BACHELOR OF COMPUTER APPLICATIONS (Pre-revised)

(BCA)

00049

Term-End Practical Examination

December, 2015

CS-72(P)/S3 : C++ AND OBJECT ORIENTED PROGRAMMING

Time : 2 Hours *Maximum Marks : 100*

(Weightage : 15%)

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 the programs, input and results on your answer-sheet.*

(iv) *Make and state suitable assumptions, if any.*

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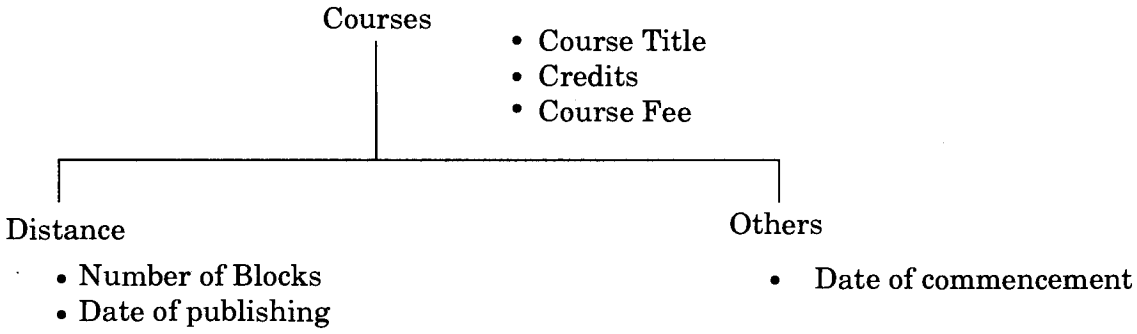
1. Design and implement a class named "Subject" using C++. The class should store subject name, level of the subject, credits of the subject, name of the teacher who teaches the subject. The class has three member functions :

- First to input information into all the data members of an object.
- Second to display information of an object.
- Third function takes a parameter — "Subject name". It returns true, if the parameter value passed to this function is identical to the value stored in subject name data member of the object.

Write appropriate main( ) function that creates a list of five "Subject" objects in an array. The main( ) function should demonstrate all the member functions of the class. *40*

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



Design and implement the classes in the hierarchy using C++. You may add more data members, if needed. You should include at least one constructor in each class. All the classes should have a member function print_course_info( ) that prints all the data of the object of that class. You must demonstrate polymorphism using print_course_info( ) and main( ) functions. *40*