1. What exactly is []?

Ans🡺 TO create and use lists in pytjon

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.insert(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)]?

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🡺 bacon= [3.14, 'cat', 11, 'cat', True, 99]

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

Ans🡺 bacon= [3.14, 11, 'cat', True, 99]

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

The concatenation and repetition operators are supported only by sequence datatypes except for when a range object is present. Both concatenation and repetition always result in a new object.

Concatenation is done only between the same datatypes, and the difference between the concatenating list and the extend method is that concatenation results in a new list object where extend() will update the original list.

Repetition can also be performed by using a repeat() method and this will return an iterator. Set and dictionary data types also supported in repeat() function.

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

Ams🡺

append() - appends a single element to the list.

extend() - appends elements of an iterable to the list.

insert() - inserts a single item at a given position of the list.

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

remove() It helps to remove the very first given element matching from the list.

pop() The pop() method removes an element from the list based on the index given.

clear() The clear() method will remove all the elements present in the list.

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

Ans🡺 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🡺The literal syntax of tuples is shown by parentheses () whereas the literal syntax of lists is shown by square brackets [] .

Lists has variable length, tuple has fixed length.

List has mutable nature, tuple has immutable nature.

List has more functionality than the tuple.

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

Ans🡺 tupleMy = (45) print(tupleMy)

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

tuple(l)

list(t)

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

Ans🡺 They can contain other data like string , int , complex no etc

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

Ans🡺 deepcopy() copies original object recursively, while . copy() create a reference object to first-level data of original object