Review Test Submission: Week 09 Quiz

User	Dong Gao
Subject	Algorithms and Complexity
Test	Week 09 Quiz
Started	11/05/16 1:12 AM
Submitted	11/05/16 1:13 AM
Due Date	11/05/16 11:59 PM
Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	1 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

If a binary tree is both a max-heap and an AVL tree, what is its largest possible number of nodes, assuming all keys are different?

Selected Answer: 2

Response Feedback: That's right. Too easy.

Question 2

1 out of 1 points

A 2-3 tree is constructed by inserting, into an initially empty tree, the following keys, in the given order:

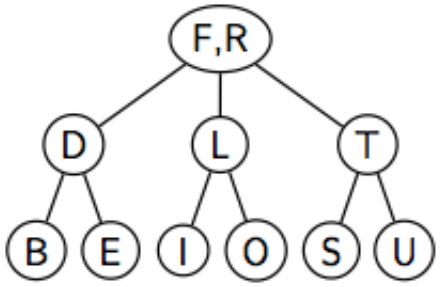
F, O, R, E, S, T, B, U, I, L, D

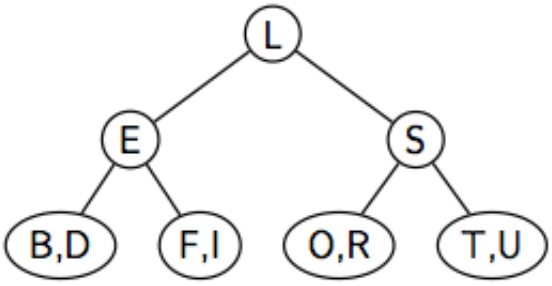
Click on the resulting 2-3 tree:

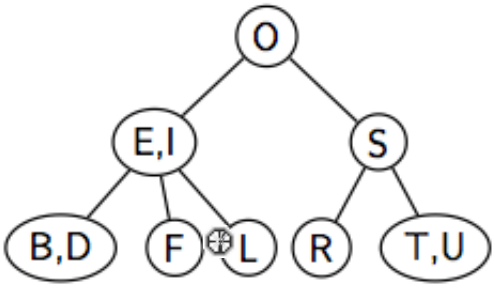
Selected Answer: 122, 316

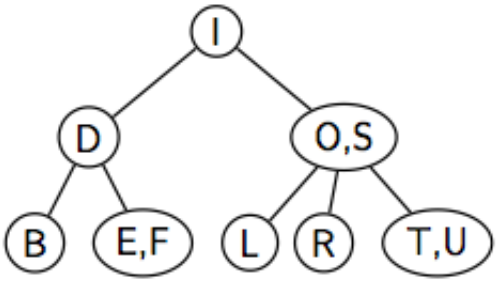
Answers:

Student Response







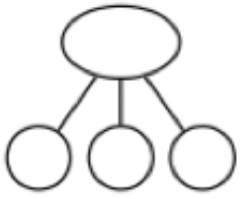


Response Feedback: Yes, an excellent choice.

Question 3

1 out of 1 points

A 2-3 tree has the shape shown here, and it contains the keys 1-5. Which of the following sequences (giving the order in which the keys are inserted) could have generated that shape? (There could be more than one.)



Selected Answers: a. 1, 2, 3, 4, 5

c. 1, 4, 2, 3, 5

d. 4, 3, 5, 2, 1

Answers:

a. 1, 2, 3, 4, 5

b. 1, 3, 5, 2, 4

c. 1, 4, 2, 3, 5

d. 4, 3, 5, 2, 1

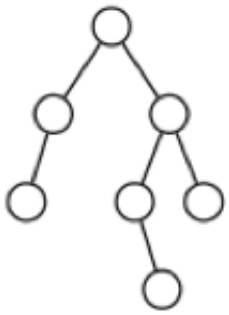
e. 5, 2, 3, 1, 4

Response Feedback: Yes, well done.

Question 4

1 out of 1 points

The AVL tree shown below was constructed by inserting the seven keys in a particular order. Identify which of the four insertion sequences below would generate an AVL tree of this shape.



Selected Answer: d. F, B, C, D, A, G, E

Answers:

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

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

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

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

Response Feedback: Yes, that's right.

Saturday, 4 June 2016 11:17:17 PM EST

← OK