**Week - 2: Operations**

**1. Print the below triangle using for loop.**

**5**

**4 4**

**3 3 3**

**2 2 2 2**

**1 1 1 1 1**

**Program:**

num=5

for i in range(0,5):

for j in range(0,i+1):

print(num,end=" ")

print("\n")

num=num-1

**output:**

5

4 4

3 3 3

2 2 2 2

1 1 1 1 1

**2. Write a program to check whether the given input is digit or lowercase character**

**or uppercase character or a special character (use 'if-else-if' ladder)**

**Program**:  
a=input("enter any element")

if a.islower():

print("given input is of lower case characters")

elif a.isupper():

print("given input is of upper case characters")

elif a.isalnum():

print("Given input are numbers")

else:

print("special characters")

**output:**

enter any element%^

special characters

**3. Python Program to Print the Fibonacci sequence using while loop**

**Program:**

#fibonacci series

a=int(input("enter the number of elements in fibonacci series"))

l=0

i=0

j=1

k=i+j

for l in range(0,a):

print(i)

i=j

j=k

k=i+j

**output:**

enter the number of elements in fibonacci series 7

0

1

1

2

3

5

8

**4. Python program to print all prime numbers in a given interval (use break)**

**Program:**  
count=0

a=int(input("enter the lowest range"))

b=int(input("enter the upper range"))

for n in range(a,b):

if(n>0):

for j in range(1,n+1):

if(n%j==0):

count=count+1

if(count==2):

print(n," is a prime number")

count=0

else:

break

**output:**

enter the lowest range1

enter the upper range30

2 is a prime number

3 is a prime number

5 is a prime number

7 is a prime number

11 is a prime number

13 is a prime number

1. is a prime number

19 is a prime number

23 is a prime number

29 is a prime number

**5.Write a program to compute LCM of two numbers by taking input from the user**

**Program:**import math as m

num1=int(input(“enter a number”))

num2=int(input(“enter another number”))

HCF=m.gcd(num1,num2)

LCM=int((num1\*num2)/(HCF))

print(“LCM of given numbers :”,LCM)

**output:**

enter a number3

enter another number4

LCM of given numbers : 12

**6.Write a program add.py that takes 2 numbers as command line arguments and**

**prints its sum.**

**Program:**

import sys as s

sum=float(s.argv[1])+float(s.argv[2])

print("sum is:",sum)

**output:**

C:\Users\abhil\OneDrive\Documents\cls.py>py add.py 1 2

Sum is 3