THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE

CERTIFACATE IN INFORMATION MAINTENANCE &

NETWORK TECHNOLOGY (CMNT)

FINAL EXAMINATIONS

APRIL/MAY 2010 SERIES

NETWORK IMPLEMENTATION

TIME: 2 hours

INSTRUCTIONS TO CANDIDATES

- 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 use 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)