Expt 6:- Minimax Algorithm and Real World Problem (Tic Toe problem)

(*) Problem Formulation:-

(:) Here minimax algorithm is used to find the most optimal way of winning a tic tac toe problem.

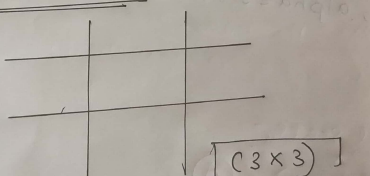
(*) Path cost:-

No. of permutations while solving the problem using state space.

(*) Operators:-

The no. of moves, signs and the state space are the operators.

(*) Initial State:-



(*) Algorithm:-

A description for the algorithm, assuming X is the "turn taking player" would look something like:-.

(:) If the game is over, return the score from X's perspective

c:) Otherwise get a list of new game states for every possible move.

e:) Create a scores list.

c:) For each of these states add the minimax result of that state to the scores list.

c:) If it's X's turn, return the maximum score from the scores list.

c:) If it's O's turn, return the maximum score from the scores list

Goal ~~State~~ state:-