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BTECH 3RD YEAR

AIML Tutorial 7

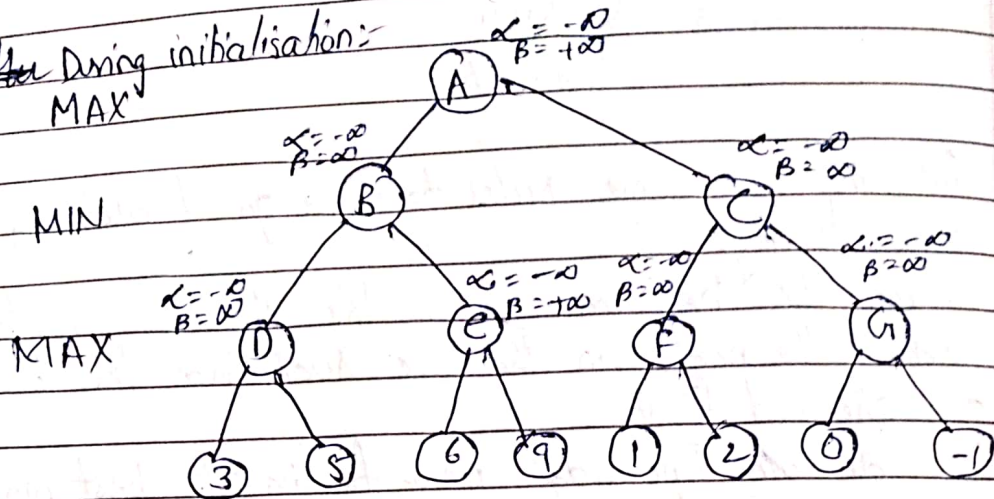
Ans 1: Following are some rules to find good ordering in alpha beta pruning:-

- Occur the best move from the shallowest node.
- Order the nodes in the tree such that the best nodes are checked first.
- Use domain knowledge while finding the best move.
- We can book-keep the states, as there is a possibility that states may repeat.

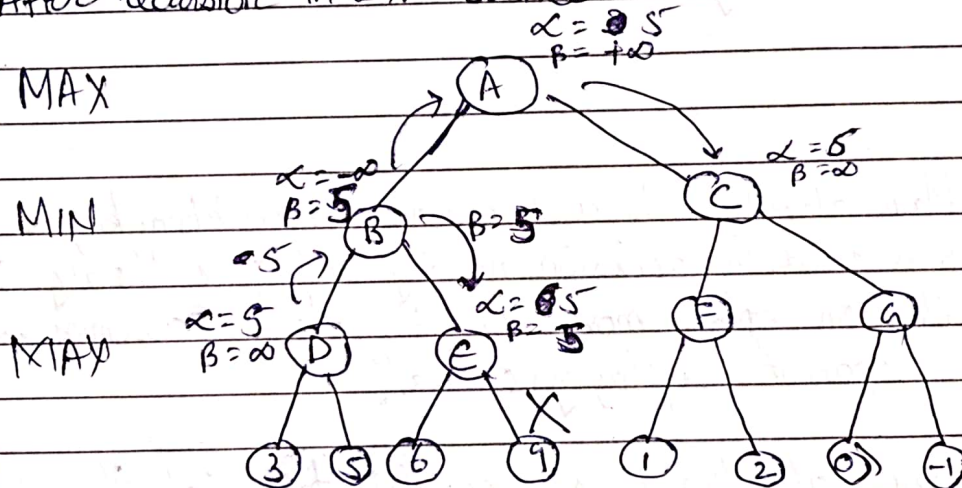
Ans 2:

- Min Max algorithm is a recursive or backtracking algorithm which is used in decision making and game theory. It provides an optimal move for the player assuming that the opponent is playing optimally.
- Min Max algorithm uses recursion to search through the game tree.
- Min Max algorithm is used for game playing in AI such as chess, checkers, go, etc...
- In this algorithm two players play the game called MAX and MIN. Both the players fight it as the opponent gets minimum benefit while the player gets maximum benefit.
- The minmax algorithm performs DFS search algorithm for the complete exploration of game tree.

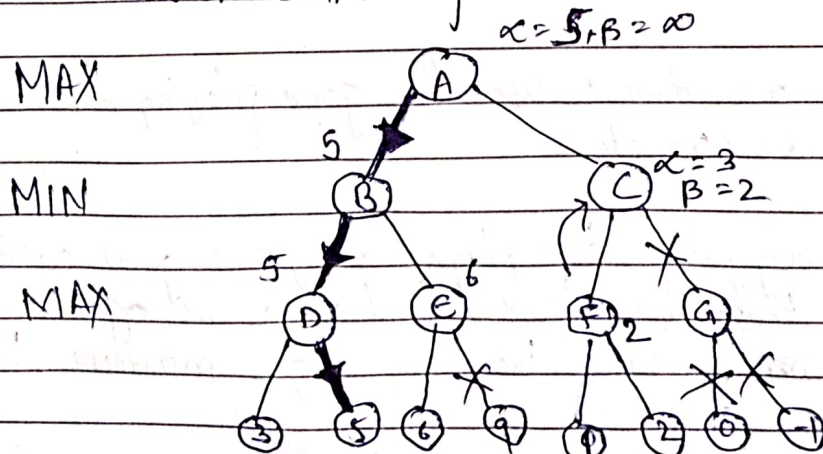
Ans 3: After During initialisation:-
MAX



After recursion in left subtree of A:-



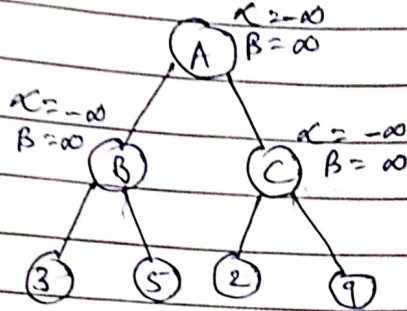
After recursion in the right subtree of A:-



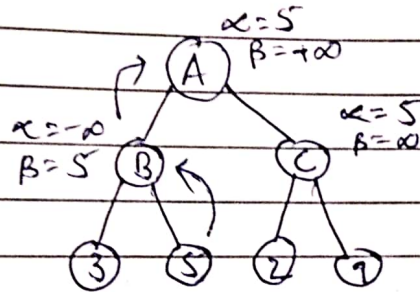
Ans: For the given problem,

MAX

MIN



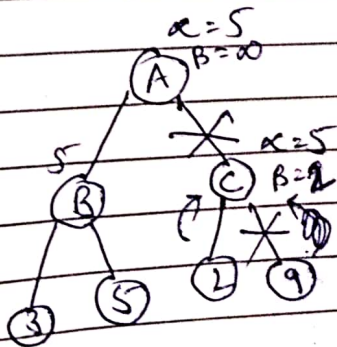
Now, after recursion in the left subtree of A:-



After recursion in right subtree of A:-

MAX

MIN



Hence,
the optimal path is to choose B from A.