CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN COMPUTER SCIENCE

COSC 00103: INTRODUCTION TO PROGRAMMING AND ALGORITHMS

STREAMS: CERT. COMP SCI Y1S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 16/12/2020   **2.30 PM – 4.30PM**

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)
1.Define The Following Terms:
 i. Program   [2 marks]

ii. Algorithm   [2 marks]

iii.BASIC   [2 marks]

2. List three common resource tools to learn C   [3 marks]

3. Draw A flow chart to sum TWO numbers entered by user   [6 marks]

4. Write Syntax of a simple C++ Programme outputting the result "Hello, World!"[4 marks]

5.Distinguish Interpreter from compiler   [4 marks]

6. Declare a variable int type using C++ syntax   [4 marks]

7. List THREE data types supported by both C and Java programming languages [3 marks]

SECTION B(ANSWER ANY TWO QUESTIONS ONLY!!)

Question two (20 marks)

1. What do the following Operators mean   [5 marks]

i.&&		
ii.||		

2. LIST the stages a Software Developer goes through in order to develop a successful and beneficial computer programme   [10 marks]

3. You have two variables, a with stored value of 10 and b with stored value of 20
Declare the variables, assign the stored values and print the values in Python Language:[5 marks]

Question Three (20 marks)

1.Explain the following program errors   [10 marks]

2. Assume given marks are x for a student:

      If given marks are more than 95, then

      Student is brilliant

      If given marks are less than 30, then

      Student is poor

      If given marks are less than 95 and more than 30, then

      Student is average

Write a C program with the help of if conditional statements to convert the above given situation into a programming code   [10 marks]

Question Four (20 marks)

1. Write short notes on following programming languages   [10 marks]
i.LISP
ii.SIMULA
iii. BCPL
iv.COBOL
v.PERL

2.Write a simple JAVA program that captures an employee name and salary and outputs the details   [10 marks]

Question Five (20 marks)

1.Explain Five major characteristics of an algorithm?   [10 marks]

2.Write a do...while loop in C for printing the words Hello, World Five times   [10 marks]

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