**1. What exactly is []?**

This is the symbol for list data type. It is the 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.)**

spam[2] = 'hello'

Answer will be [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)]? -** ‘d’

**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')?**

Though Cat is occurring twice in the list, index function will provide index of first occurrence, so the answer is 1.

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

After appending 99 to the list, list will look like below

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

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

After removing Cat from the list the list will look like below

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

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

List concentration is the addition of the 2 lists which results in a next list object whereas List replication is multiplying the list which results in multiple copies of that same object and combines them together.

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

Append() method will insert the given data at the end of the list whereas insert() will insert the data at the specified index.

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

remove(value) and pop(index) are the 2 methods to remove an item from the list.

In remove(value), it will remove the first occurrence of the given value whereas in pop(index) it removes value at the given index.

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

Strings and List, both are sequences. Lists length is number of items in the list whereas strings value is number of characters in the string. Every character in a string as well as every item in a list has a position which is known as an index

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

Tuples are immutable whereas lists are mutable. Tuple is denoted by () while lists are denoted by []. List Iteration is slower while tuple iteration is faster. List occupies more memory than tuple.

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

(42,)

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

if l is list, then we can convert it into tuple by writing tuple(l). if t is tuple, then we can convert it into list by writing list(t).

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

string, integer, floating point number.

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

copy.copy() does not create any copied object rather changes the original object but copy.deepcopy() creates a copied object and makes changes in copied object, original object remains same as it is.