CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF
DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE

COSC 103: INTRODUCTION TO COMPUTER APPLICATIONS

STREAMS: ODEL   **TIME: 2 HOURS**

DAY/DATE: FIRIDAY 23 / 07/ 2021   **8.30 AM – 10.30 AM**

INSTRUCTIONS:
- Answer Question ONE and any other TWO questions
- Do not write on this question paper.

Question One [30 marks] (COMPULSORY)

(a) Explain the following computing terms:
- (i)   Bit   [2 marks]
- (ii)   Hardware   [2 marks]

(b) Explain how to do the following tasks in a typical Microsoft word application document:

- (i)   Copy and Paste a paragraph   [2 marks]

- (ii)   Insert page numbers   [2 marks]

(c) Convert the 349_{10} to its binary (base 2) equivalent   [4 marks]

(d) Explain the following computing terms: [4 marks]
- i)   Software
- ii)   Internet

(e) Explain what you understand by the term "Storage Device". Give four examples of storage devices. [4 marks]

(f) Differentiate between system software and application software. Give two examples of each. [4 marks]

(g) Discuss three types of computer network topologies. [6 marks]

Question Two [20 marks]

(a) Discuss the advantages of using a computer system in problem solving. [10 marks]

(b) Write both Microsoft Excel *formula* and *function* that are going to perform the following tasks: [4 marks]
   i) Get the average of cells C3, C4, C5 and C6
   ii) Get the sum of cells C3, B3, D3, E3, G3

(c) One of the attacks on a computer system is performed by viruses. Explain what a virus and the possible ways of preventing a computer from viruses. [6 marks]

Question Three [20 marks]

(a) Describe the two major classifications of printers. Give two examples of each classification. [6 marks]

(b) Passwords are proven security measures in computing technology. Explain what is a password and its' importance. [5 marks]

(c) Using a block diagram, explain the basic hardware components of a computer system. [9 marks]

Question Four [20 marks]

(a) Discuss THREE major functions performed by the operating system software in a computer system. [9 marks]

(b) Perform the following number conversion:
   1011011.01_2 to decimal system. [3 marks]

(c) Microsoft PowerPoint is an example of presentation graphics software for creating presentation slides. Explain four features of good Microsoft PowerPoint presentation slides.

[8 marks]

Question Five [20 marks]

(a) Discuss the use of computers in the following areas:
    (i) Banking   [6 marks]

    (ii) Education   [6 marks]

(b) Differentiate between the following computer types:
    (i) Supercomputer and personal computer   [4 marks]

    (ii) Internet server computer and Web client computer   [4 marks]

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