1. What exactly is []?

**Answer:** It is a list data type.

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.)

**Answer:** 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)]?

**Answer:** ‘d’

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

**Answer:** ‘d’

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

**Answer:** ['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')?

**Answer:** 1

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

**Answer:** [3.14, 'cat', 11, 'cat', True, 99]

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

**Answer:** It will remove string ‘cat’ from the list.

Updated list will be [3.14, 11, True, 99]

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

**Answer:** + is concatenation operator and \* list replication operator

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

**Answer:** Append: adds a elements at the end of the list as a single element.

Insert: Adds element at particular index position

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

**Answer:** Remove function : It takes ‘value’ as argument to remove particular item from the list.

Pop function : It takes ‘Index’ as argument to remove particular item from the list

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

**Answer:** Both list values and string values are iterable.

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

**Answer:** Lists are mutable whereas Tuples are immutable

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

**Answer:** a = [42]

a = tuple(a)

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

**Answer:**  By type casting

Eg. If List name is L1 & Tuple name is T1

For list to tuple : tuple(L1)

For tuple to list : list(T1)

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

**Answer:** They contain references to list values.

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

**Answer:** The copy() returns a shallow copy of the list, and deepcopy() returns a deep copy of the list. Both return same value but have different IDs.