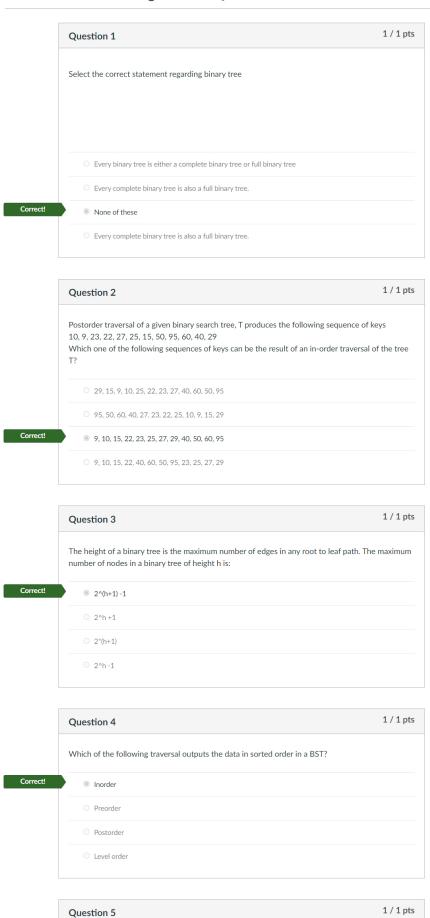
Data Structures and Algorithms- Quiz 4



If we are inserting the numbers 7, 5, 1, 8, 3, 6, 0, 9, 4, 2 in that order into an initially empty binary search tree. What is the in-order traversal sequence of the resultant tree?

Correct!	@ 0123456789
	0 9864230157
	O 7510324689
	0 0243165987

Question 6	1 / 1 pts	
The following numbers are inserted into an empty binary search tree in the given order: 10, 1, 3, 5, 15, 12, 16. What is the height of the binary search tree (the height is the maximum distance of a leaf node from the root)?		
● 3		
O 5		
O 4		
O 2		
	The following numbers are inserted into an empty binary search tree in the given order: 15, 12, 16. What is the height of the binary search tree (the height is the maximum distribution and the root)? 3 5 4	

	Question 7	1 / 1 pts
	The preorder traversal of a binary search tree is 30, 20, 10, 15, 25, 23, 39, 35, 42. What postorder traversal sequence of the same tree?	is the
	0 15, 20, 10, 23, 25, 42, 35, 39, 30	
	0 10, 20, 15, 23, 25, 35, 42, 39, 30	
	0 15, 10, 25, 23, 20, 42, 35, 39, 30	
Correct!	\$\text{0}\$ 15, 10, 23, 25, 20, 35, 42, 39, 30	

Question 8

Consider a node P in a Binary Tree. Given that P has two children, let Q be Inorder successor of P. Which of the following is true about Q?

None of these

Q has no left child

Q has both children

Q has no right child

Question 9

1/1 pts

What are the conditions for an optimal binary search tree and what is its advantage?

You should know the frequency of access of the keys, improves the lookup time

The tree can be modified and you should know the number of elements in the tree before hand, it improves the deletion time

The tree should be just modified and improves the lookup time

Correct!

The tree should not be modified and you should know how often the keys are accessed, it improves the lookup cost

	Question 10	1 / 1 pts
	What is the speciality about an inorder traversal of a binary search tree?	
	It traverses in a random fashion	
	It traverses based on priority of the node	
Correct!	It traverses in an increasing order	
	It traverses in a non increasing order	