



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

DIPLOMA IN ARCHITECTURE 10/
DIPLOMA IN CONSTRUCTION 10
DIPLOMA IN CC/ DBC 10
DCC/DBC 10, HDB 10 , CA 10

INTRODUCTION TO COMPUTER SCIENCE

SEMESTER 1 EXAMINATION

SERIES: APRIL/MAY 2010

TIME : 2 HOURS

Instructions to candidates:

You must have the following for this examination :

- Answer booklet
- Mathematical tables / calculator

This paper consists of **FIVE** questions

Answer question **ONE** from section **A** and any other **TWO** questions from section **B**.

Question ONE

- a) i. Define the term computer.
ii. Briefly discuss the four basic computer operations. **(15marks)**
- b) Define the term “volatile” in the context of computer memory. **(2marks)**
- c) Explain the following terms:
- Data
 - Information
 - Communication device
 - Hardware
 - Software **(10marks)**
- d) Explain the difference between system software and application software. **(3marks)**

Question TWO

- a) Draw a diagram showing how the word “RAM” could be stored using the ASCII code in :
- a. An 8-bit microcomputer’s memory.
b. A 16-bit microcomputer’s memory. **(8marks)**
- b) i. State three categories of computers.
ii. Briefly describe uses of each of above 2b(i) uses **(12marks)**

Question THREE

- a) Explain how system software. **(6marks)**
- b) Describe factors that affect the quality of a display device. **(6marks)**
- c) Define the following terms:
- i) Single user / single tasking
ii) Multitasking
iii) Multi-user
iv) Virtual memory **(8marks)**

Question FOUR

- a) Briefly explain the main components of a processor. **(4marks)**
- b) Distinguish between the following:
- a. RAM and ROM
 - b. Primary storage and Secondary storage
 - c. CRT monitor and LCD monitor. **(6marks)**
- c) i. Name and any three input and output devices
- ii. Briefly describe any three of above 4(c) (i) above. **(6marks)**
- d) Briefly explain any two types of keyboards. **(4marks)**

Question FIVE

- a) Briefly explain the functions of the following devices:
- i) Optical disks
 - ii) Motherboard
 - iii) Network Interface Card
 - iv) Flash memory **(8marks)**
- b) Briefly describe how buses contribute to a computer's processing speed. **(6marks)**
- c) Briefly explain why a computer is a powerful tool. **(3marks)**
- d) Briefly explain the importance of computer literacy. **(3marks)**