**EXPT.NO:4 Problems on Control Statements:**

**DATE:11-01-2023**

**Number series**

**1.Write a program to find the sum of series 1+3+5+7..+N.**

SOURCE CODE:

n = int (input (“Enter the range of numbers:”))

sum=0

i=1

while(i<=n):

sum+=i

i+=2

print(“The sum of the series is :”,sum)

OUTPUT:

Enter the range of numbers:19

The sum of the series is : 100

**2.Write a program to find the sum of series 1+2+3+4..+N.**

INPUT

n = int (input ('Enter the range of numbers:'))

sum=0

i=1

while(i<=n):

sum+=i

i+=1

print('the sum of the series is :',sum)

OUT PUT:

Enter the range of numbers:80

the sum of the series is : 3240

**3.** **II. Number Pyramid - Alternate numbers pattern using while loop  
Let’s see how to use the while loop to print the number pattern.**

**SOURCE CODE:**

**rows = 5**

**i = 1**

**while i <= rows:**

**j = 1**

**while j <= i:**

**print((i \* 2 - 1), end=" ")**

**j = j + 1**

**i = i + 1**

**print('')**

**OUTPUT:**

**1**

**3 3**

**5 5 5**

**7 7 7 7**

**9 9 9 9 9**

**III. Pyramid Pattern - Equilateral triangle pattern of star**

**SOURCE CODE:**

**n=20**

**num=int(input("enter number :"))**

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

**print(' '\*n, end=' ')**

**print('\* '\*(i))**

**n-=1**

**OUTPUT:**

**enter number :5**

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**\* \***

**\* \* \***

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**IV. Print all the prime numbers from 1 -50**

**SOURCE CODE:**

**lower\_value = int(input ("Please, Enter the Lowest Range Value: "))**

**upper\_value = int(input ("Please, Enter the Upper Range Value: "))**

**print ("The Prime Numbers in the range are: ")**

**for number in range (lower\_value, upper\_value + 1):**

**if (number > 1):**

**for i in range (2, number):**

**if (number % i) == 0:**

**break**

**else:**

**print (number,end=' ')**

**OUTPUT:**

**Please, Enter the Lowest Range Value: 1**

**Please, Enter the Upper Range Value: 100**

**The Prime Numbers in the range are:**

**2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97**