



**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 BUSINESS  
ADMINISTRATION**

**HBC 2109: FOUNDATIONS OF COMPUTER SYSTEMS**

**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 **TWO** printed pages

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**SECTION A (COMPULSORY)**

**Question One (20 marks)**

a) Outline the contribution of the following in the development of computers.

- i) Charles Babbage
- ii) Blaice Pascal

**(4 marks)**

b) Define the following terms:

- i)** Computer
- ii)** Hardware
- iii)** Software

**(6 marks)**

c) State and describe any **TWO** devices for each of the following:

- i)** Input
  - ii)** Output
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**iii) Storage**

**d) Briefly explain the following as used in computing:**

**i) ROM**

**ii) BIT**

**iii) RAM**

**iv) PROM**

**v) EPROM**

**(10 marks)**

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

**Question Two (20 marks)**

**a) Briefly explain the meaning of the following terms:**

**i) Clock rate**

**ii) Word size**

**(4 marks)**

**b) Explain any FOUR characteristics of first generation processors.**

**(8 marks)**

**c) State the FOUR types of first generation processors.**

**(8 marks)**

**Question Three (20 marks)**

**a) Explain the term “operating system”**

**(2 marks)**

**b) Explain the functions of operating systems.**

**(14 marks)**

**c) State any FOUR examples of operating systems.**

**(4 marks)**

**Question Four (20 marks)**

**d) Explain the term “data processing”**

**(2 marks)**

**e) Explain the various data processing modes.**

**(12 marks)**

**f) State the elements of data processing cycle.**

**(6 marks)**

**Question Five (20 marks)**

**a) Describe the following types of computers.**

**i) Minicomputer**

**ii) Microcomputer**

**iii) Digital computer**

**iv) Mainframe computer**

**v) Analogue computer**

**(10 marks)**

**b) Convert the following decimal numbers to octal numbers.**

**i) 0.526**

**ii) 492731**

**(4 marks)**

**c) Convert the following hexadecimal numbers to decimal numbers.**

**(6 marks)**

**i) 15C.A78**

**ii) IAC.5F**

**iii) A3.3E8**

