1. What exactly is []?

Answer: it’s a list. Data inserted between [] separated by comma will be treated as list elements.

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.insert(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: spam[int(int('3' \* 2) / 11)] ---🡪 spam[3] --🡪 ‘d’

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

Answer: spam[-1] is ‘d’

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

Answer: spam[:2] is [‘a’,’b’]

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

Note: there is a syntax error in the above given list. I considered the corrected input list to answer below.!!

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

Answer: bacon.index(‘cat’) is 1

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

Answer: append function will add elements at the end of list. Input list changes to [3.14,’cat’,11,’cat’, Ture , 99]

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

Answer: remove function removes the input value at its first occurrence from the list.

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

Answer: List concatenation operator is **+**  and list replication operator is **\*.**

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

Answer: append(input) will add input elements at end of the list.

Insert(i, input) will add input elements at the defined index position(i).

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

Answer: pop() and remove() methods used to remove values from list.

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

Answer: List and Strings both are sequences of characters and iterative but list accept values of other data types as well where as string is sequence of character enclosed b/w quotes only.

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

Answer: Tuples are immutable (once defined can’t change) where as lists are mutable.

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

Answer: tuple([42])

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

Answer: lis=tuple(list\_varible\_name)

tup=list(tuplr\_varible\_name)

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

Answer: List values can be tuples , dictionary, Boolean type , integer ,float, string type values separated by comma.

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

Answer: copy.copy() copies the references of variable.

copy.deepcopy() copies the values created a new independent variable.