Examination: Economics IV (Economic Policy/Public Economics)   **Winter 2006/07**

Examiner: Prof. Dr. Ronnie Schöb   **Exam Number:** 5026

Date: February 15th, 2007

Name, First Name

Student Number

Study Program and Semester

Remarks

1. The following aids can be used: dictionary, calculator according to the examination office's list.
2. The exam consists of 4 open questions. **All** questions have to be answered.
3. Total available time is **120 minutes**.
4. Please write readable and leave a margin at the right for corrections. For the multiple choice problems, please mark the correct answer directly on the problem sheet.

Good luck!

Problem 1 (30 points)

Suppose that the market for good y is characterized by a downward-sloping inverse demand curve $p(y)$ and a single producer is selling the good y at constant marginal costs.

    (a) Use a graphical illustration to show, in detail, the producer's calculus to determine the profit-maximizing amount of good y.

    (b) Using the same figure, explain why the outcome in (a) is not efficient.

    (c) In which way might a subsidy to the producer be helpful to ensure an efficient outcome? Again, show graphically!

    (d) Discuss how the government can achieve an efficient solution by setting a price cap.

Problem 2 (30 points)

Public goods cannot be efficiently provided by private markets.

    (a) Explain, why public good provision calls for government intervention.

    (b) In a two-person world, derive the Samuelson rule for the optimal provision of a public good. Use a suitable graph.

    (c) Derive the Samuelson rule formally.

Problem 3 (20 points)

To provide public goods, the government needs to raise tax revenue.

    (a) Economists often recommend to levy a high tax on goods, where demand is rather inelastic, and a low tax and goods, where demand is rather elastic. Explain the idea behind this rule. In doing so, assume that each good can be produced at constant marginal costs. Also provide a graph to illustrate your intuition.

    (b) Explain, why a certain amount of tax revenue should be raised by taxing as many goods as possible instead of just levying a distortionary tax on *one* good while leaving all other goods untaxed.

Problem 4 (20 points)

Discuss, in which way redistributive measures by the government are efficiency-enhancing.