In-Class Practice Questions
Thursday, April 29, 2004

ANSWER ALL FIVE QUESTIONS.

#1.  20
#2.  25
#3.  20
#4.  15
#5.  20
The demand curve for salted codfish is 
\[ D(P) = 100 - 5P \] and the supply curve is 
\[ S(P) = 5P. \]

(a) The equilibrium market price is _______. (3 points)

(b) The equilibrium quantity sold is _______. (3 points)

Suppose a quantity tax of $2 per unit sold is placed on salted codfish.

(c) The new price paid by the demanders will be _______. (3 points)

(d) The new price paid by the suppliers will be _______. (3 points)

(e) The equilibrium quantity sold will be _______. (3 points)

(f) The deadweight loss due to this tax will be _______. (5 points)
Ferdinand Sludge has just written a disgusting new book, *Orgy in the Piggery*. His publisher, Graw McSwill estimates that the demand for this book in the U.S. is \( Q_1 = 50,000 - 2000P_1 \), where \( P_1 \) is the price in America measured in U.S. dollars. The demand for Sludge's opus in England is \( Q_2 = 10,000 - 500P_2 \), where \( P_2 \) is its price in England measured in U.S. dollars. His publisher has a total cost function \( C(Q) = $50,000 + $2Q \), where \( Q \) is the total number of copies of Orgy that it produces. (HINT: What is the publisher's marginal cost?)

Suppose McSwill can charge a different price in each country and wants to maximize profits.

(a) How many copies should it sell in the U.S.? __________________________.  
(3 points)

(b) What price should it charge in the U.S.? __________________________.  
(3 points)

(c) How many copies should it sell in England? __________________________.  
(3 points)

(d) What price should it charge in England? __________________________.  
(3 points)

(e) How much will its total profits be? __________________________.
Suppose McSwill must charge the same price in both countries and wants to maximize profits.

(f) How many copies should it sell? __________ ________. (3 points)

(g) What price should it charge? __________ ________. (3 points)

(h) How much will its profits be? __________ ________. (4 points)
#3. (20 points)

What is a Giffen good? Be sure to use indifference curve analysis in providing your answer.
#4. (15 points)

Consider a non-discriminating monopolistic firm. Compare and contrast the firm's output and pricing decisions under three different objectives: (i) profit maximization; (ii) revenue (sales) maximization; and (iii) welfare maximization (social optimization). In other words, how does the firm's decisions vary under these differing objectives.
#5. (20 points)

Consider a market with one large firm (dominant firm) and many small firms (competitive fringe). The supply curve of the small firms taken together is:

\[ S(p) = 100 + p. \]

The demand curve for the product is:

\[ D(p) = 200 - p. \]

The total cost function for the one large firm is:

\[ c(y) = 25y. \]

Suppose that the large firm is forced to operate at a zero level of output.

(a) What will be the equilibrium price? ________________.

(2 points)

(b) What will be the equilibrium quantity? ________________.

(2 points)

Suppose now that the large firm attempts to exploit its market power and set a profit maximizing price. In order to model this we assume that customers always go first to the competitive firms and buy as much as they are able to and then go to the dominant firm. In this situation, describe the equilibrium.

(c) What will be the equilibrium price? ________________
(d) What will be the quantity supplied by the dominant firm? _______.
    (4 points)

(e) What will be the quantity supplied by the competitive firms? _____.
    (4 points)

(f) What will be the large firm's profits? _________________.
    (4 points)