1. What exactly is []?

**Ans: It indicates the list literal and it is used for declaring the list in the program.**

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") OR 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)]?

**Ans: ‘3’\*2 is the string which gives ‘33’ and it is passed to int() then it is divided by 11 gives 3 so spam[3] will be the output ie d**

**So the answer is d**

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

**Ans: It gives the last number as the output so the value is d**

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

**Ans: It will give the values till the index 2 , so the values will be a b c.**

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: The value is 1 since it will return the index of ‘cat’.**

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

**Ans: The value 99 will be added to the list bacon after the last index.**

**Finally => [3.14, 'cat', 11, 'cat', True, 99]**

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

**Ans: The first string ‘cat’ will be removed from the bacon list and the other ‘cat’ will remain .**

**Finally=> [3.14, 11, 'cat', True]**

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

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

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

**Ans: append() is used for adding the elements at the end of the list while insert() is used for inserting the elements at a specific index.**

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

**Ans: By using the remove() and pop() functions we can remove items from the list.**

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

**Ans: Both list and string values will have indexes ,both have lengths.**

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

**Ans: The main difference between tuples and lists are, lists are mutable and tuples are immutable, that is the elements in the tuples cannot be changed but the elements in the lists can be changed.**

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

**Ans:(42,) so here comma is mandatory for tuples with only one element.**

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

**Ans: We are having the functions to get list values in tuple form and tuple values in list form they are tuple() and list()**

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.**

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

**Ans: copy.copy() create reference to original object. If you change a copied object - you change the original object. . copy.deepcopy() creates a new object and does real copying of the original object to the new one.**