

THE OPEN UNIVERSITY OF SRI LANKA B.Sc. DEGREE PROGRAMME : LEVEL 03

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

FINAL EXAMINATION -2015/2016

## CSU1179:INTRODUCTION TO INFORMATION SYSTEMS

DURATION:TWO HOURS (2 HOURS)

Date: 07<sup>th</sup> January 2017

Time: 1.30pm-3.30pm

## **Answer Four Questions only**

- 01. (i) Explain why database systems can be considered as an improvement to file processing systems.
  - (ii) What are the three common problems in a classical file systems? Explain them.
  - (iii) Describe the difference between hierarchical and relation databases.
  - (iv) Describe the advantages and the disadvantages of *relational databases* over object oriented databases.
- 02. (i) Compare the difference between Real Time Systems and Online Systems.
  - (ii) What are the four types of Real Time Systems? Briefly describe each of them.
  - (iii) Which software can be used for supporting management levels of an organization?
  - (iv) Classify the following systems as Batch Processing Systems, Real Time Systems or Online Systems, giving reasons for each choice.
  - (a) Airline controlling system.
  - (b) Chatting system.
  - (c) Pre-paid card system.
- 03. (i) What do you mean by a system? Justify your answer.
  - (ii) Describe the difference between manmade systems and automated systems.
  - (iii) All manmade systems are not automated systems. Justify your answer.
  - (iv) What is the relationship between Data and Information? Explain data, information and knowledge by using examples.
- 04.(i) Describe the advantages and the disadvantages of WWW technology.
  - (ii) What is application server based computing? Explain how it can be useful for the developing countries.
  - (iii) Briefly describe the following terms

- (a) Web Client
- (b) Telemedicine
- (c) Web Application
- (d) Search Engines
- 05 (i) Distinguish between a Database and an Expert System.
  - (ii) Describe two methods that can be used to develop an expert system. Which method is the easiest to develop an expert system? Justify your answer.
  - (iii) "To create a good expert system, the inference engine should be stronger" Do
    You agree with the above statement? Justify your answer.
  - (iv)What are the advantages of Hybrid systems? Justify your answer with a suitable example for each advantage you stated.
- 06. (i) What is a computer network? Explain how it can be useful for a developing country?
  - (ii) Describe the advantages and the disadvantages of File Transfer Protocol (FTP).
  - (iii) Compare and contrast the following terms.
    - (a) FTP and Telnet.
    - (b) Website and Web application.
    - (c) Dialup connection and Direct connection.
    - (d) HTTP and TCP/IP

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