TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

BIT2204: NETWORK SYSTEMS ADMINISTRATION.

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016 SERIES

TIME: 2 HOURS

DATE: May 2016 Year

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of 5 questions. Attempt question ONE and any other TWO questions.
Do not write on the question paper.

Question ONE

(a) Discuss the usefulness of Coaxial cable in data communication   (6 Marks)

(b) Describe the key functions of the following OSI reference model   layers

     i.   Presentation
     ii.   Transport
     iii.   Network
     iv.   Data link   (8 Marks)

(c) Distinguish between AM and ASK with the aid of a sketch   (4 Marks)

(d) Describe TWO popular platforms in system administration   (6 Marks)

(e) Describe how Distributed Queue Dual Bus DQDB works   (6 Marks)

Question TWO

   (a) Define modulation   (2 Marks)

   (b) Describe the classification of Modulation   (6 Marks)

   (c) Describe with the aid of a sketch the following methods that are used by MODEMs to modulate and demodulate signals

      i.   ASK   (2 Marks)

      ii.   FSK   (2 Marks)

     iii.   PSK   (4 Marks)

     iv.   QAM   (4 Marks)

Question THREE

   (a) Describe any THREE (3) CSMA protocol with the aid of a sketch   (6 Marks)

   (b) Compare and contrast CSMA/CD to CSMA/CA with the aid of a sketch   (14 Marks)

Question FOUR

   (a) Distinguish between token bus and token ring with the aid of a sketch (4 Marks)

   (b) Compare and contrast frame relay and B-ISDN with the aid of a sketch   (8 Marks)

   (c) Discuss LINUX and Windows NT platforms in system administration   (8 Marks)

Question FIVE

   (a) Describe the main causes of transmission impairment   (10 Marks)

   (b) Discuss the key security concerns in system Network administration   (10 Marks)