- 1. Create a class called Employee which contains protected attributes such as emp_id, emp_salary and emp_da. emp_da is 20% of the emp_salary. Provide an appropriate method to take user input to initialize the attributes and display the details regarding 25 students of a class.
- 2. Write a complete program to create a class called **Account** with protected attributes such as account number and balance. The attributes should be initialized through constructors. The class contains a public method named as show () to display the initialized attributes. Provide a mechanism to create an array of **Account** objects for the 30 account.
- 3. Declare a C++ class "Employee" for following requirement

Private

empno int name char[20] salary int

getsalary() to return value of salary

public

getdata() to read the detail showdata() to display details

showofficer() to display only those who are getting salary above 20000

4. Write a program to declare class BOX

private

height, width, depth

public

declare 1 default constructor, 1 parameterized constructor and 1 copy

constructor

show() to display the values

Write main() function to declare an object to invoke all the constructor and show function for each object

- 5. Imagine a tollbooth at a bridge. Cars passing by the booth are expected to pay a 50 cent toll. Mostly they do, but sometimes a car goes by without paying. The tollbooth keeps track of the number of cars that have gone by, and of the total amount of money collected. Model this tollbooth with a class called tollBooth. The two data items are a type unsigned int to hold the total number of cars, and a type double to hold the total amount of money collected. A constructor initializes both of these to 0. A member function called payingCar() increments the car total and adds 0.50 to the cash total. Another function, called nopayCar(), increments the car total but adds nothing to the cash total. Finally, a member function called display() displays the two totals. Make appropriate member functions const. Include a program to test this class. This program should allow the user to push one key to count a paying car, and another to count a nonpaying car. Pushing the Esc key should cause the program to print out the total cars and total cash and then exit.
- 6. Create a class called time that has separate int member data for hours, minutes, and seconds. One constructor should initialize this data to 0, and another should initialize it to fixed values. Another member function should display it, in 11:59:59 format. The final member function should add two objects of type time passed as arguments. A main() program should create two initialized time objects (should they be const?) and one that isn't initialized. Then it should add the two initialized values together, leaving the result in the third time variable. Finally it should display the value of this third variable. Make appropriate member functions const.
- 7. Implement a Circle class. Each object of this class will represent a circle, storing its radius and the x and y coordinates of its center as floats. Include a default constructor, access functions, an area() function, and a circumference() function.