

Econ 2: Spring 2014: Sample Midterm I

1. Identifications (20 minutes—if you are not through after 20 minutes, skip to the next question): Briefly, in one or two sentences, explain the terms set out and how they have been used in the course so far:

a. Demand Curves

b. Producer Surplus

c. Externalities

d. Market Failure

2. (20 minutes—if you are not through after 20 minutes, skip to the next question): Go back to our first-run opening-week movie-industry monopoly example: 4000 people in the town; one movie theatre; ample capacity to seat everyone who might want to come to see this week's first-run movie. Demand Curve: $P_d = 20 - .01 Q$. No variable or marginal costs of showing the movie to more people: a non-rival good. Suppose that it costs \$1000 to make a movie.

a. How many people should see the movie if we are to maximize societal well-being? What price should be charged to moviegoers? How much consumer surplus is there? How much is there in the way of costs that must be covered somehow?

b. Suppose people worry that government bureaucracies will produce lousy movies, so it is decided not to nationalize the movie industry but instead to let a monopoly make and show movies. What happens?

c. Suppose that other movie companies petition for the right to use the theatre, and get it. Suppose that if N movie companies make movies, each sells $2000/(N+1)$ tickets, and the price of tickets is the price at which that number of tickets satisfies demand. In equilibrium—where it is not worth another movie company's while to enter the market—how many movies will be made each week? What will the consumer surplus be? What will the producer surplus be?

3. (20 minutes—if you are not through after 20 minutes, skip to the next question): Let's go back to our six producers, Arya, Bran, Tegan, Taylor, Sarah, and Zedd, trying to decide whether they should go to work teaching yoga lessons or pulling lattes. In an hour the six workers could each teach at most the following number of yoga students: Arya 10; Bran 6; Tegan 4; Taylor 10; Sarah 2; and Zedd 0. In an hour the six workers could prepare at most the following number of lattes: Arya 60; Bran 10; Tegan 20; Taylor 30; Sarah 30; and Zedd 60. The government sets the value of its currency, the pound, so that £1 purchases one latte. Call the price paid to the yoga instructor by each yoga student £Y.

a. Suppose that the price £Y of a yoga lesson is £5.50. Who would rather teach yoga? Who would rather draw lattes?

b. Suppose the price of a yoga lesson is £10. Who would rather teach yoga? Who would rather draw lattes?

c. Suppose the price of a yoga lesson is £15. Who would rather teach yoga? Who would rather draw lattes?

d. With the price of yoga lessons along the vertical axis and the quantity of yoga students taught on the horizontal axis, draw the supply curve for yoga lessons for the economy.

4. (20 minutes—if you are not through after 20 minutes, skip to the next question): Suppose that you find yourself the subject of some bizarre psychology experiment. You are seated in a locked room with a sociology or an anthropology major, and you have ten minutes to persuade him or her in ten minutes that it is broadly and on balance a good thing that we here today have a mixed and market-heavy economy rather than a centrally-planned economy like Stalin's Russia, Mao's China, Castro's Cuba, or (shudder) Kim Jong Un's North Korea. If you succeed, you win \$1000. If you fail, you get nothing.

Write down, in order of importance, the things you would say to try to convince your experiment partner that it is broadly and on balance a good thing that we here today have a mixed and market-heavy economy.