



JARAMOGIOGINGAODINGAUNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

BACHELOR OF SCIENCE IN LIBRARY AND INFORMATION SCIENCE

First Year - First Semester Examination 2013/2014

Course Code:IISL3114 Course Title:Information Technology

TIME: 3 HOURS

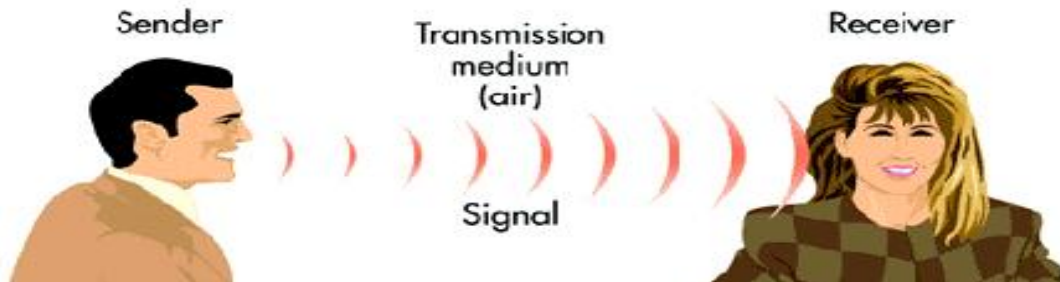
Instructions

- 1. This paper Contains five questions**
- 2. Question one is compulsory and any other two questions**
- 3. Answer the questions on the booklet provided**
- 4. Mobile phones are not allowed in the exams room**

Question 1 30marks

a) In the figures below identify which one portrays communication and which one portrays telecommunication (2 Marks)

A.



B.



b) Define distributed Processing of information (2 Marks)

c) Explain the role of the following communication softwares (4 Marks)

d) Discuss three types of computer networks (6 Marks)

e) Giving two examples in each case differentiate communication Nodes and communication Links (6 Marks)

f) i) Define the term network topology as used in communication. (2 Marks)

ii) Using a diagram explains any four types of computer network topologies (8 Marks)

Question two

- a) Define a communication protocol (2 marks)
- b) Explain any five protocols used in network communication (10 Marks)
- c) Explain four protocols operating at the layer seven of the OSI Model (4 Marks)
- d) Explain four ways in which the emergence of ICT has impacted negatively on library services. (4 Marks)

Question three

- a) Define the following terms (10 Marks)
 - i) The Internet
 - ii) Intranet
 - iii) An extranet
 - iv) An Internet Browser
 - v) A Web Page
- b) Explain five ways in which ICT has enhanced the development on library services. (10 Marks)

Question four

- a) Explain the role of the following network devices and state the layer of the OSI model where they operate. (8 Marks)
 - i. Bridge
 - ii. Router
 - iii. Gateway
 - iv. Switch

- b) i) Define the term network architecture (2 Marks)
- ii) Explain any two types of network architectures (4 Marks)
- c) Explain three types of Networks categories based on Network coverage (6 Marks)

Question five

- a) Discuss any four roles of telecommunication and networks to the library and its related agents such as resources centers. (8 Marks)
- b) List any four communication Media / Channels (4 Marks).
- c) Explain four design goals of TCP/IP Protocols (8 Marks)