

Examination: Economics IV - Economic Policy (5026)

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The following aids can be used: dictionary, calculator.

1. Explain the terms adverse selection and moral hazard. Give a real life example (different from those given in the lecture). Explain it briefly. Can state intervention alleviate the problem? (10 points)
2. What is a public good? Define the term and give a real life example. What does the Samuelson condition tell you? (10 points)
3. A city's Döner restaurants are accused of having created a cartel in the last year to raise prices. The restaurants' defence lawyer preset numbers that the combined sales revenues of the restaurants has even fallen in the critical time period. Hence, it would be absurd to accuse these suffering restaurants of colluding. As an economist you are invited as an external expert. Do you support the prosecution or the defence? What additional information do you need? Argue. (10 points)
4. The government introduces taxes on two commodities: bread and wine. The demand of bread is given by $p_B^D = 32 - 2x_B$ and for wine by $p_W^D = 22 - 4x_W$. Bread and wine supply is perfectly elastic; prices are given by $p_B^D = 4$ and $p_W^D = 2$. The government introduces a tax on bread of $t_B = 4$ and on wine of $t_W = 4$. (35 points)
 - a) Calculate equilibrium demand before the introduction of taxes and after the government has set the tax rates. Show the equilibria in the two markets in two diagrams.
 - b) How large are the tax revenues? What are the welfare effects (approximated by consumer and producer surplus), how large is the deadweight loss?
 - c) Define the terms marginal excess burden of public funds and marginal social costs of public funds.
 - d) Find the marginal excess burden for the two taxes as functions of the tax rates. Sketch them in one diagram.
 - e) What is the optimal set of tax rates that raise the same revenue as the original proposal?
5. A monopolist produces the good x . His production technology is given by $x = 2L$, where L is the number of workers. The wage per worker is $w = 2$. The demand for the good is given by $x(p) = 100 - 10p$. (35 points)
 - a) If x was produced competitively, what would be the market price and quantity? What are the quantity and the price if the monopolist could choose?
 - b) Suppose all workers are organized in a labor union. The union tries to maximize the aggregate income of its members, i.e. $V = wL$. What will be the wage set by the union, what is the monopolist price/quantity choice? (Hint: You can derive the labor demand function from the monopolist's quantity choice function.)
 - c) Depict the situation in a) and b) graphically. Indicate consumer surplus, profits, wages, and the welfare loss.
 - d) How large is the additional welfare loss created by the unionization of the labor market?