## CS3191

## Test your understanding!

## Test 2: Equilibrium Point and Value

Question 1 How many equilibrium points does the following game have?24

| -1 | -1 | -2 | 1 |
| ---: | ---: | ---: | ---: |
| 1 | 2 | 1 | 2 |
| 0 | -1 | 0 | -2 |
| 1 | 1 | 1 | 1 |5

6

Question 2 What is the value of the following game?01
$\begin{array}{rrr}0 & -1 & 0 \\ 1 & 0 & -1 \\ 0 & 0 & -1\end{array}$$-1$Has no value.

Question 3 Which of the following are correct?Two equilibrium points for the same game always lead to the same pay-off for all players.At an equilibrium point the pay-offs for all players must be equal.If players move away from their equilibrium point strategy their pay-off cannot improve, but may get worse.If one player moves away from his equilibrium point strategy then his pay-off cannot improve, but may get worse.

Question 4 Which of the following are correct?In a 2-person zero-sum game there always is a value for the game.If the value of a 2-person zero-sum game is -2 then Player 1 loses at least 2 units in every round.If the value of a 2 -person zero-sum game is -2 then Player 1 can make sure that he does not lose more than 2 units in each round on average.
$\square$ If the value of a 2-person zero-sum game is -2 then Player 1 shouldn't play an equilibrium point strategy because he'll just lose.

