YORK UNIVERSITY Faculty of LAPS

Final Examination December 16, 2011

Economics 4070.03AF : Public Finance I S. Bucovetsky

time=2 hours

The exam contains two sections, A and B. Section A is worth 40 % of the marks, section B 60 %. Note that there is some choice in each section.

A : 40 %(5 % per question)

Explain **briefly** the significance for the economics of taxation of any **8** of the following 10 terms.

1. output effect of a specific (partial) factor tax

2. equivalent variation to a tax increase

3. inverse elasticity Ramsey tax rule

4. flat (single bracket) income tax

5. accrual of capital gains

6. imputed income from owner–occupied housing

7. non–refundable tax credit

8. dividend tax credit

9. declining balance ("exponential") depreciation schedule

10. tax credit for foreign subsidiaries

continued

B : 60 % (15 % per question)

Answer any **4** of the following 8 questions.

1. What would be the incidence of a 5% tax (expressed as a fraction of the net, "before–tax" price) on some commodity, if the market for the commodity were perfectly competitive, if the demand curve for the commodity had the equation

$$Q^D = \frac{64}{(P^D)^2}$$

and the supply curve had the equation

$$q_s = p_s$$

where Q^D is the quantity demanded of the commodity, q_s is the quantity supplied, P^D is the price paid per unit of the commodity by demanders and p_s is the price per unit received by suppliers?

2. Is it possible that increasing tax rates on some commodities might actually decrease the overall excess burden of the tax system? Explain briefly.

3. Suppose that the average income in Canada depended on the marginal income tax rate, so that

$$\bar{y} = (50)(1-t)^a$$

where $\bar{y}$ was the average income (in thousands of dollars per year), t the marginal tax rate, and a some positive constant.

What tax rate t would be optimal from the point of view of the poorest people — those with no income — if all the tax revenue from the proportional income tax were used to fund a refundable credit (so that each person would pay a tax ty on her income of y, and would get a grant equal to the average tax revenue collected in Canada)?

4. Outline the main differences between the definition of income used in the Canadian personal income tax, and the Haig–Simons ("comprehensive") definition of income.

5. What would be the consequences of allowing Canadian taxpayers to deduct mortgage interest payments on their principal residence from taxable income, adjusting the rate schedule so as to keep the total revenue collected constant?

6. If a person regarded consumption when young as perfectly complementary with consumption when old (that is, if her indifference curves between consumption in the two periods were L–shaped), how would the tax rate on the return to saving affect the amount she saved?

7. Give **two** different examples of corporate income tax changes which would ensure that firms' investment decisions were not affected by corporate tax rates.

8. What is the effective tax rate on the profits of a foreign subsidiary, if the subsidiary's parent firm's home country uses the credit system of tax relief for foreign taxes paid? How would the parent firm's allocation of investment across countries be affected by tax considerations (if the parent firm's home country used the credit system)?