CPS721 A2 Question 1

d) [apple, Z, bee | [Z, car, door]]

= [apple, Z, bee, Z, car, door]

= [apple, Z | [bee, Z, car, door]

= [apple, Z | [bee, Z | [car, door]]

= [apple, Z | [bee, Z | [car | [door]]]

[X | [bee, Y | [Q | R]]]

X = apple, Y = Z, Q = car, R = door

∴ cannot be made identical. there are two occurences of Y = Z in the first list, but only one occurence in the second list.

e) [z | [Z | [[Z | [[z]]]]]] and [b | Y]

= [z | [Z | [[Z, [z]]]]]

= [z | [Z, [Z, [z]]]]

= [z, Z, [Z, [z]]]

= [b, b, [b, [b]]]

z Z, [Z, [z]]]

z = b

∴ can be made identical when Z = b and Y = b, [b, [b]]]

f) [U | [W | [U]]] and [the, quick, brown, fox, W]

= [the | [quick | [brown]]]

= [the | [quick, brown, fox, W]]

= [the | [quick | [brown, fox, W]]]

quick

U = the, W = quick, U = brown

∴ cannot be made identical. The first list only accepts 3 elements while the second accepts 5 elements.