**OBJECT ORIENTED PROGRAMMING**

**LAB# 06 TASKS**

## **Understanding the Concept Of Overloading**

1. Write a program which contains a class ‘Calculator’ contains multiple sum method by using method overloading concept.

2.Create a class to print the area of a square and a rectangle. The class has two methods with the same name but different number of parameters. The method for printing area of rectangle has two parameters which are length and breadth respectively while the other method for printing area of square has one parameter which is side of square.

3.Create a class 'Student' with three data members which are name, age and address. The constructor of the class assigns default values name as "unknown", age as '0' and address as "not available". It has two members with the same name 'setInfo'. First method has two parameters for name and age and assigns the same whereas the second method takes has three parameters which are assigned to name, age and address respectively. Print the name, age and address of 4 students.

4.Implement the Circle class to overload the + operator so that you can add two Circle objects. Adding two Circle object should give another Circle whose radius is the sum of the radii of the two Circle objects.

5.Implement the Rectangle class to overload the + operator so that you can add two Rectangle objects. Adding two Rectangle objects should give another Rectangle object whose length is the sum of the lengths of the two Rectangle objects and whose breadth is the sum of the breadths of the two Rectangle objects.

6.Write a class Time which represents time. the class should have three fields for hours, minutes and seconds. It should have constructor to initialize the hours, minutes and seconds.  
A method printTime() to print the current time.  
Overload the following operators:  
plus operator (+) (add two time objects based on 24 hour clock)  
and < (compare two time objects)