1. Define the following terms briefly:
   (a) Zero-sum game
   (b) Perfect information
   (c) Terminal state
   (d) Utility function
   (e) Game tree

2. Where does the name “MINIMAX” come from?
3. Consider the following game tree:

Terminal states are squares (with their utility). Non-terminals are circles. Edges are labeled with the move that leads to the successor state.

(a) Label the levels of the tree with MAX and MIN.
(b) Compute the minimax value of the non-terminal nodes.
(c) What is the optimal move for the first player? What is the second player’s optimal response?