

EXAM THE ECONOMICS OF STRATEGY

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Time limitation: 4 h

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

1. (a) Define briefly the following concepts: (1) Lerner-index, (2) network externalities, (3) excess inertia, (4) excess momentum, (5) critical mass of a network, (6) customer poaching, (7) pure bundling, (8) mixed bundling, (9) strategic commitment, (10) tacit collusion. (10 p)

(b) The Economist magazine applies a pricing strategy according to which first-time subscribers pay a lower rate than repeat subscribers. Present an argument for why we can expect this price discrimination to be a profitable pricing strategy. What type of price discrimination is this? (5 p)

2. Explain in detail how access pricing systems can be used to break natural monopolies despite the presence of sharply increasing returns to scale. Exemplify by reference to the market for access to mobile networks. Also present the Efficient Component Pricing Rule (ECPR) as a regulatory mechanism for the determination of access prices in the market for access to mobile networks. (10 p)

3. Assume that there are three rivals, F_1 , F_2 and F_3 , operating in a particular industry. These firms have comparable capacities, technologies and market shares. One Friday evening, firms F_1 and F_2 announce a (horizontal) merger. The next Monday, which is the first trading day after the announcement, the share price of firm F_3 falls by 15%.

(a) Is this observation consistent with what merger theory would predict, and if so, under which circumstances? Explain carefully. (4 p)

(b) Can information about this drop in shares be of any relevance at all to the competition authorities? Explain carefully. (3 p)

(c) Under which circumstances would we expect the merger between F_1 and F_2 to result in an increase in the share price of firm F_3 ? (3 p)

4. Suppose that two firms, A and B, are Cournot competitors in a duopolistic industry. Assume that inverse demand is given by $P = 100 - 2Q$, where Q denotes industry output. Each firm has initially a constant average and marginal cost of 60 €.

(a) Compute the Cournot equilibrium quantities and profits for each firm. (4 p)

(b) Assume now that firm A discovers a new production method that lowers its average and marginal cost to 50 €. If the innovator (firm A) does not license its technology but simply competes as the low-cost firm in the duopoly, what will be the innovator's profit? What will then be the profit of the rival (firm B)? (4 p)

(c) Suppose instead that the innovator (firm A) licenses its technology to its rival (firm B) for a fixed fee. What is the highest fee that firm B is willing to pay? What will be the innovator's profit if it sets the license fee optimally? (7 p)

5. Consider a duopoly where the firms compete with price decisions in a market for a homogeneous good. Assume that the firms operate with a constant-returns-to-scale technology such that the constant marginal costs are c (and no fixed costs).

(a) Assume that the firms have inherited identical market shares and that they compete with an infinite horizon. Under which condition on the discount factor can the duopolists implement the monopoly price even though they do not sign a formal cartel agreement? In other words, under which circumstances can the firms implement the monopoly price through tacit collusion? Explain your calculations in detail. (10 p)

(b) Assume now that the firms have inherited asymmetric market shares so that firm 1 has market share s_1 with $s_1 > \frac{1}{2}$. How will the presence of asymmetric market shares affect the possibilities to sustain tacit collusion? Prove your answer analytically! (10p)

Good luck!