AS/ECON 4070 3.0AF   Midterm Exam   Wednesday October 27 2004

time $= 50$ minutes

Do **all 3** questions. All questions count equally.

1. Suppose a tax on hotel accommodation were introduced, of $10 per night per room. How much would the (tax included) price of hotel accommodation increase, if the hotel industry were competitive, and had a supply curve with the equation

$$q^s = 5000 + p_s$$

and a demand curve with the equation

$$Q^D = 6000 - 9P^D$$

where p_s is the price per room per night received by hotel owners, P^D is the price per room per night paid by customers, q^s is the quantity of rooms supplied per night, and Q^D is the quantity of rooms demanded per night?

2. Discuss how workers and capital owners would bear the cost of an excise tax on good X, in the Harberger (2 sector, 2 input) model of general equilibrium tax incidence.

3. What would be the excess burden of a unit tax of $1 on good Y, if the net–of–tax price were $3 (and its supply was perfectly elastic), and if the price of good X were $1 per unit, for a person (with total income 100) whose preferences could be represented by the utillity function

$$U(X,Y) = X + 24\sqrt{Y}$$

where X and Y are the quantities she consumes of the two goods?

end