

YORK UNIVERSITY

Faculty of Arts

Final Examination

May 12, 2001

Economics 2350DW 3.0 : Intermediate Microeconomic Theory II

S. Bucovetsky

time=2 hours

This exam consists of two sections. Part A counts for 42 percent of the grade, part B for 60 (that is, there are 2 bonus marks).

Part A :Definitions: Give the definition of any **7** of the following 10 terms. (42 marks: 6 per question)

1. productive efficiency
2. risk averse
3. Nash equilibrium
4. single price monopoly
5. two part tariff
6. cartel
7. Stackelberg model of duopoly
8. monopolistic competition
9. backward bending labour supply curve
10. perpetuity (or consol, or infinite-period annuity)

continued

Part B: Do any 5 of the following 8 questions. Answers should be brief and specific. (60 marks ; 12 marks per question)

1. True, false or uncertain? : If people could buy fire insurance for their houses, for whatever amount they wanted, at actuarially fair odds, then the amount of insurance a person would choose to buy would be an increasing function of how risk averse she was, as measured by her coefficient of absolute risk aversion. Explain briefly.

2. Find all of the Nash equilibria to the following game in normal form :

	<i>L</i>	<i>M</i>	<i>R</i>
<i>t</i>	(6, 5)	(6, 2)	(12, 12)
<i>b</i>	(8, 0)	(10, 2)	(5, 2)

3. What is the sub-game perfect Nash equilibrium to the following game? Players 1 and 2 own neighbouring houses, and someone has offered \$1 million for the two houses together. The offer is only valid for an hour. The players must decide how to split the money, before the offer expires.

Player 1 moves first, proposing some way of splitting the \$1 million.

Player 2 moves next, either accepting or rejecting the proposal. If he rejects player 1's proposal, he then gets to propose an alternative division of the money.

If player 2 does make such a counter-proposal, player 1 gets to accept or reject the counter-proposal. If she accepts, then they split the \$1 million according to the counter-proposal. If she rejects it, then the hour is up, the offer expires, and each player keeps her or his house.

Player 1 actually values her own house at \$400,000 (that is, she would rather keep the house than sell it for anything less than \$400,000), and player 2 values his own house at \$200,000.

4. Would charging a monopoly a unit tax (for example, 50 cents per unit sold) lead to a more efficient outcome? Explain briefly.

5. When a monopoly can charge different prices to different types of customer, which type of customer will face the highest price, if the monopoly chooses prices so as to maximize its total profits?

6. True, false, or uncertain? : The more firms there are in an oligopoly, the lower will be the equilibrium price in that industry. Explain briefly.

continued

7. What would be the labour supply function for a person who could work as many or as few hours as she wished, at a wage of w per hour, who had non-labour income of N , and who had preferences which could be represented by the utility function

$$U(C, H) = C + \frac{\sqrt{H}}{2}$$

where C was the value (in dollars) of her consumption spending, and H was the number of hours per week spent at “leisure” (that is, not spent at paid employment)?

8. A firm must decide which of 3 different projects to undertake on a piece of land it owns. It can undertake at most one of these three projects. (That is, they are mutually exclusive.) The following table lists the cost of each of the three projects, and the return from each project. The cost of each project will be incurred this year, while the return for each project will be earned a year after the cost is incurred.

If the firm’s discount rate per year is r , which project should it undertake?

project	1	2	3
cost	100	10	210
return	120	50	300

end