Practice Programs 1 (Last Date : 26/10/24)

1. Display the sum of first n natural numbers using default constructor
2. Swap two numbers using parameterized constructor
3. Display the sum of all positive numbers of array using copy constructor
4. Display sum of two integer values, sum of two float values, two char values using constructor overloading
5. Display the product of two numbers using single inheritance where numbers are declared inside the base class. Function of product both numbers defined in the derived class.
6. Display the sum of two numbers using multilevel inheritance where one number is declared in base class and one number declared in first derived class. Function is defined in the second derived class to sum two numbers.
7. Display the sum of two numbers using multiple inheritance where one number is declared in first base class and one number declared in second base class. Function is defined in the derived class to sum two numbers.
8. Using hierarchical inheritance where two numbers are declared in base class. Create one function in first derive class and one function in second derive class. First derive class displays the first number with the help of their function and the second derive class displays the second function with the help of their function.
9. Create a program on hybrid inheritance where we have five classes A, B, C, D and E. Class B, C and D inherit from class A and class E inherit from class B.

Practice Programs 2 (Last Date : 8/11/24)

1. Create an inline function in student class to display the sum of two numbers
2. Create a friend class to check if a number is prime or not.
3. Create a friend function to display student details in student class and class containing data members are name, age, department, course.
4. Create a friend class for three classes A, B and C. Create private and protected data members in class A, B and C. Access all the private and protected data with the help of friend class. (Note : in friend class, you can create single function for all classes or separate function for all classes)
5. Create a friend function for three classes A, B and C. Create private and protected data members in class A, B and C. Access all the private and protected data with the help of friend function.
6. Find the sum of two numbers, three numbers and four numbers with the help of function overloading.
7. Find the sum of three numbers with the help of function overriding. Display sum of base class with the help of derived class object and vice versa.
8. Write a program to overload increment operator to increment value of a by 5, decrement operator to decrement value of a by 1, negation operator to change the value of a from -ve to +ve and +ve to -ve using member function and friend function.
9. Write a program to overload + and - operator to find the sum of two numbers using member function and friend function.
10. Write a program to create a template for functions and implement function overloading.
11. Write a program to create a template for classes and implement students' data with name, age, course and department.
12. Write a program to create a template for structures and implement students' data with name, age, course and department.