YORK UNIVERSITY Faculty of Arts

Final Examination December 19, 2005

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. specific factor tax
2. lump–sum taxation
3. inverse elasticity rule
4. flat (constant marginal rate) tax
5. accrual of capital gains
6. imputed income from owner–occupied housing
7. clawback of benefits
8. intertemporal budget constraint
9. neutrality of the corporate income tax
10. transfer pricing by multi–national firms

continued

B : 60 % (15 % per question)

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

1. Is the Harberger model of tax incidence in general equilibrium a long–run model or a short–run model? Discuss briefly.

2. If a person consumes only food and clothing, calculate the excess burden of a \$2 unit tax on her clothing consumption, if her preferences can be represented by the utility function

$$U(f, c) = f + 6\sqrt{c}$$

where c is her consumption of clothing, and f her consumption of food, if the net-of–tax prices of food and clothing are \$1 each, and if the person's income is 36.

3. Discuss the relation between the optimal tax rates on clothing, and on housing, if people's demand functions for clothing and housing could be written

$$C = \frac{A}{(P_C)^2 P_H}$$

$$H = \frac{A}{P_C (P_H)^2}$$

where C and H are quantities demanded of clothing and housing, P_C and P_H are the tax–inclusive prices of clothing and housing, and A is a positive constant.

4. Outline the main respects in which the return to owner–occupied housing is treated differently in the Canadian personal income tax than it would be treated using the Haig–Simons (or "comprehensive") definition of taxable income.

continued

5. How does the effective marginal tax rate vary with the taxpayer's income, for a taxpayer with one child, under an (imaginary) income tax system with the following rules? :

— the basic tax rate is 25 percent

— each individual gets a **non–refundable** tax credit of $12000

— there is a **non–refundable** tax credit of $6000 for each dependent child

— if the taxpayer's income is greater than $80,000, then the child tax credit is reduced by 25 cents for each dollar of income in excess of $80,000

— the child tax credit cannot be negative

— all income over $100,000 is subject to an additional tax, equal to 10 percent of any income in excess of $100,000

6. How could the personal income tax be designed so as to ensure that a dollar of income earned by an unincorporated firm was subject to the same tax, in total, as a dollar of corporate income, if the income (in each case) is paid out as a dividend to the firm's owners?

7. What would be the optimal capital structure of a firm, if its shareholders were not subject to any taxation on the return they earned from the firm's equity?

8. How should the Canadian tax system treat the earnings of American subsidiaries of Canadian corporations, if we wanted to maximize total Canadian income?