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You submitted this quiz on **Sat 1 Aug 2015 12:02 AM PDT**. You got a score of **10.00** out of **10.00**.

Question 1

There is a unique longest common subsequence of the strings CTCGAT and TACGTC. What is it?

You entered:

TCGT

Your Answer		Score	Explanation
TCGT	✔	1.00	
Total		1.00 / 1.00	

Question 2

True or False: **GreedyChange** solves the Change Problem (i.e., finds a minimum number of coins making change) for every choice of coin denominations.

Your Answer		Score	Explanation
○ True			
◉ False	✔	1.00	
Total		1.00 / 1.00	

Question 3

Imagine a hypothetical world in which there are two amino acids, X and Z, having respective masses 2 and 3. How many **linear** peptides can be formed from these amino acids having mass equal to 22? (Remember that the order of amino acids matters.)

You entered:

200

Your Answer		Score	Explanation
200	✔	2.00	
Total		2.00 / 2.00	

Question 4

True or False: Not all recursive algorithms are inefficient.

Your Answer		Score	Explanation
⦿ True	✔	1.00	
○ False			
Total		1.00 / 1.00	

Question 5

Consider the following adjacency list of a DAG:

```
a -> b: 5
a -> c: 6
a -> d: 5
b -> c: 2
b -> f: 4
c -> e: 4
c -> f: 3
c -> g: 5
d -> e: 6
d -> f: 8
e -> g: 2
```

```
f -> g: 1
```

What is the longest path in this graph? Give your answer as a sequence of nodes separated by spaces. (Note: a, b, c, d, e, f, g is a topological order for this graph.)

You entered:

```
a d f g
```

Your Answer		Score	Explanation
a	✔	0.50	
d	✔	0.50	
f	✔	0.50	
g	✔	0.50	
Total		2.00 / 2.00	

Question 6

Here is the adjacency list of a graph with six nodes and ten edges:

```
a -> b, c, d, e, f
b -> c, f
c -> d
d ->
e -> d, f
f ->
```

Which of the following are topological orderings of the nodes in this graph? (Select all that apply.)

Your Answer		Score	Explanation
☑ a, e, b, c, d, f	✔	0.33	
☑ a, b, c, e, d, f	✔	0.33	
☑ a, e, b, c, f, d	✔	0.33	
☐ a, b, c, d, e, f	✔	0.33	

☐ a, c, b, e, f, d	✔	0.33
☐ a, e, b, f, d, c	✔	0.33
Total		2.00 / 2.00

Question 7

True or False: The dynamic programming algorithm we introduced for finding a longest path in a DAG has runtime proportional to the number of nodes in the graph.

Your Answer		Score	Explanation
◯ True			
⦿ False	✔	1.00	
Total		1.00 / 1.00	