**Part 1**

1) What is the output of the following program?

L = list('123456')

L[0] = L[5] = 0

L[3] = L[-2]

print(L)

a) [0, ‘2’, ‘3’, ‘4’, ‘5’, 0]

b) [‘6’, ‘2’, ‘3’, ‘5’, ‘5’, ‘6’]

c) [‘0’, ‘2’, ‘3’, ‘5’, ‘5’, ‘0’]

d) [0, ‘2’, ‘3’, ‘5’, ‘5’, 0]

2) Which of the options below could possibly be the output of the following program?

L = [3, 1, 2, 4]

T = ('A', 'b', 'c', 'd')

L.sort()

counter = 0

for x in T:

L[counter] += int(x)

counter += 1

break

print(L)

a) [66, 97, 99, 101]  
b) [66, 68, 70, 72]  
c) [66, 67, 68, 69]  
d) ValueError

3) What is the output of the following program :

print '{0:.2}'.format(1.0 / 3)

a)0.3333333

b)0.33

c)0.3333333:-2

d)Error

4) What is the output of the following program :

print '{0:.2%}'.format(1.0 / 3)

a)33.33%

b)0.33

c)0.3333333:-2

d)Error

5) What is the output of the following?

print("Hello {0[0]} and {0[1]}".format(('foo', 'bin')))

a) Hello foo and bin

b) Hello (‘foo’, ‘bin’) and (‘foo’, ‘bin’)

c) Error

d) None of the mentioned

6) What is the output of each of the functions shown below?

{x for x in 'abc'}

{x\*3 for x in 'abc'}

a) {abc}

aaa

bbb

ccc

b) abc

abc abc abc

c) {‘a’, ‘b’, ‘c’}

{‘aaa’, ‘bbb’, ‘ccc’}

d) {‘a’, ‘b’, ‘c’}

abc

abc

abc

7) Which of the following is a possible outcome of the function shown below?

random.randrange(0,91,5)

a) 10

b) 18

c) 79

d) 95

8) What is the output of the following piece of code?

def a(b):

b = b + [5]

c = [1, 2, 3, 4]

a(c)

print(len(c))

a)4

b)5

c)1

d)An exception is thrown

9) What is the output of the following code?

def change(one, \*two):

print(type(two))

change(1,2,3,4)

a)Integer

b)Tuple

c)Dictionary

d)An exception is thrown

10) What is the output of the following code?

def display(b, n):

while n > 0:

print(b,end="")

n=n-1

display('z',3)

a)zzz

b)zz

c)An exception is executed

d)Infinite loop

11) What is the output of the following?

x = 'abcd'

for i in range(len(x)):

i[x].upper()

print (x)

a) abcd

b) ABCD

c) error

d) none of the mentioned

12) What is the output of the following?

x = 'abcd'

for i in range(len(x)):

print(x)

x = 'a'

a) a

b) abcd abcd abcd abcd

c) a a a a

d) none of the mentioned

**Part 2**

1. What is the output of the following?

**for** i **in**range(5):

**if** i ==5:

**break**

**else**:

**print**(i)

**else**:

**print**("Here")

a) 0 1 2 3 4 Here  
b) 0 1 2 3 4 5 Here  
c) 0 1 2 3 4  
d) 1 2 3 4 5

2. What is the output of the following?

string="my name is x"

**for** i **in**string.split():

**print**(i, end=", ")

a) m, y, , n, a, m, e, , i, s, , x,  
b) m, y, , n, a, m, e, , i, s, , x  
c) my, name, is, x,  
d) error

3. What will be the output?

1. veggies =['carrot', 'broccoli', 'potato', 'asparagus']
2. veggies.insert(veggies.index('broccoli'), 'celery')
3. print(veggies)

a) [‘carrot’, ‘celery’, ‘broccoli’, ‘potato’, ‘asparagus’]   
b) [‘carrot’, ‘celery’, ‘potato’, ‘asparagus’]  
c) [‘carrot’, ‘broccoli’, ‘celery’, ‘potato’, ‘asparagus’]  
d) [‘celery’, ‘carrot’, ‘broccoli’, ‘potato’, ‘asparagus’]

4. What is the output of the following snippet of code?

total={}

**def** insert(items):

**if** items **in** total:

        total[items] +=1

**else**:

        total[items]=1

insert('Apple')

insert('Ball')

insert('Apple')

**print**(len(total))

a) 3  
b) 1  
c) 2  
d) 0

5. What is the output of the following snippet of code?

a={}

a['a']=1

a['b']=[2,3,4]

**print**(a)

a) Exception is thrown  
b) {‘b’: [2], ‘a’: 1}  
c) {‘b’: [2], ‘a’: [3]}  
d) {‘b’: [2, 3, 4], ‘a’: 1}

6. What is the output of the below program ?

x =50

def func(x):

   print('x is', x)

   x =2

   print('Changed local x to', x)

func(x)

print('x is now', x)

a) x is now 50  
b) x is now 2  
c) x is now 100  
d) None of the mentioned

7. What is the output of the following code?

**def** foo(i, x=[]):

    x.append(i)

**return** x

**for** i **in**range(3):

**print**(foo(i))

a) [0] [1] [2].  
b) [0] [0, 1] [0, 1, 2].  
c) [1] [2] [3].  
d) [1] [1, 2] [1, 2, 3].

8. What is the optput of the following code?

**Print(type(type))**

a) Error  
b) <class ‘type’>  
c) Operational Error  
d) None of the above

Part 3

**1)** Write a program which takes 2 digits, X,Y as input and generates a 2-dimensional array.

The element value in the i-th row and j-th column of the array should be i\*j.

Note: i=0,1.., X-1; j=0,1,…Y-1.

Example

Suppose the following inputs are given to the program:

3,5

Then, the output of the program should be:

[[0, 0, 0, 0, 0], [0, 1, 2, 3, 4], [0, 2, 4, 6, 8]]

**2)**Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings.

**Sample List:**

['abc', 'xyz', 'aba', '1221']

**Expected Result:**

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