



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]