**Practical 4**

**Function Scoping**

**#Local Scope**

x=200

def myfunc():

x = 300

print("The local scope value of x:",x)

myfunc()

print("The global scope value of x:",x)Output:

The local scope value of x: 300

The global scope value of x: 200

**# Global Scope**

def demo():

global S

S="You are local but now you are global"

print(S)

S = "You are Global"

demo()

print(S)

**#Recursion**

def factorial(x):

"""This is a recursive function

to find the factorial of an integer"""

if x == 1:

return 1

else:

return (x \* factorial(x-1))

num = 3

print("The factorial of", num, "is", factorial(num))

**Practical 5**

**A] Class:**

c=input("Enter colour of flower")

class flower:

def colour(self,c):

if c=="red":

print("Colour is ",c,"then flower is rose")

elif c=="yellow":

print("Colour is ",c,"then flower is sunflower")

elif c=="white":

print("Colour is ",c,"then flower is lily")

else:

print("Colour not define in database")

C = flower()

C.colour(c)

**B] Constructer:**

class Addition:

first = 0

second = 0

answer = 0

def \_\_init\_\_(self,f,s):

self.first = f

self.second = s

def display(self):

print("First no = " , self.first)

print("Second no = " , self.second)

print("Addition = " , self.answer)

def calculate(self):

self.answer= self.first + self.second

obj = Addition(1000,2000)

obj.calculate()

obj.display()

**C] Inheritance**

class Universal:

def surname(self):

print("We are Indian coder community")

class Parent:

def hair(self):

print("Family have black hair")

class Child(Parent):

def eyes(self):

print("Eyes are dark brown")

class Grandchild(Child,Universal):

def height(self):

print("Height is 5.8")

a = Grandchild()

a.surname()

a.hair()

a.eyes()

a.height()