THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY – DICT 2K 9J
DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY – DICT 9M

EIT 2301: NETWORKING

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer booklet*

Answer question **ONE (COMPULSORY)** and any other **TWO** questions
This paper consists of **THREE** printed pages

Question 1 (Compulsory)

a) By using well labeled diagrams, explain the following types of network topologies

(20 marks)
  i)   Star topology
  ii)   Bus topology
  iii)   Mesh topology
  iv)   Ring topology
  v)   Hybrid topology

b) Highlight **FOUR** functions of a network adapter   (4 marks)

c) Explain **TWO** ways of knowing the physical address of a client machine

(4 marks)

d) Name **TWO** uses of a cross over cable   (2 marks)

Question 2

a) Describe **FIVE** common security threats faced by an organization's computer-based network systems.   (10 marks)

b) Explain **FIVE** techniques that a company can employ in reducing the threats (a) above

(10 marks)

Question 3

a) State and explain any **FIVE** network trouble shooting commands   (10 marks)

b) A certain student was typing his project in one of the computers in the lab. When he wanted to print his project, he was told that there was no working printer in that particular lab. He came with a flash disk and CD so that he could transfer his project form the computer he was using into these storage devices but unfortunately, he found that the USB ports and the CD ROM are not working. As a student of IT give him tow solutions for his problem

(4 marks)

c) As an IT manager of Red systems Ltd, a company of 100 staff and 6 departments, you intend to propose to management on the use of a Local Area network (LAN).
Explain **THREE** advantages of LAN   (6 marks)

Question 4

a) When a system has a permanent part and a removable part (such as CD-ROM drive and the CDROM), it is important that the system be standardized, so that different companies can make both the permanent and removable parts and everything still works together. Give **THREE** examples outside the computer industry where such international standard exist and **THREE** outside the computer industry where they do not exist.   (6 marks)

b) Assuming that all routers and hosts are working properly and that all software in both in free of all errors, is there any chance, however small, that a packet will be delivered to the wrong destination? Explain? (2 marks)

c) State and explain six essential duties of a network administrator (12 marks)

Question 5

a) Network performance refers to how efficiently the network responds to users' needs. State and explain **FIVE** reasons as to why network administrators do hate Performance problems. (10 marks)

b) Define the following terms as used in networking (10 marks)
   i)   Gate way
   ii)   Latency
   iii)   Packet
   iv)   Brouter
   v)   Node