CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF MASTER OF ARTS, EDUCATION AND SCIENCE

COSC 801: COMPUTER USE AND APPLICATION IN RESEARCH

STREAMS: MA, MED & MSC (LIIB1)   **TIME: 3 HOURS**

DAY/DATE: THURSDAY 08/04/2021   **8.30 A.M. – 11.30 A.M.**

INSTRUCTIONS
- Answer question **ONE** and any other **TWO** questions
- Marks are awarded for clear and concise answers

SECTION A- COMPULSORY

QUESTION ONE [30 MARKS]

(a)   Using appropriate examples, distinguish between:

    (i)   Application Software and System Software   **[2 Marks]**

    (ii)   Operating System and antivirus Software   **[2 Marks]**

    (iii)   Statistical package for social scientists and Microsoft word   **[2 Marks]**

    (iv)   Label and numbers in a spreadsheet application   **[2 Marks]**

    (v)   Formulae and a function in spreadsheet applications   **[2 Marks]**

(b)   Give **FOUR** features of Microsoft word that make them attractive to researchers or authors   **[4 Marks]**

(c)   Name **THREE** measurement scales provided by SPSS   **[3 Marks]**

(d)   How can a researcher benefit from the bookmark feature found in most web browsers

[3 Marks]

(e)   A government department would like to acquire an application program in order to convert their manual record processing to electronic form.

    i.   Outline **two** options of acquiring the application program.   [**2 marks**]

    ii.   Explain **three** circumstances that would influence the choice in (i) above   [**3 marks**]

(f)   You are doing a research on '**The relevance of University education'**.

   (i) Explain how you would use google to search for relevant literature related to this topic.   [**3 marks**]

   (ii) Describe the nature of the categories of websites that you would be targeting   for literature searching.   [**2 marks**]

SECTION B- ATTEMPT ONLY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO [15 MARKS]

(a)   Discuss **FIVE** factors to consider before purchasing/acquiring core software system for use in an organization   [**5 Marks**]

(b)   With a well labeled diagram, discuss the various components that make up the computer system   [**10 Marks**]

QUESTION THREE [15 MARKS]

(a)   While working on the computer, Sally downloaded a picture from an artist's online album and put it on her report. However Sally did not include a written acknowledgement in her references. What term is used to define this behaviour   [**2 Marks**]

(b)   Caleb has been selected as team leader of a group project in which the team will complete a presentation. Caleb decides to create and share a master slide with his team. What is the *main* benefit of using a master slide   [**3 Marks**]

(c)   You have been given the task of writing a 10- page document and provide it as a word processing file.For each feature below explain when and why it should be used

[**10 Marks**]

   (i)   Table of contents

   (ii)   Cut and paste

   (iii)   Bolding

   (iv)   Thesaurus

   (v)   Insert citation

QUESTION FOUR [15 MARKS]

(a)The spreadsheet below is a person's 4 month income and expenditure.

	A	B	C	D	E	F
1		MONTHLY	BUDGET			
2		JAN 1	FEB	MAR	APR	TOTAL
3						
4	EXPENSES					
5	Food	56.4	48.6	57.65		
6	Travel	21.42	23.57	12.43		
7	Clothes	32.8	10.5	0		
8	Rent	50	50	50		
9	Electricity	6.21	7.33	5.9		
10	TOTAL EXPENSES					
11	INCOME	150	154	163		
12	SAVINGS					

(i) Indicate the formula you would type in cell B10 to compute a total of the January expenses between row 5 and row 9 **[3 Marks]**

(ii) Indicate the formula you would type in cell B12 to compute the money left over/savings for January after subtracting expenses from income **[3 Marks]**

(iii) Indicate the formula you would type in cell E5 and the techniques you would use to compute an estimate of all April expense lines with little effort. The estimate of April expenses is computed as the average expenses for Jan, Feb and March **[4 Marks]**

(iv) With the least effort, explain how a user can generate total expenses for February, March and April after computing the total expense for January in (i) above **[3 Marks]**

(b) While giving an example, briefly explain the role of a search engine in research

[2 marks]

QUESTION FIVE [15 MARKS]

(a) Many learning institutions are abandoning use of blackboard and chalk and in place adopted use of PowerPoint presentations or a combination of both in delivering content to the learners. Justify this decision **[5 marks]**

(b) Microsoft excel is a powerful computer tool used by researchers. Give **FIVE** features of Microsoft excel application that are of interest to a researcher **[5 marks]**

(c) What is the role of the following views/windows in SPSS

   (i) Variable view **[3 Marks]**

   (ii) Data view **[2 Marks]**