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Version A

Microeconomics II
SDPE, Stockholm School of Economics
Third Assignment
"On Repeated Games"

Section 1. Pure Nash Equilibrium

1. Consider an infinitely repeated Prisoner's Dilemma in which the payoffs of the component game are given below

		Player 2	
		<i>C</i>	<i>D</i>
Player 1	<i>C</i>	5, 5	0, 6
	<i>D</i>	6, 0	1, 1

A Tit-for-Two-Tat (Tf2T) strategy is defined as

$$P1: C_0^{P1}, (D_t^{P1} \text{ if } D_{t-1}^{P2} \text{ and } D_{t-2}^{P2} \forall t, C_t^{P1} \text{ otherwise})$$

$$P2: C_0^{P2}, (D_t^{P2} \text{ if } D_{t-1}^{P1} \text{ and } D_{t-2}^{P1} \forall t, C_t^{P2} \text{ otherwise})$$

Is *Tf2T* a NE?

2. Show two subgames in which *Tf2T* is not NE.
3. In one of the two subgames show the best response for a player that gains by deviating.