**Section 10.2 List Basics**

10.1 \_\_\_\_\_\_\_\_\_\_ creates a list.

A. list1 = list()

B. list1 = []

C. list1 = list([12, 4, 4])

D. list1 = [12, 4, 4]

E. list1 = [1, "3", "red"]

ABCDE

Answer analysis:ABCDE

10.2 What is list("abcd")?

A. ['a', 'b', 'c', 'd']

B. ['ab']

C. ['cd']

D. ['abcd']

A

Answer analysis:A

10.3 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is len(list1)?

A. 6

B. 7

C. 8

D. 5

E. 4

C

Answer analysis:C

10.4 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is max(list1)?

A. 5

B. 4

C. 8

D. 25

E. 1

D

Answer analysis:D

10.5 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is min(list1)?

A. 5

B. 4

C. 8

D. 25

E. 1

E

Answer analysis:E

10.6 Suppose list1 is [1, 3, 2], what is sum(list1)?

A. 5

B. 4

C. 6

D. 2

E. 1

C

Answer analysis:C

10.7 To shuffle list1, use \_\_\_\_\_\_\_.

A. list1.shuffle()

B. shuffle(list1)

C. random.shuffle(list1)

D. random.shuffleList(list1)

C

Answer analysis:C

10.8 Suppose list1 is [1, 3, 2, 4, 5, 2, 1, 0], Which of the following is correct?

A. print(list1[0])

B. print(list1[:2])

C. print(list1[:-2])

D. print(list1[4:6])

ABCD

Answer analysis:ABCD

10.9 Suppose list1 is [1, 3, 2, 4, 5, 2, 1, 0], What is list1[-1]?

A. 3

B. 5

C. 1

D. 0

D

Answer analysis:D

10.10 Suppose list1 is [1, 3, 2, 4, 5, 2, 1, 0], What is list1[:-1]?

A. 0

B. [1, 3, 2, 4, 5, 2, 1]

C. [1, 3, 2, 4, 5, 2]

D. [1, 3, 2, 4, 5, 2, 1, 0]

B

Answer analysis:B

10.11 Suppose list1 is [1, 3, 2], What is list1 \* 2?

A. [2, 6, 4]

B. [1, 3, 2, 1, 3]

C. [1, 3, 2, 1, 3, 2]

D. [1, 3, 2, 3, 2, 1]

C

Answer analysis:C

10.12 Suppose list1 = [0.5 \* x for x in range(0, 4)], list1 is \_\_\_\_\_\_\_\_

A. [0, 1, 2, 3]

B. [0, 1, 2, 3, 4]

C. [0.0, 0.5, 1.0, 1.5]

D. [0.0, 0.5, 1.0, 1.5, 2.0]

C

Answer analysis:C

10.13 list1 = [11, 2, 23] and list2 = [11, 2, 2], list1 < list2 is \_\_\_\_\_\_\_\_

A. True

B. False

B

Answer analysis:B

10.14 list1 = [11, 2, 23] and list2 = [2, 11, 23], list1 == list2 is \_\_\_\_\_\_\_\_

A. True

B. False

B

Answer analysis:B

10.15 To add 5 to the end of list1, use \_\_\_\_\_\_\_.

A. list1.add(5)

B. list1.append(5)

C. list1.addLast(5)

D. list1.addEnd(5)

B

Answer analysis:B

10.16 To insert 5 to the third position in list1, use \_\_\_\_\_\_\_.

A. list1.insert(3, 5)

B. list1.insert(2, 5)

C. list1.add(3, 5)

D. list1.append(3, 5)

A

Answer analysis:A

10.17 To remove string "red" from list1, use \_\_\_\_\_\_\_.

A. list1.remove("red")

B. list1.remove(red)

C. list1.removeAll("red")

D. list1.removeOne("red")

A

Answer analysis:A

10.18 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1.index(5)?

A. 0

B. 4

C. 1

D. 2

D

Answer analysis:D

10.19 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1.count(5)?

A. 0

B. 4

C. 1

D. 2

D

Answer analysis:D

10.20 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.sort()?

A. [3, 4, 5, 20, 5, 25, 1, 3]

B. [1, 3, 3, 4, 5, 5, 20, 25]

C. [25, 20, 5, 5, 4, 3, 3, 1]

D. [1, 3, 4, 5, 20, 5, 25, 3]

B

Answer analysis:B

10.21 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.reverse()?

A. [3, 4, 5, 20, 5, 25, 1, 3]

B. [1, 3, 3, 4, 5, 5, 20, 25]

C. [25, 20, 5, 5, 4, 3, 3, 1]

D. [1, 3, 4, 5, 20, 5, 25, 3]

E. [3, 1, 25, 5, 20, 5, 4, 3]

E

Answer analysis:E

10.22 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.extend([34, 5])?

A. [3, 4, 5, 20, 5, 25, 1, 3, 34, 5]

B. [1, 3, 3, 4, 5, 5, 20, 25, 34, 5]

C. [25, 20, 5, 5, 4, 3, 3, 1, 34, 5]

D. [1, 3, 4, 5, 20, 5, 25, 3, 34, 5]

E. [3, 1, 25, 5, 20, 5, 4, 3, 34, 5]

A

Answer analysis:A

10.23 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.pop(1)?

A. [3, 4, 5, 20, 5, 25, 1, 3]

B. [1, 3, 3, 4, 5, 5, 20, 25]

C. [3, 5, 20, 5, 25, 1, 3]

D. [1, 3, 4, 5, 20, 5, 25]

E. [3, 1, 25, 5, 20, 5, 4]

C

Answer analysis:C

10.24 Suppose list1 is [3, 4, 5, 20, 5, 25, 1, 3], what is list1 after list1.pop()?

A. [3, 4, 5, 20, 5, 25, 1]

B. [1, 3, 3, 4, 5, 5, 20, 25]

C. [3, 5, 20, 5, 25, 1, 3]

D. [1, 3, 4, 5, 20, 5, 25]

E. [3, 1, 25, 5, 20, 5, 4]

A

Answer analysis:A

10.25 "Welcome to Python".split() is \_\_\_\_\_\_\_\_

A. ["Welcome", "to", "Python"]

B. ("Welcome", "to", "Python")

C. {"Welcome", "to", "Python"}

D. "Welcome", "to", "Python"

A

Answer analysis:A

10.26 What is list("a#b#c#d".split('#')?

A. ['a', 'b', 'c', 'd']

B. ['a b c d']

C. ['a#b#c#d']

D. ['abcd']

A

Answer analysis:A

10.27 What will be displayed by the following code?

myList = [1, 5, 5, 5, 5, 1]

max = myList[0]

indexOfMax = 0

for i in range(1, len(myList)):

if myList[i] > max:

max = myList[i]

indexOfMax = i

print(indexOfMax)

A. 0

B. 1

C. 2

D. 3

E. 4

B

Answer analysis:B

10.28 What will be displayed by the following code?

myList = [1, 2, 3, 4, 5, 6]

for i in range(1, 6):

myList[i - 1] = myList[i]

for i in range(0, 6):

print(myList[i], end = " ")

A. 2 3 4 5 6 1

B. 6 1 2 3 4 5

C. 2 3 4 5 6 6

D. 1 1 2 3 4 5

E. 2 3 4 5 6 1

C

Answer analysis:C

**Section 10.6 Copying Lists**

10.29 What will be displayed by the following code?

list1 = [1, 3]

list2 = list1

list1[0] = 4

print(list2)

A. [1, 3]

B. [4, 3]

C. [1, 4]

D. [1, 3, 4]

B

Answer analysis:B

**Sections 10.7-10.8**

10.30 What will be displayed by the following code?

def f(values):

values[0] = 44

v = [1, 2, 3]

f(v)

print(v)

A. [1, 44]

B. [1, 2, 3, 44]

C. [44, 2, 3]

D. [1, 2, 3]

C

Answer analysis:C

10.31 What will be displayed by the following code?

def f(value, values):

v = 1

values[0] = 44

t = 3

v = [1, 2, 3]

f(t, v)

print(t, v[0])

A. 1 1

B. 1 44

C. 3 1

D. 3 44

D

Answer analysis:D

10.32 What will be displayed by the following code?

def f(i, values = []):

values.append(i)

return values

f(1)

f(2)

v = f(3)

print(v)

A. [1] [2] [3]

B. [1] [1, 2] [1, 2, 3]

C. [1, 2, 3]

D. 1 2 3

C

Answer analysis:C

**Section 10.10 Searching Lists**

10.33 For the binarySearch function in Section 10.10.2, what is low and high after the first iteration of the while loop when invoking binarySearch([1, 4, 6, 8, 10, 15, 20], 11)?

A. low is 0 and high is 6

B. low is 0 and high is 3

C. low is 3 and high is 6

D. low is 4 and high is 6

E. low is 0 and high is 5

D

Answer analysis:D

10.34 If a key is not in the list, the binarySearch function returns \_\_\_\_\_\_\_\_\_.

A. insertion point

B. insertion point - 1

C. -(insertion point + 1)

D. -insertion point

C

Answer analysis:C

10.35 If the binary search function returns -4, where should the key be inserted if you wish to insert the key into the list?

A. at index 3

B. at index 4

C. at index 5

D. at index 6

A

Answer analysis:A

**Section 10.11 Sorting Lists**

10.36 Use the selectionSort function presented in this section to answer this question. Assume lst is [3.1, 3.1, 2.5, 6.4, 2.1], what is the content of list after the first iteration of the outer loop in the function?

A. 3.1, 3.1, 2.5, 6.4, 2.1

B. 2.5, 3.1, 3.1, 6.4, 2.1

C. 2.1, 2.5, 3.1, 3.1, 6.4

D. 3.1, 3.1, 2.5, 2.1, 6.4

E. 2.1, 3.1, 2.5, 6.4, 3.1

E

Answer analysis:E

10.37 Use the selectionSort function presented in this section to answer this question. What is list1 after executing the following statements?

list1 = [3.1, 3.1, 2.5, 6.4]

selectionSort(list1)

A. list1 is 3.1, 3.1, 2.5, 6.4

B. list1 is 2.5 3.1, 3.1, 6.4

C. list1 is 6.4, 3.1, 3.1, 2.5

D. list1 is 3.1, 2.5, 3.1, 6.4

B

Answer analysis:B