

PC-126/AK

O-1/2041

OBJECT ORIENTED PROGRAMMING USING C++

Paper – MS(A)-121

Ist Year (Annual)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *two* questions each from Section A and B carrying 16 marks each. Section C is compulsory carrying 2 marks each.

SECTION – A

- I. Explain with examples the different conditional and iterative statements used in C++.
- II. Explain in detail the different features of Object Oriented Programming.
- III. Write a program in C++ to read n numbers (n is to be entered by the user) and to display the sum and average of these n numbers.
- IV. What is a function? What is function prototype? Explain with the help of an example how to call a function by value, by reference and by address?

SECTION – B

- V. What is a class? What is the relation between an object and a class? Write a program which shows how to define a class, how to access member functions and how to create and access objects in C++.
- VI. Explain with the help of examples the different Access Specifiers used in C++.
- VII. What is inheritance? Explain with example how to inherit a class in C++. Also show in what order the constructors are called when an object of a derived class is created?
- VIII. What is polymorphism? Write a program to overload a '+' operator for adding the value of objects of a class.

SECTION – C

- IX. (a) What is a constructor? What are its properties?
- (b) Discuss the concepts of inbuilt and user defined data types.
- (c) Differentiate between a structure and a union.
- (d) What is a pointer? Explain how to create and use a pointer variable.
- (e) What is the use of this keyword in C++?

- (f) What do you mean by static class members?
 - (g) What is the use of Friend Function?
 - (h) Differentiate between assignment and equality operators.
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