

MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN MECHANICAL ENGINEERING

DIPLOMA IN ELECTRICAL AND ELECTRONICS ENGINEERING DIPLOMA IN CIVIL ENGINEERING

INTRODUCTION TO COMPUTERS

Date: 1/8/2016

Time: 2:00 – 4:00 PM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (COMPULSORY)

- a) Differentiate between the following pair of terms in relation to computers:
- i) Analog and Digital data
 - ii) CD ROM and CD RW
 - iii) MICR and OMR (6 marks)
- b) Outline **five** disadvantages of using speech recognition devices to capture data into a computer. (5 marks)
- c) Explain each of the following terms as used in computer software:
- i. Compatibility;
 - ii. Portability. (4 marks)

- d) An export company has decided to computerize their operations; they have decided to buy computer packages instead of developing their programs. Describe **three** benefits they are going to realize from their decision. (6 marks)
- e) A college student who had paid full fees for the term received his computer printed fees statement, and on observing it, he realised that it showed that he still had a balance of Ksh 2000. When he approached the finance officer for clarification, he was told that it was a computer error. As a computer expert, account for this phenomenon. (4 marks)
- f) Given a personal computer system with the following secondary storage drive configuration:
- One internal DVD-RW drive.
 - No floppy disk drive.
 - One external DVD-RW drive connected to the system.
 - One USB flash memory connected to the system.
 - One internal HDD drive with no partitioning.
 - One memory card inserted into the system.

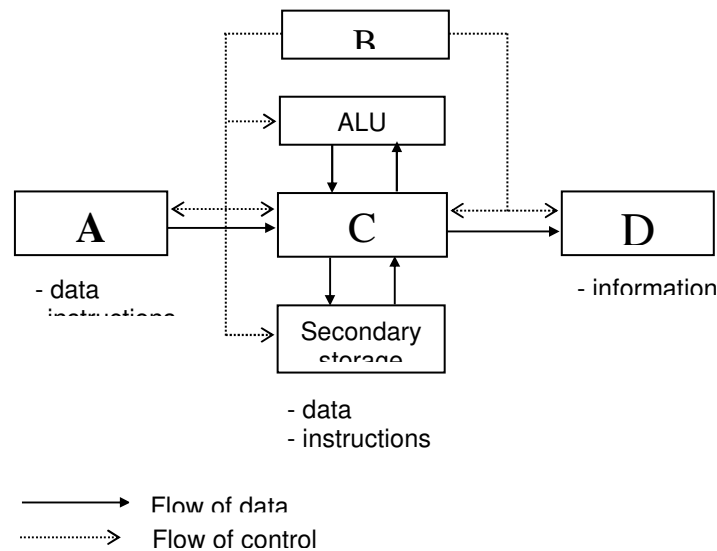
Outline the letter names which would automatically be assigned to the storage drives for the PC described above. For removable drives, assume they were connected in the same order as in the list above. (5 marks)

QUESTION TWO

- a) Describe the following types of computers:
- i. Special purpose computers;
 - ii. General purpose computers;
 - iii. Dedicated computers. (6 marks)
- b) Discuss **four** reasons why employees resist the use of computers. (8 marks)
- c) Imagine you are a computer consultant, a client approaches you to advise him/her on the type of operating system to use on his/her computer:
- i. Describe the term *operating system*. (2 marks)
 - ii. Describe **two** types of operating system according to the number of users it supports. (4 marks)

QUESTION THREE

- a) Mutiso is a businessman from Kitui town and intends to automate his business. Describe the factors he would consider before purchasing the computers to use. (6 marks)
- b) Outline **two** advantages of laptops as compared to desktop computers. (2 marks)
- c) Below is a block diagram of a digital computer system. Describe the function of the parts labeled A, B, C, and D. (8 marks)



- d) The computer has a primary memory which it uses while processing. Justify the need for secondary storage. (4 marks)

QUESTION FOUR

- a) Differentiate between the following pair of terms in reference to word processing:
- Save and Save As;
 - Undo and Redo;
 - Superscript and Subscript;
 - Landscape and Portrait Orientation. (8 marks)
- b) Assuming a Microsoft word 2007 environment, identify the formatting features applied on the text below. (6 marks)

CENTRAL PROCESSING UNIT (CPU)

It is the portion of a computer system that carries out the instructions of a computer program, to perform the basic arithmetical, logical, and input/output operations of the system. The CPU is the brain of the computer. Sometimes referred to simply as the *central processor*, but more commonly called processor, the CPU is where most calculations take place. In terms of computing power, the CPU is the most important element of a computer system.



- c) In word processing, Indent refers to moving text away from the margin. Describe the **three** types of indents. (6 marks)

QUESTION FIVE

- a) Briefly explain the importance of computer security. (2 marks)
- b) Differentiate between an attack and a threat, giving an example in each case. (4 marks)
- c) With the aid of a diagram, explain the attack on confidentiality of information. (3 marks)
- d) Fire by itself is a real problem to information systems. Outline **three** reasons why it is classified as a serious security threat. (3 marks)
- e) Security controls can be classified according to the time they act. Describe the **three** types of such controls relative to a security incident. (6 marks)
- f) Outline **two** counter measures against unauthorized access. (2 marks)