2012
B.A./B.Sc. (General) Third Semester
Computer Science
CS-06: Object Oriented Programming (Using C++)

Time allowed: 3 Hours                                          Max. Marks: 30

**NOTE:** *Attempt five questions in all, including Question No. 9 (Section - E) which is compulsory and selecting one question each from Section A- D.*

*x-x-x*

## Section - A

1. Describe the concept of Encapsulation in OOP. How it is useful in OOP?

(1×6=6)

2. What is array? How 2-D arrays are declared. Write a program in C++ to locate a given item in a 2D array.

(1×6=6)

## Section - B

3. Describe the role of following in C++:

   *a)* Scope resolution operator.
   *b)* Friend Function.

(2×3=6)

4. Write suitable code in C++ to demonstrate the declaration of a member function inside as well as outside a class to print Name, Class and Marks.

(1×6=6)

## Section - C

5. a) Discuss the concept of hybrid inheritance in C++ with suitable example.

   b) Describe the role of parameterized and non parameterized constructors in C++.

(2×3=6)

P.T.O.

6. What do you mean by multilevel inheritance in C++? How it is achieved? Write suitable code in C++ to describe it.

(1×6=6)

## Section - D

7. Describe the concept of a virtual function in C++ with suitable code. Also give its advantages.

(1×6=6)

8. Differentiate between operator and function overloading with suitable example.

(1×6=6)

## Section – E

9. Explain the following keywords/functions/terms in C++:

| | | | | | | |
|---|---|---|---|---|---|---|
| a) | class | b) | private | c) | seekp() | d) fstream |
| e) | pass by value | f) | scope resolution operator | | | |

(6×1=6)

x-x-x