TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR BACHELOR OF TECHNOLOGY IN
INFORMATION TECHNOLOGY (BTIT S12/J-FT)

EIT 4107: NETWORKING ESSENTIALS

END OF SEMESTER EXAMINATION
SERIES: APRIL 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 **TWO** printed pages

Question One (Compulsory)

a) (i) Define network topology.
(ii) Explain why fully connected network topology is not commonly used in Local Area Networks.
(iii) Describe any **TWO** scenario that would make one to select fully connected topology.
(6 marks)

b) (i) Define transmission media
(ii) Explain why wireless transmission media is gaining popularity. **(4 marks)**

c) Describe any **THREE** reasons for using a network bridge in a network. **(6 marks)**

d) Distinguish between narrow band and broad band. **(4 marks)**

e) Outline any **FOUR** classifications of computer networks. **(4 marks)**

f) (i) Define MAC address

(ii) Show MAC address that can be used for local address.

(iii) Show a MAC addressing that can be used for global addressing.   **(6 marks)**

Question Two

Compare and contrast OSI reference model to TCP/IP protocol suite.   **(20 marks)**

Question Three

One of the key elements of computer networking is said to be hardware. Discuss the key hardwares that are driving networking.   **(20 marks)**

Question Four

Discuss in detail the medium access methods that are employed in most Local Area Networks.
            (20 marks)

Question Five

A good network must ensure reliability and efficiency offer the expected performance to the satisfaction of the users. Discuss how you would ensure user satisfaction.   **(20 marks)**