



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR DEGREE IN:
BACHELOR OF COMMERCE
BACHELOR OF BUSINESS ADMINISTRATION
(BCOM 15J)

EIT 4101: FOUNDATIONS OF COMPUTER SYSTEMS

END OF SEMESTER EXAMINATION

SERIES: APRIL 2015

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (Compulsory)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) Name FOUR data input methods that can be used to they data into the computer system **(4 marks)**
- b) By citing an example in each case, classify computers based on the type of date which they can manipulate or according to technology **(9 marks)**
- c) “Computers are very important in an organization” Justify this statement by discussing four functions of a computer facility within an organization. **(8 marks)**
- d) Explain FIVE reasons why computer system require secondary storage **(5 marks)**

- e) Differentiate between the TWO types of booting process (4 marks)

Question Two

- a) Explain THREE types of storage memory found in a computer system (6 marks)
- b) Computerizing business operations may require the users of computers to be trained. State clearly FOUR reasons for training employees on how to use computers (4 marks)
- c) Explain FOUR main limitations of magnetic tapes as secondary devices (4 marks)
- d) Explain how a cache memory helps in improving the overall processing of speeds of computer system (6 marks)

Question Three

- a) What do you understand by the term 'portable computer system' (2 marks)
- b) Write short notes on the following items:
(i) Mouse
(ii) Trackball
(iii) Joystick
(iv) Touch screen (8 marks)
- c) Using well labeled diagram, identify the hardware components in a modern computer systems and their roles in processing information (10 marks)

Question Four

- a) Explain TWO uses of a UPS (4 marks)
- b) Explain FOUR precautions that should be observed when handling magnetic media (4 marks)
- c) As a person with knowledge about application software, and assuming that you have been called to advise on the same, explain fully FOUR factors that the business should consider so as to buy the most appropriate application packages (8 marks)
- d) Describe FOUR uses of a home computer (4 marks)

Question Five

- a) Perform the following computations:
(i) $1010_2 * 101_2$ (3 marks)
(ii) $2667_8 + 3376_8$ (3 marks)
(iii) $11101_2 - 1110_2$ (2 marks)
- b) By giving an example in each case, explain TWO basic functions of a processor (4 marks)
- c) Explain FOUR sources of computer viruses (8 marks)