Review Test Submission: Week 07 Quiz

User	Dong Gao
Subject	Algorithms and Complexity
Test	Week 07 Quiz
Started	20/04/16 7:19 PM
Submitted	20/04/16 7:19 PM
Due Date	27/04/16 11:59 PM
Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	0 minute
Instructions	You should attempt the quiz after the lecture and your tutorial. • The quiz is available for a period of 10 days. • You may attempt the quiz multiple times (if you happen to get a question wrong, you can do it again) • Your score on the quiz will be recorded in the grade book. The score is not used when determining your final mark in this subject • The quiz might not display equations correctly in some browsers. If you experience problems, we recommend that you use Firefox. **Note:** you must complete at least eight of the weekly quizzes to meet one of the hurdle requirements in this subject
Results Displayed	All Answers, Submitted Answers, Feedback, Incorrectly Answered Questions

Question 1

1 out of 1 points

What is the postorder traversal sequence for a binary tree whose preorder traversal sequence is A, B, C, D, E, F, G, H, I and whose inorder sequence is C, B, E, D, F, A, G, I, H ?

Selected Answer: e. None of the above

Answers:

a. C, E, F, D, B, H, I, G, A

b. C, E, F, D, B, H, G, I, A

c. C, E, F, B, D, I, H, G, A

d. C, E, F, B, D, H, I, G, A

e. None of the above

Response Feedback: That's correct. In fact the postorder sequence is C, E, F, D, B, I, H, G, A.

Question 2

1 out of 1 points

A complete binary tree containing 100 nodes has height 6, that is, a longest path from the root to a leaf has length 6.

How many of its nodes are at the maximal distance from the root?

Selected Answer: 37

Response Feedback: Yes, too easy!

Question 3

1 out of 1 points

We wish to turn an array into a max-heap, using the bottom-up heap construction algorithm. From the outset, the array contains 0 1 2 3 4 5 6 7 8 9. When the algorithm terminates, the array contains

Selected Answer: c. 9 8 6 7 4 5 2 0 3 1

Answers:
a. 9 8 5 6 7 1 4 0 3 2
b. 9 8 5 6 7 2 4 0 3 1
c. 9 8 6 7 4 5 2 0 3 1
d. 9 8 6 4 7 5 2 0 3 1
e. 9 8 6 7 5 4 2 0 3 1

Response Feedback: Yes, well done.

Question 4

1 out of 1 points

Each line below gives the contents of an array that represents a complete binary tree. Identify all the cases in which that binary tree is a max-heap.

Selected Answers: a. 9 8 2 5 7 1 0 4 3 6
c. 9 8 6 5 7 1 4 3 2 0
d. 9 8 6 4 7 1 0 3 2 5
e. 9 8 7 6 5 4 3 2 1 0

Answers: a. 9 8 2 5 7 1 0 4 3 6

b. 9 8 6 5 4 7 3 2 1 0

c. 9 8 6 5 7 1 4 3 2 0

d. 9 8 6 4 7 1 0 3 2 5

e. 9 8 7 6 5 4 3 2 1 0

Response Feedback: Yes, indeed. All but one.

Saturday, 4 June 2016 11:16:11 PM EST

← OK