

**BACHELOR OF COMPUTER APPLICATIONS (Pre-revised)  
(BCA)**

**Term-End Practical Examination**

**June, 2018**

00245

**CS-72(P)/S2 : C++ AND OBJECT ORIENTED PROGRAMMING**

*Time : 2 Hours*

*Maximum Marks : 100*

*(Weightage : 15%)*

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- Note :**
- (i) *There are two **compulsory** questions in this paper carrying 40 marks each. Rest 20 marks are for viva-voce.*
  - (ii) *You must write appropriate main( ) function and test your programs.*
  - (iii) *Write / print your programs, input and results on your answer-sheet.*
  - (iv) *Make and state suitable assumptions, if any.*
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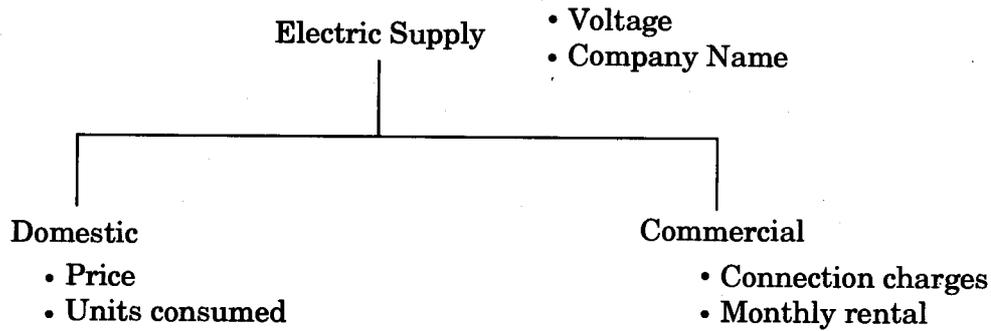
1. Design and implement a class "Inpatient" using C++. The class should have the following data members and functions :

- Data members of the class should include :
  - Patient ID
  - Name
  - Disease
- The member functions of the class should include :
  - A function to input data into data members of an object of "Inpatient" class.
  - A function that displays the data members of an object.

Write appropriate main( ) function that uses an array to create a list of three "Inpatient" objects. This function should demonstrate all the functions of the "Inpatient" class.

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2. Consider the following class hierarchy along with suggested data members :



Design and implement the classes in the given hierarchy using C++. You may add more data members in the classes, if needed. You should include at least one constructor in each class. All the classes should have one member function `print_info()` which displays all the information of that object. Demonstrate polymorphism using the `print_info()` and `main()` functions.

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