1. What exactly is []?

Ans => it’s a blank 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]

b = 'hello'

spam.append(b)

print(spam)

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.

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 => it will append 99 to last in list [3.14, 'cat', 11, 'cat', True,99]

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

Ans => it will remove cat string from list [3.14, 11, 'cat', True]

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

Ans => + and += are the concatenation operators and \* and \*= are replication operators.

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

Ans => if we want to add any value to the end of list we use append method and if we want to add any value to specific index then insert method will be used.

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

Ans => 1) a.remove(‘elementvalue’) 2) pop method can be used with providing index.

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

Ans => list values and string values are not identical as list will contain any kind of datatype but string contains only bunch of characters in it.

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

Ans => tuple is denoted by a = (‘1,2’) list is denoted by a=[1,2] we can manipulate value inside list but we cannot manipulate value inside tuple.

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

Ans => a = tuple([42])

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

Ans =>1) list to tuple

a = [1, 2, 3, 4]

print(tuple(a))

2)tuple to list

t = ('1', '2', '3', '4')

print(list(t))

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

Ans => variables will contain reference for that values means some kind of address.

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

Ans => copy.copy means shallow copy will not create any copy of nested objects it will just copy the references of nested objects but copy.deepcopy will copy all the nested objects.