

BACHELOR OF COMPUTER APPLICATIONS (BCA)

(Pre-revised)

Term-End Practical Examination

04281

June, 2013

CS-72P : C++ AND OBJECT ORIENTED PROGRAMMING

Time allowed : 2 hours

Maximum Marks : 100

(Weightage : 15%)

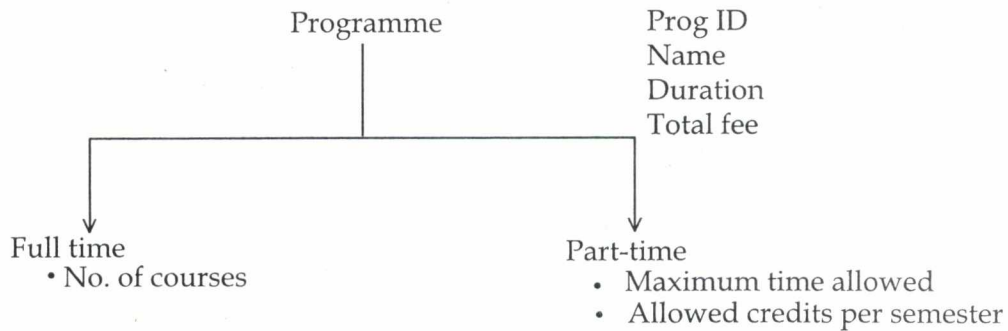
Note :

- (i) *There are **two compulsory** questions in this paper of **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 "Teacher" using C++ that stores information about various teachers objects of a university. Each teacher has a name, phone number and areas of specialisation. A teacher may have at most three areas of specialisation. Create the class with suitable constructors and member functions. Use this class to create an array of teacher objects. Also write code to find the list of teacher's who can teach a course named "DBMS". You may assume that a teacher can teach a course, if his/her one of the specialisation is in that course. 40

2. Consider the following hierarchy with suggested data members of classes :

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Design and implement the classes in the hierarchy using C++. You may add more data members in the classes, if needed. Include at least one constructor in each class. Implement a function `display-all-information()` that shows all the information of related object. Write appropriate `main()` function that demonstrates polymorphism while using function `display-all-information()`.