Problem Set 2, Extra Problem (15 pts)

You are given a minimax search tree as shown on the next page. The tree has nine internal nodes $A, B, \ldots, I$. Not all terminal states (leaves) are at the same depth.

Execute the alpha-beta pruning algorithm (use the version from the 3rd edition of the textbook in the reposted lecture notes on September 11).

a. (5 pts) Mark all the subtrees (including leaves) that have been *pruned*. You may, for instance, simply put double slashes // across the edge entering the root of such a subtree from the above.

b. (7 pts) Next to each internal node, write down the two values $[\alpha, \beta]$ *just before the return* from the call MAX-VALUE or MIN-VALUE invoked on the state represented by the node.

c. (3 pts) What is the final value for MAX at the root?

Alpha-Beta Pruning