OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG
FAKULTÄT FÜR WIRTSCHAFTSWISSENSCHAFT

Prof. Dr. rer. pol. Roland Kirstein
Economics of Business and Law

11048 Introduction to Management (ST 2011) – Final Exam

Examiners: Prof. Dr. Kirstein, Prof. Dr. Raith, Prof. Dr. Spengler, Prof. Dr. Chwolka, Prof. Dr. Burgard, Prof. Dr. Inderfurth, Prof. Dr. Schöndube-Pirchegger

You have 120 minutes time in which you can reach a maximum of 50 points.

Please:

1. Use the theoretical tools and terminology you have learned in class and from the text-book.
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. Write legibly. The less we can read your handwriting, the fewer points you will receive.
5. Leave a margin for our comments.
6. You are welcome to use a non-programmable calculator.

Last Name, First Name: _____

Student ID-number: _____

Please solve four (4) – and only four – of the following five problems (maximum of 12.5 points per problem). If you present solutions to more than four problems, only the first four solutions in your answer sheet will be graded, so make sure to cancel out clearly what shall not be graded.

1. Marketing

a) What is meant by "Marketing Mix"? Please name and explain its four elements.

b) Define the term "price elasticity of demand" and provide a formula.

c) If the demand for a product is inelastic, what will happen to total revenue if price is increased? Explain.

d) Assume that the Püjo Company can produce an automobile at a constant marginal cost of €4,000. The demand for the car in the Magdeburg area is: $P = 60{,}000 - 100Q$.

   i) What is the profit-maximizing price and quantity?
   ii) What is the profit from this activity?

2. Basics of Accounting

a) Describe the purpose of the balance sheet, the income statement, the statement of retained earnings and the statement of cash flows. Moreover, explain the relationship between the income statement and the statement of retained earnings.

b) Give a short definition and the formulas of the Debt-to-Equity Ratio, Debt-to-Assets Ratio and the Net Profit Margin Ratio.

c) The following financial figures are available from the company BeaPea. Please calculate the Debt-to-Equity Ratio, Debt-to-Assets Ratio and the Net Profit Margin Ratio on the basis of the financial figures provided below.

Sales revenue	€ 1,200,000
Total assets	€ 1,670,000
Cash account	€ 670,000
Total liabilities	€ 1,320,000
Contributed capital	€ 350,000
Retained earnings	€ 50,000
Total expenses	€ 1,130,000
Net income	€ 70,000

3. Production and Logistics

a) Explain the terms "centralization of production" and "decentralization of production" and provide a graphical illustration of each. Which trade-offs have to be considered for each option? Provide a graphical illustration of this trade-off in plant location.

b) The research department of a producer of cosmetics found out that a new lipstick could be sold for 10 €. 200,000 units could be sold every year. The production requires an investment of 100,000 € with a linear depreciation over five years. Furthermore, the company faces the following costs per year:

- Costs of distribution: 250,000€
- Costs for advertisements: 150,000€
- Variable costs: 5 €/unit

i) Should the lipstick be produced?
ii) What is the break-even point for this example?

4. Company Law

a) What are the main differences between a partnership and a capital company?

b) What are the most important taxes an entrepreneur has to consider? Name them and outline the tax subject (who pays?) for each tax.

5. Staffing

a) What does "Personnel Assignment" mean? Why can this be a problem for personnel planning?

b) Explain briefly different methods of personnel assignment! Use examples to illustrate your explanations.

c) The owner of a restaurant has estimated how much staff he needs throughout the week. The restaurant is open seven days (p= 1,2,...,7) a week. The daily personnel requirement (PR_p) recurs in a weekly rhythm which is shown below.

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
PR_p	8	11	12	6	10	7	5

Your task is to find a roster which covers the daily personnel requirements in compliance with the restriction that each employee works 5 consecutive days and has 2 days in a row off. Use the First Period Principle to solve this problem!

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
PR_p	8	11	12	6	10	7	5

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
arithmetic average							

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
cumulative sum							
integer							

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Sum of the previous day							
difference							

Roster:

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Number of assigned employees							
PR_p							