BACHELOR OF COMPUTER APPLICATIONS (BCA) (Pre-Revised)

Term-End Examination

CS-72 : C++ AND OBJECT ORIENTED PROGRAMMING

Time : 2 Hours]   *[Maximum Marks : 60*

Note: Question number one is compulsory.

Attempt any three questions from the rest.

All examples must be in C++ programming language.

---

1. a. Write a program to create a class student to maintain records of students in a college. This program should have constructor and member functions, to get the details such as personal information of students, semester wise marks and placement details of the students. Make necessary assumptions wherever required. 10

   b. Compare structured programming paradigm and object oriented paradigm. • 8

   c. Explain the concept of call by value and call by reference with the help of an example of a function that interchange their integer values.

12

2. a. What is operator overloading? Briefly explain general rules of operator overloading. Write a class "Complex" in C++ to find the sum of two complex numbers. 5

   b. Explain the difference between private, protected and public access specifier with respect to class and its object. Give a suitable example. 5

3. a. What is the purpose served by constructors and destructors? Can we overload them? Explain. 5

   b. Explain inheritance in C++ with the help of an example. 5

4. a. Write a program to find the GCD of two numbers in C++. 5

   b. What are function templates and class templates? Write a function template some to add two numbers. 10

5. Explain the following operators in C++ with the help of an example: 10

   a. Bitwise and operator

   b. Arithmetic if operator

   c. Scope resolution operator

   d. Size of operator

   e. Increment and Decrement operators

—x—