#### **Programming Assignment\_4**

1. Write a Python Program to Find the Factorial of a Number?
2. Write a Python Program to Display the multiplication Table?
3. Write a Python Program to Print the Fibonacci sequence?
4. Write a Python Program to Check Armstrong Number?
5. Write a Python Program to Find Armstrong Number in an Interval?
6. Write a Python Program to Find the Sum of Natural Numbers?

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

Solution :

**def factorial(num):  
 if num > 0:  
 fact = 1  
 for i in range(1, num+1):  
 fact = fact\*i  
 return fact  
 else:  
 return "Enter positive number"  
   
print(factorial(-5))**

Q 2: Write a Python Program to Display the multiplication Table?

Solution :

**def table(num):  
 for i in range(1, 11):  
 print("{} \* {} = {}".format(num,i,i\*num))  
   
table(15)**

Q 3: Write a Python Program to Print the Fibonacci sequence?

Solution :

**def fib(n):  
 a, b = 0, 1  
 for \_ in range(1, n+1):  
 yield b  
 a, b = b, a + b  
  
for i in fib(15):  
 print(i, end=",")**

Q 4: Write a Python Program to Check Armstrong Number?

Solution :

**def check\_armstrong(num):  
 lis = []  
 s = 0  
 for i in str(num):  
 po = pow(int(i),len(str(num)))  
 lis.append(po)  
 for i in lis:  
 s = s + i  
 if num == s:  
 print(num , "is an Armstrong number")  
 else:  
 print(num , "is NOT an Armstrong number")  
   
check\_armstrong(256)**

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

Solution :

**def check\_armstrong(sNum, eNum):  
 for num in range(sNum, eNum):  
 lis = []  
 s = 0  
 for i in str(num):  
 po = pow(int(i), len(str(num)))  
 lis.append(po)  
 for i in lis:  
 s = s + i  
 if num == s:  
 print(num, "is an Armstrong number")  
 else:  
 print(num, "is NOT an Armstrong number")  
   
check\_armstrong(50, 200)**

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

Solution :

**def Natural\_sum(num):  
 sum = 0  
 for i in range(num+1):  
 sum += i  
 return sum  
   
print(Natural\_sum(55))**