You have 15 minutes to complete this quiz. Please put away your books, notes, and all electronic devices.

1. Suppose that the list $L$ equals $[100, \text{"ok", "is"}], 1000, [1, 2], [[[1, 2], [2, 3]], 1000]$. Write down the value of $L$ after each of these Python statements. For each problem start with the (same) value of $L$ given above.

(a) $L$.extend($L[1]$)

(b) $L$.remove(1000)

(c) $L$.append(2*$L$.count(1000))

(d) $L[L$.index([1, 2])] = $L[0]$

(e) $L[4][1][1] = L[len(L)-1]$

Turn page over
2. Write a function that takes a list L of floating point numbers and replaces each number in the list by the average of itself and its two neighbors. For example, element L[2] would be replaced by (L[1] + L[2] + L[3])/3. Note that L[0] has no neighbor on the “left” and would be replaced by (L[0] + L[1])/2. Similarly, if the length of L is n then the last element, namely L[n-1], has no neighbor on the “right” and would be replaced by (L[n-2] + L[n-1])/2.

The function does not return anything and it should just modify L in-place.