

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 : $10 \times 1 = 10$

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.

4075

{ Turn over

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- 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. $3 \times 5 = 15$

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. $3 \times 15 = 45$

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. $5 + 10$

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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.