

EXAM

THE ECONOMICS OF STRATEGY

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Time limitation: 4 h Help aid: Calculator

Answer (in English or Swedish) all the five questions below! Please observe that the questions do not have equal weight!

1 (a) Consider two firms engaged in static competition, i.e. one-shot competition with a horizon of one period. Explain why these firms under such circumstances would be unable to sustain collusion unless they form an illegal cartel agreement. (5 p)

(b) Now assume that these two firms are engaged in repeated competition over an infinite horizon. Are the firms under such considerations able to sustain collusion even though they have not formed an explicit cartel agreement? Explain in detail under which conditions collusion could be sustained based on non-cooperative mechanisms! (5 p)

2. On 11 February 2011 Nokia presented a new strategy. According to this strategy Nokia will build its future devices on the Windows phone platform. Present some business strategy argument to support Nokia's decision in this respect. (5 p)

3. (a) European competition law ("Article 102") specifies predatory pricing as a potential abuse of a dominant market position.

(i) Define predatory pricing in general.

(ii) Explain in detail how a financially strong incumbent firm could abuse its dominant market position if it faces potential competition from a financially weak entrant in need of external funding. Explain also which considerations have to be taken into account when evaluating whether a firm has engaged in predatory pricing and when evaluating whether such a practice hurts consumers. (10 p)

(b) In many markets firms try to create switching costs through the establishment of long-term customer relationships. Present an evaluation of how such customer relationships affect market performance both from a short-run and a long-run perspective. Exemplify your answer. (10 p)

4. Assume that two competing firms (A and B) sell differentiated goods. Assume that these firms face the following demand functions:

$$q_A = 15 - p_A + \frac{1}{2}p_B$$

and

$$q_B = 15 - p_B + \frac{1}{2}p_A ,$$

where p_A and p_B denote the prices charged by A and B , respectively. The duopolists face firm-specific marginal costs c_A and c_B , respectively. For simplicity, we neglect fixed costs.

- (a) Calculate the Bertrand equilibrium in this market. (10 p)
- (b) Does Bertrand competition generate prices equal to marginal costs in this market? Why or why not? Explain in detail. (2 p)
- (c) Consider a situation where firm A is more efficient than firm B . Assume, for simplicity, that $c_A = 0$, whereas $c_B = c > 0$. How does this efficiency advantage translate into a profit advantage for firm A ? In other words, compare the equilibrium profits for A and B in order to draw a conclusion about how the profit difference depends on the difference in marginal costs. (3 p)

5. Consider a Hotelling model of product differentiation, where the consumers are uniformly distributed on the unit interval $[0,1]$. Assume that the consumers face quadratic transportation costs. Further, assume that there are two competing duopolists, A and B . Firm A is located at x_A , whereas firm B is located at x_B (with $x_A \leq x_B$). Finally, assume that the firms have identical and constant marginal costs c .

- (a) Calculate the price equilibrium conditional on the locations. (14 p)
- (b) Explain, by reference to the price equilibrium, the incentives of firms to differentiate themselves from each other. In other words, how can you conclude from the price equilibrium that price differentiation softens price competition? (3 p)
- (c) Answer the following question based on the lectures (you are not expected to prove your answer analytically): Suppose that the firms make a strategic commitment with respect to which varieties they produce. Is the differentiation equilibrium characterized by maximal differentiation or minimum differentiation? Explain intuitively! (3 p)

Good luck!