Assignment - 2

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Course Code: CSA - 0829

Course Name: Python Programming

Simple Interest:

```
p = int (input ("Enter the Principle amount :"))
n = int (input ("Enter the no. of years :"))
SC = input ("Senior Citizen yes/No :")
Gr = input ("Male / Female :")
if SC == 'Y' and Gr == 'M':
    print ("SI =", (p*n*12)/100)
elif SC == 'Y' and Gr == 'F':
    print ("SI == ", (p*n*15)/100)
else:
    print ("SI =", (p*n*10)/100)
```

Input:

Enter the Principle amount: 10000

Enter the number of years: 2

Senior Citizen yes/No: Y

Male / Female: M

Output:

SI = 2400

2. LCM and GCD:

```
n1 = int(input("Enter First Number: "))
n2 = int(input("Enter Second Number: "))
x = n1
y = n2
while (n2 != 0):
    t = n2
    n2 = n1 % n2
    n1 = t
gcd = n1
print("GCD of {0} and {1} = {2}".format(x, y, gcd))
lcm = (x * y) // gcd
print("LCM of {0} and {1} = {2}".format(x, y, lcm))
```

Input:

Enter First Number: 12

Enter Second Number: 18

Output:

GCD of 12 and 18 = 6

LCM of 12 and 18 = 36

3. Sum of N Natural Numbers:

```
N = int(input("Enter the limit : "))
count = 0
for i in range (1, N+1):
    count += i
print ("Sum of N natural numbers ", count)
```

Input:

Enter the limit : 5

Output:

Sum of N natural numbers 15

4. To find the sum $1^2 + 2^2 + \ldots + N^2$ numbers

```
N = int(input("Enter the limit : "))
count = 0
for i in range (1, N+1):
    count += i*i
print ("Sum of square of N natural numbers ", count)
```

Input:

Enter the limit : 3

Output:

Sum of squares of N natural numbers 14