



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

**UNIVERSITY EXAMINATION FOR DEGREE IN BACHELOR OF
ENGINEERING IN CIVIL ENGINEERING
(BSC CE)**

EIT 4102: FUNDAMENTALS OF COMPUTING

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2012

TIME: 2 HOURS

Instructions to Candidates:

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 (30 marks)

- a) Define network tools. **(2 marks)**
- b) Outline **THREE** key area of concern that network management covers. **(3 marks)**
- c) State **FIVE** key functions of network management **(5 marks)**
- d) Distinguish between Network Operating System (NOS) and Client Operating System (COS) **(4 marks)**
- e) Name **FOUR** most common Network Operating Systems. **(2 marks)**

- f) List **FOUR** factors that are considered in determining the optimal hardware for servers. **(4 marks)**
- g) Outline **TWO** issues that are addressed when making a logical Network design. **(4 marks)**
- h) Define the following network management terms: **(6 marks)**
- i) Operation
 - ii) Administration
 - iii) Maintenance
 - iv) Provisioning

SECTION B (Answer Any Two Questions)

Question Two (20 marks)

- a) (i) Distinguish between formula bar and status bar.
(ii) The following Ms. Excel table represents the financial comparison for the month of January for Company 2.

1	A	B	C
	ITEMS	KSHS	KSHS
2	INCOME	BUDGET	ACTURAL
3	Babysitting Sales	100,000	TRANSACTIONS
4	Furniture Sales	50,000	210,000
5	Salary	14,000	43,000
6	Sales of Feeds	70,000	13,000
7	Miscellaneous	10,000	90,000
8	TOTAL	Q	T
9	EXPENSES		
10	Clothes	5,000	2,000
11	Lunches	15,000	17,000
12	Entertainment	4,000	7,000
13	TOTAL	R	U
14	Surplus	S	V

- i) Write the formulae and or junction to calculate values in cells:
Q, R, S, T, U and V
 - ii) Write the formulae to calculate the difference between actual transaction and budget plan. **(8 marks)**
 - iii) Outline the procedure for creating a chart in Ms Excel using chart wizard. **(3 marks)**
- b) Outline the procedure for creating folders in Ms Excel/Ms Word. **(3 marks)**

Question Three (20 marks)

- a) (i) Describe **TWO** broad categories of Ms DOS commands giving an example in each case.
(ii) Using relevant Ms DOS directory commands:
- Create a directory called MSA POLY in root directory of drive C. This directory contains a sub directory called DEPARTMENTS.
 - The department sub directory contains ELETRICAL, BUILDING, MECHANICAL and COMPUTING sub directories.

- Under ELECTRICAL create a sub directory called SECTION which contains directories POWER, ELECTRONICS, TELECOMMS and CONTROL.
- Under POWER create sub directory BSC and under BSC create subdirectory SUBJECTS. The subjects sub directories include MATHS, PHYSICS and DRAWING. **(14 marks)**

b) (i) While under the sub directory MATHS of Q3(a) (ii) create a file called Maths.txt with the following contents $4 + 5 - 4 = 9$

(ii) Copy Maths.txt file to the sub directory DEPARTMENTS, and then remove MATHS sub directory. **(6 marks)**

Question Four (20 marks)

a) (i) Explain any **FIVE** services rendered by the internet. **(5 marks)**
 (ii) Using your E-main address, state and explain **FOUR** parts contained in it.

b) Describe **TWO** classifications of main memory. **(4 marks)**

c) Mention any **THREE** merits of semiconductor memory as compared to core memories. **(3 marks)**

Question Five (20 marks)

a) (i) Describe the following main components of central processing unit.

- I. Control Unit
- II. Arithmetic Logic Unit
- III. Primary Memory

(6 marks)

(ii) Describe briefly the following types of memories:

- I. Cache Memory
- II. Bubble Memory
- III. Holographic Memory

b) Core Memory **(8 marks)**

c) Describe any **THREE** common service programs. **(6 marks)**