TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY (BTIT M11)

EIT 4409: NETWORK OPERATING SYSTEM

END OF SEMESTER EXAMINATION
SERIES: APRIL 2013
TIME: 2 HOURS

<u>**Instructions to Candidates:**</u>
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) Identify and explain the essential network operating systems components.   **(10 marks)**

b) Define preemptive and non preemptive multitasking.   **(6 marks)**

c) Describe the structure of an IP-address.   **(4 marks)**

d) You have been given an IP-address IT2.16.1.1 determine:
    (i)   Network address
    (ii)   The range of addresser you can assign to individual losts
    (iii)   Broadcast address

    (iv)   Network address

    (v)   Subnet mask   **(10 marks)**

Question Two

a) Explain the main features which are considered when choosing a network operating system.

                                                                   (10 marks)

b) Describe the role of software in supporting a computer network.   **(10 marks)**

Question Three

In relation to Network Operating System. The Open Systems Interconnection (OSI) 7 layer model is a critical model for modern computer networking:

a) In the correct sequence from either end, identify the seven layers of the OSI/OSI 7 Layer model.

                                                                  (4 marks)

b) Briefly explain the functions of each layer   **(14 marks)**

c) What are the advantages of the OSI model?   **(2 marks)**

Question Four

a) Describe the process of gathering user requirements for a small network.   **(10 marks)**

b) Briefly describe the **FIVE** network classes.   **(10 marks)**

Question Five

a) Network operating system are said to be multi-user. Discuss.   **(10 marks)**

b) How does a network operating system differ from a standalone operating system?   **(10 marks)**