# PC-1501/M

## L-18/2051

OBJECT ORIENTED PROGRAMMING USING CC++-121
(Semester–II)

Time : Three Hours] [Maximum Marks : 70

**Note :** Attempt any *two* questions each from Section A and B. Section C will be compulsory.

### SECTION-A (2×10.5=21)

I. (a) Explain features of object oriented programming.

   (b) What is function overloading? Write C++ program to define three overload functions to find the sum of two integers, sum of two floating point numbers and sum of three whole numbers.

II. (a) Write about I/O manipulators. Explain any *five* C++ manipulators used for output.

   (b) Mention advantages and disadvantages of OOP over its predecessor paradigms.

III. (a) Explain Const functions and Const arguments.

   (b) Discuss inline nesting of member functions. Illustrate inline functions with example.

IV. Write note on :

    (a)   Class.

    (b)   Objects.

    (c)   Unions.

    (d)   Bit Fields.

    (e)   Identifier.


**SECTION–B**        (2×10.5=21)

V.  (a)   Define exception handling. Explain the use of try, catch and throw for exception handling in C++.

    (b)   Explain the terms encapsulation and polymorphism in OOP.


VI.  What are constructors? Write a C++ program to illustrate different types of constructors.


VII.  Write a C++ program to illustrate multiple inheritance and multilevel inheritance.


VIII. What is a virtual function? Write a C++ program to demonstrate calling to virtual function through a base class reference.

**SECTION–C**    **(14×2=28)**

IX. (a) Define structured programming and its disadvantages.

 (b) What is the difference between object based language and object oriented language.

 (c) What is the difference between static binding and dynamic binding?

 (d) Can you call the base class method without creating an instance?

 (e) What is hybrid inheritance?

 (f) What is the difference between class and a structure?

 (g) What are access specifiers?

 (h) Define an interface.

 (i) What is a destructor?

 (j) What is the difference between an error and an exception?

 (k) Define a superclass.

 (l) What do you understand by the term "Code Reusability".

 (m) Differentiate between Function redefining and Overriding.

 (n) Discuss dynamic memory allocation using new and delete operators.

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