

Bachelor in Information Technology (BIT)

Term-End Examination

June, 2007

CSI-24 : OBJECT ORIENTED PROGRAMMING

Time : 2 Hours

Maximum Marks : 60

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

SECTION A

1. State whether following statements are *true* or *false* :
 - (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 :
 - (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.
 - (b) What is a constructor ? Explain the usage of the constructor with an example program.

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.
(b) What is data hiding ? Explain how data hiding can be achieved in C++ with an example.

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 3×3 and method *Difference* to find the difference of two matrices of size 3×3 .

6. (a) What is multiple inheritance and multilevel inheritance ? Give an example of each.
(b) What is a friend function ? Explain advantage of a friend function with an example program.