Lab 1 Date: 22/08/23

**1.1** Write a program to read two numbers and compare the numbers using function call by value and call by address.

**Sample Input:**

Enter two numbers: 50 80

**Sample Output:**

50 is smaller than 80

**Sample Input:**

Enter two numbers: 40 10

**Sample Output:**

40 is greater than 10

**Sample Input:**

Enter two numbers: 50 50

**Sample Output:**

Both numbers are same

**1.2** Write a program to create an array of n elements using dynamic memory allocation. Calculate sum of all the prime elements of the array using function and de-allocate the memory of the array after its use.

**Sample Input:**

Enter size of the array: 5

Enter array elements: 3 9 7 4 8

**Sample Output:**

Sum =10

**1.3** Write a program to create a structure to store the information of n number of Employees. Employee’s information includes data members: Emp-id, Name, Designation, basic\_salary, hra%, da%. Display the information of employees with gross salary. Use array of structure.

| **Sample Input:** | **Sample** **Output:** |
| --- | --- |
| Enter no.of employees: 2  Enter employee 1 information:  Avneesh  Professor  10000  15%  45%  Enter employee 2 information:  Avantika  Professor  20000  10%  35% | Employee Information:  Name: Suchismita  Designation: Professor  Basic Salary:10000  HRA %: 15%  DA %: 45%  Gross Salary: 14500  Name: Sarita  Designation: Professor  Basic Salary: 20000  HRA %: 10%  DA %: 35%  Gross Salary: 29000 |

**1.4** Write a menu driven program to create a structure to represent complex number and perform the following operation using function :

1. addition of two complex number (call by value)

2. multiplication of two complex number (call by address)

**Sample Input/Output:**

Enter complex number 1: 3 4

Enter complex number 2: 4 5

MENU

1. addition

2. multiplication

Enter your choice: 1

Sum=7+9i

Enter your choice: 2

Sum=4+19i