1. What exactly is []?

[] this is empty list in python programming

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"

Output-> [2,4,'hello',8,10]

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)]?

'd'

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

'd'

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

['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')?

O/p -> 1

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

O/P-> [3.14,'cat',11,'cat',True,99]

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

O/P->. [3.14,11,'cat',True,99]

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

List Concatenation operator (+) and list replication operator(\*)

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

list.append()-> add the value elements at the end of the list

list.insert()-> add the value elements at the specificied index

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

del() and remove() this two methods is used for removing items from a list

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

Strings can only consist of characters, while lists can contain any data type. We cannot easily make a list into a string, but we can make a string into a list of characters, simply by using the list() function.

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

Tuples is immutable it's cannot be changed a value but list is mutable it's can be change the value.

List are perform insert , change the value of index, remove operation in functions but tuples have two for functions count and index.

Tuples represents paranthesis () but list represents []

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 values to tuple form -> function tuple()

Tuple values to list form-> function list()

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

"Contain" is reference to list values.

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

The copy.copy() function will do a shallow copy of a list, while the copy.deepcopy() function will do a deep copy of a list.