PAN AFRICA CHRISTIAN UNIVERSITY

(BBIT, BSIT)

END OF TERM EXAMINATION

DEPARTMENT:	**COMPUTING & INFORMATION TECHNOLOGY**
COURSE CODE:	**BIT104/BCIT104**
CAMPUS:	**ROYSAMBU**
COURSE TITLE:	**INTODUCTION TO COMPUTER PROGRAMMING**
EXAM DATE:	**MONDAY, XTH APRIL 2021**
TIME:	**START HOUR – END 14:00-16:00 HRS**

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Three questions in Section **B.**
- Write only your **student number** on the answer booklet provided.
- None programmable calculators permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A
(Answer ALL questions in this section)

Question 1

a) Describe **THREE** methods of algorithmic representation **(3 Marks)**
b) Describe the structure of a C- program **(3 Marks)**
c) Write a C-program to prompts for two integers values. The program then calculates and display the sum and product of the prompted values **(4 Marks)**

SECTION B

(Answer any THREE (3) questions in this section)

Question 2

a) Highlight any **FOUR** variable naming conventions and rules used in C programming. **(4 marks)**
b) Write a C program that outputs the even numbers between 2 and 20 using for… loop. **(6 Marks)**

Question 3

a) Outline any **FOUR** categories of C program operators **(4 Marks)**
b) Write a C program that uses a function called calc_vol to compute the volume of a cube (vol=height*breadth*length). The main function should capture the dimensions from a user and finally display the volume returned by calc_vol function. **(6 Marks)**

Question 4

a) Define the term **array** as used in programming **(2 Marks)**
b) Differentiate a single-dimension from a two-dimensional array **(4 Marks)**
c) Distinguish between the TWO ways of declaring constants in C language (use relevant example). **(4 Marks)**

Question 5

a) Define a struct called 'Employee' that has the following members

-Employee names (string)

-Basic salary (floating point)

-Gender (string)

-Year of birth (integer) **(4 Marks)**

b) Write a C language code snippet that declares a pointer variable of type integer, initializes it with an address of another variable and displays result on screen **(6 Marks)**

Question 6

a) Outline any **FOUR** C supported data types **(4 Marks)**

b) Discuss any **THREE** programming errors that a c programmer may encounter in the course of developing programs. **(6 Marks)**

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