BT-3/D-22   **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.

1.   a) What do we need to use default arguments in a function? What is the main advantage of passing arguments by reference?

   b) Write a C++ program to swap two numbers using pointers.

2.   a) Write an Object Oriented program in C++ to count the number of occurrences of specific character in the text.

   b) What is the difference between early binding and late binding in C++?

3.   a) What are the difference between static and dynamic memory?

   b) What is inheritance? What are the advantages and disadvantages of inheritance?

4.   a) What are the specific characteristics of constructor functions?

   b) Differentiate between compile time polymorphism and runtime polymorphism?

5. a) Under what circumstances overloading using friend function becomes necessary?

b) Give reasons for assigning protected visibility specifier to a class member.

6. a) What is a virtual base class? Why is it important to make a class virtual?

b) What is the use of declaring the virtual destructors under multiple inheritance?

7. (a) Explain, how array of class objects can be stored and retrieved from a file.
(b) How to overload a template function? Explain.

8. (a) What is Exception? How to catch multiple exceptions?
(b) Write a program for catching array out of bound exception.

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