

D (Printed Pages 4)
(20525) Roll No.
B.Sc. (Com. Sci.)-IV Sem.

NP-3607

B.Sc. (Com. Science) Examination, May-2025

OBJECT ORIENTED PROGRAMMING THROUGH C++ (BCS-403)

Time : Three Hours] [Maximum Marks : 75

Note : Attempt questions from **all** the sections as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all **five** questions. Each question carries **03** marks. Very short answer is required. $5 \times 3 = 15$

1. What is an abstract class? 3
2. What is operator overloading? 3

P.T.O.

3. What is destructor? 3
4. What is inline function? 3
5. What is the relation between object and class? 3

Section-B

(Short Answer Type Questions)

Note : Attempt any **two** questions. Each question carries **7.5** marks. Short answer in required not exceeding 200 words. $2 \times 7.5 = 15$

6. Differentiate between procedural programming and object oriented programming. 7.5
7. Explain the access specifier in C++ and also give suitable example. 7.5
8. What is the friend function? Write a C++ program to demonstrate its use. 7.5

NP-3607/2

Section-C

(Detailed Answer Type Questions)

Note : Attempt any **three** questions. Each question carries **15** marks. Answer is required in detail. $3 \times 15 = 45$

9. What is constructor? Explain various types of constructors. Write a C++ program to illustrate the use of default constructor, parameterized constructor and copy constructor. 15
10. Define operator overloading? Write a C++ program to overload '+' operator to concatenates two strings. 15
11. What are the different forms of inheritance supported by C++? Explain all forms of inheritance with suitable example. 15
12. What is polymorphism? How polymorphism is supported by C++? Explain all the ways that polymorphism can be used in program? Give example. 15

13. Write short notes on the following: 15

- (i) Command line Arguments
- (ii) Virtual functions
- (iii) Static data member of class