



THE TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION
TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
(DICT 2K 11M/DICT 10A)

ECT 2208: COMPUTER NETWORK MANAGEMENT

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: FEBRUARY 2013
TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

Question One (Compulsory)

a) Define the following network components:

- (i) Host
- (ii) Share peripherals
- (iii) Networking devices
- (iv) Networking media

(8 marks)

b) Explain the use of the following commands:

- (i) Ping
- (ii) Tracert
- (iii) Ipconfig

(6 marks)

c) Identify classes for the following IP addresses:

- 1. 129.15.9.1
- 2. 122.117.7.9
- 3. 192.120.100.21
- 4. 255.4.23.56

(4 marks)

d) Explain the term “MAC’ Address

(2 marks)

Question Two

a) Explain the use of DHCP

(2 marks)

b) Briefly explain the functions of the following network devices.

- (i) Router
- (ii) Repeater
- (iii) LAN Adapter
- (iv) Switch

(8 marks)

c) Explain **FOUR** reasons for using computer networks.

(8 marks)

d) State **TWO** ways in which printer may be connected to be used in network.

(2 marks)

Question Three

a) Explain the functions of a fire wall.

(4 marks)

b) Define the term “proxy server” and explain the functions of any **TWO** proxy servers.

(8 marks)

c) List any **TWO** advantages and **TWO** disadvantages of any of the following networking models:

- (i) Peer-to-peer networking
- (ii) Client/server

(8 marks)

Question Four

a) With aid of diagram, describe the type of cable you would use to connect:

- (i) A PC directly to another PC
- (ii) A PC to another PC through a switch.

(10 marks)

b) Explain the following terms:

- (i) Active directory
- (ii) Security Accounts Manager (SAM)
- (iii) Domain

(iv) Subnet mask

c) State any **TWO** logical topologies. **(2 marks)**

Question Five

a) State the functions of the following specialized services and the protocol used to carry out their functions:

(i) File server

(ii) Mail server

(iii) Web server

(iv) Domain name server

(8 marks)

b) Distinguish between 'mghs' and 'permissions' giving examples. **(4 marks)**

c) State any **FOUR** characteristics of a strong password. **(2 marks)**

d) Describe password policies. **(6 marks)**