## BACHELOR IN COMPUTER APPLICATIONS

Term-End Examination<br>June, 2011

## CS-72 : C++ AND OBJECT ORIENTED PROGRAMMING

Time : 2 hours
Maximum Marks : 60
Note: Question number 1 is compulsory. Answer any three Questions from the rest.

1. (a) Define a class ACCOUNT that includes $\mathbf{1 0}$ following members :
Data Members : Name of Depositor, Account no., Type of $A / c$, Balance Amount.

Member functions : To assign initial values, deposit amount, withdraw after checking balance, To display name and balance.
Write a program in $\mathrm{C}++$ and test it for 10 Customers.
(b) Differentiate between:
(i) Procedural Programming and Object Oriented Programming.
(ii) Data Encapsulation and Inheritance.
(c) Explain the utility of the friend function, 5 using an appropriate example.
> (d) Explain the steps involved in drawing interaction diagram with the help of an example. 5
2. (a) What do you mean by exception 6 Handling ? Write a C++ Program that throws an arithmetic exception whenever the Input number is less than zero.
(b) What do you mean by Polymorphism ? 4 Explain with an example.
3. (a) How do you use scope resolution operator 5 for accessing global variables? Also discuss its other uses.
(b) What is a Virtual Base Class? Explain with 5 an example.
4. (a) What is an inline function ? Explain with 5 an example and also discuss its limitations.
(b) Define operator overloading. Explain its 5 advantages.
5. Explain the following with examples :
(a) Input and Output streams
(b) Constructor and Destructor
(c) Abstract classes
(d) Preprocessor directives

