1. What exactly is []?

answer:-It indicates 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.)

answer:-spam[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)]?

answer:-the value is d

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

answer:-d

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

answer:-[‘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')?

answer:-The first occurrence of the value is at index 1

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

answer:- The append function will add an element at end of the list -[3.14, 'cat', 11, 'cat', True, 99]

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

answer:-It will remove the first occurrence of the element mentioned- [3.14, 11, 'cat', True, 99]

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

answer:-list concatenation will make use of “+” and adds elements of one list are added at the end of another list .

list replication operators(\*) it will make multiple copies of the same list combined with and integer for number of copies

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

answer:-append method will add an element at the end of the list

insert method can insert the element at any given position, insert(position, value)

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

answers:-remove() and pop()

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

answers:-list values can contain any type of data, string values can only contain character values

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

answers:-The values in tuples cannot be changed where the values of list can be deleted,updated and they are mutable

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

answers:-x=tuple("42")

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

answers:-converting list into tuples ,by doing tuple(list\_name)

converting tuples into list ,by doing list(tuple\_name)

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

answers:-the variables is indexed with each element

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

answers:-copy.copy() is used as a refrence of the original element and does not creates any new object, where as copy.deepcopy() is to copy all the element from the original object and creates a new object