1. What exactly is []?

Ans :- The empty list value, which is a list value that contains no items. This is similar to how '' is the empty string value.

1. 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]=”hello”

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

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

Ans:-‘b’

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

Ans:-‘b’

1. 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.

1. What is the value of bacon.index('cat')?

Ans:1

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

Ans: [3.14, 'cat', 11, 'cat', True, 99]

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

Ans:- [3.14, 11, 'cat', True]

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

Ans: The **operator for list concatenation is +, while the operator for replication is \***

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

Ans:-In append we can add element in last position of list and insert we can add where we want .

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

Ans:- Using the remove() method.

* Using the list object's pop() method.
* Using the del operator

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

Ans:-The values that make up a list are called **its elements**. 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. ... As we said above, the elements of a list don't have to be the same type

1. 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. So, some operations can work on lists, but not on tuples

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

Ans (42,)

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

Ans:-Using map() we can get list value of tuple form Python **list method list() takes sequence types and converts them to lists**

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

Ans:- Variables will contain **references** to list values rather than list values themselves. But for strings and integer values, variables simply contain the string or integer value. Python uses references whenever variables must store values of mutable data types, such as lists or dictionaries

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

Ans:- A shallow copy constructs a new compound object and then (to the extent possible) inserts references into it to the objects found in the original. A **deep copy constructs a new compound object and then, recursively**, inserts copies into it of the objects found in the original