# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

## (A Constituent College of JKUAT)
(A Centre of Excellence)

# Faculty of Engineering & Technology

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

DIPLOMA IN INFORMATION TECHNOLOGY (DIT 10M)

**ECS 2301: NETWORK MANAGEMENT**

SPECIAL/SUPPLEMENTARY EXAMINATION
**SERIES:** OCTOBER 2012
**TIME:** 2 HOURS

<u>**Instructions to Candidates:**</u>
You should have the following for this examination
- *Answer Booklet*
This paper consist of **FIVE** questions

Answer question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages
**SECTION A (COMPULSORY)**

**Question One (15 marks)**

a)  Briefly define the following terms as in network management.          **(3 marks)**
     i)   Computer network
     ii)  Administration
     iii) Network Management

b)  Explain **FOUR** factors that affect network performance.          **(8 marks)**

c)  Explain the following:
     i)   Application Management          **(2 marks)**
     ii)  Software Asset Management          **(2 marks)**

d)  Explain the following components of user accounts.
     i)   Group Membership
     ii)  Account Status

**SECTION B (Answer Any Two Questions)**

**Question Two (15 marks)**

**a)**  Explain the advantages of each of the following topologies.
     **i)**   Star topology
     **ii)**  Ring topology
     **iii)** Bus topology          **(8 marks)**

**b)**  Describe the following concepts:
     **i)**   Sesame street method
     **ii)**  Napoleon Method          **(6 marks)**

**c)**  Classify network according to their geographical coverage.          **(6 marks)**

|      | Network | Geographical Coverage |
|------|---------|----------------------|
| 1.   | LAN     |                      |
| 2.   | MAN     |                      |
| 3.   | WAN     |                      |

**Question Three (15 marks)**

a)  (i)  Explain client serve architecture.          **(3 marks)**
     (ii) Advantages of peer to peer architecture.          **(5 marks)**

b)  Describe the steps of troubleshooting faults using simple flow chart diagram.          **(7 marks)**

c)  Outline **FIVE** data communication hardware          **(5 marks)**

**Question Four (15 marks)**

a)  Explain the manager expectation of the network.          **(8 marks)**

b) Outline the problem experienced by trouble shooters.                 **(4 marks)**
c) State things you need to know when monitoring.
     i)   End user experience                                         **(4 marks)**
     ii)  Server at both ends                                          **(4 marks)**

## Question Five (15 marks)

a) Briefly explain **FOUR** protocols used in a network.               **(8 marks)**
b) Outline network management user requirement.                        **(3 marks)**
c) Define the following terms:                                         **(4 marks)**
     i)   User Name
     ii)  Network Operating Systems
     iii) Groups