

BACHELOR OF COMPUTER APPLICATIONS (BCA)

(Pre-revised)

01874

Term-End Practical Examination

December, 2013

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

Time allowed : 2 hours

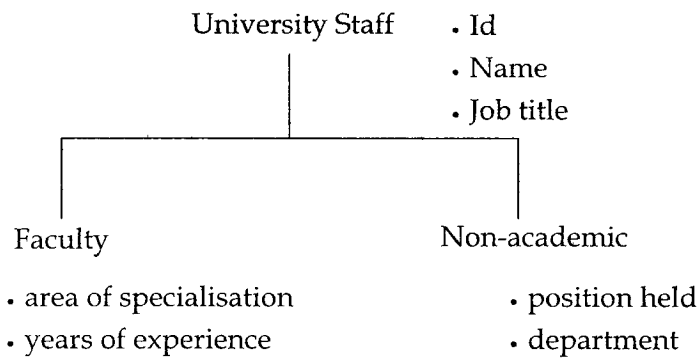
Maximum Marks : 100

(Weightage : 15%)

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- 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 "Matrix 2 D" using C ++. The class stores a 2×2 Dimensional matrix of integer values. The class has member functions to input and output the matrix. It also has an overloaded + operator that adds two matrices of 2×2 dimensions. Write appropriate main () function that creates two 2×2 matrices and then adds them. 40

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



Design and implement the classes in the class 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 a member function `print-staff-info ()` which prints all the data of the object. You must demonstrate polymorphism using `print-staff-info ()` and appropriate `main ()` function.
