BACHELOR IN COMPUTER APPLICATIONS (BCA)

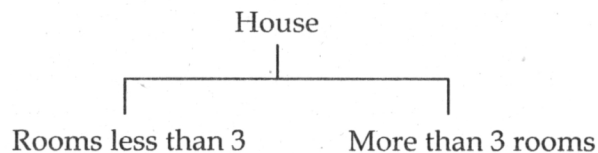## Term-End Practical Examination   00457

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.*

1.   Design and implement a class "circle". You may assume that the circle may be represented by the centre and the radius. The class should have functions to calculate the area of the circle and at least one overloaded operator function (you may overload << or >> or any other operator).   **40**

2.   Design and implement the following class hierarchy using C++ :   **40**

House

Rooms less than 3   More than 3 rooms

Each house has a specific covered area and cost. The houses that have more than 3 rooms have a balcony which may be of different size for each house.

While implementing your design, you may include :

•   the member variables for each class

•   at least one constructor for each class

•   a function that uses polymorphism, and prints the details of a house.

- o O o -