



# TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL & AUTOMOTIVE ENGINEERING

**UNIVERSITY EXAMINATION FOR:**

**BSME Y2S1**

**ICS 2174: INTRODUCTION TO COMPUTER SCIENCE**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: Pick Date May 2016**

## Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

## Question ONE (30 marks)

- a) By citing an example in each case, differentiate between the following
- i) Analogue and digital computers (6 marks)
  - ii) Special purpose and general purpose computers (6 marks)
- b) For a computer to operate, the 'Systems Software' and the 'Application Software' have to be installed. Briefly explain the two terms as used in computing. (4 marks)
- c) Highlight four services available on the internet. (4 marks)
- d) A computer is a system that comprises of a software and hardware. Describe the role of each of the hardware components found in a computer system. (10 marks)

## Question TWO (20 marks)

- a) Name two output devices used for producing softy-copy output, and two output devices used for producing hard-copy output. (4 marks)
- b) Buying a computer from the market requires a careful consideration. Explain any four factors that one should consider when buying a computer system. (8 marks)
- c) Giving examples, explain types of printers and their working mechanisms (8 marks)

**Question THREE (20 marks)**

- (a) What is a cache memory? Highlight two advantages and two disadvantages of cache memory. (5 marks)
- (b) Differentiate between a 'CRT' and a 'TFT' monitor (5 marks)
- (c) Highlight five symptoms of computer viruses. (5 marks)
- (d) What measures can be employed to curb viruses from affecting computers (5 marks)

**Question FOUR (20 marks)**

- a) Differentiate between the following terms
- i) Intranet and extranet (5 marks)
  - ii) ROM and RAM (5 marks)
- b) The secondary storage is very important in a computer system. State any four reasons why computer system requires secondary storage media. (4 marks)
- c) By citing an example in each case, how will you differentiate operating system from system utilities in order for the management to buy the right software? (6 marks)

**Question FIVE (20 marks)**

- (a) What are the benefits of networking? Outline any Five benefits (5 marks)
- (b) Describe the three types of networks basing on the size (9marks)
- (c) Explain the following terms as used in computer security (6 marks)
- Integrity
  - Authentication
  - Auditing