



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF PUBLIC HEALTH WITH
INFORMATION TECHNOLOGY**

MAIN CAMPUS

UCI 102: COMMUNICATION SYSTEMS

Date: 3rd May, 2016

Time: 2.30 - 4.30 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.



UCI 102: COMPUTER COMMUNICATION SYSTEM

DATE: APRIL 2016

TIME: 2 HOURS

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS.

QUESTION ONE

1. Define networking and list its main elements. 6mrks

2. Using diagrams discuss the following topologies giving the advantages and disadvantages of each.
 - i. Bus
 - ii. Star
 - iii. Mesh
 - iv. Ring 12mrks

3. Define network topology. 2mrk

4. Discuss the 7 layers of OSI protocol stack. 10mrks

QUESTION TWO

1. With a suitable diagram, outline the concept of the server based network model and explain why it is the ideal model. 10mrks
2. Outline the importance/functions of networking 5mrks
3. Identify any two roles played by a NIC during data transmission. 5mrks

QUESTION THREE

1. Using diagram explain in detail types of network. 10mrks
2. Explain the following networking hardware.
 - i. Cables
 - ii. Hubs
 - iii. Repeaters
 - iv. Bridges
 - v. Routers
 - vi. Switches6mrks
3. Lists factors to consider before choosing the type of network model to adopt 4mrks

QUESTION FOUR

1. State and explain the main functions of network administrator. 10 mrks
2. Explain the importance of splitting data into pieces during transmission. 5mrks
3. Identify and explain five network security techniques. 5mks

QUESTION FIVE

1. Examine the characteristics of transmission control protocol (TCP). 5mrks
2. Define operating system (OS) and explain its main roles. 5mrks
3. With the help of a diagram illustrate the performance comparison between Token Passing and Contention Access Methods. Give two advantages and disadvantages of each. 10mrks