



Introduction to Management II (WT 06/07) – Final Retake

Examiner: Prof. Dr. Wolff

You will be able to make a maximum of 60 points. There are a few pieces of advice we can offer at this stage:

1. Use the theoretical tools and terminology you have learned in class and from the textbook.
2. Make sure there is a clear structure in your argument. (Use some time to sort your ideas before you start writing the version you want to submit.)
3. Use the time you have! If you are ready much earlier than we planned you should wonder if you forgot something.
4. Remember: people have to be able to decipher what you write.
5. Leave a margin for our comments, so we can give you a more detailed feedback than just the number of points.

Here is the set of problems:

Please solve four (4) of the following six (6) problems (maximum of 15 points per problem):

(You are welcome to use a non-programmable calculator.)

1. Definitions

Define the following terms. Illustrate your definitions by examples.

- a) Backward integration
- b) Economic Darwinism
- c) Gain from trade
- d) JIT
- e) Horizon problems

2. Creating and Capturing Value

- a) What is meant by transaction costs?
- b) Draw supply and demand for a product showing the equilibrium price and quantity. Illustrate what would happen if all the transactions costs of the market were reduced. Discuss your graph.
- c) The Watts Brewing Company owns valuable water rights that allow it to produce better beer than competitors. The company sells its beer at a premium and reports a large profit each year. Is this firm necessarily making economic profits? Explain.

3. Game Theory

A mutually-beneficial transaction between Firm I and Firm II would yield \$1 million each if each sticks by the agreement. However, if one cheats on the agreement, the cheater receives \$2 million while the honest one receives -\$1 million. If both cheat, each gets \$0. Suppose the known probability they will transact in the next period is given by p.

- a) If Firm I chooses the "always cheat" strategy, what will firm II choose (always cheat or tit-for-tat)? Explain graphically.
- b) Suppose $p = 0.75$. Describe all Nash equilibriums.
- c) Where is the equilibrium in the following payoff-matrix? What is the underlying problem here? Find a suitable solution. What is a zero-sum game in this context?

Company B- Alternative 1	€ 20 /	Company B- Alternative 1	€ -20 /
	€ -20 /		€ 20 /
	Company A- Alternative 1		Company A- Alternative 2
Company B- Alternative 2	€ -20 /	Company B- Alternative 2	€ 20 /
	€ 20 /		€ -20 /
	Company A- Alternative 1		Company A- Alternative 2

4. Incentive Conflicts and Contracts

The Department of International Management at the Otto-von-Guericke-University wants to hire a student research assistant to help with the administration of the web sites. The department's marginal benefits of hiring the student are 20-2L. The marginal costs for the hired student are 10 money units per an hour.

- a) What are general information related problems in contracting? Why do they exist and what are possible solutions?
- b) What is the value-maximizing amount of hours the student should work?
- c) What is the total surplus from the trade?
- d) Since there is a potential agency problem, it can be assumed that the student only works 4 hours a week. In addition, the Department of International Management spends 5 money units per week to monitor the student and the student spends 5 money units per week to bond. How much is the residual loss? Calculate how the agency problem affects the total surplus from the trade?

5. Measuring Divisional Performance

- a) What are the categories of subunit performance evaluation? Name and characterize these categories? When is each category optimal?
- b) Geriatrics Inc. has a patent on a new type of hospital bed. The marginal cost of producing the beds is \$400. The company has significant production capacity. Geriatrics sells the beds to customers on the open market and also uses them internally throughout its nursing home chain. The external demand for the product is given by $P = 5,000 - Q$. Assuming that Geriatrics wants to profit-maximize, what is the optimal external market price? What are transfer prices in general? Calculate the optimal internal transfer price for this example.

6. Decision Rights

Suppose the benefits, B, from decentralizing decision-making can be expressed by the equation $B = €300 * D$, where D represents the degree of decentralization. The cost, C, of decentralization can be represented by $C = €200 * D + 2.5 * D^2$.

- a) Calculate the optimal level of decentralization.
- b) Outline the benefits and costs of decentralization.
- c) United Airlines assigns flight attendants to routes using the following procedure: Once a month, the attendants request the routes they prefer, with conflicts resolved strictly on the basis of seniority. Why does United use this procedure rather than simply let the supervisor of the attendants assign the flights?
- d) Many companies have been experimenting with organizing their manufacturing around teams of employees. The employees are given decision rights on such things as how to organize the work and employee schedules. Often the employees are paid based on team output. Sometimes, this organizational arrangement has worked well. In other cases, it has not. Discuss the conditions under which you think that this type of team organization is most likely to succeed.

Good Luck!