UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4620 – Public Economics I**

Date of exam: Friday, May 15, 2015 **Grades are given: June 5, 2015**

Time for exam: 09.00 a.m. – 12.00 noon

The problem set covers 2 pages (not incl. the cover sheet)

Resources allowed:

- No resources allowed (except if you have been granted use of a dictionary from the Faculty of Social Sciences)

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Excess burden of taxation (30%)

1. Explain why there usually is an excess burden (efficiency loss) associated with taxation.

2. How do we measure the excess burden of taxation?

3. Consider a competitive economy with many consumer goods and leisure. Suppose the government introduces a small tax on a consumption good i.

   (a) What is the efficiency loss associated with the tax if i is the only good that is taxed?

   (b) What is the efficiency loss associated with the tax if all the other consumption goods (but not leisure) have a per unit tax τ.

Public goods and taxation (30%)

Consider an economy with one public good, g, and two private goods, x and y. Technology is such that producer prices are fixed and satisfy $p_g = p_x = p_y = 1$. The economy has n identical agents with endowments w of good x and utility functions

$$u^h(x, y, g) = x^h + ln(y^h) + \alpha ln(g)$$

for $h = 1, 2.., n$

1. What is the first-best optimal provision of the public good in this economy?

2. Suppose the government has to finance the public good with a per unit tax on the consumption of good y. Write down the budget constraints and solve for the optimal level of public goods in this case.

3. Could you think of a situation where the fact that the public good must be financed by a distortionary tax makes it optimal to provide more public good than if it was financed with a lump sum tax? Explain your answer.

Dividend taxation (20%)

Explain what is meant by "double taxation of dividends." Explain why this may be seen as harmful to investment under some condition(s), but not under other conditions.

Tax responsiveness (20%)

The Elasticity of Taxable Income (ETI) and the discrete choice labor supply model refer to two different methods to obtain information about individual tax responsiveness. Present the two methods and discuss their advantages.