**Netaji Subhash Engineering College**

**Department of Computer Science & Engineering**

**B. Tech CSE 2nd Year 3rd Semester**

**2021-2022**

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**Name of the Course: IT Workshop**

**Course Code: PCC-CS393**

**Name of the Student: Sanjoy Saha**

**Class Roll No.: 3**

**University Roll No.: 10900120003**

**Date of Experiment: 12/10/2021**

**Date of Submission: 15/10/2021**

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* **Assignment No.: 15**

**Problem Statement:** Write a program to check whether a given number is a prime number or not.

**Python Code:**

num = int(input("Enter the number to check prime: "))

if num > 1:

    for i in range(2, int(num/2)+1):

        if (num % i) == 0:

            print(num, "is not a prime number")

            break

    else:

        print(num, "is a prime number")

else:

    print(num, "is not a prime number")

**Sample Output(s):**

**Text

Description automatically generated**

* **Assignment No.: 16**

**Problem Statement:** Write a program to check whether a given number is an Armstrong number or not.

**Python Code:**

num = int(input("Enter a number: "))

sum = 0

temp = num

while temp > 0:

   digit = temp % 10

   sum += digit \*\* 3

   temp //= 10

if num == sum:

   print(num,"is an Armstrong number")

else:

   print(num,"is not an Armstrong number")

**Graphical user interface, text

Description automatically generatedSample Output(s):**

* **Assignment No.: 17**

**Problem Statement:** Write a program to get the LCM of two positive integers.

**Python Code:**

x=int(input("Enter the first number:"))

y=int(input("Enter the second number:"))

if x > y:

       greater = x

else:

    greater = y

while(True):

       if((greater % x == 0) and (greater % y == 0)):

           lcm = greater

           break

       greater += 1

print("The L.C.M.of",x,"and",y,"is", lcm)

**Sample Output(s):**

**Text

Description automatically generated**

**Assignment No.: 18**

**Problem Statement:** 18. Write a program to find the sum of all prime numbers below two thousand.

**Python Code:**

num = int(input("Enter the range: "))

sum=0

for i in range (2,num+1):

    for j in range(2, int(i/2)+1):

        if (i % j) == 0:

            break

    else:

        sum=sum+i;

print("Sum of the prime numbers between 2 and",num,"is=",sum)

**OUTPUT –**

**Text

Description automatically generated**

* **Assignment No.: 19**

**Problem Statement:** Write a program that prompts users to enter numbers. This process repeats until the user enters -1. Finally, the program prints the count of prime and composite numbers entered.

**Python Code:**

p,c = 0,0

while(True):

 num=int(input("Enter a number:"))

 if num==-1:

    break

 else:

    if num > 1:

     for i in range(2, int(num/2)+1):

        if (num % i) == 0:

            c=c+1

            break

     else:

        p=p+1

print("Number of Prime numbers=",p,";Number of Composite numbers=",c)

**Sample Output(s):**

**Text

Description automatically generated**

**Assignment No.: 20**

**Problem Statement:**  Write a program to find the sum of the even-valued terms of the Fibonacci series up to 100.

**Python Code:**

num= int(input("Til which number you want the sum:"))

n1, n2 = 0, 1

sum=0

while n1 < num:

    if (n1%2)==0:

        #print(n1):to print even terms

        sum=sum+n1

    nth = n1 + n2

    n1 = n2

    n2 = nth

print("Sum of the even terms of the fibonacci series upto",num,"is=",sum)

**Sample Output(s):**

**Text

Description automatically generated**

**--------------------END-----------------**