

**Class: XII**

**Subject: Computer Science**

**TOPIC : PYTHON REVISION TOUR-I**

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}

