



**Stockholm
University**

Department of Economics

Course name: Law and Economics
Course code: EC 2105
Type of exam: REGULAR
Examiner: Lars Vahtrik
Number of credits: 7,5 credits
Date of exam: Sunday 13 April 2014
Examination time: 3 hours [09:00-12:00]

Write your identification number on each paper and cover sheet (the number stated in the upper right hand corner on your exam cover).

Use one cover sheet per question. Explain notions/concepts and symbols. If you think that a question is vaguely formulated, specify the conditions used for solving it. Only legible exams will be marked. Question 4 is a credit question. If you have handed in assignments during the course you may choose to answer this question anyway if you aim at a higher score. Note that in this case the score on the exam will be counted regardless of your score on the assignments!

No aids are allowed.

The exam consists of 4 questions. Each question is worth 25 points, 100 points in total. For the grade E 45 points are required, for D 50 points, C 60 points, B 75 points and A 90 points.

Your results will be made available on your "My Studies" account (www.mitt.su.se) on Thursday April 24 at the latest.

Good luck!

Question 1

- a) The main principle of contract law is that agreements should be enforceable. However, there are many exceptions to this main principle. Please discuss from an economic viewpoint why certain agreements are not enforceable in most jurisdictions, for example due to allocation of risk and information. The answer must include several examples of different situations when agreements are unenforceable. **(15p)**
- b) Please discuss how insurance may affect the precautions a potential injurer take to avoid damages. Explain how the insurance companies try to mitigate these risks. **(10p)**

Question 2

- a) An amoral but rational accountant is contemplating to embezzle money from his employer. A punishment in the form of a fine that is larger than the embezzled amount of money may not be enough to deter him from committing the crime? Explain why! There may also be counteracting factors that will ensure that the same fine is more than sufficient to deter the accountant from committing the crime. Name one and explain how it alters the accountants problem. **(6p)**
- b) Assume that our accountant is undeterred by the punishment. How will he decide how much money to embezzle? State the maximization problem and the marginal condition for the optimal amount of embezzlement and draw a graph illustrating the solution. **(7p)**
- c) The solution to the accountant's embezzling problem highlights two policy instruments available to deter crime. Discuss how to use these instruments efficiently. Use your result to explain why the optimal punishment usually includes the maximum fine. **(6p)**
- d) Explain why it may not be a good idea to let the punishment for embezzlement be the maximum punishment possible (fine and imprisonment) even if this is required to deter all embezzlement in society. **(6p)**

Question 3

An investor can invest in high reliance or low reliance upon the agent's future performance. The extra investment in high reliance is made outside of the contractual agreement with the agent. The payoffs for the investor and the agent with no enforceable contract are given by

		Agent	
		Perform	Breach
Investor	Invest & low reliance	0.5 0.5	-1.0 1.0
	Invest & high reliance	0.6 0.5	-2.0 1.0

The agent can appropriate the original investment but not the additional investment. As shown in the matrix the additional investment in high reliance costs 1. Calculate and explain the meaning of the "tipping point" or critical value of p (the probability that the agent performs). Show and explain why and when simple expectation damages may cause an inefficient outcome. Suggest a solution that guarantees an efficient outcome of the contract. **(25p)**

Question 4 (Credit Question)

Consider the company BIKES that is one of several companies on a perfectly competitive market where bikes are produced. The production of bikes imposes external cost on the city where the factory is situated. BIKES does not take into consideration the externality in the production, thus the resulting production is inefficiently high. Assume that there are two production technologies that BIKES can choose between; one is old and gives rise to high externalities and the other is new and gives rise to lower external costs. When using the old technology BIKES profit is \$1,000 per year. If the new technology is used the profit the first year is \$500 since there is a cost involved with installing the new technology. After the first year the yearly profit is \$1,100.

- a)** Draw a graph where you indicate the marginal private costs line (MPC) and the two marginal social cost lines (MSC) representing the two technologies. Draw the price line and indicate the quantity produced if BIKES maximize profit and does not internalize the external cost. **(5p)**
- b)** Assume that the city goes to court to have damages awarded in order to make BIKES internalize the externality. The court can either award temporary or permanent damages. The court has calculated the value of past and future damage to be \$4,000. Recall that permanent damages are a lump-sum payment, no further payment is necessary. The temporary damages will amount to \$1,000 if the old technology is used and \$800 if the new technology is used. Consider the hypothetical situation where the city, if temporary damages are awarded, will sue for additional temporary damages every year in four years (in total five years). What will BIKES total payoff for the five years (profit – damages) be, assuming that
- i)** permanent damages are awarded
 - ii)** temporary damages are awarded,
- under the two technologies? In this specific case, should the court award temporary or permanent damages if the aim is to create incentives for adopting the new technology? Why? **(10p)**
- c)** Discuss problems and benefits with both temporary and permanent damages. What types of costs do they impose? Discuss in what situations the two types of damages are efficient? **(5p)**
- d)** If the externality imposed by BIKES was private instead of public, what type of remedy would be the most efficient? Why? **(5p)**