



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

P.O. Box 62157

00200 Nairobi - KENYA

Telephone: 891601-6

Ext 1022/23/25

**MAIN EXAMINATION**

**JANUARY – APRIL 2022**

**FACULTY OF SCIENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

**REGULAR PROGRAMME**

**GS 102: COMPUTER LITERACY**

**Date: APRIL 2022**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and any TWO Questions**

Q1.

a) Define the following terms as used in computer language

- i. Network
- ii. software
- iii. peripheral
- iv. firmware
- v. information

**(5marks)**

b) With a well labeled diagram, show the flow of data and instructions into the

Computer

**(3marks)**

c) Differentiate between the following terms:-

- i. LAN and MAN
- ii. Printer and scanner
- iii. RAM and ROM

- iv. Data and Information
  - v. Computer science and computer education **(10 marks)**
- d) With the aid of a diagram, differentiate between:

- i. Analogue and digital transmission
  - ii. Full duplex and half duplex **(4marks)**
- e) Perform the following binary calculations/arithmetic's operations

- i) 64 base ten to binary
- ii) 110011.101 base two to base ten **(4 marks)**

f) A part from being an interface between hardware and application, an operating system performs other core functions in a computer. Name four major functions

**(4marks)**

Q2. a) A person may borrow programs or games from friends, install them on his own home computer. Then he may take his disk from home, or even a borrowed game, to run on his PC at work. All it takes is for a friend of friend of the friend to pass on disk containing a virus, and it can follow the chain, even if it is not the same program that is passed on each time

- i) Define a computer virus **(2marks)**
- ii) Give 2 differences between computer virus and human virus **(4marks)**
- iii) Give three symptoms of computer virus **(3marks)**
- iv) What measure can we take to prevent computer virus infection our computers? **(5marks)**
- v) Describe any three types of computer virus **(6marks)**

Q3.

- i) Computers have evolved through many generations over the years, state and explain the five major generations the computers have evolved through **(10 marks)**
- ii) Using a diagram show the relationship between main memory, arithmetic logical unit and the control unit **(6marks)**
- iii) Name major classification of computers starting from the smallest to the largest

**(4marks)**

Q4.

- c) i) The way in which connections are made among all the computers is called topology of the network. With the aid of a diagram, Discuss any three types of Topology that you know. **(9marks)**
- ii) A computer network exists on different scales. Distinguish between the following types
- i. Local Area Network
  - ii. Wide Area Network
  - iii. Metropolitan Area Network **(6marks)**
- iii) Name three ways in which a Local Area Network can benefit Catholic university of Eastern Africa **(3marks)**
- iv) Explain the role of web browsers and give two examples **(2marks)**

Q5.

- a) Define the term input device **(2marks)**
- b) Give four examples of input devices (excluding the pointing devices and the Keyboard) **(4marks)**
- c) Why is primary storage memory unsuitable for mass storage of data **(2marks)**
- d. Differentiate between a laptop and a desktop **(2marks)**
- e) List 10 ways in which you can make your work environment safe as far as the use of Computers equipments is concerned **(10 marks)**

**\*END\***

DTE APRIL 2022