



**Examination: Human Resource Management –Final Exam (WT 2003/04)**

Examiner: Prof. Dr. B. Wolff; Course No.: 1524/5076

Please note that in the final exam at hand, you will have **120 minutes** to solve the problems worth a maximum of 70 points. Please consider the following general advice:

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, esp. if you answer Problem B).
3. Use the time you have! If you are ready much earlier than we planned you should ask yourself whether 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.
6. Each main question has sub-questions. Answer each one explicitly.

**Examination Questions**

**Please solve either problem(s) A or B (maximum 70 points):**

You are welcome to use a dictionary and a calculator.

**A) Please answer only seven (7) out of the following nine (9) questions:**

**1. Motivation and Efficient Use of Limited Resources (max. 10 points)**

What information do you theoretically have to know about your workforce in order to design an efficient incentive scheme? Is it always useful to acquire all this information? Please explain what HR-managers could do to solve that problem.

**2. Setting Hiring Standards (max. 10 points)**

Please assume a scenario in which you are the personnel manager of a Brazilian company intending to expand sales to the United States. You are in the process of hiring the first two salespeople. You have the option to either recruit highly skilled Brazilians or to rely on less skilled Americans. The following information is at your disposal:

	Brazilians	Americans
Salary per year	60,000 €	40,000 €
Sales per year	500,000 €	320,000 €
Cost of training during the first year	3,000 €	6,000 €
Average duration of employment	5 years	3 years

Which criterion should be used by your firm to adequately decide which type of workers should be appointed? What would the decision in this case be? Please calculate and explain.

**3. Periodic Evaluation (max. 10 points)**

Please describe what purposes periodic on-the-job evaluation serves by initially pointing out the different kinds of information that may be gathered by this means. Please explain, in addition, the role of firm-specific human capital with respect to the efficient utilization of evaluation.

**4. Recruiting: Screening (max. 10 points)**

Please assume that you the managing director, are on the lookout for new workers for your Klayock production. The pool of workers available is characterized by the table below indicating that the population is made up of different shares of different types of workers (different in terms of productivity). Please assume further that each worker would have to be paid a straight salary of 20,000 € a year. Please point out the basic purpose of screening in the context of recruiting, as well as possible screening instruments. Then calculate what maximum amount, if any, you would be willing to spend on screening per applicant in the given scenario.

Worker-Type	A	B	C	D	E
Share of Worker-Type in the Population	0.1	0.2	0.3	0.3	0.1
Average annual output of respective Worker-Type in €	0	-150,000	50,000	200,000	150,000

**5. Team Management (max. 10 points)**

“For internationally active corporations teamwork always pays.” Please discuss.

**6. Reengineering (max. 10 points)**

Please describe the notions of ‘collective efficiency’ and ‘incentive-compatibility’. Subsequently, elaborate on the implications of incentive-compatibility on the success of reengineering projects. Please do not forget to explain how and under which conditions incentive-compatibility may be established. You may refer to a game-theoretic example of your own choice if it helps to clarify your explanation.

**7. Fluctuation & Buyout Plans (max. 10 points)**

Assume that the demand for the shoes your firm sells decreases. In order to avoid making losses you now have to "downsize" your firm to save labour costs. You will need to separate from the least productive employees, which happen to be the oldest. Your idea is to offer these employees a buyout plan which will induce them to quit voluntarily. The following dataset is at your disposal:

Age	Present value of decreased productivity	Present value of wages	Present value of alternatives
59	50,000	50,000	48,000
60	48,000	48,800	47,500
61	46,000	47,600	46,000
62	44,000	46,400	44,500
63	42,000	45,200	43,000

Please provide a general, analytical description and a verbal explanation of what determines a firm's buyout offer and when such an offer will be accepted by employees. Subsequently, please apply these general conditions to the given case by calculating how the buyout offers for each specific age group would look like and by showing what would happen accordingly.

**8. Investing In Human Capital (max. 10 points)**

- What is meant by "splitting the difference"? Please explain the background of that concept. Why will firms, *ceteris paribus*, be more willing to finance investments into firm-specific human capital than into general human capital?
- Assume a scenario in which you could raise a 62 year-old employee's annual productivity by € 4,000 by means of a one-year training program. He will retire at the age of 67. The cost of capital amounts to 6% per annum. What is the maximum amount you would be willing to spend for that training?

**9. Probationary Periods (max. 10 points)**

Assume you can identify different quality-levels of workers by 'screening-on-the-job' and setting a probationary period of one year. During this period you can observe workers' individual performance and decide whom to hire on a long-term contract. There are two different types of workers, Type A with a market wage of € 41,000 a year and type B with € 40,000 a year. The firm only wants to attract the A-type. B-type-workers are to be discouraged from applying. Assume furthermore that B-types slipping through the initial recruiting process will be revealed with a probability of 80 percent during the probationary period. Workers on long term contracts are employed for additional 20 years. Which probationary and post-probationary wages should be offered in the given case to induce desirable self-selection? Please explain your calculations and results. How would you have to adjust the wage spread if the probability of revealing Type B workers during the probationary period would decrease?

**B) Essay (max. 70 points)**

Please point out why an understanding of the "map" of human resource management, derived from the decomposition of the task of economic organization, is crucial to HR-managers. Please describe and explain the "map". Subsequently, leaving aside the institutional framework, please point out the link of HR-tools/-instruments discussed in class to the issues emphasized by the remaining pillars of the "map". Please reason why the former may constitute appropriate responses to cope with the latter. Finally, do not forget to name basic principles that a manager would have to have in mind as a prerequisite to efficiently utilizing the HR-instruments you propose.

**Good Luck!**