

**CHUKA UNIVERSITY**  
**FOR BED ARTS (Primary Option)**  
**COSC 103: INTRODUCTION TO COMPUTER APPLICATIONS**

**Candidate's Instructions**

- Answer question one and any other two questions

**Question One (30 marks)**

- (a). Discuss two differences between computer processor and computer software. (2 marks)
- (b). Explain the difference between a file and a folder in a computer system. (3 marks)
- (c). Explain the differences between the following terms:
- |       |                               |           |
|-------|-------------------------------|-----------|
| (i)   | Bit and Byte                  | [2 marks] |
| (ii)  | Impact and non-impact printer | [2 marks] |
| (iii) | LAN and the Internet          | [2 marks] |
- (d). State the use of the following keyboard short cuts in windows operating system. (3 marks)
- |       |          |
|-------|----------|
| (i)   | CTRL + C |
| (ii)  | CTRL + S |
| (iii) | CTRL + V |
- (e). Explain three measures a computer user is required to take to ensure security of data stored in a computer system. (3 marks)
- (f). Explain the difference between spreadsheet software and word processing software. (3 marks)
- (g). Convert  $235_{10}$  to its binary equivalent. (3 marks)
- (h). Given the data in the excel sheet in the cells C3, D3, E3, F3 and G3. Write both the formula and function for computing the average. (3 marks)
- (i). Explain two functions of the operating system software in a computer system. (4 marks)

**Question Two (20 marks)**

- (a) Safari land Ltd is in the process of computerizing the operations of its firm. Explain **three** general considerations that the management would prefer when purchasing computer software. (6 Marks)
- (b) Software can be classified into **two** major categories. State and explain these categories. (4 Marks)
- (c) Describe the following terms as used in computing:
- |       |                   |           |
|-------|-------------------|-----------|
| (i)   | Computer hardware | (2 Marks) |
| (ii)  | Computer software | (2 Marks) |
| (iii) | Input device      | (2 Marks) |

(d) Explain the four types of computers in relation to their computing power. (4 Marks)

**Question Three (20 marks)**

(a) Explain the three major differences between main memory and hard disk in a computer system. [6 marks]

(b) Perform the following number conversions. [6 marks]

(i).  $100111.011_2$  to decimal equivalent

(ii).  $533_{10}$  to its binary equivalent

(c) Fred is the head of a local Network consulting company. His company has won a contract to design and develop a network for a middle level college in Chuka. Explain four benefits the college will gain by implementing the network. [8 marks]

**Question Four (20 marks)**

(a). State the difference between a decimal number and a binary number. [2 marks]

(b). Discuss four uses of computers in a learning institution that would encourage every student to have basic computing skills. [4 marks]

(c). Using a well labeled diagram, discuss the five major hardware units in a computer system. Show how they interact. [6 marks]

(d). Discuss four security precautions that one should take in online shopping and in any other online activities. [8 marks]

**Question Five (20 marks)**

(a). Discuss five symptoms of a computer infected with a virus. [5 marks]

(b). Explain the importance of passwords in computing and possible ways of keeping your passwords safe. [6 marks]

(c). Given Microsoft Excel worksheet below, use it to answer the following questions.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>1</b>	<b>Name</b>	<b>Maths</b>	<b>Eng</b>	<b>Kisw</b>	<b>CRE</b>			
2	James	48	89	65	89			
3	Mary	54	76	68	80			
4	Korir	17	88	76	86			
5	John	99	60	65	58			
6								
7								

Use the information above to answer the questions below.

(i). Write a formula and function that will calculate the average score for Mary. [3 marks]

- (ii). Write two functions in MS Excel that would compute the highest score and lowest score in Maths. [3 marks]
- (iii). Write a function in MS Excel to compute the average score for Eng. [3 marks]