



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT COMPUTER SCIENCE & INFORMATION TECHNOLOGY

BACHELOR OF BUSINESS ADMINISTRATION

HBC 2109: FOUNDATION OF SYSTEMS

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: FEBRUARY/MARCH 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions in **TWO** sections **A & B**

Answer question **ONE (COMPULSORY)** 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) Explain the main features of the following software:
- (i) Word processor
 - (ii) Spreadsheets
 - (iii) Database management system
 - (iv) Presentation graphics
- (8 marks)
- b) Explain the following terms;
- (i) Icon
 - (ii) Central Processing Unit
 - (iii) Computer Software
 - (iv) Word Processor
- (8 marks)
- c) Convert the following numbers to the new bases indicated:
- i) 19.5_{10} (Base 2)
 - ii) $BABE.2C_{16}$ (Base 10)
- (6 Marks)

SECTION B (Answer any two questions)

QUESTION TWO

- a) Computers have evolved through generations.
- i) Define the term “Computer generation” [2 Marks]
 - ii) For the four computer generations of electronic computers, identify the major electronic component and one other major characteristic. [8 Marks]
- b) Distinguish between the following terms:
- i) “Desktop computer” and “Tower computer”
 - ii) “Digital computer” and “Analog computer” [8 Marks]
- c) State any two areas of application of mainframe computers in the business world. [2 Marks]

QUESTION THREE

- a) Explain any two major characteristics of the following types of computers:
- i) Supercomputers
 - ii) Minicomputers [6 Marks]
- b) Explain the main features of the following software:
- i) Operating System
 - ii) Spreadsheets
 - iii) Database management system
 - iv) Presentation graphics [16 Marks]

QUESTION FOUR

- a) Define the term “Computer software” [2 Marks]
- b) With an aid of the diagram, explain the major categories of computer hardware. State any two examples in each case. [10 Marks]
- c) Explain the following terms:
i) Motherboard
ii) Control Unit [4 Marks]
- d) Explain the difference between “Male connector” and “Female connector” [4 Marks]

QUESTION FIVE

- a) Explain the term “Application software”. [2 Marks]
- b) Explain any three functions of operating systems. [3 Marks]
- c) Explain the following terms:
i) Graphical User Interface
ii) Command line User Interface
iii) Utility programs [6 Marks]
- d) Evaluate the following:
i) $1101_2 + 1111_2 + 111_2$
ii) $11001_2 / 101_2$
iii) $110_2 \times 101_2$ [9 Marks]