

Course: S-38.041

Date: 20.12.2004 at 9-12

Teacher: prof Heikki Hämmäinen

Each question is worth max 6 points. Answers can be written in English, Finnish, or Swedish. Answers must be short and concise. Please indicate if you have participated the voluntary mobile operator business game session to compensate one question.

1. Explain the following techno-economic terms briefly (max 5 sentences per term).
  - a. Consumer's switching cost
  - b. Superdistribution
  - c. Long-run incremental cost
  - d. Price discrimination
  - e. Shapley value
  - f. Consumer surplus
2. Explain Porter's model for competition ("5 forces") and apply it for analyzing the market position of a virtual mobile network operator.
3. Describe schematically the GRX-based charging model for roaming traffic between GPRS operators.
4. Explain the process of a simultaneous ascending auction.
5. The present value of a customer to an operator equals her switching cost. Assume that operator has a variable monthly cost of 10 EUR per customer. Further, it costs a customer 80 EUR to switch from one operator to another. Supposing a monthly interest rate of 2%, what is the equilibrium price setting for a monthly subscription. At equilibrium, operators are profitable and customers don't have incentive to switch operators.