

Original

5014 Introduction to Management I (ST 2006) – Retake Final

Examiners: Prof. Dr. Raith, Prof. Dr. Erichson, Prof. Dr. Chwolka, Prof. Dr. Spengler, Prof. Dr. Burgard, Prof. Inderfurth, Prof. Luhmer, Prof. Dr. Wolff

You have 2 hours to solve this exam and be able to make a maximum of 50 points. There are a few pieces of advice we invite you to consider:

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.

The following aids can be used: non-programmable calculator

Please solve four (4) and only four (4) of the following six (6) problems (maximum of 12.5 points per problem).

Examination questions:

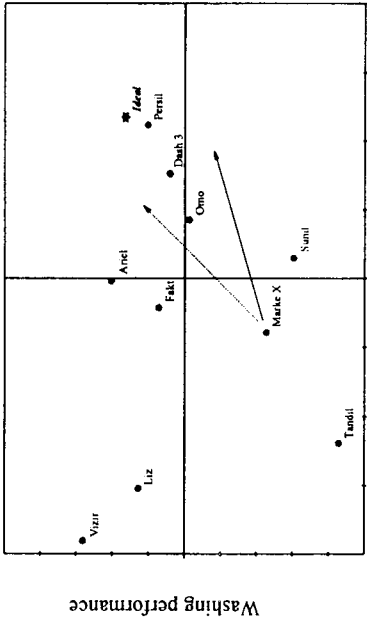
1. **Terminology**
 Define the following terms. Illustrate your definitions by examples.
 - a) Supporting Activities
 - b) Income Elasticity
 - c) JIT
 - d) Accounts Payable
 - e) Mark-up
2. **Accounting and Operational Financial Plan**
 - I. Accounting
 - i. What are the main Financial Statements. Outline briefly their main structures.
 - ii. Show the relationships among those Financial Statements. What is the basic balance sheet equation?
 - b) Investment evaluation
 An investment project requires a start-up investment of € 25 million. The cash inflow from the project in the following three years are € 10 million, € 7 million and € 9 million. Then the project is closed down. Suppose the market interest rate is 10%. Is the project worth investing using the net present value evaluation method? Show your calculation.

3. Forms of Incorporation
 Name the criterions of a commercial trade in § 1 sect. 1 Commercial Code. What is the content of these criterions?

4. Marketing

Part 1. Positioning:

- a) What is meant by Positioning? Name and explain two Positioning Strategies.
- b) Explain and interpret the following graph:



Part 2. Pricing:

Environmental friendliness
 Candak Corporation produces professional quality digital cameras. The market for professional digital cameras is monopolistically competitive. Assume that the inverse demand curve faced by Candak (given its competitors' prices) can be expressed as $P = 5,000 - .2Q$ and Candak's total costs can be expressed as $TC = 20,000,000 + .05Q^2$.

- a) What price and quantity will Candak choose?
- b) Is this likely to be a long-run equilibrium for Candak Corporation? Why or why not? If not, what is likely to happen in the market for professional digital cameras, and how will it affect Candak?

5. Personnel Planning

A restaurant is open seven days ($p = 1, 2, \dots, 7$) 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	4	7	3	5	6	2	6

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!

(please turn to next page to use the given tables)

Name:
Matrikel-Number:

p	Mon	Tue	Wed	Thu	Fri	Sat	Sun
PR_p							

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							

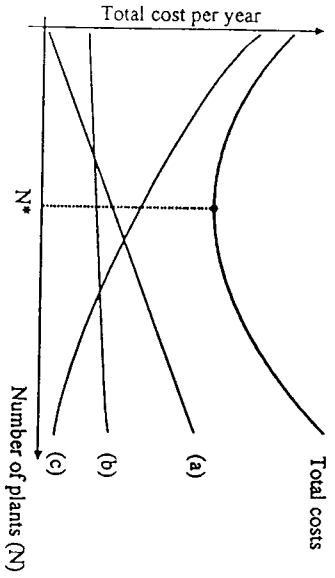
Roster:

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

6. Planning Location and Transportation

- (a) Describe the major cost trade-off aspects in plant location by interpreting the 3 cost curves (a), (b) and (c).



- (b) Given that 3 plants A, B and C have been opened which have to supply 3 warehouses X, Y and Z, solve the respective transportation problem for shipping goods from the plants to the warehouses by applying the minimum unit cost search heuristic. Shipping costs as well as production quantities and shipment requirements are given in the transportation tableau below:

		Warehouses			
		X	Y	Z	Production quantities
Plants	A	1	4	5	5
	B	4	3	2	2
	C	2	3	4	3
	Shipment requirements	1	2	7	

- (c) Name another possible procedure to find a solution for that kind of problem. What are the advantages and disadvantages here?

Good Luck!