1. Define a class to represent a book in a library. Include the following members: Data Members Book Number, Book Name, Author, Publisher, Price, No. of copies issued, No. of copies Member Functions (i) To assign initial values (ii) To issue a book after checking for its availability (iii) To return a book (iv) To display book information.
2. Define a class to represent batsmen in a cricket team. Include the following members: Data Members: First name, Last name, Runs made, Number of fours, Number of sixes Member Functions: (i) To assign the initial values (ii) To update runs made (It should simultaneously update fours and sixes, if required). (iii) To display the batsman’s information Make appropriate assumptions about access labels.
3. Define a class student with the following specifications: private members of class student admno integer sname 20 characters eng, math, science float total float ctotal() A function to calculate eng + math + science with float return type public member functions of class student Takedata() function to accept values for admno, sname, eng, math, science and ivoke ctotal() to calculate total. Showdata() function to display all the data members on the screen.
4. Declare a class to represent bank account of 10 customers with the following data members. Name of the depositor, Account number, Type of account (S for Savings and C for Current), Balance amount. The class also contains member functions to do the following: (i) To initialize data members (ii) To deposit money (iii) To withdraw money after checking the balance (minimum balance in Rs. 1000) (iv) To display the data members
5. Define a class worker with the following specification: Private members of class worker wname 25 characters hrwrk float (hors worked and wagerate per hour) totwage float(hrwrk\*wgrate) calcwg A fuction to find hrerk\* wgrate with float return type Public members of class worker in\_data() a function to accept values for wno, wname, hrwrk, wgrate and invoke calcwg() to calculate totwage. out\_data() a function to display all the data members on the screen you should give definations of functions.
6. Define a class Teacher with the following specification: private members: name 20 characters subject 10 characters Basic,DA,HRA float salary float Calculate() function computes the salary and returns it. Salary is sum of Basic, DA and HRA public members: Readdata() function accepts the data values and invoke the calculate function Displaydata() function prints the data on the screen.
7. Imagine a publishing company that markets both books and audio-cassette versions of its works. Create a class publication that stores the title (a string) ad price (type float) of a publication. From this class derive two classes: book, which adds a page count (type int); and tape, which adds a playing time in minutes (type float). Each of these three classes should have a getdata() function to get its data from the user at the keyboard, and a putdata() function to display its data. Write a main() program to test the book and tape classes by creating instances of them, asking the user to fill in their data with getdata(), and then displaying the data with putdata().
8. Assume that a bank maintains two kinds of accounts for customers, one called as savings account and the other as current account. The saving account provides compound interest ad withdrawal facilities but not cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintains a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, account number and opening balance. From this derive the classes Current and Saving to make them more specific to their requirements. Include necessary member functions in order to achieve the following tasks: (i) deposit an amount for a customer and update the balance (ii) display the account details (iii) compute and deposit interest (iv) withdraw amount for a customer after checking the balance and update the balance. (v) check for the minimum balance (for current account holders), impose penalty, if necessary, and update the balance. Implement these without using any constructor.

9.

