

**TEST #** \_\_\_\_\_

**TEST ID - A**

## **A+ Computer Science**

### **Lists TEST**

**Directions ::** On your answer sheet, mark the letter of the best answer to each question. Each question is worth 2 points for a total of 100 points. Write only on your answer sheet or scratch paper. Put your test # and test ID on your answer sheet.

**1. What is output by the code below?**

```
stuff = [34,653,23,876]
print stuff[3]
```

- a. 34
- b. 653
- c. 23
- d. 876
- e. 4

**2. What is output by the code below?**

```
size = [34,22,12,31,9]
print size[len(nums)]
```

- a. 4
- b. 34
- c. 5
- d. 9
- e. There is no output due to a runtime error.

**3. What is output by the code below?**

```
nums = [43,25,11,87,90]
print nums[len(nums)-1]
```

- a. 43
- b. 90
- c. 5
- d. 87
- e. There is no output due to a runtime error.

4. What is output by the code below?

```
nums = [3,2,5,7]
print nums[1]+nums[3]
```

- a. 3
- b. 2
- c. 9
- d. 7
- e. 5

5. What is output by the code below?

```
sen = ["Hi", "my,", "name", "is", "Bob"]
print sen
```

- a. Hi my name is Bob
- b. sen
- c. Bob
- d. Hi
- e. ['Hi', 'my,', 'name', 'is', 'Bob']

6. What is output by the code below?

```
sen = ["Hi", "my,", "name", "is", "Sally"]
print sen[0],sen[4]
```

- a. ['Hi', 'my,', 'name', 'is', 'Bob']
- b. Hi Sally
- c. Sally
- d. Hi
- e. name

7. What is output by the code below?

```
nums = [4,5,7,8,9,5,6,2]
print nums[3/7]
```

- a. there is no output
- b. 0
- c. 4
- d. 2
- e. 8

**8. What is output by the code below?**

```
tup = [3,0,7,8]
print tup[2]
```

- a. 3
- b. 8
- c. 2
- d. 7
- e. 0

**9. What is output by the code below?**

```
com = ["Play", "the", "game"]
com[1]="a"
print com
```

- a. ['Play', 'a', 'game']
- b. Play the game
- c. Play a game
- d. ['Play', 'the', 'game']
- e. There is no output due to a runtime error.

**10. What is output by the code below?**

```
sentence = ["walk", "in", "the", "hall"]
sentence[0]="run"
print sentence
```

- a. ['walk', 'in', 'the', 'hall']
- b. walk in the hall
- c. run in the hall
- d. ['run', 'in', 'the', 'hall']
- e. There is no output due to a runtime error.

**11. What is output by the code below?**

```
sentence = ["Hi", "my,", "name", "is"]
sentence.append("Alyssa")
print sentence
```

- a. ["Hi", "my,", "name", "is", "Alyssa"]
- b. ["Hi", "my,", "name", "is"]
- c. ("Hi", "my,", "name", "is")
- d. ("Hi", "my,", "name", "is", "Alyssa")
- e. There is no output due to a runtime error.

**12. What is output by the code below?**

```
prices = [12.32, 87.99, 13.22, 65.98]
prices.append(34.45)
print prices
```

- a. [12.32, 87.99, 13.22, 65.98]
- b. [34.45, 12.32, 87.99, 13.22, 65.98]
- c. [12.32, 87.99, 13.22, 65.98, 34.45]
- d. 34.45
- e. There is no output due to a runtime error.

**13. What is output by the code below?**

```
something = ["Time", "to", "take", "a", "walk"]
something.append("outside")
print len(something)
```

- a. ["Time", "to", "take", "a", "walk"]
- b. ["Time", "to", "take", "a", "walk", "outside"]
- c. 5
- d. 6
- e. There is no output due to a runtime error.

**14. What is output by the code below?**

```
exercise = ["he", "is", "running"]
exercise.insert(2, "slowly")
print len(exercise)
```

- a. ["he", "is", "running", "slowly"]
- b. ["he", "is", "slowly", "running"]
- c. ["he", "is", "running"]
- d. 3
- e. 4

15. **What is output by the code below?**

```
scores = [45, 23, 54, 22, 35]
scores[3] = 40
scores[0] = 51
print len(scores)
```

- a. 5
- b. 7
- c. [45, 23, 54, 22, 35]
- d. [51, 45, 23, 54, 40, 22, 35]
- e. [51, 23, 54, 40, 35]

16. **What is output by the code below?**

```
measurements = [3,6,3,4,3]
measurements.remove(3)
print measurements
```

- a. [3,6,3,4,3]
- b. [6,3,4,3]
- c. [6,4,3]
- d. [6,4]
- e. There is no output due to a runtime error.

17. **What is output by the code below?**

```
team = ["Kristen", "Manuel", "Alyssa", "Jeff"]
team.remove("Jeff")
print team
```

- a. ["Kristen", "Manuel", "Alyssa", "Jeff"]
- b. ["Kristen", "Manuel", "Alyssa"]
- c. 3
- d. Jeff
- e. There is no output due to a runtime error.

18. **What is the output?**

```
pets = ["cat", "dog", "hamster", "fish"]  
print pets.pop(2)
```

- a. ["cat", "dog", "fish"]
- b. ["cat", "dog", "hamster", "fish"]
- c. 3
- d. hamster
- e. **None of these**

19. **Which of the following List methods can be used to remove an item at a specific index?**

- a. remove()
- b. pop()
- c. append()
- d. insert()
- e. removeItem()

20. **What is the output?**

```
color = ["red", "green", "blue"]  
color.pop(0)  
print color
```

- a. ["red", "green", "blue"]
- b. ["green", "blue"]
- c. "red"
- d. ["red"]
- e. 2

21. **What is the output?**

```
dishes = ["cup", "bowl", "plate", "spoon"]  
dishes.pop(len(dishes))  
print dishes
```

- a. ["cup", "bowl", "plate", "spoon"]
- b. ["cup", "bowl", "plate"]
- c. "spoon"
- d. "cup"
- e. There is no output due to a runtime error.

**22. What is output by the following code?**

```
nums = [3, 2, 4]
for n in range(5,10):
    nums.append(n)
print nums
```

- a. [3, 2, 4, 5, 6, 7, 8, 9]
- b. [3, 2, 4, 5, 6, 7, 8, 9, 10]
- c. [3, 2, 4, 1, 2, 3, 4, 5]
- d. [3, 2, 4, 0, 1, 2, 3, 4]
- e. [3, 2, 4]

**23. What is output by the code below?**

```
nums = [88,22,34]
for n in range(5):
    nums.insert(0,n)
print nums
```

- a. [88, 22, 34]
- b. [4, 3, 2, 1, 0, 88, 22, 34]
- c. [5, 4, 3, 2, 1, 0, 88, 22, 34]
- d. [0, 1, 2, 3, 4, 88, 22, 34]
- e. [88, 22, 34, 4, 3, 2, 1, 0]

**24. What is output by the code below?**

```
nums = [45,72,34]
for n in range(5):
    nums.insert(n,n)
print(nums)
```

- a. [0, 1, 2, 3, 4, 45, 72, 34]
- b. [1, 2, 3, 4, 5, 45, 72, 34]
- c. [45, 72, 34, 0, 1, 2, 3, 4]
- d. [45,72,34]
- e. There is no output due to a runtime error.

**25. What is output by the code below?**

```
letters = ["o","p","q","r"]
for i in range(3):
    letters.append("a")
print letters
```

- a. ['o', 'p', 'q', 'r']
- b. ['a', 'a', 'a', 'o', 'p', 'q', 'r']
- c. ['o', 'p', 'q', 'r', 'a', 'a', 'a']
- d. ['a', 'a', 'a']
- e. ['o', 'a', 'p', 'a', 'q', 'r', 'a']

**26. What is output by the code below?**

```
letters = ["e","f","g","h"]
for i in "cat":
    letters.insert(2, i)
print letters
```

- a. ['e', 'f', 'c', 'a', 't', 'g', 'h']
- b. ['e', 'f', 'g', 'h']
- c. ['t', 'a', 'c']
- d. ['e', 'f', 't', 'a', 'c', 'g', 'h']
- e. ['c', 'a', 't']

**27. What is output by the code below?**

```
nums = [5, 7, 5, 6, 5, 3, 2, 4]
for n in nums:
    if n != 5:
        print n,
```

- a. 7 6 3 2 4
- b. 5 7 5 6 5 3 2 4
- c. 5 5 5
- d. [5, 7, 5, 6, 5, 3, 2, 4]
- e. [7, 6, 3, 2, 4]



28. What is output by the code below?

```
nums = [7, 5, 6, 3, 2, 4]
for n in nums:
    if n > 4:
        print n,
```

- a. [7, 5, 6, 4]
- b. [7, 5, 6]
- c. 7 5 6 4
- d. 7 5 6
- e. 4

29. What is output by the code below?

```
nums = [7, 9, 3, 2, 4]
for n in nums:
    nums.pop(n)
print nums
```

- a. [7, 9, 3, 2, 4]
- b. []
- c. [7, 9]
- d. [3, 2, 4]
- e. There is no output due to a runtime error.

30. What is output by the code below?

```
fruit = ["apples", "bananas", "oranges"]
for i in range(len(fruit)):
    print i, fruit[i]
```

- a. apples  
bananas  
oranges
- b. 0 apples  
1 bananas  
2 oranges
- c. 0  
1  
2
- d. 0 apples 1 bananas 2 oranges
- e. There is no output due to a runtime error.

31. What is output by the code below?

```
mult = []  
for n in range(6):  
    mult.append(n*5)  
print mult
```

- a. [0, 1, 2, 3, 4, 5]
- b. [5, 10, 15, 20, 25, 30]
- c. [0, 5, 10, 15, 20, 25]
- d. [1, 2, 3, 4, 5, 6]
- e. []

32. What is output by the code below?

```
a = [44, 18, 37, 10]  
temp = a[1]  
a[1] = a[3]  
a[3] = temp  
print a
```

- a. [44, 18, 37, 10]
- b. [10, 18, 37, 44]
- c. [44, 10, 37, 18]
- d. [44, 18, 37, 18]
- e. [44, 10, 37, 10]

33. What is output by the code below?

```
a = [23, 13, 15, 8, 3]  
b = [2, 12, 5, 4, 14, 3, 6]  
midA = len(a)/2  
midB = len(b)/2  
print a[midA] + b[midB]
```

- a. 25
- b. 20
- c. 6
- d. 11
- e. 19

**34. What is output by the code below?**

```
x = [23, 65, 11, 93]
y = [44, 18, 37, 10]
z = []
for i in range(len(x)):
    z.append(x[i] + y[i])
print z
```

- a. [23, 65, 11, 93]
- b. []
- c. [44, 18, 37, 10]
- d. [67, 83, 48, 103]
- e. There is no output due to runtime error.

**35. What is output by the code below?**

```
nums = [43, 5, 89, 15, 21]
top = nums[0]
for n in nums:
    if n > top:
        top = n
print top
```

- a. 89
- b. 43
- c. 21
- d. 5
- e. There is no output due to runtime error.

**36. What is output by the code below?**

```
origList = [33, 55, 66, 11, 99]
newList = []
for val in origList:
    newList.insert(0, val)
print newList
```

- a. [33, 55, 66, 11, 99]
- b. []
- c. [33]
- d. [99, 11, 66, 55, 33]
- e. There is no output due to a runtime error.

37. What is output by the code below?

```
nums = [3, 2, 1, 5, 4]
total = 0
x = 0
while x < len(nums):
    total = total + x
    x = x + 1
print total
```

- a. 3
- b. 15
- c. 10
- d. 6
- e. 9

38. What is output by the code below?

```
def indexOf(myList, val):
    for i in range(len(myList)):
        if myList[i] == val:
            return i
    return -1

nums = [4, 5, 6, 1, 2, 5]
print indexOf(nums, 5)
```

- a. -1
- b. 1
- c. 0
- d. 5
- e. 6

39. Which of the following correctly fill `""" code """` in method `everyOther()` ?

# method everyOther should return the list of items with even indices in theList

```
def everyOther(theList):
    myList = []

    for z in range(len(theList)):

        """ code """
        myList.append(theList[z])

    return myList
```

- a. `if( z % 2 == 0):`
- b. `if(theList % 2 == 1):`
- c. `if( theList[z] % 2 == 1):`
- d. `if( theList[z] % 2 == 0):`
- e. `if( z % 2 == 1):`

40. Consider the following incomplete method. The method double should create a new list that doubles all of the values in oldList.

```
def double(oldList):  
    newList = []  
    """ code """  
    return newList
```

Which of the following code segments shown below could be used to replace **""" code """** so that sum will work as intended?

I. 

```
for i in range(len(oldList)):  
    newList.append(oldList[i]*2)
```

II. 

```
for i in range(len(oldList)):  
    newList.append(i*2)
```

III. 

```
for n in oldList:  
    newList.append(n*2)
```

- a. I only
- b. II only
- c. III only
- d. I and II only
- e. I and III only