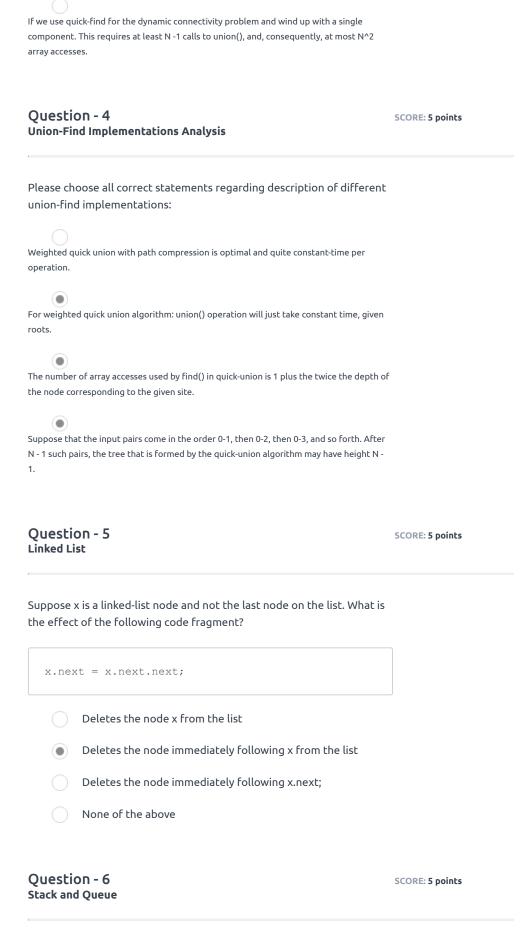
INFO6205_Fall2019_Sectio...

Question - 1 Weighted Quick Union 1	SCORE: 5 points
In the "Weighted Quick Union" algorithm, we link the root of the smalle tree to the root of larger tree at every union operation. In the worst case, for N elements, what's the maximum depth of all leaves? [The depth of a single node is 0]	er
○ N	
sqrt(N)	
lgN+1	
lgN	
Question - 2 Weighted Quick Union_1	SCORE: 5 points
How many array accesses at most for the weighted quick-union algorithm to process M connections among N sites? [Ignore the coefficient and the depth of a single node is 0]	
M*lgN	
M * lgN + N	
M * (lgN + 1)	
Question - 3 Quick Find Vs. Quick Union	SCORE: 5 points
Choose all the correct statements regarding the quick-find and quick-union algorithms:	
The wide field place the set leads were No. 2 construction of the set of the	
The quick-find algorithm at least uses N + 3 array accesses for each call to union() operation on N objects.	
The tree formed in quick-find is flat while the tree formed in quick-union can get tall.	
We can guarantee it that using quick-union for dynamic connectivity problem is	

substantially faster than using quick-find in every case.





Suppose that you have empty two data structures: a stack and a queue. Items can be pushed on to the stack and, at any time, the item on the top of the stack may be popped and enqueued into the queue.

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	f e d c b a							
	bcafed							
	dcefba							
•	c a b d e f							
Question Array vs.	on - 7 Linked List						SCORE: 5 points	
	the following when compar			bout a Lii	nked List	data		
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performa	nce.							
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