BCA/M-20   1894

ADVANCED PROGRAMMING USING C++
BCA-242

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. (a)   What is a constructor ? What is a parameterized constructor ?

    (b)   What is an abstract class ?

    (c)   What is the difference between private and protected member of a class ?

    (d)   What is the advantage of exception handling ?

Unit I

2. What is run-time polymorphism ? Write an object oriented program in C++ to compute the area of a triangle, a rectangle and a circle using function overloading.

3. What is Virtual Destructor ? Explain the use of virtual destructor using suitable example.

Unit II

4. What are the different modes of inheritance ? Discuss the rules associated with them using suitable examples.

5. What do you understand by type conversion ? What is the difference between implicit and explicit type conversion ? Write a program in C++ illustrating the conversion between objects of different classes.

Unit III

6. Discuss the order of execution of constructors and destructors in multiple inheritance using suitable examples.

7. What is multiple inheritance ? What are the problems with it ? Discuss the solutions in C++.

Unit IV

8. What are the different modes to open a file in C++ ? Write a program in C++ to read and write the contents into a file.

9. What is a template class ? What is the advantage of using them ? Write a template function to implement bubble sort.