



# TECHNICAL UNIVERSITY OF MOMBASA

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INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION

TECHNOLOGY

**UNIVERSITY EXAMINATION FOR:**

DIPLOMA IN ICT

EIT 2206: NETWORK ESSENTIALS

END OF SEMESTER EXAMINATION

**SERIES:** Select series 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 any THREE questions.

**Do not write on the question paper.**

## **Question ONE**

a) I. Define network topology. (2MKS)

II. Explaining why fully connected network topology is not commonly used in local area networks. (2MKS)

III. Describe any two scenario that would make one to select fully connected topology. (4MKS)

b) I. Discuss difference transmission media available in the market today. (3MKS)

II. explain why wireless transmission media is gaining popularity (2MKS)

c) Describe any three reason for using a network bridge in a network (6MKS)

d) Distinguish between narrow band and broad bandwidth (2MKS)

e) outline any four classification of computer networks (4MKS)

f) i. Distinguish between TCP/IP and MAC addressing (2MKS)

ii. Discuss classification of Ip addressing giving example and application (3MKS)

## **Question TWO**

A) compare and contrast OSI reference model and TCP/IP protocol model suite (20 marks)

## **Question THREE**

A) one of the key elements of computer networking is said to be hardwares, softwares and transmission. Discuss various hardwares and softwares used in a network (20 marks)

## **Question FOUR**

A) Discuss in details the medium access methods that are employed in most local area networks

(20 marks)

## **Question FIVE**

A) A good network must ensure reliability, performance, efficient and security to satisfactory to user. Discuss how you would ensure this in a network design (20 marks)