

BACHELOR IN COMPUTER APPLICATIONS (BCA)**Term-End Practical Examination**

00806

June, 2011

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

Time allowed : 2 hours

Maximum Marks : 100

(Weightage : 15%)

General Instructions :

- (i) There are two **compulsory** questions in this paper of **40** marks each. Rest **20** marks are for *viva-voce*.
- (ii) You must write the appropriate `main()` function and test your programs.
- (iii) Write/print the programs, input and results on your answer-script.
- (iv) Make and state suitable assumptions, if any.

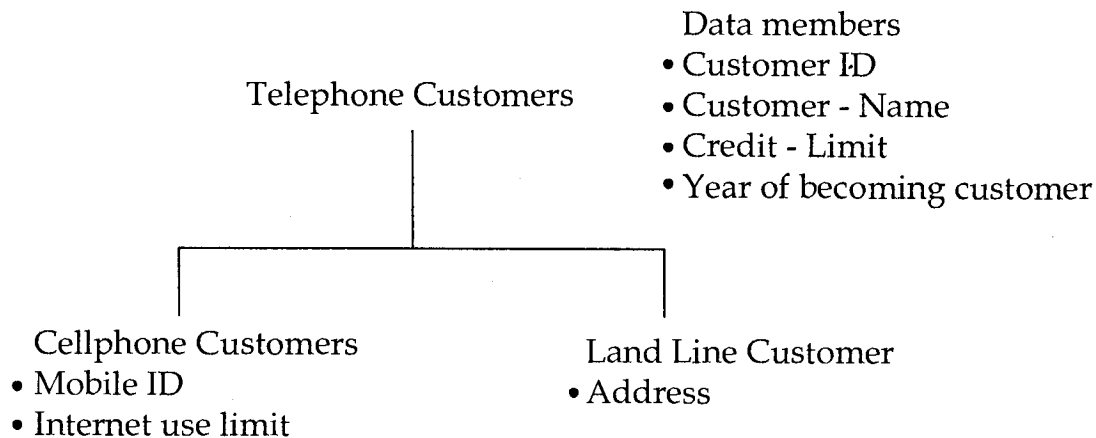
1. Design and implement a class using C++ that stores a real number as integer mantissa and exponent. For example, the number -2.345×10^5 will be represented as : -2345×10^2 40

\equiv Mantissa (Integer) - 2345
Exponent 2

The class should have a constructor that takes integer mantissa and exponent value to create the object of the real number class. The class should also include an overloaded \times (multiply) operator; and a member function that prints the stored number as : "Mantissa : -2345

Exponent : 2 "

2. Consider the following hierarchy along with the suggested data members of the classes : 40



Design and implement the classes in the hierarchy using C++. You may add more data members in the classes. You should include at least one constructor in each class. Also include a member function `print_customer_info ()` in each class that prints all the information of the object of that class. You should demonstrate polymorphism using this `print_customer_info ()` function and appropriate `main ()` function.
