

5.1.26

Experiment No: 5 (for loop)

PoLY.

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- 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 elements of a list, tuple, dictionary and set.
- 3 write a program that find 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
   sum = 0
   print("Fibonacci series between 0 to 1000 is :- ")
   for i in range(1000):
       if a > 1000:
           break
       print(a, end = ", ")
       if i % 2 == 0:
           sum += a
       temp = a
       a = b
       b = temp + b
   print("\nAnd 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 Rana", "24CSEAIMLO15", "24UG010512")

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

for i in t:

print(i, end=" ", "

d = {"Name": "Rajesh Rana", "Roll no.": "24CSEAIMLO15",
"Regd no.": "24UG010512"}

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, 24CSEAIMLO15, 24UGO10512,

Elements in the dictionary are:-

Name: Rajesh Rana

Roll no.: 24CSEAIMLO15

Regd no.: 24UGO10512

Elements in the set are:-

1, 2, 3, 4,

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

for i in l :

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

print (f "{i} . C = {f} F")

Output:-

0 C = 32.0 F

20 C = 68.0 F

37 C = 98.6 F

100 C = 212.0 F

4. `l = []`

`n = int(input("Enter the number of terms to be entered:"))`
`for i in range(n):`

`l.append(int(input(f"enter {(i+1)}th number:")))`

`res = sorted(list(set(l)))`

`print("After removing the duplicate elements and
 sorting the list: ", res)`

output:-

Enter the number of terms to be entered :- 5

Enter 1st number :- 4

Enter 2th number :- 1

Enter 3th number :- 1

Enter 4th number :- 4

Enter 5th number :- 2

After removing the duplicate elements and

sorting the list :- [1, 2, 4]