

1)What is the output of the following code?

```
import copy
a=[10,23,56,[78]]
b=copy.deepcopy(a)
a[3][0]=95
a[1]=34
print(b)
```

A.[10,34,56,[95]]

B.[10,23,56,[78]]

C.[10,23,56,[95]]

D.[10,34,56,[78]]

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

```
a=list((45,)*4)
print((45)*4)
print(a)
```

A.180[(45),(45),(45),(45)]

B.(45,45,45,45)[45,45,45,45]

C.180[45,45,45,45]

D.Syntax error

3)What is the output of the code shown below?

```
A = [[1, 2, 3],
      [4, 5, 6],
      [7, 8, 9]]
[A[i][len(A)-1-i] for i in range(len(A))]
```

- A.[1, 5, 9]
- B.[4, 5, 6]
- C.[3, 5, 7]
- D.[2, 5, 8]

4)What is there in list_using_comp?

```
input_list = [1, 2, 3, 4, 4, 5, 6, 7, 7]
```

```
list_using_comp = [var for var in input_list if var % 2 == 0]
```

```
print("Output List using list comprehensions:",list_using_comp)
```

- A.[2, 2, 4, 4]
- B.[4, 4, 4, 6]
- C.[2, 4, 4, 6]
- D.[2, 4, 4, 4]

5)What is there in odd_square?

```
odd_square = [x ** 2 for x in range(1, 11) if x % 2 == 1]
```

```
print odd_square
```

- A.[1, 9, 25, 49, 81]
- B.[11, 9, 25, 4, 81]
- C.[1, 19, 25, 49, 81]
- D.[1, 9, 36, 29, 9]

6)What is there in power_of_2?

```
power_of_2 = [2 ** x for x in range(1, 9)]
```

```
print(power_of_2)
```

- A.[2, 4, 8, 16, 32, 64, 126, 258]
- B.[2, 4, 2, 4, 8, 16, 128, 256]
- C.[2, 4, 8, 16, 2, 4, 8, 16]
- D.[2, 4, 8, 16, 32, 64, 128, 256]

7)What is there in primes?

```
noprimes = [j for i in range(2, 8) for j in range(i*2, 50, i)]
```

```
primes = [x for x in range(2, 50) if x not in noprimes]
```

```
print(primes)
```

A.[2, 3, 5, 7, 13, 15, 21, 19, 23, 29, 31, 37, 41, 43, 47]

B.[2, 3, 5, 7, 11, 13, 7, 19, 23, 29, 33, 37, 42, 43, 47]

C.[2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47]

D.[2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47]

8)What gets printed?

```
names = ['Amir', 'Barry', 'Chales', 'Dao']
```

```
print(names[-1][-1])
```

A.A

A.r

A.Amir

A.Dao

A.o

9)What gets printed?

```
names1 = ['Amir', 'Barry', 'Chales', 'Dao']
```

```
names2 = names1
```

```
names3 = names1[:]
```

```
names2[0] = 'Alice'
```

```
names3[1] = 'Bob'
```

```
sum = 0
```

```
for ls in (names1, names2, names3):
```

```
    if ls[0] == 'Alice':
```

```
        sum += 1
```

```
    if ls[1] == 'Bob':
```

```
        sum += 10
```

```
print(sum)
```

A.11

B.12

C.21

D.22

E.33

10)What gets printed?

```
names1 = ['Amir', 'Barry', 'Chales', 'Dao']
```

```
loc = names1.index("Edward")
```

```
print(loc)
```

A.-1

B.0

C.4

D.Edward

E.An exception is thrown

11)What gets printed?

```
names1 = ['Amir', 'Barry', 'Chales', 'Dao']
```

```
if 'amir' in names1:
```

```
    print(1)
```

```
else:
```

```
    print(2)
```

A.1

B.2

C.An exception is thrown

12)What gets printed?

```
names1 = ['Amir', 'Barry', 'Chales', 'Dao']
```

```
names2 = [name.lower() for name in names1]
```

```
print(names2[2][0])
```

A.i

B.a

C.c

D.C

E.An exception is thrown

13)What gets printed?

```
numbers = [1, 2, 3, 4]
```

```
numbers.append([5,6,7,8])
```

```
print(len(numbers))
```

- A.4
- B.5
- C.8
- D.12
- E.An exception is thrown

14)Which of the following data structures can be used with the "in" operator to check if an item is in the data structure?

- A.list
- B.set
- C.dictionary
- D.All of the above
- E.None of the above

15)What gets printed?

```
list1 = [1, 2, 3, 4]
```

```
list2 = [5, 6, 7, 8]
```

```
print(len(list1 + list2))
```

- A.2
- B.4
- C.5
- D.8
- E.An exception is thrown

16) What gets printed?

```
def addItem(listParam):
```

```
    listParam += [1]
```

```
mylist = [1, 2, 3, 4]
```

```
addItem(mylist)
```

```
print(len(mylist))
```

A.1

B.4

C.5

D.8

E.An exception is thrown

17) What gets printed?

```
my_tuple = (1, 2, 3, 4)
```

```
my_tuple.append( (5, 6, 7) )
```

```
print(len(my_tuple))
```

A.1

B.2

C.5

D.7

E.An exception is thrown

18)What will be the output of the following Python code snippet?

```
k = [print(i) for i in my_string if i not in "aeiou"]
```

a) prints all the vowels in my_string

b) prints all the consonants in my_string

c) prints all characters of my_string that aren't vowels

d) prints only on executing print(k)

19)What is the output of print(k) in the following Python code snippet?

```
k = [print(i) for i in my_string if i not in "aeiou"]  
print(k)
```

- a) all characters of my_string that aren't vowels
- b) a list of Nones
- c) list of Trues
- d) list of Falses

20)What will be the output of the following Python code snippet?

```
my_string = "hello world"  
k = [(i.upper(), len(i)) for i in my_string]  
print(k)
```

- a)[('HELLO', 5), ('WORLD', 5)]
- b)[('H', 1), ('E', 1), ('L', 1), ('L', 1), ('O', 1), (' ', 1), ('W', 1), ('O', 1), ('R', 1), ('L', 1), ('D', 1)]
- c)[('HELLO WORLD', 11)]
- d)none of the mentioned

21)Which of the following is the correct expansion of list_1 = [expr(i) for i in list_0 if func(i)]?

a)

```
list_1 = []
```

```
for i in list_0:
```

```
    if func(i):
```

```
        list_1.append(i)
```


b)

```
for i in list_0:
```

```
    if func(i):
```

```
        list_1.append(expr(i))
```

c)

```
list_1 = []
```

```
for i in list_0:
```

```
    if func(i):
```

```
        list_1.append(expr(i))
```

d) none of the mentioned

22) What will be the output of the following Python code snippet?

```
x = [i**+1 for i in range(3)]; print(x);
```

a) [0, 1, 2]

b) [1, 2, 5]

c) error, **+ is not a valid operator

d) error, ';' is not allowed

23) What will be the output of the following Python code snippet?

```
print([i.lower() for i in "HELLO"])
```

a) ['h', 'e', 'l', 'l', 'o']

b) 'hello'

c) ['hello']

d) hello

24)What will be the output of the following Python code snippet?

```
print([i+j for i in "abc" for j in "def"])
```

- a) ['da', 'ea', 'fa', 'db', 'eb', 'fb', 'dc', 'ec', 'fc']
- b) [['ad', 'bd', 'cd'], ['ae', 'be', 'ce'], ['af', 'bf', 'cf']]
- c) [['da', 'db', 'dc'], ['ea', 'eb', 'ec'], ['fa', 'fb', 'fc']]
- d) ['ad', 'ae', 'af', 'bd', 'be', 'bf', 'cd', 'ce', 'cf']

25)What will be the output of the following Python code snippet?

```
print([[i+j for i in "abc"] for j in "def"])
```

- a) ['da', 'ea', 'fa', 'db', 'eb', 'fb', 'dc', 'ec', 'fc']
- b) [['ad', 'bd', 'cd'], ['ae', 'be', 'ce'], ['af', 'bf', 'cf']]
- c) [['da', 'db', 'dc'], ['ea', 'eb', 'ec'], ['fa', 'fb', 'fc']]
- d) ['ad', 'ae', 'af', 'bd', 'be', 'bf', 'cd', 'ce', 'cf']

26)What will be the output of the following Python code snippet?

```
print([if i%2==0: i; else: i+1; for i in range(4)])
```

- a) [0, 2, 2, 4]
- b) [1, 1, 3, 3]
- c) error
- d) none of the mentioned

27)Which of the following is the same as list(map(lambda x: x**-1, [1, 2, 3]))?

- a)[x**-1 for x in [(1, 2, 3)]]
- b)[1/x for x in [(1, 2, 3)]]
- c)[1/x for x in (1, 2, 3)]
- d)error

28)What will be the output of the following Python code?

```
l=[1,2,3,4,5]
```

```
[x&1 for x in l]
```

a) [1, 1, 1, 1, 1]

b) [1, 0, 1, 0, 1]

c) [1, 0, 0, 0, 0]

d) [0, 1, 0, 1, 0]

29)What will be the output of the following Python code?

```
l1=[1,2,3]
```

```
l2=[4,5,6]
```

```
[x*y for x in l1 for y in l2]
```

a)[4, 8, 12, 5, 10, 15, 6, 12, 18]

b)[4, 10, 18]

c)[4, 5, 6, 8, 10, 12, 12, 15, 18]

d)[18, 12, 6, 15, 10, 5, 12, 8, 4]

30)Write the list comprehension to pick out only negative integers from a given list 'l'.

a)[x<0 in l]

b)[x for x<0 in l]

c)[x in l for x<0]

d)[x for x in l if x<0]

31)What will be the output of the following Python code?

```
s=["pune", "mumbai", "delhi"]
```

```
[(w.upper(), len(w)) for w in s]
```

- a)Error
- b)['PUNE', 4, 'MUMBAI', 6, 'DELHI', 5]
- c)[PUNE, 4, MUMBAI, 6, DELHI, 5]
- d)[('PUNE', 4), ('MUMBAI', 6), ('DELHI', 5)]

32)What will be the output of the following Python code?

```
l1=[2,4,6]
l2=[-2,-4,-6]
for i in zip(l1, l2):
    print(i)
```

- a)
 - 2, -2
 - 4, -4
 - 6, -6
- b)[(2, -2), (4, -4), (6, -6)]
- c)
 - (2, -2)
 - (4, -4)
 - (6, -6)
- d)[-4, -16, -36]

33)What will be the output of the following Python code?

```
l1=[10, 20, 30]
l2=[-10, -20, -30]
l3=[x+y for x, y in zip(l1, l2)]
l3
```

- a)Error
- b)0
- c)[-20, -60, -80]
- d)[0, 0, 0]

34)Write a list comprehension for number and its cube for l=[1, 2, 3, 4, 5, 6, 7, 8, 9].

- a)[x**3 for x in l]
- b)[x^3 for x in l]
- c)[x**3 in l]
- d)[x^3 in l]

35)What will be the output of the following Python code?

```
l=[[1 ,2, 3], [4, 5, 6], [7, 8, 9]]  
[[row[i] for row in l] for i in range(3)]
```

- a)Error
- b)[[1, 4, 7], [2, 5, 8], [3, 6, 9]]
- c)
1 4 7
2 5 8
3 6 9
- d)
(1 4 7)
(2 5 8)
(3 6 9)

36)What will be the output of the following Python code?

```
import math
```

```
[str(round(math.pi)) for i in range (1, 6)]
```

a)['3', '3', '3', '3', '3', '3']

b)['3.1', '3.14', '3.142', '3.1416', '3.14159', '3.141582']

c)['3', '3', '3', '3', '3']

d)['3.1', '3.14', '3.142', '3.1416', '3.14159']

37)What will be the output of the following Python code?

```
l1=[1,2,3]
```

```
l2=[4,5,6]
```

```
l3=[7,8,9]
```

```
for x, y, z in zip(l1, l2, l3):
```

```
    print(x, y, z)
```

a)

1 4 7

2 5 8

3 6 9

b)

(1 4 7)

(2 5 8)

(3 6 9)

c)[(1, 4, 7), (2, 5, 8), (3, 6, 9)]

d)Error

38)What is the output of the following program?

```
str1 = '{2}, {1} and {0}'.format('a', 'b', 'c')
```

```
str2 = '{0}{1}{0}'.format('abra', 'cad')
```

```
print(str1, str2)
```

- a)c, b and a abracad0
- b)a, b and c abracadabra
- c)a, b and c abracadcad
- d)c, b and a abracadabra

39)What is the output of the following program?

```
a = 2
```

```
b = '3.77'
```

```
c = -8
```

```
str1 = '{0:.4f} {0:3d} {2} {1}'.format(a, b, c)
```

```
print(str1)
```

- a)2.0000 2 -8 3.77
- b)2 3.77 -8 3.77
- c)2.000 3 -8 3.77
- d)2.000 2 8 3.77

40)What is the output of the following program?

```
line = "I'll come by then."
```

```
eline = ""
```

```
for i in line:
```

```
    eline += chr(ord(i)+3)
```

```
print(eline)
```

a) L*oo frph e| wkhq1

b) L*oo#frph#e|#wkhq1

c) l*oo@frph@e|\$wkhq1

d) O*oo#Frph#E|#wKhq1