



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE

**CERTIFICATE IN INFORMATION MAINTENANCE &
NETWORK TECHNOLOGY (CMNT)**

FINAL EXAMINATIONS

APRIL/MAY 2010 SERIES

NETWORK IMPLEMENTATION

TIME: 2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of **TWO** sections, **A** and **B**.

- Answer ALL Questions from **Section A** and any **TWO** Questions from **Section B**
- ALL Mobile Phones must be switched off.

SECTION A

(Attempt **ALL** Questions from this Section.)

Question ONE

- (a). Describe the purpose of the following commands:
- (i). Ping
 - (ii). IPConfig
- (4 Marks)**
- (b). Explain the following terms as applied to networking:
- (i). Bandwidth
 - (ii). Interference
 - (iii). Signal attenuation
 - (iv). Subnet mask
- (8 Marks)**
- (c). Explain the following:
- (i). Logical address
 - (ii). Physical address
- (4 Marks)**
- (d). Distinguish between baseband and broadband transmission. **(4 Marks)**
- (e). Explain the following:
- (i). Physical Topology
 - (ii). Logical Topology
- (4 Marks)**
- (f). Explain the following components of network giving an example of each:
- (i). Shared peripherals
 - (ii). Networking devices
 - (iii). Host
- (6 Marks)**

SECTION B

(Attempt any **TWO** Questions from this Section.)

Question TWO

- (a). Describe the process of sharing the following:
- (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 take place in Ethernet networks. **(4 Marks)**
- (d). Explain any **THREE** password policies you would use to ensure that password and user names are secure. **(6 Marks)**

Question THREE

- (a). With aid of diagrams explain the ways of connecting the following cables:
- (i). Crossover cable.
 - (ii). Straight through cable **(6 Marks)**
- (b). Explain the following permission:
- (i). Read
 - (ii). Change
 - (iii). Full **(6 Marks)**
- (c). Describe any **TWO** advantages of fiber optic cable. **(4 Marks)**
- (d). State any **FOUR** logical topologies. **(4 Marks)**

Question FOUR

- (a). State any **FOUR** reasons for using computer networks. **(4 Marks)**
- (b). Describe any **FOUR** components of TCP/IP protocol suite. **(12 Marks)**
- (c). State any **THREE** types of networks based on size. **(3 Marks)**
- (d). Explain the term 'transmission media'. **(1 Mark)**

Question FIVE

- (a). Distinguish between 'permission' and 'rights' **(4 Marks)**
- (b). State any **FOUR** user account options. **(4 Marks)**

(c). Explain the following networking models:

(i). Client/server

(ii). Peer-to-peer

(4 Marks)

(d). Classify the following IP address:

IP Address	IP Classes
200.16.0.10	
15.10.20.100	
196.15.11.1	
130.15.16.2	
190.100.5.1	

(5 Marks)

(e). State any **THREE** characteristics (properties) of a strong password.

(3 Marks)