PAN AFRICA CHRISTIAN UNIVERSITY

DICT

END OF TERM EXAMINATION

DEPARTMENT:	**COMPUTING & INFORMATION TECHNOLOGY**
COURSE CODE:	**BIT104/BCIT104**
CAMPUS:	**ROYSAMBU**
COURSE TITLE:	**INTRODUCTION TO COMPUTER PROGRAMMING**
EXAM DATE:	**MONDAY, XTH APRIL 2022**
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 any **THREE** methods to represent algorithms **(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) Outline any **FOUR** C supported data types **(4 Marks)**

b) Identify any SIX types of errors in the code snippet below **(6 Marks)**

```
Include<sdio.h>
Int main();
Float integer
int k=20.345;
printf("hello,")
printf("This program has several errors./t Identify them"/n);
return 0
}
```

Question 3

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 4

a) Define the term **array** as used in programming **(2 Marks)**

b) Differentiate a one-dimension from a multi-dimensional array **(4 Marks)**

c) Distinguish between the TWO ways of declaring constants in C language (use relevant example). **(4 Marks)**

Question 5

a) Outline any **FOUR** categories of C program operators **(4 Marks)**

b) Write a C program that uses a function called **calc_area** to compute the area of a circle. The main function should capture the radius from a user and finally display the area returned by the **calc_area** function. **(6 Marks)**

Question 6

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)**

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