Tic-Tac-Toe and Adversarial Search

Consider a Tic-Tac-Toe game where two players compete:

- **MAX** plays with "X" and aims to maximize the evaluation function e.
- **MIN** plays with "O" and aims to minimize e.
- The evaluation function e is defined as: e=
  (number of available rows, columns, diagonals for MAX) –
  (number of available rows, columns, diagonals for MIN)
- Symmetries are taken into account.

Question

1. Draw the game tree up to depth 2
2. Compute the value of **e** for the initial board state.
3. Using the Minimax algorithm, determine which move MAX should choose if MIN plays optimally.
4. Identify any branches that could be pruned using Alpha-Beta pruning.