1. What exactly is []?

Ans:- This means 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.)

Ans: - 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)]?

Ans: - ‘d’

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

Ans: - ‘c’

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

Ans: - ['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')?

Ans: - 2

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

Ans: - It adds 99 at the end of the list.

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

Ans: - It removes ‘cat’ at index 1 from the list.

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

Ans: - Concatenation is done by + operator. Concatenation is supported by sequence data types (string, list, tuple). Concatenation is done between the **same data types**only whereas Sequence’s datatypes (both mutable and immutable) support a repetition operator \* The repetition operator \* will make multiple copies of that particular object and combines them together. When \* is used with an integer it performs multiplication but with list, tuple or strings it performs a repetition

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

Ans: - The difference is that with append, we just add a new entry at the end of the list. With insert we can create a new entry exactly in the position you want.

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

Ans: - we can remove an item from list using remove() and pop()

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

Ans: - Lists are similar to strings, which are ordered collections of characters, except that the elements of a list can have any type and for any one list, the items can be of different types

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

Ans: - List is a mutable element whereas tuples is an immutable element. Tuples are stored in round brackets and lists are stored in square brackets

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

Ans: - We can call the index where integer is stored.

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

Ans: - suppose if a tuple is stored in variable t, the we can convert it to list by list(t). If we have stored a list in l then we can convert it to tuple by tuple(l)

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

Ans: - they contain tuples.

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

Ans: - Any changes made to a copy of object do not reflect in the original object this process is called as deepcopy whereas any changes made to a copy of object do reflect in the original object this process is called shallow copy or copy.copy()