CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATIONS FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION IN MATHEMATICS AND COMPUTER SCIENCE

COSC 114: INSTALLATION AND CUSTOMIZATION OF COMPUTER SYSTEMS

STREAMS: BSC. COMP. SCI & MATHS   **TIME: 2 HOURS**

DAY/DATE: TUESDAY 30/03/2021   **11.30 A.M. – 1.30 P.M**

INSTRUCTIONS:

SECTION A (COMPULSORY)

QUESTION 1 (COMPULSORY) [30 MARKS]

a) You have been tasked by your school to develop a computer laboratory safety rules, when using a computer. Write 10 of those rules.   (5 marks)

b) Explain how the following computer parts affects the speed of a personal computer

    i)   Operating system   (2 marks)

    ii)   RAM   (2 marks)

    iii) User task   (2 marks)

c) A certain supermarket wanted to buy a printer to use to print receipts at their point of sale. Compare three types   with regard to ease of maintenance in undertaking the task, hence advice the supermarket management on the most appropriate printer.   (5 marks)

d) A student reported to you that he cannot connect to the internet. Explain the steps you will follow in troubleshooting, naming three of the likely causes.

(5 marks)

e) Name two computer brands in the Kenyan Market   (1 mark)

f) Write a brief user documentation on performing the following task using a computer

    i) Opening a system unit case   (2 marks)

    ii) Replacing a blown out power supply, after the system case is opened

        (3 marks)

    iii) Changing the mouse from right hand to left hand usage   (3 marks)

SECTION B (ANSWER TWO QUESTION FROM THIS SECTION)

QUESTION 2 [20 MARKS]

a) Explain EIGHT basic troubleshooting steps that can be administered in a computer   (4 marks)

b) Outline FIVE computer generations with regard to their processing technology.   (5 marks)

c) Explain the steps of installing the following parts in a computer-

    i) Internal hard disk drive   (3 marks)

    ii) Network interface card   (3 marks)

    iii) Motherboard   (5 marks)

QUESTION 3 [20 MARKS]

a) Explain the steps one would follow in installing windows operating system, naming two operating systems other than windows.   (5 marks)

b) Explain FOUR reasons why there is need to upgrade software to a higher version. Hence name TWO software that could be upgraded in our personal computers.   (6 marks)

c) Explain the task of THREE busses found in a computer system.   (6 marks)

d) Outline TWO safety precautions each that can be administered to the following computer parts

    i) Monitor   (1.5 marks)

    ii) Mouse   (1.5 marks)

QUESTION 4 [20 MARKS]

  a) Write a brief documentation on the following aspects of a computer: -

      i)   Connecting a computer to a wireless network.   (3 marks)

      ii)   Transferring data from a flash disk to a computer hardisk   (3 marks)

      iii) Accessing the internet   (2 marks)

  b) Name FOUR available computer processor brands   (4 marks)

  c) Explain FOUR behaviors of a computer infected with virus   (4 marks)

  d) Name FOUR antivirus that could be installed in our computers   (4 marks)

QUESTION 5 [20 MARKS]

a) Explain what is a SATA bus connector   (2 marks)

b) Explain TWO types of memories found in a computer   (4 marks)

c) With regard to printers, explain what a printer driver is, hence outline the procedure of installing a driver.   (5 marks)

d) Explain the steps you will use to troubleshoot the following problems in a computer

      iv)   Printer is not working   (3 marks)

      v)   Computer is frozen, or program is not responding   (3 marks)

      vi)   Computer is not starting   (3 marks)