CS-72

BACHELOR OF COMPUTER APPLICATIONS
(Pre-Revised)
Term-End Examination
December, 2014

02734

CS-72 : C++ AND OBJECT ORIENTED PROGRAMMING

Time : 2 hours   *Maximum Marks : 60*

Note : *Question number 1 is **compulsory**. Attempt any* *three questions from the rest.*

1. (a)   Write a program in C++ to concatenate two strings using friend function. Define necessary classes with appropriate data members and member functions. *10*

    (b)   Explain the use of following operators in C++ with an example for each : *10*

    (i)   <<

    (ii)   %

    (iii)   – –

    (iv)   &&

    (v) ||

    (c)   Define the term Object and a Class. Discuss the principles of Abstraction, Encapsulation and Inheritance with the help of an example. *10*

2. (a) Explain the concept of Overloading. Illustrate it with the help of an example. *5*

(b) Explain the concept of template. How can it be used in C++ programming ? Explain with the help of an example. *5*

3. (a) Explain interaction diagrams in UML with the help of examples. *5*

(b) Design a class for Complex Numbers with appropriate constructor and destructor. *5*

4. (a) What is a virtual function ? Illustrate it with the help of an example. *5*

(b) What is an inline function ? Write an inline function to find the cube of a number. *5*

5. Explain the following with the help of an example for each : $4 \times 2\frac{1}{2} = 10$

(a) Multiple Inheritance

(b) Exception Handling

(c) I/O file stream

(d) Class Diagram