Exp NO-6
Date

MINIMAX

AIM

→ To implement minimax algorithm problem using python

Code

```
import math
def minimax (board, depth, is_max):
scores = {'x': 10, 'O': -10, 'draw': 0}
win_condition : [(0,1,2), (3,4,5), (6,7,8), (0,3,6)
                (1,4,7), (2,5,8), (0,4,8), (2,4,6)

def evaluate (b):
    for x, y, z in win_conditions:
    if b[x] == b[y] == b[z] != ' ':
        return scores [b(x)]
if ' ' not in b:
    return scores ['draw']
    return None

score = evaluate (board)
  if score is not none:
      return score

if is_max:
  best = -math.inf
  for i in range (9):
     if board [i] == ' ':
        board [i] = 'x'
```

```
best = max (best, minimax (bound, depth +
                                    false))

board [i] = ' '
return best

else
    best = math. inf
    for i in range (9):
        if board [i] = = ' ';
            board [i] = 'O';
        best = min (best, minimax (board, depth' +
                                    time))

        board [i] = ' '
    return best;

def find_bes_move (board):
    best_move = -1
    best_val = - math inf
    for i in range (9):
        if board [i] = = ' ';
        board [i] = 'x';
    move_val = (maximxa (board, 0, false
    board [i] = 1

board [' '] *9
print ('Best move for player x :', find_best_move
                                    (board))
```

Convinience

Result

Thus program of Minimax have been successfully executed.