A. (Two period bargaining game with constant cost of delay)

Applying the technique of backward induction: In second period, player 1 accepts any positive offer thus in any SPNE player 2 proposes \((0, 1)\) in second period which player 1 always accepts, obtaining the net payoff \(-C_1\).

In period 1, player 2 will accept any offer that gives her more than \(1-C_2\), what he gets in period 2. Thus in any SPNE player 1 proposes \((C_2, 1-C_2)\) which player 2 accepts.

B. (Job Market Signaling)

Pooling Equilibrium: There is no pooling eq. in which worker plays strategy EE because with EE' the only consistent belief at the firm’s right information set is \(q = 1/3\). And at \(q = 1/3\) C is the firm’s optimal action. This gives the low type a negative payoff, which is worse than that he could expect by playing N’.

There is a pooling eq. in this game in which the worker adopts strategy NN with the firm’s belief \(p = 1/3\) at left information set and there it plays action C’.

Separating eq.: Game has single separating eq. in which worker adopts EN implying beliefs \(p = 0\) and \(q = 1\) for the firm and firm’s eq. strategy being MC’. NE’ can not be a part of eq. as it implies belief \(p = 1\) and \(q = 0\) for the firm and then firm adopts strategy CM’. Facing CM’, E’ is obviously not rational for the low type worker.