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,en

d=" ")

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):

p

r

i

n

t

(

i

)

i

=

j

j

=

k

k

=

i

+

j

o

u

t

p

u

t

:

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 17 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)/(H
CF)) 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