



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN INFORMATION COMMUNICATION & MAINTENANCE
(CICM 13M)

EIT 1105: COMPUTER NETWORKS

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2013

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE** 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) State the core function of a protocol **(2 marks)**
- b) Explain how data security can be implemented in networking using the following procedures:
(i) Passwords
(ii) Encryption
(iii) User rights **(6 marks)**
- c) List FOUR major merits of networking in the banking sector. **(4 marks)**
- d) Differentiate the following terms:
(i) Internet
(ii) Intranet
(iii) Extranet **(6 marks)**
- e) Explain the purpose of information sharing in networking. **(2 marks)**

Question Two

- a) Using a well detailed diagram, show how the OSI and TCP/IP model have:
(i) Similarities
(ii) Differences **(10 marks)**
- b) Describe the following topologies. **(10 marks)**
(i) Wide Area Networks
(ii) Local Area Networks
(iii) Wireless Networks
(iv) Metropolitan Area Network
(v) Structured Cabling **(10 marks)**

Question Three

- a) Define the following terms:
(i) Cookies
(ii) Protocols
(iii) Server
(iv) Transmission media
(v) Network Operating System **(10 marks)**
- b) List the advantages and disadvantages of the following:
(i) Client/server Architecture
(ii) Peer-to-peer architecture **(10 marks)**

Question Four

- a) Explain how the following network security measures can help in reducing an authorized access in a network.
(i) Smart cards
(ii) User rights

- (iii) Passwords
 - (iv) Encryption
 - (v) Biometric systems
- (10 marks)**

b) Explain the following terms as used in networking:

- (i) Topology
 - (ii) Protocol
 - (iii) Desktop operating system
 - (iv) Access control
 - (v) File sharing
- (10 marks)**

Question Five

a) Explain **THREE** factors that affect the performance of a network. **(9 marks)**

b) Give examples of the following types of transmission media.

- (i) Guided/bound media
 - (ii) Unguided/unbound media
- (6 marks)**

c) List **FIVE** functions of a Network Administrator **(5 marks)**