1. What exactly is []?

Ans: [] represents 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'

output:

[2, 4, 'hello', 8, 10]

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:

spam = ['a', 'b', 'c', 'd']

spam[int(int('3' \* 2) / 11)]

'd'

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

Ans: 'd'

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: 1

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

Ans: [3.14, 'cat', 11, 'cat', True, 99]

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

Ans: [3.14, 11, 'cat', True, 99]

removes the cat in the index 1 as it comes first

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

Ans: For List concatenation we use '+' operator for List Replicaiton we use '\*' operator

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

Ans: By append we can add a value at last position of the list values

By using insert method we can define index position and the corresponding value.

bacon.insert(1, "jp")

o/p:

[3.14, 'jp', 11, 'cat', True, 99]

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

Ans: remove, clear, del

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

Ans: List ant string are sequence means they will come out as they were put in such as sequential order

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

Ans:

Tuples are immutable objects(values cant be changed) whereas Lists are mutable objects(Values can be changed)

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

Ans:

a=(42,)

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

Ans:by using the tuple fuction on list dataset and by using list function on tuple data set

tuple() and list()

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

Variables are constant elements.. it holds what ever it sends, if we pass list to a variable it will be reference of that list.

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

copy.copy() is a shallow copy, which creates a new object but hold the reference of the old/parent object so in the nested items if we change any value in the nested list it will reflect in old and new items/objects.

deepcopy() is a deep copy here a new object is created with all the nested information so when we change any item in the old nested object it will not reflect in the new object