1. What exactly is []?

It is an empty list. List is an array that contain the data of different data type in a sequential manner and are mutable.

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.

spam = [2,['a', 'b', 'c', 'd'], 4, 6, 8, 10]

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

As per the above list spam, the value would be 6.

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

The value would be 10

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

The value would be [2, ['a', 'b', 'c', 'd']]

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')?

The value is 1

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

It would add value 99 at the end of the list. [3.14, 'cat', 11, 'cat', True, 99]

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

The list would look like : [3.14, 11, 'cat', True, 99]

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

List concatenation operators is “+”and replication operator is “\*”

Concatenation methods are : append(),extend(),insert() and replication methods is copy()

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

Append() add elements at the end of the list and insert() add elements in the specific position in the

list

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

Two methods of removing a elements from a list are pop() and remove()

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

List and string values are in ordered collection from left to right.

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

Lists are mutable and tuples are immutable.

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

It’s not possible to create a tuple with one element in it. However, if we add comma then it would acts as a tuple. Ex : a =(42,)

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

**Converting a list value in tuple form**

j = (1,2,3,4,5)

jj = list(j)

jj

**Converting tuple values in list form**

k = [1,2,3,4,5]

kk = tuple(k)

kk

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

Variables that has values stored list values in “ “ are string .

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

The copy.copy () creates a copy of the collection and it references to the actual object that original copy references to . Any changes done to this copy also affect the original copy

The copy.deepcopy() creates a copy of the collection along with copy of actual objects. Any changes done to this copy does not affect the original copy.