**List of Experiments**

1. Define a class student/ Structure and include the following
   Data members
   1. Name
   2. Roll no
   3. Marks of five subjects.

   Member functions
   1. To assign initial values and calculate percentage
   2. To display percentage and grade according to percentage.

   Write main function to test the program.

2. Define a class to represent a bank account. Include the following members.

   Data members
   1. Name of the depositor
   2. Account number
   3. Balance amount in the bank

   Member functions
   1. To assign initial values
   2. To deposit an amount
   3. To withdraw an amount after checking the balance
   4. To display name and balance

   Write a main program to test the program.

3. To illustrate the use of object as function argument.
   Define a class time to represent time in hours and minutes. Include the following
   Data members
   1. Time
   2. Hours

   Member functions
   1. Gettime( ) to assign initial values.
   2. Sum( ) to perform the addition of time in the hours and minutes format.
   3. Display() to display time.

   Pass objects of class time as arguments to sum function. Write the main function to test the program.

4. To study function friendly to two classes.
   Define two classes class A and class B and find greatest number from private members of class A and class B. Include following things in both classes
   Class A data members
   1. One integer value

   Member function
   1. To assign initial value

   Class B data members
   1. One integer value

   Member function
   1. To assign initial value

   Define friend function with object as arguments of class A and Class B to find the max value.
   Write main function to test the program.

5. Write a program to use common friend function exchange the private values of two classes. The function is called by reference.
Define two classes A and B and include the following
Data members
1. Single integer value

Member function
1. To initialize integer value
2. To display swapped values

Define friend function to both classes with arguments as object references to swap the private values.

Write main function to test the program.

6. To illustrate function overloading
Write a program to declare three function of same name volume and calculate volume of cube, cylinder and rectangular box.

7. To perform the constructor overloading
Define a class crectangle and find area of rectangle using constructor overloading

8. To illustrate how an object can be created (within a function) and returned to another function. (Add two complex numbers using friend function returning object).
Define a class complex including following
Friend function with object as arguments
Data member
1. Two real numbers

Member function
1. To initialize two numbers
2. To display complex number

Define friend function to add two numbers in the definition.
Write main function to test the program.

9. Write a program to implement multilevel Inheritance.

10. To illustrate hybrid inheritance
Create a class student with data members name, roll no and derive class test from it which shows marks of test. Create one more class sports to show score in sports. Now derive class result from student and sports to show the final sum of marks of all subjects and in sports.

11. Write a program to implement Diamond problem Solution using Experiment no 10.

12. Write a program to overload – operator using member function.

13. Write a program to overload – operator using friend function.

14. Write a program to overload operator + using member function

15. Write a program to overload operator + using friend function

16. Write a program to overload = operator.

17. Write a program to overload insertion and extraction operator.

18. write a program to demonstrate virtual function.

19.Write a program to show type conversions

20. Write a program to create a template function for Bubble sort.