PRACTICAL: 2

A. Develop a Python program to compute total amount after simple interest and print it. Write a function that assigns default value 0.09 rate of interest, computes the interest and returns total amount. Test the program for keyword arguments also.

- **CODE:**

```
def simpleInterest(P, N, R=0.09):
    SI = (P * N * R) / 100
    return SI


P = float(input("Enter the principal amount: "))
N = float(input("Enter the number of years: "))

SI = simpleInterest(P, N)
print("Simple interest:{}".format(SI))

SI = simpleInterest(R=5, P=1000, N=2)
print("Simple interest using keyword arguments")
print("Simple interest:{}".format(SI))
```

- **OUTPUT:**

```
Enter the principal amount: 20
Enter the number of years: 100
Simple interest:1.8
Simple interest using keyword arguments
Simple interest:100.0
>>>
```

B. Develop a Python program to test scope of the variables. Write function that has same variables as main scope and print all in their scope. Write your observations.

- **CODE:**

```
a = 15


def f():
```

```
    print('Inside f() : ', a) # here a's value not defined in function  so take a's value as a global.


def g():
    a = 10
    print('Inside g() : ', a) # here a's value defined in function so a=2.


def h():
    global a
    a = 5
    print('Inside h() : ', a)  # here also a=3  because it's defined in function.


print('global : ', a)
f()
print('global : ', a)
g()
print('global : ', a)
h()
print('global : ', a)
```

- **OUTPUT:**

```
global :  15
Inside f() :  15
global :  15
Inside g() :  10
global :  15
Inside h() :  5
global :  5
```