1. What exactly is []?

    - An Empty List used to Store any kind of data and perform required operations

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.)

   Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

    - Spam[2]=’hello’

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

    - 8

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

    - 10

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

    - 2, 4

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')?

    - 1

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

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

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

    - [3.14, 11, ’cat’, True]

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

    - Concatenation operator → +

      Replicartion operator → *

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

- append() is used to insert any value at the end of the list

  insert() is used to insert any value at any location based on the index of the list as follows – insert(values, index)

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

- del()

  remove()

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

- The similarity between Lists and Strings in Python is that both are sequences.

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

- tuples are immutable whereas lists are mutable.

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?

- List value's tuple form -- list(tuple)

  tuple value's list form -- tuple(list)

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

- 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()?

- copy.copy() – importing copy() from copy module

  Used for shallow copy

  any changes made to a copy of object do reflect in the original object

  Copy.deepcopy() -- importing deepcopy() from copy module

  Used for deep copy

  any changes made to a copy of object does not reflect in the original object