

QP CODE 20205512101

Reg. No

--	--	--	--	--	--	--	--	--	--



DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2024

Semester: II 055 CS 21 INTRODUCTION TO PROGRAMMING USING C

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) What is the basic organization of a computer system? (10 Marks)
b) Write a c program to print fibonacci series without using recursion and using recursion.
Input: 10
Output: 0 1 1 2 3 5 8 13 21 34 (10 Marks)
2. a) What are the key components of a basic C program structure? (10 Marks)
b) What is the difference between constants and variables in C? (10 Marks)
3. a) How can C programming be used to solve simple scientific and statistical problems? Provide an example. (10 Marks)
b) What is an array, and how is it declared in C? (10 Marks)
4. a) Explain "pass by reference" in C with an example. (10 Marks)
b) Explain "pass by value" in C with an example. (10 Marks)
5. a) What is a pointer in C, and how do you declare and initialize it? (10 Marks)
b) What is recursion in C? Provide an example. (10 Marks)
6. a) List and briefly explain the primary data types in C. (10 Marks)
b) What is a control statement in C? List the types of control statements. (10 Marks)
7. a) What is the relationship between pointers and arrays in C? (10 Marks)
b) What is the need for a structure data type in C? (10 Marks)

