Course name: **Public Finance**

Course code: **EC2106**

Semester: **Fall 2015**

Examiner: **Mikael Priks**

Number of credits: **7,5 credits**

Date of exam: **Saturday, 01-16-2016**

Examination time: **3 hours**

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

Do not write answers to more than one question in the same cover sheet. Explain notions/concepts and symbols. Only legible exams will be marked. **No aids are allowed.**

The exam consists of 3 questions. The first two questions are worth 40 points each and the last question 20 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.

If you think that a question is vaguely formulated: specify the conditions used for solving it.

Your results will be made available on your "My Studies" account (www.mitt.su.se) on the 5th of February at the latest.

Good luck!

Exam, Public Finance, 01-16-2016

This exam consists of three questions. The first and second question give 40 credits each and the last question gives 20 credits. p denotes prices and q quantities. To get full credit, you need to state and explain your results clearly. Good luck!

1. Externalitites (40)

a) Define a positive consumption externality.

b) How large tax rate should the government use in order to eliminate a negative externality? Why does this tax rate work? Show in a figure.

c) State the first and the second part of the Coase theorem. How does free riding affect the implication of this theorem?

d) Assume that the demand curve for a firm's honey production is given by p=a-bq. The supply curve is p=vq. Each unit of production also benefits fruit producers in the area. The benefit to others is eq per unit produced. What is the level of production without government involvement? What is the optimal level of production from the society's perspective? How large is the welfare loss in the private equilibrium without government involvement?

2. Political Economics (40)

a) Which are the three requirements for majority voting to be successful in aggregating preferences?

b) Expain Niskanen's theory of corruption and the Leviathan theory of corruption.

c) Assume that it costs 1 000 000 to build a public good. 900 individuals are willing to pay 2 000 for it. The other 1000 individuals in the society are not willing to pay anything. Assume that preferences are single peaked. Will the good be produced according to the median voting theorem? Explain. Should the public good be produced if social utility is maximized? Explain. State Arrow's impossibility theorem.

d) Assume that individual A has the preferences p=10-2q for a public good and individual B has the preference p=5-q. The marginal cost is equal to 3. How much should be produced in the society's optimum. How much should each individual pay if Lindahl pricing is used? Describe a potential problem if Lindahl pricing is used in practise.

3. Social Security (20)

a) Why does adverse selection lead to that the government might provide public pensions?

b) State the reforms we discussed in class that can deal with the long term funding problem.