CHUKA **UNIVERSITY**

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF
CERTIFICATE IN COMPUTER SCIENCE

COSC 00101: COMPUTER SYSTEMS AND ORGANIZATION

STREAMS: Y1S1

TIME: 2 HOURS

DAY/DATE : TUESDAY 28 /09/ 2021   **11.30 AM – 1.30 PM**

INSTRUCTIONS:
- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, no reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.

SECTION A

Question one (30 marks)

a. Convert 5746_8 to decimal number [4 marks]

b. Define the following terms in Computer Systems
   i.   Bios   [2 marks]
   ii.   Software   [2 marks]
   iii. Assembler   [2 marks]

c. List and explain the different file access methods   [6 marks]

d. Nkirote, a student of the school of Nursing, wants to buy a new laptop, how would you advise Nkirote to check specifications of laptops she's interested in (Hint: Windows version, RAM, hddsk, GPU speed)   [4 marks]

e. With appropriate examples, differentiate Proprietary software from off-the shelf software

[4 marks]

 f. List and Explain Any THREE system utilities   [6 marks]

SECTION B [Answer any Two Questions]

Question two [20 marks]

a. Explain the functions of the following Computer hardware components

    i. Case   [2 marks]

    ii. CPU   [2 marks]

    iii.GPU   [2 marks]

    iv. HDD   [2 marks]

    v.Scanner   [2 marks]

b. The world of today world is almost completely dependent on computers, discuss five computer applications in our modern society.   [10 marks]

Question Three [20 marks]

a.   Briefly Explain Any Four Benefits and Four Risks of Using Computers in An Organization
                                                                                                        [10
    marks]

b. Briefly Outline the Classification Computers by Generations   [10 marks]

Question Four [20 marks]

a.   List and explain Five Differences between data and information   [10 marks]
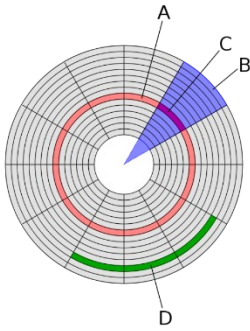**b.** Five Differences between Primary and Secondary Memory   [10 marks]

Question Five [20 marks]

   a.   Define and explain following storage Measurements terms in Computer Science

     i.   Bit   [2 marks]

     ii.   Byte   [2 marks]

     iii.   Kilobyte   [2 marks]

     iv.   Megabyte   [2 marks]

v. Terabyte [2 marks]

b. Explain the following Disk Sector functions of the figure below

i.Track [2 marks]

ii.Geometrical sector [3 marks]

iii.Track sector [3 marks]

iv.Cluster [2 marks]

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