



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN INFORMATION TECHNOLOGY COMMUNICATION &
MAINTENANCE (CICM 14S)

EIT 1105: COMPUTER NETWORKS

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2014

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 (Compulsory)** and any other **TWO** questions
Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) Outline the functions of TCP/IP protocol suite that make it a reliable choice. **(6 marks)**
- b) Which benefits does your college have when using computer networks? **(6 marks)**
- c) With the help of examples, differentiate between bus topology and ring topology. **(8 marks)**
- d) State the meaning of the following as used in computer networks. **(10 marks)**
 - (i) Tracert
 - (ii) IP address
 - (iii) Ping
 - (iv) IP config
 - (v) Netstat

Question Two

- a) Security is key to operations within an organization. How is security realized in computer networks? **(6 marks)**
- b) Convert the following IP address to binary 192.168.10.1 **(8 marks)**
- c) What is attenuation and how can it be avoided. **(4 marks)**

Question Three

- a) Describe any FIVE networking devices. **(10 marks)**
- b) What are the advantages and disadvantages of wireless transmission media? **(10 marks)**

Question Four

- a) Why should the IP address be unique? **(3 marks)**
- b) What is Internet? How do students benefit from the public network? **(7 marks)**
- c) Differentiate the following: **(6 marks)**
 - (i) Intranet
 - (ii) Extranet
 - (iii) Internet
- d) Explain where the following cables are used: **(4 marks)**
 - (i) Straight through
 - (ii) Cross-over cable

Question Five

- a) With the help of a diagram, show the structure of an optical fiber cable. **(6 marks)**
- b) How is flow control and reliability achieved in TCP/IP.? **(4 marks)**

c) Discuss the basic components of a computer network.

(10 marks)