



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:  
BACHELOR OF COMMERCE (BCOM 13S/M)

**EIT 4101: FOUNDATION OF COMPUTER SYSTEMS**

SPECIAL/SUPPLEMENTARY EXAMINATION

**SERIES: MARCH 2014**

**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** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

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**Question One (Compulsory)**

- A computer is a system that comprises several components. Describe the role of each of the hardware components found in a computer system. **(10 marks)**
- The management of a small business has decided to computerize most of its operations. Generate only **FOUR** benefits that will be realized by this process of computerization. **(4 marks)**
- The memory storage of the computer is supplemented by the use of the backing storage media. Name and explain any **FOUR** basic backing storage media that you know. **(8 marks)**
- Name **FOUR** data input methods that can be used to key in data into the computer system. **(4 marks)**
- Differentiate between RAM and ROM **(4 marks)**

### Question Two

- a) Buying a computer from a market requires a careful consideration. Explain any FIVE factors that should be considered when buying a computer. **(10 marks)**
- b) Name TWO output devices used for producing soft-copy output and two devices used for producing hard-copy output. **(4 marks)**
- c) Perform the following computations:
- (i)  $26.25_{10} = (?)_2$  **(3 marks)**
  - (ii)  $20.2_{16} = (?)_{10}$  **(3 marks)**

### Question Three

- a) A student at the Technical University of Mombasa observed that there were some computers placed on desks in the staff room, other small computers were being carried about by the lecturers, while there was database that supported the information for the whole institution, from your understanding of computers describe any FOUR modern classification of computer systems. **(8 marks)**
- b) Describe fully any FOUR advantages of using application packages. **(8 marks)**
- c) Differentiate between a nibble and byte as used in computing. **(2 marks)**
- d) Define the term utility software. **(2 marks)**

### Question Four

A college is starting to computerize its operations in the main office and the remote campuses. You have been requested by the management to advise them:

- a) Suggest areas that may need urgent computerization in a business organization. Support your answer with an explanation for each. **(6 marks)**
- b) How will you differentiate system software from application software in order for the management to buy the right software? **(4 marks)**
- c) Explain FOUR software characteristics that you will emphasize that the management checks for when shopping for the software. **(8 marks)**
- d) The operating system supplied had graphical user interface (GUI). What features does a GUI have?

### Question Five

- a) Computers have various applications in real life situations. Describe FOUR applications areas in which computers are being used at our homes. **(8 marks)**
- b) An operating system is a set of programs that controls functioning of hardware. Explain any FOUR functions of an operating system of a computer. **(8 marks)**

c) List FOUR main limitations of magnetic tapes as a secondary storage device.

**(4 marks)**