

**BT-3/D-21**

**44152**

**OBJECT ORIENTED PROGRAMMING**

**Paper-PC-CS-203**

[Time : Three Hours]

[Maximum Marks : 75]

**Note :** All questions carry equal marks. Attempt any five questions in all

**UNIT-I**

1. a) What is an inline substitution?  
b) What is meant by break statement? How it is involved in constructing a multiway switch-case structure?
2. a) What are destructors. When they are called and what is their utility?  
b) In what way destructor is different from delete operator?

**UNIT-II**

3. a) How can private members be accessed using pointers?  
b) What is the difference between array of pointers and pointer to the array?
4. a) Why is the "assignment" operator function not inherited. Explain.  
b) Under what circumstances overloading using friend function

becomes necessary?

### **UNIT-III**

5.
  - a) Write an object oriented program in C++ to read set of lines and find out the number of characters, words and lines in a given text.
  - b) What is the difference between early binding and late binding in C++?
6.
  - a) What are the differences between static and dynamic memory?
  - b) What is inheritance? How does inheritance influence the size and functionality of derived class objects?

### **UNIT-IV**

7.
    - (a) Explain the concept of Virtual and Pure Virtual Functions with the help of examples.
    - (b) What is exception handling? What will happen if an exception is thrown for which no matching catch() block is defined?
  8.
    - (a) Explain how array of class objects can be stored and retrieved from a file?
    - (b) What is a Template? What is the difference between template and macros. Create a template for displaying the reverse of string function.
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