



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION & TECHNOLOGY – DIT 11M
DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY - DICT 2K 11M

EIT 2102: COMPUTER SYSTEMS & ORGANIZATION

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer booklet*

This paper consists of **TWO** sections **A & B**

Answer question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions in section **B**

This paper consists of **THREE** printed pages

SECTION A – 30 MARKS

Question 1 (Compulsory)

- a) Explain the following terms
- i) Firmware
 - ii) BIOS
 - iii) IDE Cable
 - iv) Operating system
- (8 marks)
- b) With a clear diagram, define how a chipset operates (6 marks)
- c) State **FOUR** uses of the PC casing in a desktop computer (4 marks)
- d) Explain the **TWO** main operations of the power supply unit in a typical PC (4 marks)
- e) State any **TWO** ways in which cooling is achieved in a typical PC (2 marks)
- f) Explain the boot up process of a PC with Windows XP (6 marks)

SECTION B (Answer any TWO questions) – 40 MARKS

Question 2

- a) Explain **FIVE** main factors that are considered when selecting:
- (i) Hardware
 - (ii) Software
- (20 marks)

Question 3

- a) Differentiate the following (8 marks)
- (i) Static RAM and Dynamic RAM
 - (ii) DIMM and SIMM
- b) Using a well illustrated diagram, explain the operations of a read and write operation in a hard disk (12 marks)

Question 4

Explain the operations of the following in the Central Processing Unit

- a) ALU
 - b) Control Unit
 - c) Main memory
 - d) Bus
 - e) Registers
- (20 marks)

Question 5

- a) Explain the term motherboard (3 marks)
- b) State **THREE** alternatives names of the motherboard (3 marks)
- c) Explain **TWO** functions of the motherboard (4 marks)
- d) State the **TWO** types of motherboard (4 marks)
- e) Describe the features of the motherboard stated above (6 marks)