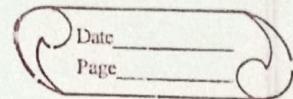


## Experiment No:- 5

(for loop)



- 1 Generate Fibonacci series between 0 to 1000. Then find the sum of even valued terms.
- 2 Write a program that loops over a sequence of ~~2~~ elements of a list, tuple, dictionary and set.
- 3 Write a program that finds the Fahrenheit for given Celsius from the list.
- 4 Write a program to create an empty list and input a group of numbers into the list, remove the duplicate elements from it and then sort them in ascending order and then display.

Answer:-

①

 $a = 0$  $b = 1$  $\text{sum} = 0$ 

print ("Fibonacci series between 0 to 1000 is :- ")

for i in range (1000):

if  $a > 1000$ :

break

print (a, end = ", ")

if  $a - 2 == 0$ : $\text{sum} += a$  $\text{temp} = a$  $a = b$  $b = \text{temp} + b$ 

print ("And the sum of all the even terms is :- ", sum)

Output:-

Fibonacci series between 0 to 1000 is :-

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377,

610, 987;

And the sum of all the even terms is :- 798

2)  $L = [1, 2, 3, 4, 5]$

Print ("Elements in the list are :-")

for i in L:

    Print(i, end=" , ")

t = ("Rajesh Raha", "2YCSEAIML015", "24VG010512")

Print ("In Elements in the tuple are :-")

for i in t:

    Print(i, end=" , ")

d = {"Name": "Rajesh Raha", "Roll no.": "2YCSEAIML015",  
      "Regd no.": "24VG010512"}

Print ("In Elements in the dictionary are :-")

for i in d:

    Print(f" {i} : {d[i]}")

s = {1, 2, 3, 4}

Print ("In Elements in the set are :-")

for i in s:

    Print(i, end=" , ")

Output:-

Elements in the list are:-

1, 2, 3, 4, 5,

Elements in the tuple are:-

Rajesh Rana, 24CSEAIML015, 24UG010572,

Elements in the dictionary are:-

Name : Rajesh Rana

Roll no. : 24CSEAIML015

Regd no. : 24UG010572

Elements in the set are:-

1, 2, 3, 4,

$$3 \quad l = [0, 20, 37, 100]$$

for i in l:

$$f = (i * 9/5) + 32$$

print(f " {i} °C = {f} °F")

Output:-

$$0 \text{ } C = 32.0 \text{ } F$$

$$20 \text{ } C = 68.0 \text{ } F$$

$$37 \text{ } C = 98.6 \text{ } F$$

$$100 \text{ } C = 212.0 \text{ } F$$

4.  $l = [ ]$

$n = \text{int}(\text{input}(\text{"Enter the number of terms to be entered :-"})$   
for  $i$  in range( $n$ ):

$l.append(\text{int}(\text{input}(\text{"Enter } (i+1)\text{th number :-"})))$

$res = \text{sorted}(\text{list}(\text{set}(l)))$

$\text{print}(\text{"After removing the duplicate elements and sorting the list :-"}, res)$

Output:-

Enter the number of terms to be entered :- 5

Enter 1<sup>st</sup> number :- 4

Enter 2<sup>nd</sup> number :- 1

Enter 3<sup>rd</sup> number :- 1

Enter 4<sup>th</sup> number :- 4

Enter 5<sup>th</sup> number :- 2

After removing the duplicate elements and  
sorting the list :-  $[1, 2, 4]$