5.1.26

PoL4.

Experiment No :- 5
(for loop)

Date
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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 (a % 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", "24CSEAIML015", "24UG010511")
print ("\n\n Elements in the tuple are :-")
for i in t:
    print(i, end=" ")

d = {"Name": "Rajesh Rana", "Roll no.": "24CSEAIML015",
     "Reg no.": "24UG010511"}
print ("\n\n Elements in the dictionary are :-")
for i in d:
    print(f"{i} : {d[i]}")

s = {1, 2, 3, 4}
print ("\n 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 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 1th 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]