1a)

list1=[**'I'**,**'S'**,**'T'**,**'E'**]  
list2=list1  
list2[0]=**'1'**print(list1)

output: [‘1’,’S’,’T’,’E’]

here, when we say list1=list2,we are not copying the elements of list1 into list2.list 1 and list2 have the same address. Hence any changes made to list2 results in changes made to list one.

list1=list1+[]  
list2[1]=2  
print(list1)

output: [‘1’,’S’,’T’,’E’]

when we use = operator we are creating a new list1 and this is not the same address as before and hence changes in list2 cannot affect it .

list1+=[]  
list2[1]=2  
print(list1)

output=[‘1’,’2’,’T’,’E’]

when we use += operator we are not creating a new list but the list remains same. Hence any changes made to list2 will affect list1.