Bachelor of Computer Application (Pre-Revised) (BCA) Term-End Examination December, 2018

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

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

1. Design and implement a class "Course" using C++. The class should have the following data members and member functions :   40

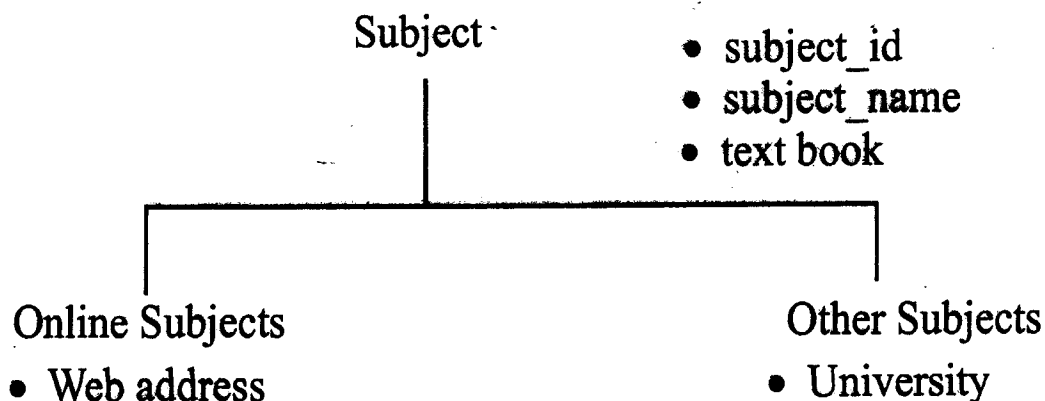   (a) Data members of the class should include :

       (i) Course_ID

       (ii) Course writer

       (iii) Course editor

       (iv) Year of writing

   (b) The member functions of the class should include :

       (i) A function that input data values in the data members of the "Course" class.

       (ii) A member function that displays the year of writing of a course object.

   Write appropriate main( ) function that creates three objects of the class "Course". It also finds the course(s) that is/are printed in the year 2017. The main( ) function should demonstrate all the member functions of the class.

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

Subject·   ● subject_id
            ● subject_name
            ● text book

Online Subjects   Other Subjects
● Web address   ● University

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 one member function print_subject( ) which displays all the information of the object of that class. Demonstrate polymorphism using the print_subject( ) and main( ) functions.