

**Exam: Environmental Economics
(SS 2014)**

1. Part (Udalov)

1. Task

- Explain the concept of an external effect. Give some examples for negative and positive externality.
- Show graphically how to internalize a negative external effect using a Pigovian tax. (10 points)

2. Task

- Name 3 standard-orientated environmental instruments and evaluate them using at least 3 criteria for the assessment of standard-oriented instruments. What is the most suitable instrument? (10 points)

3. Task

- Two firms are ordered by the federal government to reduce their pollution level. The abatement aim is 60 units ($A = 60$). The first firm's abatement cost function corresponds to

$$AC_1 = 100 + \frac{5}{2} A_1^2.$$

The second firm's abatement cost function is

$$AC_2 = 100 + \frac{7}{2} A_2^2$$

Calculate the cost efficient abatement of the respective firms and show the result graphically. (10 points)

2. Part (Wilts)

1. Task

- Explain the concept of resource efficiency and a double decoupling and main differences to classic environmental policy approaches. (10 points)

2. Task

- Describe two different market-based instruments and how they could support resource efficiency. (10 points)

3. Task

- What are key analytical dimensions how these instruments sum up to an efficient policy mix? (10 points)

3. Part (Erdem)

1. Task

- Please explain the 3 main objectives of energy policy (9 points)
- Please describe the trade-offs between those and support your answer with examples. (3 points)
- To which three additional objectives should serve EU-Member countries? (3 points)
- Please list the determinants of energy policy (3 points)

2. Task

- Please explain 3 of 4 concepts you choose: (4 points each)
 - (1) Carbon lock-in effect
 - (2) Ecological Kuznet's curve
 - (3) Dutch disease
 - (4) Development of demand elasticity for oil since 70s