1. What exactly is []?

**Ans**: It is used for representing a 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, 4, 6, 8, 10]

spam.insert(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)]?

**Ans**: '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.

**I think there is mistake in list at index1 and 3, comma should be after value, so assuming comma is after index1,index3 and I have answered next 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]

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

**Ans**:

List concatenation is used to concat the two or more lists into a single list using ‘+’ operator.

**Ex**: list1 = [‘a’,’b’,’c’]

list1 + list1

List Replication is used to repeat/replicate the same list into a multiple times(by multiplying with integer) using ‘\*’ operator.

Ex: list1 = [‘a’,’b’,’c’]

list1\*2

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

**Ans**:

append() : it will add value at the end of the list – requires one parameter

insert() : it will insert the value into list based on specified location - requires two parameters

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

**Ans**: remove() and pop().

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

**Ans**: list and string values are ordered collections of elements.

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

**Ans**: lists are mutable and tuples are immutable.

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

**Ans:** adding comma after 42 value

tup = (42,)

print(tup)

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

**Ans**:

li = ['a','b','c']

tu = ('d','e','f')

print(tuple(li)) # list values in tuple form

print(list(tu)) # tuple values in list form

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

**Ans**: they can have strings, tuples, int, float, complex values..

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

**Ans:**

copy.copy() – changes made in the copy list will also effect the change in original list

copy.deepcopy() - changes made in the copy list will not effect the change in original list