CS3191

Test your understanding! Test 2: Equilibrium Point and Value

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

2				
4	-1	$^{-1}$	-2	1
4	1	2	1	2
5	0	-1	0	-2
0	1	1	1	1
6				

Question 2 What is the value of the following game?

0			
1	0	-1	0
-1	$\begin{array}{c} 1 \\ 0 \end{array}$	$\begin{array}{c} 0\\ 0\end{array}$	$-1 \\ -1$
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.

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.