

1. What exactly is []?

Ans : This is a empty list with no items in it.

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.

Ans : value assigning → spam[2] = 'hello'

```
Spam = [2, 4, 6, 8, 10]
Spam [2] = 'hello'
Print (spam)
Output: [2, 4, 'hello', 8, 10]
```

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

```
spam = ['a', 'b', 'c', 'd']
spam[int(int('3' * 2) / 11)]
```

'd'

Ans :

Answer → 'd'

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

Ans : output is → 'd'

```
spam[-1]
```

'd'

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

Ans : Value of spam[:2] is → ['a','b']

```
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')`?

Ans : Input of bacon ➔

```
|: bacon = [3.14, 'cat', 11, 'cat', True]
```

Output:

```
|: bacon.index('cat')
```

```
] : 1
```

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

Ans :

```
bacon.append(99)  
bacon
```

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

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

Answer :

```
bacon.remove('cat')
```

```
bacon
```

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

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

Ans: the operators for list concatenation is '+' and list replication is '\*'.

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

Ans: list methods append() function append a value at last of the list whereas insert function is used to insert the value at the specific position of the list.

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

Ans: The del statement and the remove () list method are two ways to remove values from a list.

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

Ans: Both lists and strings can be passed to len( ), have indexes and slices, be used in for loops, be concatenated or replicated, and be used with the in and not in operators.

String length is the number of characters in the string and list length is the number of items in the list.

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

Ans : Lists are mutable, they can have values added, removed, or changed. Tuples are immutable; they cannot be changed at all. Also, tuples are written using parentheses ( ) and while lists use the square brackets [ ].

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

Ans : output : (42)

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

Ans : we get a list values from tuple form by **list()** function , and get a tuple values from list form by **tuple()** function.

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

Ans :Variables that contains **references to list values**.

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

Ans: 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. That is, only `copy.deepcopy()` will duplicate any lists inside the list.