1. What exactly is []?

The square brackets mean it is a list. [] Is an empty list

2. In a list of values stored in a variable called spam, how would you assign the value 'hello' as the third value? (Assume [2, 4, 6, 8, 10] are in spam.)

Spam=[2,4,6,8,10]

Spam[2]=’Hello’

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

3. What is the value of spam[int(int('3' \* 2) / 11)]?

d

4. What is the value of spam[-1]?

d

5. What is the value of spam[:2]?

[a,b]

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.

6. What is the value of bacon.index('cat')?

1

7. How does bacon.append(99) change the look of the list value in bacon?

[3.14, 'cat,' 11, 'cat,' True,99]

8. How does bacon.remove('cat') change the look of the list in bacon?

[3.14, 11, 'cat,' True,99]

9. What are the list concatenation and list replication operators?

List concatenation: +

List replication: \*

10. What is difference between the list methods append() and insert()?

Append enters a value to the end of the list. With insert we can specify the position where item is to be added

11. What are the two methods for removing items from a list?

Remove(): remove the first element that matches the parameter specified in the bracket

Pop(): remove the first element in th position specified in the bracket

12. Describe how list values and string values are identical.

Both are sequence of values. But string only contains characters while list can contain any value. We can use indexing and slicing operations on both list and strings

13. What's the difference between tuples and lists?

Tuples are immutable and list is mutable

14. How do you type a tuple value that only contains the integer 42?

(42,)

15. How do you get a list value's tuple form? How do you get a tuple value's list form?

If we use function tuple(list\_name) we can get the tuple value

If we use the function list(tuple\_name) we can get the list value

16. Variables that "contain" list values are not necessarily lists themselves. Instead, what do they contain?

The contain address of the memory location of that list.

17. How do you distinguish between copy.copy() and copy.deepcopy()?

In copy.copy() changes to mutable objects will be reflected in original list. While copy.deepcopy() changes to any objects will not be reflected in the original list.

Copy.copy() is a shallow copy while deep.copy is a distinct copy