

CS-301 Final Term Exams Preparation Virtual University

Sr	Questions	Answers Choice
1	Suppose we are sorting an array of eight integers using quick sort ,and we have just finished the first partitioning with the array looking like this 2 5 1 7 9 12 11 10 Which statement is correct?	A. The pivot could be either the 7 or the 9. B. The pivot could be the 7, but it is not the 9. C. The pivot is not the 7, but it could be the 9 D. Neither the 7 nor the 9 is the pivot.
2	We can build a heap in _____ time.	A. Linear B. Exponential C. Polynomial D. None of the above
3	Consider a min heap, represented by the following array: 3,4,6,7,5 After calling the function deleteMin().Which of the following is the updated min heap?	A. 4,6,7,5 B. 6,7,5,4 C. 4,5,6,7 D. 4,6,5,7
4	Which of the following statement is NOT true about threaded binary tree?	A. Right thread of the right-most node points to the dummy node B. Left thread of the left-most node points to the dummy node. C. The left pointer of dummy node points to the root node of the tree D. Left thread of the right-most node points to the dummy node.
5	By using _____ we avoid the recursive method of traversing a Tree, which makes use of stacks and consumes a lot of memory and time.	A. Binary tree only B. Threaded binary tree C. Heap data structure D. Huffman encoding
6	Which of the following statement is correct?	A. A Threaded Binary Tree is a binary tree in which every node that does not have a left child has a THREAD (in actual sense, a link) to its INORDER successor. B. A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its PREORDER successor. C. A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its INORDER successor. D. A Threaded Binary Tree is a binary tree in which every node that does not have a right child has a THREAD (in actual sense, a link) to its POSTORDER successor.
7	Binary Search is an algorithm of searching, used with the _____ data	A. Sorted B. Unsorted C. Heterogeneous D. Random
8	Which of the following is NOT a correct statement about Table ADT.	A. In a table, the type of information in columns may be different. yes B. A table consists of several columns, known as entities. C. The row of a table is called a record. D. A major use of table is in databases where we build and use tables for keeping information.
9	Which one of the following is NOT the property of equivalence relation	A. Reflexive B. Symmetric C. Transitive D. Associative
10	Suppose you implement a heap (with the largest element on top) in an array. Consider the different arrays below, determine the one that cannot possibly be a heap:	A. 7 6 5 4 3 2 1 B. 7 3 6 2 1 4 5 C. 7 6 4 3 5 2 1

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C. 7 8 4 3 5 2 1
D. 7 3 6 4 2 5 1