

BACHELOR OF COMPUTER APPLICATIONS (Pre-revised)**(BCA)****Term-End Practical Examination****December, 2017**

00462

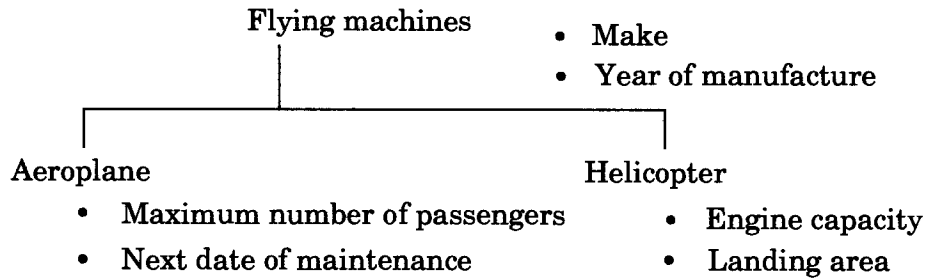
CS-72(P)/S3 : C++ AND OBJECT ORIENTED PROGRAMMING*Time : 2 Hours**Maximum Marks : 100**(Weightage : 15%)*

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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 "ServiceRecord" using C++. The class should have the following data members and member functions :
- Data members of the class should include :
 - Registration number of vehicle
 - Date of service
 - Total bill
 - The member functions for the class should include :
 - (a) A function that inputs data values into the data members of an object.
 - (b) A function that displays the data values stored in the data members of an object.
 - (c) A function that displays all the details of an object if the total bill exceeds ₹ 5,000.

Write appropriate main() function that creates an array of three objects of the class "ServiceRecord". The main() function should demonstrate all the functions of the given class. The data stored in the objects must be meaningful. 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_flyingmachine_details()` that should display all the information of objects of that class. You must demonstrate polymorphism using the `print_flyingmachine_details()` and `main()` functions.

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