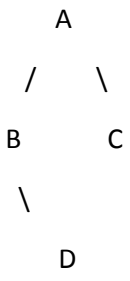
1332 Final Exam:

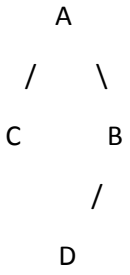
Had 20 MC questions, 2point each. Then had a bunch of free response.

One on doing Kruskal's and Prim's (had a graph with the vertices labeled by letter. Had to write the edge you traversed through like "AC" for the whole search).

Had 3 coding questions. One on Prim's algorithm as fill in the blank and one was writing the whole brute force pattern matching algorithm.

Last one was to code a <u>recursive</u> function that went through a binary tree and inverted it. IMO, that was the hardest, it was something we hadn't done before. header was: public void inverter(AVL node) {}





Also had a diagram where you had to go through Dijikstra's and write the visited set in proper order and the shortest length from a specified edge to another.

The multiple choice included: 2-4 tree add, remove. 4 snippets of code from the searching algorithms, had to pick which one matched selection sort. Had to show what a heap represented by an array looked like after Build-Heap. Lots of annoying tricky Big O questions. Show a failure table and last occurrence table. LIFO and FIFO for Queues and Stacks. In an AVL tree, which node is out of balance. What are it's balance factors and height. Quadratic probing in a Hashmap. What's the formula for an objects index in hashmap (compression and hash function). Add and remove from a hashmap. Etc.

<u>2 extra credit points. One is hidden on the instructions first page and the other is the last page.</u>