**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: SHUBHRADEEP MAITY**

**Class Roll No.:14**

**University Roll No.:10900120014**

**Date of Experiment:12/11/2021**

**Date of Submission:18/11/2021**

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* **Assignment No.: III**
* **Problem Statement:**
* 15. 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):**

**Enter the number to check prime: 45**

**45 is not a prime number**

**>>>**

**Enter the number to check prime: 11**

**11 is a prime number**

**>>>**

* **Assignment No.: III**
* **Problem Statement:.**
* 16. 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")

* **Sample Output(s):**

**Enter a number: 147**

**147 is not an Armstrong number**

**>>>**

**Enter a number: 370**

**370 is an Armstrong number**

**>>>**

* **Assignment No.: III**
* **Problem Statement:**
* 17. 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):**

**Enter the first number:25**

**Enter the second number:75**

**The L.C.M. of 25 and 75 is 75**

**>>>**

* **Assignment No.: III**
* **Problem Statement:**
* **18. Write a program to swap two numbers using bitwise operators.**
* **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 1 and",num,"is=",sum)**

* **Sample Output(s):**

**Enter the range: 5**

**Sum of the prime numbers between 1 and 5 is= 10**

**>>>**

**Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32**

**Type "help", "copyright", "credits" or "license()" for more information.**

**>>>**

**Enter the range: 10**

**Sum of the prime numbers between 1 and 10 is= 17**

**>>>**

* **Assignment No.: III**
* **Problem Statement:** 19.
* 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):**

**Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32**

**Type "help", "copyright", "credits" or "license()" for more information.**

**>>>**

**Enter a number:12**

**Enter a number:34**

**Enter a number:23**

**Enter a number:5555**

**Enter a number:1**

**Enter a number:-1**

**Number of Prime numbers= 1 ;Number of Composite numbers= 3**

**>>>**

* **Assignment No.: III**
* **Problem Statement** : 20.
* 20. 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):**

**Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32**

**Type "help", "copyright", "credits" or "license()" for more information.**

**>>>**

**Til which number you want the sum:20**

**Sum of the even terms of the fibonacci series upto 20 is= 10**

**>>>**