1. What exactly is []?

**ANS : It is called list. They store multiple values in a single variable. They are ordered and the order will not be changed. They are mutable and can contain duplicates and contain values of any datatypes**

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] = ‘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: Hello**

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, 'cat' ,11, True, 99]**

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

**ANS:**

**1. List1 + List2**

**2. for I in list2:**

**List1.append(list2)**

**3. List Comprehension**

**4. list1.extend(list2)**

**5. new\_list = [\*list1. \*list2]**

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

**ANS:**

**Append() will add a new element in the end of a list**

**Insert() will add an element at a mentioned position**

**List1.insert(2,’element’)**

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

**ANS:**

1. **list.remove(‘elementname’)**
2. **list.pop(element index)**
3. **del list1[index or startindex:end index]**

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

**ANS : Lists and string values are sequences. Lists are ordered collection of characters, except that the elements can be of any type**

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

**ANS: Tuples are immutable, but lists are mutable**

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

**ANS: tu = (42)**

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

**ANS:**

**List value’s tuple form : ([2],[2])**

**Tuple values’s list form : [(one),(two)]**

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

**ANS: Variables that contain lists will only store a reference of the list and not the list values**

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

**ANS: 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.**