

1. What exactly is []?

ANS:- This is the symbol used for making a list ,since nothing is there in that it is an empty list.

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[2]="hello"
print(spam)
```

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' as 33/11
3
spam[3]

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]

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

ANS:- The list concatenation operator is + and list replication operator is * .

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

ANS:- The main difference is append() will add the values at the end only while insert() can add the value anywhere in the list.

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

ANS:- The del() and remove() are two ways of removing items from a list.

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

ANS:- they are identical in way because both list and string can be passed to len() , have indexes and slices , and be used in for loops, concatenated or replicated .

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

ANS:- lists are mutable and tuples are immutable and lists are written using [] square brackets and tuples are written using () parentheses.

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

ANS:- tuple = (42,)

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

ANS:- we can get a list value's tuple and tuple value's list form by using tuple() function and list() function.

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

ANS:- they contain reference to list values.

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

ANS:- the function `copy.copy()` will do a shallow copy of a list, while the function `copy.deepcopy()` will do a deep copy of a list i.e `copy.deepcopy()` will duplicate any list inside the list.