1. What exactly is []?

Ans:- It [] is use for index operator to access an item in a list. In Python, indices start at 0. So, a list having 5 elements will have an index from 0 to 4.

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[3]='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.

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:- The \* operator replicates the elements in the list

The + operator concatenate the elements in the list

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

Ans:- The only difference between append() and insert() is that insert function allows us to add a specific element at a specified index of the list unlike append() where we can add the element only at end of the list.

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

Ans:- The methods are remove(), pop() and clear(). It helps to remove the very first given element matching from the list. The pop() method removes an element from the list based on the index given. The clear() method will remove all the elements present in the list.

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

Ans:- A list is a sequential collection of Python data values, where each value is identified by an index. ... Lists are similar to strings, which are ordered collections of characters, except that the elements of a list can have any type and for any one list, the items can be of different types.

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

Ans:- One of the most important differences between list and tuple is that list is mutable, whereas a tuple is immutable. This means that lists can be changed, and tuples cannot be changed. ... Because tuples are immutable, they cannot be copied.

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

Ans:- a=(42,)

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

Ans:- Using tuple(list\_name) . Typecasting to tuple can be done by simply using tuple(list\_name).

Python list method list() takes sequence types and converts them to lists. This is used to convert a given tuple into list

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

Ans:-

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

Ans:-copy() create reference to original object. If you change copied object - you change the original object. . deepcopy() creates new object and does real copying of original object to new one