

## B.Sc. (NEP) Sem.-3 Examination

DSC-C-231

Computer Science

November-2025

[Max. Marks : 50]

Time : 2-00 Hours]

Answer the following question .

(50 Marks)

- [Q-1] a) Explain different data types in C++ with examples. 5
- b) Explain basic I/O operations in C++ with suitable syntax and program. 5
- Or
- a) Explain arithmetic operators in C++ with examples.
- b) Explain the working of if-else and switch statements with examples.
- [Q-2] a) Discuss the different looping structures in C++ with suitable programs. 5
- b) Explain call-by-value and call-by-reference with examples 5
- Or
- a) What is a function? Explain function prototype, definition, and call.
- b) Explain declaration, initialization, and traversal of 1D and 2D arrays.
- [Q-3] a) Explain pointer declaration, initialization, dereferencing, and pointer arithmetic. 5
- b) Define constructors. Explain types of constructors with examples. 5
- Or
- a) Explain classes and objects with examples.
- b) What is inheritance? Explain types of inheritance with diagrams and examples.
- [Q-4] a) Explain access specifiers in C++ with suitable examples. 5
- b) Write a program to show how pointers work with arrays. 5
- Or
- a) Write a program demonstrating array operations (max, min, sum, search).
- b) Explain the major features of C++ as a programming language.

[Q-5] b) Answer the following. Each question carries 1 marks.

1. What does OOP stand for?
2. Give an example of any data type in C++.
3. What does cin stand for?
4. What does << represent?
5. Write syntax for if-else.
6. Which loop checks condition at the end?
7. Can a function be called multiple times? (Yes/No)
8. What is a 2D array?
9. What is a pointer?
10. What is inheritance?

