SARALA BIRLA PUBLIC SCHOOL

Birla Knowledge City, Mahilong, Ranchi
CLASS-XII (2020-21)

Sub: Computer Science
Assignment-2
TOPIC : PYTHON REVISION TOUR-I

SARALA BIRLA
PUBLIC SCHOOL
(SARALA BIRLA GROUP OF SCHOOLS)

INTERNATIONAL
SCHOOL AWARD
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Q.1   Find the output of the following:-

(a)
```
S = '''One
Two
Three'''
print (len(S))
```

(b)
```
S = "One\
Two\
Three"
print(len(S))
```

(c)
```
L=["Mon","Tue","Wed"]
for i in L:
        i=i+"*"
        print(i,end=":")
        print(L)
```

(d)
```
sum=0
for i in range(10,1,1):
        sum+=a
print(sum)
```

(e)
```
L=[20,18,16,14,10]
for a in range(len(L)):
        if a%2==0:
                L[a]+=3
                print(a)
        else:
                print(L)
```

(f)
```
p="PINEAPPLE"
i='P'
while i in p:
        print(i,end='*')
```

(g)
```
d={(1,2):10,(2,3):20,(3,4):30}
s=0
for i in d:
        s+=d[i]
        c=sum(i)
        print(c,"#",s)
```

Q.2 Answer the following questions:-
a) How is a mutable datatype different from immutable datatype?
b) The else clause can be used both in if statement and loop statement. When is it used in each of those statements?
c) What are escape sequences in python? List few examples.
d) Discuss the use of **break** and **continue** keyword.
e) List the mandatory features for keys of dictionary.
f) What is the difference between pop(), remove(), del() and clear() of list?

Q.3 Programs in Python:-
(a) WAP to enter cost price and selling price of an item and check whether there is profit or loss. Calculate the percent of each and display.
(b) WAP to enter a number and print Fibonacci series up to that term.
(c) WAP to enter a string and count the total number of uppercase, lowercase, digits and special characters from it.
(d) WAP to enter a list of numbers and arrange them in increasing order using Insertion sort method.
(e) WAP to enter a list of words and print the word with maximum length.
(f) WAP to enter a list of words and modify the list in such a way that each element consist only the first and last character.
Ex : L = ["peter", "nayanika", "sourav", "amit"]
Then after program L = ["pr", "na", "sv", "at"]
(g) WAP to enter a nested tuple of numbers and calculate the sum of each nested element. Ex :
T = ((10,15,20), (2,1), (5,3,7))
Then output should be
Sum1 = 45
Sum2 = 3
Sum3 = 15
(h) WAP to enter a dictionary having month name as keys and number of days as its value. Print only those month names where number of days are 31.
(i) WAP to enter a list of words and create a dictionary with those words as keys and the number of vowels it it as key.
Ex : L = ["First", "Second", "Third", "Fourth", "Fifth"]
Then D = {"First": 1, "Second": 2, "Third": 1, "Fourth": 2, "Fifth": 1}

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