**BASIC PROGRAMMING ASSIGNMENT\_4-SUBMITTED BY SAMUEL DEVDAS**

1. Write a Python Program to Find the Factorial of a Number?

Ans. integer=int(input('Enter any positive integer:'))

Factorial=1

for i in range(1,integer+1):

Factorial=Factorial\*i

print('The Factorial of',integer, 'is',Factorial)

2. Write a Python Program to Display the multiplication Table?

Ans. integer=int(input('Enter any positive integer:'))

print('The multiplication table (upto 10) of integer is:')

for i in range(11):

print(integer,'\*',i,'=',integer\*i)

3.Write a Python Program to Print the Fibonacci sequence?

Ans. list=[0,1,2]

i=1

while i<18:

fib=list[-1]+list[-2]

list.append(fib)

i+=1

print('The first 20 fibonacci sequence numbers are:')

print(list)

4. Write a Python Program to Check Armstrong Number?

Ans. a=int(input('Enter any positive integer to check if it is an armstrong number:'))

s=str(a)

cube=[]

for i in s:

cube.append((int(i)\*\*len(s)))

if sum(cube)==int(s):

print(a,'is an Armstrong number')

else:

print(a,'is not an Armstrong number')

5. Write a Python Program to Find Armstrong Number in an Interval?

Ans. lower=int(input('Enter any positive integer as lower interval:'))

upper=int(input('Enter any positive integer as upper interval:'))

for a in range(lower,upper):

s=str(a)

cube=[]

for i in s:

cube.append((int(i)\*\*len(s)))

if sum(cube)==int(s):

print(a,'is an Armstrong number')

else:

pass

6. Write a Python Program to Find the Sum of Natural Numbers?

Ans. lower=int(input('Enter any natural number as lower interval:'))

upper=int(input('Enter any natural number as upper interval:'))

natural=list(range(lower,upper+1))

print('The sum of the natural numbers for the interval entered is:',sum(natural))