Ex No : 5

MIN MAX ALGORITHM.

AIM:

To implement of the minmax algorithm in Python along with a sample game tree structure using a nested directory.

PROGRAM:

```
def minimax( node, depth, maximizing player):

    if isinstance (node, int):
        return node
    if maximizing-player:
        max_eval = float ('-inf')
        for child in node ['children']:
            eval = minimax ( child, depth +1, false)
            max-eval = max (max.eval, eval).
        return max-eval.
    else:
        min-eval = float ('inf')
        for child in node ['children']:
            eval = minimax (child, depth-1 , True)
            min-eval = min( min-eval).
        return min - eval:
```

```
game_tree = {
    'children': [
        {'children': [3, 5, 6]},
        {'children': [9, 1]},
    ]
}

result = minimax(game_tree, 0, True)
print("The optimal value is: ", result)
```

Result:

The Optimal value is 3.

Output:

This the minmax program is successfully executed and output is verified.