

Sample Solutions to Quiz #2

1. (10) See Figure 1.

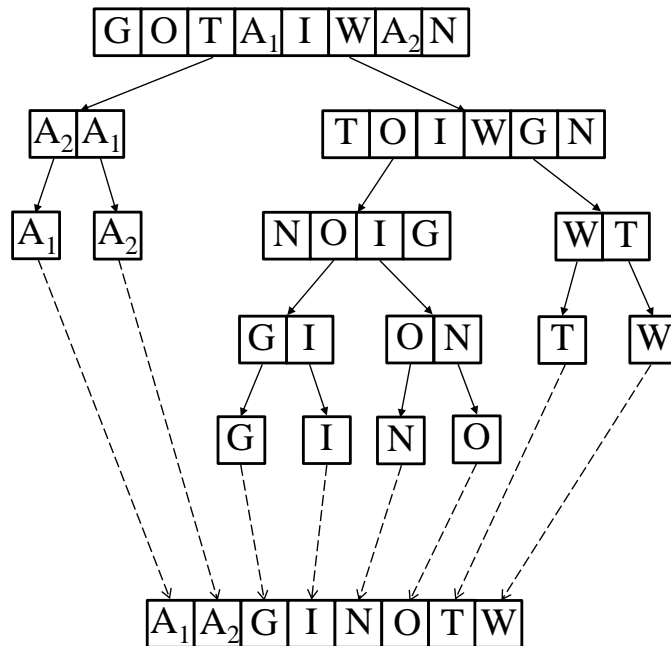


Figure 1: The solution to Problem 1.

2. (15)

- (a) (5) See Figure 2(a).
 (b) (5) See Figure 2(b).
 (c) (5) See Figure 2(c).

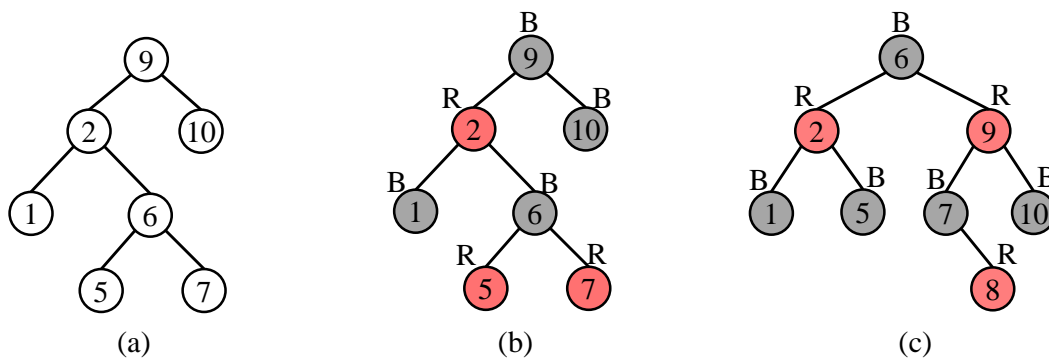


Figure 2: The results for Problem 2.

3. (15)

- (a) (10) Figure 3 shows the resulting table. The LCS is $\langle A, A, N \rangle$.
- (b) (5) We can simply begin at the bottom-right entry and trace through the table by following the arrows. The LCS can be obtained in reverse order by adding the character where the corresponding entry is labelled “ \nwarrow ”.

<i>j</i>	0	1	2	3	4	5	6
<i>i</i>	<i>y_j</i>	<i>T</i>	<i>A</i>	<i>I</i>	<i>W</i>	<i>A</i>	<i>N</i>
0	<i>x_i</i>	0	0	0	0	0	0
1	<i>J</i>	0	0	0	0	0	0
2	<i>A</i>	0	0	1	1	1	1
3	<i>P</i>	0	0	1	1	1	1
4	<i>A</i>	0	0	1	1	2	2
5	<i>N</i>	0	0	1	1	2	3

Figure 3: The table for Problem 3(a).