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

**Ans.**[] is an empty list.

1. **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.**

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

**Ans.** ‘d’

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

**Ans.** ‘d’

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

**Ans.** ‘a’ and ‘b’

**Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.**

1. **What is the value of bacon.index('cat')?**

**Ans.** 1

1. **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]

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

**Ans.T**he operator for list concatenation is +, while the operator for replication is \*

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

**Ans.** The only difference between append() and insert() is that insert function allows us to add a specific element at a specified index of the list unlike append() where we can add the element only at end of the list.

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

**Ans.**The methods are remove(), pop() .

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

**Ans.**A string is a sequence of characters between single or double quotes. A list is a sequence of items, where each item could be anything (an integer, a float, a string, etc).

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

**Ans.**List is mutable whereas Tuple is immutable.

Tuples are written using parentheses, ( and ), while lists use the square brackets, [ and ].

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

**Ans**.(42,)

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

**Ans.** one can pass the entire list as a parameter within the tuple() function, and it will return the tuple data type as an output. Similarly one can use the list() function to convert tuple to list.

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

**Ans.**Variables will contain references to list values rather than list values themselves. But for strings and integer values, variables simply contain the string or integer value.

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

**Ans.**copy() create reference to original object. If you change copied object - you change the original object. . deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.