

**Bachelor in Information Technology (BIT)****Term-End Examination****June, 2007****CSI-24 : OBJECT ORIENTED PROGRAMMING***Time : 2 Hours**Maximum Marks : 60*

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**Note :** *There are two sections in this paper. All questions from Section A are **compulsory**. Answer any **two** questions from Section B.*

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**SECTION A**

1. State whether following statements are *true* or *false* : 5
- (i) C++ is an object oriented programming language.
  - (ii) C++ supports the feature of inline functions.
  - (iii) Inheritance helps in reusability.
  - (iv) C++ supports operator overloading.
  - (v) Protected types of data cannot be accessed inside the class in which they are declared.
2. Explain the following concepts with the help of an example for each : 5×3=15
- (i) Public and protected members
  - (ii) Abstract data type
  - (iii) Polymorphism
3. (a) Write a program in C++ to find the largest integer among the three integers given as input. 5
- (b) What is a constructor ? Explain the usage of the constructor with an example program. 5

## SECTION B

Answer any **two** questions from this section.

4. (a) Write a program in C++ to find the Least Common Multiple (LCM) of the given three integers. 10
- (b) What is data hiding ? Explain how data hiding can be achieved in C++ with an example. 5
5. Write a program in C++ to create a class *Matrix* with proper constructor and destructor of this class. Also, define two methods, *Sum* to find the sum of the matrices of size  $3 \times 3$  and method *Difference* to find the difference of two matrices of size  $3 \times 3$ . 15
6. (a) What is multiple inheritance and multilevel inheritance ? Give an example of each. 10
- (b) What is a friend function ? Explain advantage of a friend function with an example program. 5