

## BSc (NEP) Semester-2 Examination

DSC-C-121 7

Computer Science

April-2024

Time : 2-00 Hours]

[Max. Marks : 50

- Q1(A) Write a C program to calculate the factorial of a given number using a function. Provide the code for both the function and the main program. (10)
- OR
- Q1(B) Write a C program to declare variables of each of int, float, and char data types and print their sizes using the sizeof operator. (10)
- Q2(A) What is the difference between if, else if, and else statements in C? (10)
- OR
- Q2(B) Write a C program that takes an integer input from the user and prints whether it is even or odd using the if-else statement. (10)
- Q3(A) Write a C program to print the first 10 natural numbers using a for loop. (10)
- OR
- Q3(B) Define an array of integers in C with 5 elements and write a program to find the sum of all elements using a loop. Provide the code. (10)
- Q4(A) Explain the concept of arrays in C. Write a C program to find the largest element in an array of integers. (10)
- OR
- Q4(B) What is a function prototype in C? Why is it necessary? Write a C program to find the factorial of a number using a recursive function. (10)
- Q5 . True-False Attempt any ten out of twelve.(1 Marks each) (10)**
- 1) printf is a function used to print output to the console in C.
  - 2) In C, the == operator is used for assignment.
  - 3) C is an object-oriented programming language.
  - 4) An array in C can store elements of different data types.
  - 5) The scanf function is used to read input from the user in C.
  - 6) A function in C cannot return more than one value.
  - 7) In C, the && operator is used for logical OR.
  - 8) The sizeof operator in C returns the size of a variable in bytes.
  - 9) C does not support dynamic memory allocation.
  - 10) C does not support floating-point numbers.
  - 11) The ternary operator in C is denoted by ?: .
  - 12) The void keyword in C is used to declare variables with no value.

ALL THE BEST