PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: **COMPUTING & INFORMATION TECHNOLOGY**

COURSE CODE: **BSIT 104**

CAMPUS: **ROYSAMBU**

COURSE TITLE: **INTRODUCTION TO COMPUTER PROGRAMMING**

EXAM DATE: **MONDAY,XXXX,APRIL ,2025**

TIME: **5:00PM -7:00PM**

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.

SECTION A (Answer ALL questions)

QUESTION ONE (15 Marks) Compulsory

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a) Write a C program that checks whether a number entered by the user is prime or not. **[5 Marks]**

b) Briefly describe the following terms as use in computer programming and use them to come up with a program **[2 Marks]**

   i. Comments
   ii. Function **[2 Marks]**
   iii. Variable **[2 Marks]**
   iv. Pre-processor directive **[2 Marks]**

c) Providing relevant examples briefly explain the following types of operators
   i. Relational operators
   ii. Logical operators

(2 Marks)

SECTION B
(ANSWER ANY THREE (3) QUESTIONS IN THIS SECTION)
QUESTION TWO (15 marks)

a) Differentiate between scanf and printf as used in C programming and come up with a program to demonstrate this concept **[4 Marks]**

b) Write a program that finds the largest and smallest element in an array of 10 integers entered by the user. **[5 Marks]**

c) Write a C Program to Find Grade of a Student Using Switch Case, the user needs to enter the subject average and the program must return the Grade as shown below **[6 Marks]**

Average	Grade
70-100	A
60-69	B
50-59	C

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40-49	D
Less than 40	F

QUESTION THREE (15 marks)

a) Identify and collect errors in each of the following statements **[3 Marks]**
   i. printf(Excellent);
   ii. scanf ("d", z);
   iii. printf("Excellent")

b) Write an algorithm and a program to find the largest among 3 numbers **[7 Marks]**

c) Explain the difference between high-level languages and low-level languages, giving examples of each. **[5 Marks]**

QUESTION FOUR (15 marks)

a) Write a C program that prompts the user to enter three integers and calculate the average **[6 Marks]**

b) You have advised James to use high level programming language to develop a system for their organization. Explain the reasons for this choice. **[4 Marks]**

c) Explain the difference between structured programming and object-oriented programming (OOP). **[5 Marks]**

QUESTION FIVE (15 marks)

a) Explain two types of repetition structures in c programming providing examples of each **[4 Marks]**

b) Write a program that prompt the user to enter the radius of a sphere. The code then calculates the volume of a sphere **[5 Marks]**

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c) Explain error handling in C. Providing relevant examples. **[6 Marks]**

QUESTION SIX (15 marks)

a) Explain the features that make C language a preferred programming language in modern times. **[3Marks]**

b) Distinguish between a compiler and an interpreter which are two language processors. **[6Marks]**

c) Explain different loops in C, highlighting when each is preferred. **[6 Marks]**

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