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SET - 2

BACHELOR IN COMPUTER APPLICATIONS (BCA)

Term-End Practical Examination 02939

June, 2010

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.

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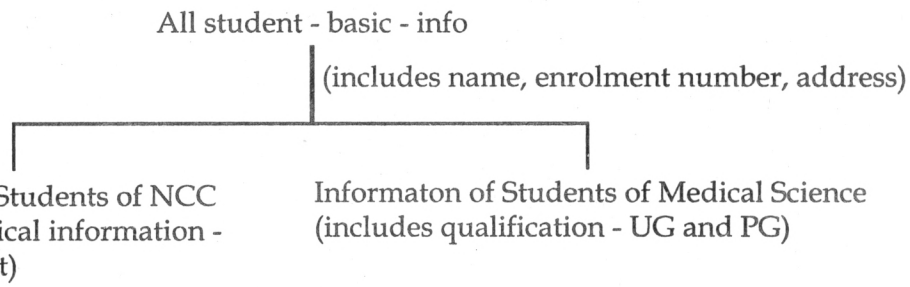
1. Design and implement a class BCD using C++. The BCD class accepts an integer value (maximum five decimal digit input) using an input function of the class and which separates the digits and then stores them in a data member array of the class. For example, if input was 123 then it will be stored in data member array as num (0) =3, num (1) = 2; and num (2) = 1 ; similarly if input number was 2345 then it will be stored as num (0) = 5, num (1) = 4, num (2) = 3 and num (3) = 2. The class has another member function that calculates the reverse of integer value and prints it. For example, the input value 2345 will be reversed and printed as 5432. **40**

2. Consider the following hierarchy of information of students : **40**



Design and implement the hierarchy using C++ classes. Your implementation should include suitable data members and at least constructor of each class. You should also implement a function that uses polymorphism to display the information of students. Implement appropriate main function ( ).
