1. What exactly 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.)

**spam[2]=’hello’ This will replace 6 with ‘hello’ – [2, 4, ‘hello’, 8, 10]**

**spam.insert(2, ‘hello’) This will insert ‘hello’ between 4 and 6 - [2, 4, ‘hello’, 6, 8, 10]**

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)]? **‘d’**

4. What is the value of spam[-1]? **‘d’**

5. What is the value of spam[:2]? **[‘a’, ’b’]**

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions. **NOTE -** **Corrected the list to [3.14, 'cat', 11, 'cat', True]**

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

7. How does bacon.append(99) change the look of the list value in bacon? **[3.14, 'cat', 11, 'cat', True, 99]**

8. How does bacon.remove('cat') change the look of the list in bacon? **[3.14, 11, 'cat', True, 99]**

9. What are the list concatenation and list replication operators? **‘+’ operator for list concatenation, ‘=’ for list replication**

**For ex. a = [1,2,3]**

**b=a**

10. What is difference between the list methods append() and insert()? **append() adds the values at the end of the list and insert() adds the value at the desired location using index**

11. What are the two methods for removing items from a list? **pop() – Removes an item by index and get its value, remove() – Remove an item by value, clear() – remove all the items from the list**

12. Describe how list values and string values are identical. **Both are sequences**

13. What's the difference between tuples and lists? **Tuples are immutable and lists are mutable**

14. How do you type a tuple value that only contains the integer 42? **t = (42,)**

15. How do you get a list value's tuple form? How do you get a tuple value's list form? **Using zip() we can get a list value’s tuple form – list(zip(l1, l2))**

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

17. How do you distinguish between copy.copy() and copy.deepcopy()? **copy() create reference to original object. If you change copied object - you change the original object. deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.**