

Roll No. ....

Total Pages : 02

**BT-3/D-22**

**43170**

**OBJECT ORIENTED PROGRAMMING  
USING C++  
PC-IT-207A**

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

**Unit I**

1. What is pre-process directive and name space in C++ ?  
Write a program to hide data and methods in C++ and find area of square, rectangle and cube using abstraction methods. **15**
2. What is public, private and protected accessifier in C++ ?  
Also write their uses in programming. Write a program to access private members from other class in C++ by taking an appropriate example. **15**

**Unit II**

3. What is operator overloading ? Write a program to implement ++/-- unary operator overloading and verify with the output of this program. **15**

4. (a) What do you mean by constructor and destructor in C++ ?
- (b) What is Inheritance ? Write a program to implement multiple inheritance by taking an appropriate example. 15

### Unit III

5. (a) What is virtual function, virtual constructor, virtual destructor and concrete class ?
- (b) What is polymorphism ? Explain dynamic and static binding in detail. 15
6. What are different modes to read ? Write data from a file. Write a program to read data from *xy* file and write into *ab* file in a random method. 15

### Unit IV

7. What is difference between exception and error ? Write a program to handle arithmetic exception and array exception in C++. 15
8. What is function template and class template ? Explain template with the help of an example. Write a program to overload the template with the help of an appropriate example. 15