

# Revenue recognition assignment

[Economics](#)



Econ 110 (L3) Midterm Exam Spring, 2007 Part I: Multiple Choice Questions – 50% Part II: Essay Questions – 50% Question 1 (15%) a) A professor would prefer to have all students attending lectures and have all questions answered in class, than to give extra office hours to answer those questions raised by individual students. Explain his rationale based on economic theory you have learned. MC of lecturing an extra student is almost 0 during usual lecture hours but would be much higher if each student is dealt with separately during office hours. ) It is mentioned in class that a fair and random assignment of “ A” s to students is usually not allocative efficient. Do you think there is any exception to this observation? Yes. With luck, the random assignment can still have all students aligned according to their MB, from high to low. Giving “ A” s to those above MC is still allocative efficient.

Question 2 (20%) Suppose you are an aide (assistant) to a U. S. Senator who is concerned about the impact of a recently proposed excise tax on the welfare of her constituents.

You explained to the Senator that one way of measuring the impact on her constituents is to determine how the tax change affects the level of consumer surplus enjoyed by the constituents. Based on your arguments, you are given the go-ahead to conduct a formal analysis, and obtain the following estimates of demand and supply: [pic] and [pic] . a) Graph the supply and demand curves. b) What are the equilibrium quantity and equilibrium price? c) How much consumer surplus exists in this market? d) If a \$2 excise tax is levied on this good, what will happen to the equilibrium price and quantity? e) What will the consumer surplus be after the tax? . See Figure 2-17. Figure 2-17 b. Equilibrium quantity and price are 100 units and

\$80, respectively. c. Consumer surplus =  $\frac{1}{2}(100 - 80) \times (100) = \$1,000$ . d. Note that before the excise tax, the inverse supply function is  $P = 30 + .5Q_s$ . A \$2 excise tax shifts the inverse supply function up by the amount of the tax, so the inverse supply function after a \$2 excise tax must be  $P = 32 + .5Q_s$ . This means that the supply function after the tax is  $Q_s = 2P - 64$  (Note that this expression is equivalent to  $Q_s = 2(P-2) - 60$ , since the producer must pay \$2 to the government for each unit sold).

The demand function remains unchanged at  $Q_d = 500 - 5P$ . Setting  $Q_s = Q_d$  and solving for price, we obtain  $P = \$80.57$ . Plug this price into either the demand or supply function yields the equilibrium quantity,  $Q = 97.14$ . e. Consumer surplus (post tax) =  $\frac{1}{2}(100 - 80.57) \times (97.14) = \$943.72$ .

Question 3 (15%) Brazil has comparative advantage in producing coffee, and has a domestic market price of coffee that equals to [pic] in equilibrium which is much lower than the world price of [pic].

If Brazil decided to participate in the world coffee market by exporting coffee at the world price and at the same time selling to domestic consumers at the same price [pic]. Show the gain from trade with a diagram. Please give brief description of it. Selling at a higher price reduces the quantity demanded locally, and the excess supply will be the amount exported. Gain from trade will be the total of (reduction in consumer surplus) and (increase in producer surplus), which with the aid of a diagram should indicate the latter being bigger than the former - so a net gain in total surplus due to trade.

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