Assignment 4
Solutions

1)
[] is an empty list.

2)
spam[2] = “hello”

3)
spam[int(int(‘3’*2)/11)] = spam[3] = ‘d’

4)
spam[-1] = d

5)
spam[:2] will give [‘a’,’b’]

6)
1

7)
bacon will become [3.14, 'cat', 11, 'cat', True, 99]

8)
bacon will become [3.14, 11, 'cat', True]

9)
+ is used as the list concatenation operator and * is used as the list replication operator

10)

The method append() adds the element to the last of the list but with the insert() method, we can pass the index value where we want the new element to be inserted

11)

We can remove items from the list using del statement or remove() method

12)

Lists and strings are identical in many ways as given below:

a) Both allow indexing
b) Both are iterable so can be used in for loops
c) in and not operator can be used with both lists and strings
d) Both can be concatenated
e) Both can be replicated

13)

The main difference between lists and tuples is that lists are mutable but tuples are immutable. Hence, changes can be made to lists but not to tuples.

14)

To make a tuple to contain single value 42, we write t = (42,)

15)

We can use tuple() method to get the tuple form of a list and list() method for vice-versa

16)

These variables contain reference to the list values

17)

The difference between copy.copy() and copy.deepcopy() is that copy.copy() returns a shallow copy(constructs a new compound object and then inserts references into it to the objects found in the original) of the list while copy.deepcopy() returns a deepcopy(constructs a new compound object and then, recursively, inserts copies into it of the objects found in the original) of the list.