1. What exactly is []?

They are called as square brackets . Using them we can store the list data

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’

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)]?

Answer is d

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

Answer is d

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

Answer is [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')?

Answer is 1 because python always return the output when it sees for the very first time which means it considers the first occurrence

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?

Again the same python always considers the first occurrence it saw .So here it removes the first cat which is present at the index 1

[3.14,11,’cat’,True]

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

Concatenation can be done by using the + operator and replication can be done by using the \* operator

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

Append function will helps us to add the required element at the end of the list

Insert operator will helps us to insert an object at a particular index .

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

We have two kind of methods to remove the element from a list

One is using the remove() function and other is the Pop() function

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

Few common properties are

we can calculate the length of the string and length of list. We can iterate over the list and string easily and access the element with an index which ever is needed. We can append the elements to the list and concatenate characters to a string.

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

Main difference is Tuples cannot be modified(immutable) but Lists can be edited (mutable)

In python the best practice is whenever we transfer the data across the modules /packages /into the DB we always use the tuples

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

a=(42)

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

Tuple([1,2,3,4])-🡪converts the list to tuple

list((1,2,3,4))🡪converts the tuple into List

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

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

In python we have two types of copy one is shallow copy and other is deep copy

Shallow copy is just sharing the references

Deep copy is like creating a new object, populate it with parent object data