Basic programs in python:-

Addition of two numbers:- Enter first number: 2

Enter second number:3 num1 = int(input("Enter first number: "))  
num2 = int(input("Enter second number: ")) output:-5  
  
sum = num1 + num2  
print(sum)

Even or Odd

num = int(input("Enter a number: ")) Enter a number:5  
if num % 2 == 0:  
 print("It is a even number") It is a odd number  
else:  
 print("It is a odd number")

prime or not:-

num = int(input("Enter a number: "))  
  
if num > 1:  
 Enter a number:9  
 for i in range(2, num):  
 if (num % i) == 0: It is a prime number  
 print(“ it is not a prime number.")  
  
 else:  
 print( " it is a prime number.")

Swapping :-

a = int(input("Enter the first number: "))  
b = int(input("Enter the second number: ")) enter the first number:-4  
temp = a enter the second number:-6  
a = b 6,4  
b = temp  
print(a,b)

reverse of array:-

arr = [1, 2, 3, 4, 5] arr= [1,2,3,4,5]  
rev = arr[::-1] [5,4,3,2,1]  
print( rev)

sum of elements in array

arr = [1, 2, 3, 4, 5]

output:15

sum\_of\_elements = sum(arr)

print(f"The sum of the elements in the array is: {sum\_of\_elements}")

largest element in a array

arr = [10, 20, 4, 45, 99]

largest\_element = max(arr) output:99

print(f"The largest element in the array is: {largest\_element}")

factorial number:-

n=int(input(“ enter the number:- “)) output:3

fact=1 3\*2\*1=6

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

fact=fact\*i

print(“The factorial number is “:n)

fibonacci series:

a=0

b=1 output:0 1 1 2 3 5 8 ………

print(a)

print(b)

for i in range (2,10):

c=a+b

a=b

b=c

print(c)

patterns: \*

for i in range(5): \* \*

for j in range(i+1): \* \* \*

print(“\*”,end="") \* \* \* \*

print() \* \* \* \* \*

prefect number

add=0

n=int(input(“enter the number:”))

for i in range(1,num):

if num%i==0: output :8

add=add+I it is not a perfect number

if num==add:

print(n,it is a prefect number)

else

print(n, it is not a perfect number)

Armstrong number:

num=int(input("enter the number:")) output:-153

sum=0 it is a Armstrong number

temp=num

while temp>0:

digit=temp%10

cube=digit\*\*3

sum=sum +cube

temp//=10

if sum == num:

print("it is a Armstrong number")

else:

print("it is not a Armstrong number")

multiplication tables:-

num = int(input("enter the number:")) for i in range (1,10)  
for i in range(1, num + 1): print(n”\*”i “=”n\*i)  
 for j in range(1, num + 1): or  
 print(i \* j, end=" ")  
 print(" ")

.s='kalyani'  
count = 0  
for i in range(1,100+1):  
 count = count +i  
 print("name:",s)

list

fruits = ["apple", "banana", "cherry", "date"]

del fruits[:]

print(fruits)

def print\_natural\_numbers(n):

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

print(i, end=' ')

num = int(input("Enter the number of natural numbers to print: "))

print(num)

def sum\_of\_natural\_numbers(n):

sum = 0

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

sum += i

return sum

num = int(input("Enter the number of natural numbers to sum: "))

print(f"The sum of the first {num} natural numbers is {sum\_of\_natural\_numbers(num)}")

operations:-

def add(x, y):

return x + y

def subtract(x, y):

return x - y

def multiply(x, y):

return x \* y

def divide(x, y):

if y == 0:

return "Error! Division by zero."

return x / y

num1 = int(input("Enter the first number: "))

num2 = int(input("Enter the second number: "))

operation = input("Choose operation (+, -, \*, /): ")

if operation == '+':

print(f"The result is: {add(num1, num2)}")

elif operation == '-':

print(f"The result is: {subtract(num1, num2)}")

elif operation == '\*':

print(f"The result is: {multiply(num1, num2)}")

elif operation == '/':

print(f"The result is: {divide(num1, num2)}")

else:

print("Invalid operation.")

interest:-

def simple\_interest(principal, rate, time):

return (principal \* rate \* time) / 100

principal = float(input("Enter the principal amount: "))

rate = float(input("Enter the rate of interest: "))

time = float(input("Enter the time period (years): "))

simple\_interest = simple\_interest(principal, rate, time)

print(f"The simple interest is: {simple\_interest}")