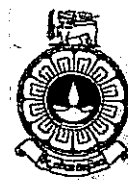


The Open University of Sri Lanka
 B. Sc. Degree Programme – Level 03
 Department of Mathematics and Computer Science
CSU 1179: Introduction to Information Systems
 Final Examination - 2010/2011
 Duration: Two hours



Date: 01.07.2011

Time: 09.30 am – 11.30 am

Answer FOUR Questions ONLY.

01. I. Determine whether the following statements are TRUE or FALSE. Justify your answer.
 - (a) Galaxy is a natural system.
 - (b) Car is a man made system.
- II. “All man made systems cannot be automated”, Justify your answer.
- III. How do natural systems differ from automated systems?
- IV. What is a system? Explain the Yourdon’s classification of systems by giving examples.
- V. What is the relationship between Data and Information? Explain data, information and knowledge by using examples.
02. I. Define a real time system.
- II. What are the characteristics to be considered when implementing a real time system?
- III. Describe the applicability of a real time system technology for the implementation of the following systems.
 - a. Airline controlling system as a process control system.
 - b. Rocket launching system as a high speed data acquisition system.
- IV. How does a database system differ from an expert system.
03. I. Discuss the importance of a database over information processing in files.
- II. What is a database management system? What are the essential facilities provided by it?
- III. Compare and contrast Hierarchical and Network database models.
- IV. Name five basic facilities provide by relational databases.
- V. Describe the following terms:
 - a. Database
 - b. Multi-media database
 - c. Query
 - d. Data redundancy

04. I. What do you mean by the term "knowledge"?
- II. Name six aspects of Knowledge Acquisition and explain them.
- III. Name three major parts of an Expert system and explain the functions of each part.
- IV. Describe a test to verify that an Expert system is not intelligent.
- V. Write short notes for the following terms:
- a. Expert system shell
 - b. Xcon
 - c. RLM (Role limiting methods)
05. I. What is a computer network? Briefly explain the three types of computer networks.
- II. *"In a network one node can act as both the client and server at the same time"*. Do you agree with this statement? Justify your answer.
- III. Explain five types of searching on the Internet.
- IV. Briefly describe the following terms:
- a. Pen-based computing
 - b. Mobile computing
 - c. HTML
 - d. Search engine
06. I. What is application server based computing? Explain how it can be useful for a developing country.
- II. What is FTP? Explain three commands in FTP?
- III. Define Telemedicine? Explain its advantages.
- IV. Compare the following terms:
- a. Database and Knowledge base.
 - b. Email format of IP address and web URL format of IP address.
 - c. Google and Mozilla Firefox.
 - d. Mobile agent and Static agent.
 - e. PPP and FTP.