



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

BACHELOR OF ENGINEERING IN BUILDING & CIVIL ENGINEERING
BACHELOR OF SCIENCE IN CIVIL ENGINEERING

EIT 4101: FUNDAMENTALS OF COMPUTING

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: MAY/JUNE 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer any **THREE** questions. Question **ONE** is Compulsory

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

SECTION A (Compulsory - 30 marks)

Question One (30 Marks)

a) Explain the following terms:

- i) Hardware
- ii) Software
- iii) Formatting
- iv) ALU

(8 marks)

b) State **THREE** examples of each of the following hardware

- i) Input devices
- ii) Output devices
- iii) Memory

(9 marks)

c) Explain the difference between the following

- i) A workbook and a worksheet in Ms Excel
- ii) Bit and byte

(8 marks)

d) Perform the following conversions

- i) 210_{10} to Binary
- ii) 1101001101_2 to Decimal

(5 marks)

SECTION B (Answer any TWO questions – 40 Marks)

Question Two (20 marks)

- a) ICT has increased the choice of career opportunities globally. Identify and briefly explain four ICT career opportunities in your country. (8 marks)
- b) Define the term information technology (2 marks)
- c) State **FOUR** advantages of computers (4 marks)
- d) List the major elements of a computer system (6 marks)

Question Three (20 marks)

- a) Explain the meaning of the following terms
 - i) Form factor
 - ii) Virtual memory
 - iii) Firmware (6 marks)
- b) Flash disks have become the storage media of choice today as opposed to floppy diskettes. Describe **FOUR** characteristics of the flash disk that make it to be preferred to the floppy diskette. (4 marks)
- c) Operating systems can be classified on the basis of user interface. Describe any TWO types (6 marks)
- d) Explain the classification of computer software giving examples (4 marks)

Question Four (20 marks)

- a) As a student was working on her computer, the mouse failed before she could complete her assignment. State the keyboard keys she could use to perform the following tasks:
 - i) Place data from a clipboard to a document
 - ii) Save the current document
 - iii) Terminate an application that is not responding
 - iv) Switch between running programs. (4 marks)
- b) State the precautionary measures one should take before: connecting to the internet; allowing other people to use your computer; or share files with others. (4 marks)
- c) Microsoft Office is a commercial office suite of inter-related desktop applications. Briefly explain the **THREE** main applications in this suite. (6 marks)
- d) Distinguish between a file, a folder and the root directory (6 marks)

Question Five (20 marks)

- a) Outline the history of computers, stating the major technological inventions of each generation. (10 marks)
- b) Explain any **THREE** applications of the internet (6 marks)
- c) When you want to buy a computer, explain **TWO** main factors you will consider (4 marks)