



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

*Faculty of Engineering and Technology*

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**CERTIFICATE IN COMPUTER MAINTENANCE & NETWORK TECHNOLOGY  
CMNT 10A**

**EIT 1111: NETWORK IMPLEMENTATION**

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**SERIES: OCTOBER 2011**

**TIME: 2 HOURS**

## **Instructions to Candidates:**

You should have the following for this examination

- *Answer booklet*

Answer question **ONE (COMPULSORY)** in section A and any other **TWO** questions from section B

Maximum marks for each part of a question are clearly shown.

This paper consists of **THREE** printed pages

## SECTION A – Compulsory

### Question 1 (30 marks)

- a) Describe the purpose of the following commands:
- i. Ping.
  - ii. IPConfig.
  - iii. Tracert.
- [9 marks]**
- b) Explain the following as applied to networking:
- i. Bandwidth.
  - ii. Interference.
  - iii. Transmission media
  - iv. Subnet mask.
- [8 marks]**
- c) Describe the **two** ways of assigning a computer an IP address. **[4 marks]**
- d) Distinguish between baseband and broadband transmission. **[4 marks]**
- e) Define a Network. **[1 mark]**
- f) Explain the following components of network giving an example of each:
- i. Shared peripherals.
  - ii. Networking devices.
- [4 marks]**

## SECTION B (ANSWER ANY TWO QUESTIONS)

### Question 2 (20 marks)

- a) Describe the process of sharing the following in a network set-up.
- (i) Folder.
  - (ii) File.
- [6 marks]**
- b) Describe the method used by Ethernet networks to access transmission media. **[4 marks]**
- c) Explain the possible reasons for collisions to occur in Ethernet networks. **[4 marks]**
- d) Explain the process used by Ethernet networks to deal with collisions. **[6 marks]**

### Question 3 (20 marks)

- a) With aid of diagrams explain the ways of terminating the following cables:
- i. Crossover cable.
  - ii. Straight through cable.
- [6 marks]**
- b) With aid of diagrams describe the following Network topologies:
- i. Bus.

- ii. Star. [9 marks]
- iii. Ring. [9 marks]

c) List any **three** advantages of fiber optic cable. [3 marks]

d) State any **two** logical topologies. [2 marks]

**Question 4 (20 marks)**

a) State any **four** uses of computer networks. [4 marks]

b) Describe any **four** protocols of TCP/IP suite. [12 marks]

c) Distinguish between Logical and Physical topologies. [4 marks]

**Question 5 (20 marks)**

a) Distinguish between Logical and Physical address as applied to networks. [4 marks]

b) Explain any **two** threats of data that is stored on the network. [4 marks]

c) Explain the following networking models:  
(i) Client/server.  
(ii) Peer-to-peer. [4 marks]

d) With an aid of a diagram list the components of Ethernet frame. [8 marks]