

Roll No.

Total Pages : 2

BCA/M-16

19042

OBJECT ORIENTED PROGRAMMING USING C++

Paper : BCA-301

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *five* questions in all. Question number 1 is compulsory. In addition to compulsory question, attempt *four* more questions selecting *one* question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) Differentiate between the concept of structure and class with suitable examples.
- (b) Write short note on friend function in C++ . Give suitable example.
- (c) Explain the concept of protected derivation with suitable example in terms of inheritance.
- (d) Differentiate between function template and class template in C++ . (4×4=16)

UNIT-I

2. (a) Explain object oriented programming features and benefits. 8
- (b) What is scope resolution operator in C++ ? Explain its significance and give suitable examples. 8

3. What is the use of constructor and destructor in C++ ? How do we declare them ? Write a program to compute area of various geometrical figures using constructor and destructor. 16

UNIT-II

4. Explain the concept of operator overloading in C++. Write a program to overload binary " + " operator in C++. 16
5. Explain the concept of string handling and dynamic memory management in C++ with suitable examples. 16

UNIT-III

6. What is virtual function? Explain its significance. Write any Program in C++ using virtual function. 16
7. Explain the following with suitable examples :
 - (a) Function overriding. http://www.kuonline.in
 - (b) Type conversion. 16

UNIT-IV

8. What is inheritance? Explain various types of inheritance with suitable examples. 16
9. Explain the concept of exception handling in C++ with suitable examples. 16