

3950

NBCA/M-24

OBJECT ORIENTED PROGRAMMING USING C++

Paper : B23-CAP-201

(CC-A2) (BCA)

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt *five* questions in all, selecting at least *one* question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Define following terms :

- (i) Data hiding.
- (ii) Resolution operator.
- (iii) Copy constructor.
- (iv) Define any two string operator.
- (v) Handling uncaught exceptions.

(5×2=10)

UNIT-I

2. Explain following in detail :

- (a) Inline Functions.
- (b) Union in C++.

10

3. Explain following in detail :

- (i) Function overloading.
- (ii) Pointer.

10

UNIT-II

4. What is the use of constructor and destructor in C++? How do we declare them? Write a program to demonstrate the concepts. 10
5. What are friend functions and friend classes? Write a normal function which adds objects of the complex number class. Declare this normal function as friend of complex class. 10

UNIT-III

6. Explain following in detail :
(i) Abstract Class.
(ii) Virtual Base Class. 10
7. Write and explain a program in C++ to overload any unary operator. 10

UNIT-IV

8. What is the benefit of handling exceptions? How can you catch all exceptions? Explain with suitable example. 10
9. What do you mean by polymorphism? How can you achieve polymorphism with pointers? How late binding is different from early binding? 10