in January 2013. (04 marks)

   (d) Suggest a suitable Read Only Media that can be used to store this data. (02 marks)

   (e) Name the automation technique that can assist the institute if it plans to extract some of the information in the application form automatically into text that can be searched (e.g. by student surname) through a database. (02 marks)

   (Total 15 marks)
05. (a) Give one (01) example of a software product which can be used on a personal computer in the following situations.

(i) To merge the contents of two photographs into one.
(ii) To compress 200 photograph files into a single file.
(iii) To create a presentation for a sales promotion.
(iv) To play a DVD movie.
(v) To create a Spreadsheet. (05 marks)

(b) List three (03) Accounting Software packages used today. (03 marks)

(c) List three (03) advantages of a Computerized Accounting System. (03 marks)

(d) Database Management Systems (DBMS) are extensively used to store data today. List four (04) benefits of using a DBMS, rather than using separate files. (04 marks)

(Total 15 marks)

06. (a) A student is interested in following a Diploma in Computerised Accounting at an IT Training Institute. Since he does not have the course fee of Rs.100,000/-, his brother who is working in a foreign country has agreed to send him the course fee. Assuming that the money is sent in total in one transaction directly to the student via a legal method:

(i) Name a commercial service which can be used to complete this transaction. (02 marks)

(ii) Briefly explain the process involved and information required for sending money to the student. (State any assumptions made) (04 marks)

(b) Explain the difference between Super Computers and Mini Computers. (04 marks)

(c) Facebook, Myspace and Google+ are examples of Social Networking sites which are popular on the Internet.

(i) What is meant by social networking?

(ii) Briefly explain any negative impact on privacy that can arise from using these sites. (05 marks)

(Total 15 marks)

07. (a) List four (04) different types of malware. (04 marks)

(b) Protecting against Computer Viruses and other forms of malicious programs require the use of specialist software. State four (04) different tasks carried out by such software. (04 marks)

(c) When using email services today, one can come across “Spam Filters”. Explain what is meant by “Spam”. (03 marks)

(d) List four (04) output controls which can be seen in a computerized information system. (04 marks)

(Total 15 marks)