1. What exactly is []?   Empty List, can append values in it.

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] = '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'   # spam[int(int('33')/11)] =spam[3]

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 operator is '+' and list replication operator is ' * '

10. What is difference between the list methods append() and insert()? The append method is used to add element at the end of the list. It takes one argument. Whereas Insert method is used to add element at specific index. It takes two argument(index, value).

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

Remove(element)

Pop(index)

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

Both List and string are ordered sequence of elements and character respectively. Methods like slicing, indexing, len() and iterations can be applied on both.

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

Tuples are immutable while lists are mutable. Due to tuple's immutability, they are memory efficient and faster in performance.

14. How do you type a tuple value that only contains the integer 42? My_tuple = (42,) ____ Without comma it would be interpreted as integer rather than a tuple.

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

We can convert List value into tuple by using tuple() function and we can convert tuple into list by using list() function.

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

They contain the references to the list objects rather than list themselves. They points to the location where list data is stored.

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

copy.copy() creates a shallow copy where changes to copy affect the original list whereas copy.deepcopy() creates a deep copy where changes to copy doesnot affect the original list.