

1. What exactly is []?

It's 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.)

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

```
spam[2] = 'hello'
```

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

It's 'd'

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

It's the last element of the list, 'd' again.

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. (I guess there's a typo in the request).

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?

+ is used to concatenate two lists.

* n replicates a certain list n times.

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

Append allows us to add an element to the tail of a list.

Insert allows us to add an element to a certain position passed as a parameter.

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

Remove and pop.

The first one removes the element passed as a parameter, the second removes the last element of the list. They play a similar role of insert and append.

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

They are both iterable objects.

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

Tuples are immutable, lists are mutable.

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

`t = (14,)`

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

The question is not very clear to me.

I can get a value out of a tuple the same way as a list: `t[index]`

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

Objects that contain nested list can be either Lists or Dictionaries. Dictionary contains key-values pairs.

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

A shallow copy creates a copy of the object but references each element of the object.

A deep copy creates a copy of the object and the elements of the object.