CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION (ARTS)

COSC 103: INTRODUCTION TO COMPUTER APPLICATIONS

STREAMS: BED (ARTS) Y2S1   **TIME: 2 HOURS**

DAY/DATE: FRIDAY 9/08/2019   **2.30 P.M - 4.30 P.M.**

CANDIDATE'S INSTRUCTIONS
- Answer QUESTION ONE and any other **TWO** questions.

QUESTION ONE(COMPULSORY) [30 MARKS]
a) Explain what you understand by the following terms:
   i)   Bit   [2 marks]
   ii)   Software   [2 marks]
   iii) Computer Hardware   [2 marks]

b) The Jubilee government rolled a service delivery platform dubbed "huduma center". Discuss how computer network capability has influenced this service.   [3 marks]

c) Convert the following decimal number to binary number.   [3 marks]
      947_{10} to binary (base 2).

d) Explain four functions performed by operating system software.   [4 marks]

e) Computers can be classified into various types based on the classification used. State any FOUR types of computers based on size and speed of operation.   [4 marks]

f) What is a local area network (LAN)? Explain the importance of a LAN in a university.
                                                                         [4 marks]

g) Using a well labeled diagram, show the five basic functional hardware components of a computer system.   [6 marks]

QUESTION TWO [20 MARKS]
a) Highlight and briefly describe any three situations you would prefer to use a spreadsheet rather than word processor. [6 marks]

b) State any FOUR layouts of a document in a word processor. [4 marks]

c) Outline the steps of inserting a table in a word processor document. [4 marks]

d) State and explain any THREE types of Primary Memory devices in a computer system. [6 marks]

QUESTION THREE [20 MARKS]
a) Use the following excel sheet to answer the questions that follow.

| | A18 | | fx | | |

	A	B	C	D	E
1	Student Name	Subject			Total Score
2		Mathematics	English	Kiswahili	
3	Stephen	80	55	60	
4	Keter	56	70	55	
5	Gladys	65	60	75	
6	Lucy	45	66	55	
7	Jonathan	54	58	63	
8	Subject/Total Average				
9	Subject Mean Grade				

i) Write the function for calculating the average score for Mathematics in cell B8 [3 marks]

ii) Write the function for the total score of Stephen? [3 marks]

iii) How do you copy the formula for total score to cells E4 through E8? [3 marks]

iv) Write a function to show the average grade for each subject given the following grading system. [5 marks]

Marks range	Grade
70 – 100	A
60 – 69	B
50 – 59	C
40 -49	D

<40	F

   v) Explain any TWO uses of a spreadsheet software [4 marks]

b) Distinguish between data and information [2 marks]

QUESTION FOUR [20 MARKS]

a) Explain any TWO advantages of using presentation software such as Microsoft Office PowerPoint over ordinary chalk and boardin lectures. [4 marks]

b) State and explain the main feature present in a MS Office PowerPoint software that is absent in a MS Office Word software. [2 marks]

c) What is the 90/10 rule in computer security? Why is this rule important? [4 marks]

d) Explain TWO applications of computers in education. [4 marks]

e) Explain what you understand by the term volatile and non-volatile with regard to computer memory. [2 marks]

f) Suppose your department wants to computerize the office. As a reliable student with computer knowledge, state any four considerations you would advice the department to look for when purchasing a computer. [4 marks]

QUESTION FIVE[20 MARKS]

a) Your department chairman has asked you to prepare a presentation on the applications of computers in the society. State any FIVE points you would consider in your presentation. [5 marks]

b) State and explain the type of a computer network you expect to find in your computer laboratory or school. Give a reason for your answer. [3 marks]

c) Are computer networks important in school/learning institutions such as a university? Explain any THREE reasons to support your answer. [4 marks]

d) The Internet has both advantages and disadvantages in our society. State any TWO negative impact brought by the Internet in our society. [4 marks]

e) State any TWO types of Web browser software used to access the World Wide Web [2 marks]

f) Explain what a USB port is. [2 marks]

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