



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

## *Faculty of Engineering and Technology*

### DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

CERTIFICATE IN COMPUTER MAINTENANCE & NETWORK TECHNOLOGY  
CMNT2K 11M

**ECT 1104: HARDWARE INSTALLATION & MAINTENANCE**

**END OF SEMESTER EXAMINATIONS**

**SERIES: AUGUST/SEPTEMBER 2011**

**TIME: 2 HOURS**

#### **Instructions to Candidates:**

This paper consist of **TWO** sections **A** and **B**

Answer question **ONE (COMPULSORY)** and any other **TWO** questions from the list of questions below

This paper consists of **THREE** printed pages

## **SECTION A COMPULSORY (30 MARKS)**

### **Question 1**

- a) (i) Distinguish between mainframe and super computers (2 marks)  
(ii) Describe **TWO** motherboard form factors (2 marks)
- b) What is the function of the power supply unit? (2 marks)
- c) (i) Differentiate between SRAM and DRAM (2 marks)  
(ii) Explain how EPROM is used by the computer to store information (4 marks)
- d) (i) Distinguish between primary and offline storage media (2 marks)  
(ii) Describe **THREE** examples of volatile storage media (6 marks)
- e) (i) Describe **TWO** major types of printers as output devices (2 marks)  
(ii) Give **ONE** example of each of the above described printers? (2 marks)
- f) Briefly describe the **THREE** types of projectors (6 marks)

## **SECTION B (ANSWER ANY TWO QUESTIONS)**

*This section consists of FOUR questions 20 marks each.*

*Choose any two questions*

### **Question 2 (20 marks)**

Every media in a computer system must have some points of attachment e.g. IDE, SCSI, SATA and USB to that computer system

- a) Briefly discuss the **FOUR** major technologies used in mass storage points of attachment (12 marks)
- b) What is the importance of the computer busses in the computer system? (2 marks)
- c) Describe the different types of busses used in the computer (6 marks)

### **Question 3 (20 marks)**

- a) Describe step by step procedures to install motherboard (8 marks)
- b) What are the functions of the motherboard (12 marks)

### **Question 4 (20 marks)**

- a) With the aid of a diagram illustrate the computer architecture according to the Von Nuemann's Model (12 marks)
- b) In the Von Neumann model illustrated above describe the Functions of each category of devices (8 marks)

**Question 5 (20 marks)**

- a) Describe step by step procedures of installing a Pentium III processor on a motherboard (10 marks)
- b) Briefly explain how the BIOS works (8 marks)
- c) Describe the following BOIS features (2 marks)
  - i) CMOS
  - ii) POST