**1. What exactly is []?**

A) in python, list is used to store values separated by commas and they are enclosed in square brackets []

**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.)**

A) before inserting: [2,4,6,8,10]

Inserting string ‘hello’ in 3rd position we use ***Spam.insert(3,‘hello’)***  then final list contains [2,4,6,hello,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)]?**

A) lets deep dive into this expression by using BODMAS Rule.

* At first values inside int(‘3’\*2) will be evaluated first (spam[int(**int('3' \* 2)** / 11)] )and then it will returns 33.
* Then this 33 will be divided with 11 ( spam[**int(33 / 11)]** ) and it will return 3
* Then final result will be **spam[3]** which eventually returns ‘**d’**

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

A) d

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

A) 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')?**

A) index of ‘cat’ will be 1

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

A) this will add 99 to the list. Final list will be

[3.14,’cat’,11,’cat’,True,99]

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

A) this will remove cat variable from the list and after removing the updated list will be

[3.14,11,’cat’,True,99]

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

A) operator for list concatenation is **+** and for replication we use **\***

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

A) append() is used to add new variable to end of the list but insert() is used to add new variable to our desired position in the list

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

A) remove() and pop() are used to remove items from the list. Where remove is used to delete items from first index and pop() is used to remove items from last index

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

A) list contain only identical values and string contains only string literals. In this scenario both are identical with homogenuies value.

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

A)list and tuples both are used to store data items in python. List data items are enclosed in square braces [] and tuples data items are enclosed in rounded braces( ) and in both, data items are separated each other by commas. List are mutable and tuples are immutable

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

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

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

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

A) Basically copying is done by two ways

* Shallow copy (copy.copy())
* Deep copy (copy.deepcopy())

In 1st method, only duplicated references will be created rather than creating another physical allocation of storage in memory hence changes made to child copy(shadow copy) will reflect master copy whereas in 2nd method there will be another new master copy hence changes made to child copy will not reflect to master copy as there are stored in different storage containeers.