



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

BTAP 13S Y3S1

EIT 4313: COMPUTER COMMUNICATION AND INTERFACE DESIGN

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date Select Month Pick Year

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

Do not write on the question paper.

Question ONE

Question One [30 marks]

i) Define the following terms:

a) Protocol :

b) Network :

c) Physical Topology

d) Logical Topology

(8 marks)

ii) Differentiate between TCP/IP and OSI protocols and give the benefits of each.

(6 marks)

iii) Describe the biggest limitation of bus topology.

(4 marks)

iv) Why is it important to consider future expansion when planning for a network?

(6 marks)

v) Why is it important to consider future expansion when planning for a network?

(6 marks)

Question TWO [20 marks]

(a) An up coming company that has vision to expand and open up new branches in a metropolitan area has approached you to advise them on how to come up with a scalable network that is reliable;

REQUIRED

(i) Advice on the approach that the company has to undertake to meet their objectives

- (ii) Advice on the best topology for the organization with reasons with a suitable diagram.
20 Marks

Question THREE

- a) Discuss the reasons behind rapid development of human computer interaction devices [10 marks]
- b) Describe the three principles of user interface design [6 marks]
- c) List five classic interaction styles for user centered design [4 marks]

Question FOUR

- a) Using a well labeled diagram, explain the roles of each OSI reference model layer in network administration [10 marks]
- b) Define TOPOLOGY, Explain the various types of topology [6 marks]
- c) State and explain any five classic multimedia design objects [4 marks]

Question FIVE

- a) State and distinguish between the two basic multiplexing techniques (4mks)
- b) Differentiate between AM and FM in detail (6mks)
- c) Discuss security issues that are worrying in data communication and propose remedies for the issues
10 Marks