Name : .....

Roll No. : .....

Invigilator's Signature : .....

CS/BCA/SEM-4/BCA-402/2010

2010

OBJECT ORIENTED PROGRAMMING WITH C++

Time Allotted : 3 Hours Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : 10 × 1 = 10

   i) Reusage of a function is also called

      a) Method overriding b) Function overriding

      c) Function overloading d) None of these.

   ii) The argument of a copy constructor is passed by

      a) Value b) Reference

      c) Pointer d) Both (a) and (c).

   iii) A template provides a convenient way to make a family of

      a) variables b) function

      c) classes d) programs.

iv) Static members are initialized to

a) 0 b) 1

c) Garbage d) None of these.

v) We can overload a destructor – it is

a) True b) False

c) Can't say d) None of these.

vi) Which of the following operators can be overloaded ?

a) .(dot) b) ::

c) % d) ?:

vii) Tellp () tells the position of

a) File b) Getpointer

c) Putpointer d) Constructor.

viii) C++ is a programming language of type

a) Structured b) Non-structured

c) Procedural d) Module based.

ix) A friend function can be called

a) directly

b) like a general function

c) by using the object of the class

d) should not be called.

x) In an abstract class we can create object.

a) True b) False

c) Can't say d) None of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Can we overload a destructor ? Explain.

3. What is dynamic binding ? When do we use it ? Explain with example.

4. What are the differences between a structure in C and a class in C++ ?

5. What is a constructor ? Explain copy constructor with an example.

6. What is function overloading ? Explain with a simple example.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. What do you mean by Object-Oriented Programming ? Discuss the different properties of an Object-Oriented Programming. 3 + 12

8. What is template ? Why is it used ? Describe different templates. 5 + 10

9. Construct a stack data structure by using a template class. Explain containership with suitable examples. What is the difference between static polymorphism and dynamic polymorphism ? 6 + 4 + 5

10. Write a C++ program to implement a class called "String" for string manipulation. Overload +=, + and = operator, for string append, concatenation and assignment respectively.

5 + 5 + 5

11. Write short notes on any *three* : 3 × 5

a) Multiple inheritance

b) Exception handling

c) Operator overloading

d) Pure virtual function

e) Stream.