1.What exactly is []?

* In Python, a list is created by placing elements inside square brackets [] , separated by commas. A list can have any number of items and they may be of different types (integer, float, string, etc.). A list can also have another list as an item

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"

spam

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

* Now the spam is

Spam= [2, 4, 'hello', 8, 10, ['a', 'b', 'c', 'd']]

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

* 8

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

* ['a', 'b', 'c', 'd']

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

* [2, 4]

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

* bacon = [3.14, 'cat', 11, 'cat', True]

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

* 1 (it will take first occurrence)

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?

* The operator for list concatenation is +, while the operator for replication is \*.

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

* The only difference between append () and insert() is that insert function allows us to add a specific element at a specified index of the list unlike append() where we can add the element only at end of the list.

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

* Remove an item by index and get its value:pop()
* Remove an item by value: remove()

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

* The similarity between Lists and Strings in Python is that both are sequences.
* The differences between them are that Lists are mutable, but Strings are immutable. Secondly, elements of a list can be of different types whereas a String only contains characters that are all of String type.

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

* The key difference between the tuples and lists is that while the tuples are immutable objects the lists are mutable.

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

* t=(42)

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

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

tuple(l)

* t = (42,12,4345,54,45)

list(t)

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

* Variables will contain references to list values rather than list values themselves

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

* copy() create reference to original object. If you change copied object - you change the original object.
* deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.