TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR DEGREE IN:
BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICATION
TECHNOLOGY
(BTIT 14S & 13S)

EIT 4209: NETWORK SYSTEM ADMINISTRATION

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
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 (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) By citing an example in each case, differentiate between the following terms:
    (i) Physical and logical network topologies   **(4 marks)**
    (ii) Network address and broadcast address   **(4 marks)**
    (iii) Loop back address and auto-configuration range   **(4 marks)**
    (iv) Static IP address and Dynamic IP Address   **(4 marks)**

b) The organization has purchased the class B address 170.50.0.0 would like to use it to create five networks. As an expert of network assist this organization to subnet its network   **(10 marks)**

c) State any FOUR reasons why network administrator use network analyzer **(4 marks)**

Question Two

a) Explain TWO methods that can be used to sniff on a switch **(10 marks)**

b) What are the challenges of system administration **(6 marks)**

c) Differentiate between peer-to-peer and client-server networking **(4 marks)**

Question Three

a) Explain the differences between the following terms. **(4 marks)**

(i) Workgroup and domain
(ii) Administrator account and Guest account

b) Explain THREE methods of detecting sniffers **(6 marks)**

c) Differentiate between disk partitioning and disk formatting **(4 marks)**

d) State and explain THREE method of communications **(6 marks)**

Question Four

a) The system administrator can choose various password options to protect access to a domain. Describe two such options **(4 marks)**

b) Explain THREE importance of the client server model **(6 marks)**

c) Explain FIVE benefits of window server 2008 Active directory **(10 marks)**

Question Five

a) As a system Administrator, it is important to understand the concept of a group scope so as to assign members to their correct respective groups. By citing one characteristic in each case, describe the following types of groups scopes **(6 marks)**
   (i) Domain local
   (ii) Universal group
   (iii) Global group

b) Explain TWO methods that can be used to protect against intruders **(4 marks)**

c) Explain the components of het network analyzers **(10 marks)**