TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR DEGREE IN:
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
(BSIT 14S – J-FT)

BIT 2108: COMPUTER NETWORKS

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
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) Distinguish between baud rate and modulation rate **(4 marks)**

b) Compare and contrast synchronous to asynchronous transmission modes **(6 marks)**

c) Discuss any FIVE reasons that led to the international standards organizations ISO seek to have a common standards for computer networks **(10 marks)**

d) Describe the following terms as used in computer networks:
(i) Peer to peer

(ii) Client-server **(4 marks)**

e) Describe any THREE wireless techniques that are used to communicate data **(6 marks)**

Question Two

One of the key requirements for computer networks is network devices. Discuss the function of any FIVE commonly used network devices **(20 marks)**

Question Three

Data can be classified as either Digital or Analogue and so is the channel through which the data is communicated over. Discuss the possible modulation schemes for each of the possible scenario in Q3 (a) above. **(20 marks)**

Question Four

a) Compare and contrast message switching to packet switching with the aid of sketch **(10 marks)**

b) Distinguish between virtual packet switching and circuit switching **(10 marks)**

Question Five

a) Discuss power losses in optical fibre **(10 marks)**

b) Compare and contrast Twisted Pair and Coaxial Electrical transmission media with the aid of a sketch **(10 marks)**