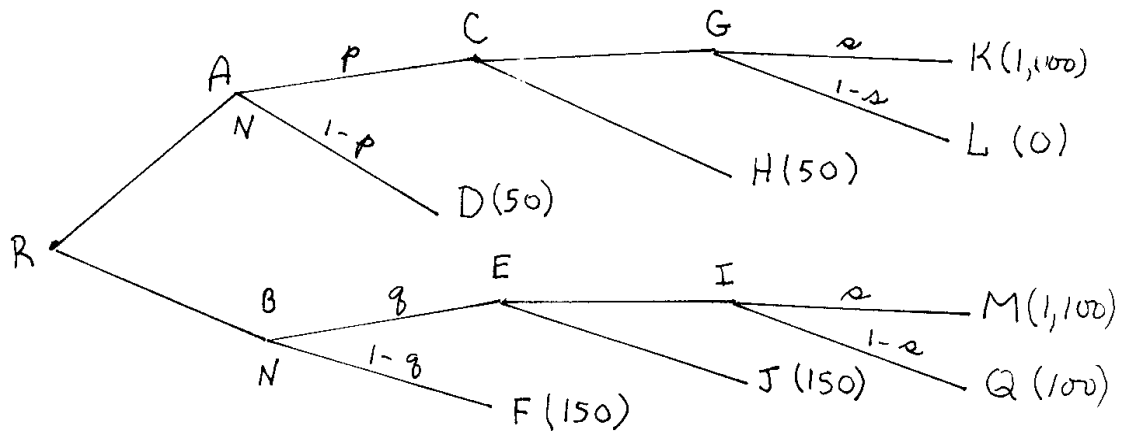
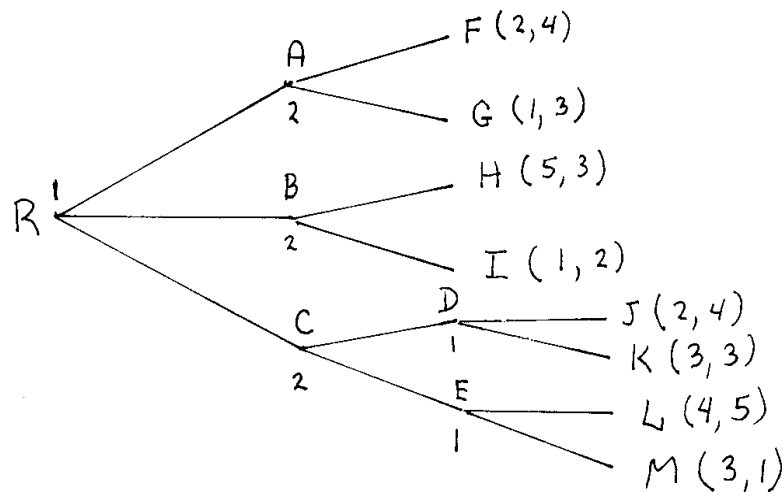


1. (25 Points) Consider the following decision tree for a single person, where the nodes $\{A, B, G, I\}$ are owned by "nature", and the rest of the nodes are owned by the person making the decisions. Assume $s = 0.5$, $p = 0.9$, and $q = 0.4$. Solve the decision problem to maximize the output. Give the expected payoff at each node. What is the optimal path?



2. (25 Points) Consider the sequential game with perfect information given in the following tree. Describe the strategy that leads to Nash equilibrium obtained by backward induction. Give the decision at each node.



(over)