Question 1:

(a)

List: It is data structure used to stored items.

Reasons for using it;

Easy to access items using indexes.

It is versatile. This means it can be used to implement other data structures like queues, stacks and linked lists.

Lists can contain different types of data such as integers, strings, decimal, Booleans hence its flexibility.

The size of lists is dynamic depending on the number of items one can enter and remove from the list.

(b)

maxSum is the first value of the list by index.

The algorithms correctness is determined at the if statement if the condition maxSum is less than sumz which results in maxSum being equal to sumz.

(c)

The for loop iterates through the list by use of indexes declared as variable i in a range from 0 up to the length of the list being used.

The variable sumz acts as the initial index starting from 0. When in the loop, it is added with the indexed value from the list starting from index 0 to get the new sumz.

(d)

If the new sumz value is less than 0, then sumz is reset to 0 and if else maxSum is less than sumz, then max sum is equal to sumz which will be added as sumz in the next loop.

(e)

**OBJECTIVES:**

1: append()

2: my\_list.append(‘x’, 0)

3: [111, 7, 2, 1, 4]

4: my\_list.copy()

5: my\_list.remove(0)

6: Creates a new list l2 with the same content as l1

7: ‘apple’ not in fruits.

8: [1, 2]

9: my\_list[-2:]

10: True