Roll No. .....

BCA/D-13 **890**

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING

Paper: BCA—351

Time: Three Hours] [Maximum Marks: 80

Note: Attempt five questions in all. Question No. 1 is compulsory. Attempt four more questions selecting one question form each unit.

Compulsory Question

1. Answer the following questions in brief: 2x8=l6

(a) Distinguish between local and global class.
(b) Can you overload destructors? Justify your answer.
(c) Explain the use of 'delete" operator with an example.
(d) What are the rules to supply default values to parameters of a constructor?
(e) What do you mean by early binding?
(f) Explain two applications of scope resolution operator.
(g) What are the limitations of "++" operator overloading?
(h) What are manipulators?

UNIT—I

2. (a) What are abstractions and encapsulations '.7 How are these achieved in C++ ? 8

(b) What is nested class? Demonstrate its use by giving an example. 8

3. What is static data member? How can. you initialize it ? What is the use of static data member? Explain the difference between static and non static data members by giving a suitable example. 16

UNIT—II

4. What is constructor? How is it different from a member function of a class 7 If you don't define a constructor then what happens? Explain the role of copy constructor by giving a suitable example. 16

5. (a) Draw console stream class hierarchy and explain the purpose of each class in this. 8

(b) Explain get () and write () functions with suitable examples. 8

UNIT—III

6. (a) What is friend class? Can you make a member function of a class as a friend function of another class? If yes then give an example. 8
(b) Explain passing of an object as parameter to a function with a suitable. example. 8

7. (a) Create a 'Rectangle' class with appropriate data members and member functions. Then create an array of pointers to the objects of Rectangle class and demonstrate its use. 8

(b) How can you pass parameters to a function by using pointers? Explain with an example. 8

UNIT—IV

8. (a) What are the rules to overload unary operator? Overload unary operator and demonstrate its use.

(b) Overload '*' operator to multiply two complex numbers and demonstrate its use. 8

9. (a) Distinguish between inline and external linkage functions. 8

(b) What are the merits and demerits of static polymorphism? 8