Name: **Key**

Econ 280

**Exam 01**

* There are 110 possible points on this exam. The test is out of 100.
* You have one hour to complete this exam, but you should be able to complete it in less than that
* Please turn off all cell phones and other electronic equipment.
* You are allowed a calculator for the exam. This calculator cannot be capable of storing equations. This calculator cannot double as a cell phone.
* Be sure to read all instructions and questions carefully.
* Remember to show all your work.
* Recall basic logic. “Water is wet” is a true statement. “Water is wet and leopards have stripes” is a false statement.
* *Please print clearly and neatly.*

**Part I: Multiple Choice.** *Choose the best answer to the following.* 5 points each.

1. Which of the following is an example of 2nd degree price discrimination?
	1. Coupons
	2. Buying one lets you get the second one at half price
	3. Buying in bulk
	4. **B & C**
	5. None of the above

*Option C is also 2nd degree price discrimination.*

1. What is 1st degree price discrimination also called (as in, another name for it, not an example)?
	1. **Perfect price discrimination**
	2. Bundling
	3. Tying
	4. A & B
	5. None of the above

*The others are examples of general types of price discrimination.*

1. Fred the baker lowers his price on bread which causes his revenues to increase. What does this suggest about the elasticity of demand of his bread?
	1. **It is elastic because quantity demanded increase disproportionately more.**
	2. It is inelastic because bread is a relatively small part of a person’s budget.
	3. It is elastic because there are many substitutes for Fred’s bread.
	4. A & C
	5. None of the above

*While C is true, that is not related to changes in revenue. A is related.*

1. Which of the following most likely has a perfectly inelastic supply curve?
	1. Seeds for fruit trees
	2. Health insurance
	3. **Prehistoric cave paintings**
	4. *Star Wars* movies
	5. None of the above

*By definition of the thing, no more can be made.*

1. Price discrimination:
	1. Results in two different prices for the same good.
	2. Eliminates deadweight loss.
	3. Requires price setting power.
	4. **A & C**
	5. None of the above

*Price discrimination is the process of having two different prices for the same good; this requires some degree of price setting power.*

1. Which of the following is ***not*** one of Adam Smith’s explanations why specialization encourages efficiency?
2. Less time switching between tools
3. **Natural talent matches specific jobs**
4. Learned dexterity
5. A & B
6. None of the above

*This explanation originates from David Ricardo, not Adam Smith.*

1. US Highway 12 is part of a two-lane artery from the seaports in Washington State to the tar sands in Canada. Extracting oil from the tar sands requires very large equipment: transporting it takes up both lanes of US 12. In August of 2010, Idaho granted ConocoPhilips a road permit which allowed it to transport four oil processing units. Without this permit, ConocoPhilips would have to those units a much longer distance to get to their destination. If no permits for US 12 were allowed, how would that affect the elasticity of which curve in the market for oil?
	1. The supply curve would become more elastic
	2. The supply curve would become less elastic
	3. The demand curve would become more elastic
	4. A & C
	5. None of the above

*Without the permit, the number of substitutes for inputs decreases. This makes the supply curve less elastic (or more inelastic).*

1. Wanda runs a business making and selling fuel injectors. Her customers are small repair shops. Then she hears that General Motors is interested in getting a new fuel injector supplier but to even have a chance at winning their business, Wanda will have to drastically upgrade her production capacity. What kind of specialized investment is Wanda making?
2. Site specificity
3. Physical-asset specificity
4. **Dedicated asset**
5. Human capital
6. None of the above

*This is a dedicated asset because while the expansion could be used to make something to sell to customers who are not GM (such as the repair shops), the only reason she would make such an investment is to sell to GM. The repair shops simply would not be able to handle the volume of fuel injectors GM would want to supply its fleets of vehicles.*

1. In the market for backpacks, suppose 100 backpacks are sold at $40 each. Then a fall in wages results in the price of backpacks selling for $20 each with 500 backpacks sold. Using the midpoint method (or arc elasticity), what is the absolute value of the elasticity of demand for backpacks?
	1. 0.125
	2. 0.50
	3. **2.00**
	4. 8.00
	5. None of the above

*This is just applying the formula we covered in class:*

*((100-500)/((100+500)/2)) / ((40-20)/((40+20)/2)) = (-400/300) / (20/30) = -2, or 2.00.*

1. How would the Coase Theorem suggest people remove a negative externality?
2. **Bargaining/trading**
3. Taxing the externality
4. Subsidizing the externality
5. B *or* C
6. None of the above

*The Coase Theorem emphasizes allowing people trade so the externality can be internalized. The other two options originate from Pigou.*

**Part II: True/False.** *Answer true or false, and justify your answer.* 10 points each.

1. Consider the fact that vendors often travel to the headquarters of large retailers (e.g. Costco and Wal-Mart) to try to encourage them to stock their goods. Also consider the fact that most of these meetings do not go well for the vendor. With these facts in mine, vendors tend not to try as they should when at these meetings.

*True. Traveling to a firm’s HQ is a specialized investment. In order to strike a deal, the firm must swallow a cost that’s only useful for a particular transaction—going to Wal-Mart’s HQ won’t help you strike a deal with Target or Costco. As with all specialized investments, this discourages participants from investing as much as what’s optimal. No one wants to make an impressive presentation only to have their product rejected for reasons beyond their control.*

1. If Europe had more mountains crisscrossing it, more morticians would double as medical examiners. (HINT: Morticians and medical examiners are often the same person in a small town.)

*True. Recall those important words from Adam Smith: the division of labor is limited by the extent of the market. If there are many mountains, towns are more independent from one another which limits the extent of the market. Smaller markets mean less specialization, as small towns illustrate by a person doubling as a mortician and ME.*

1. Both rebates and bundling are examples of 3rd degree price discrimination.

*False. While rebates are an example of 3rd degree price discrimination, bundling is closer to 1st degree since—if done correctly—everyone’s being charged their reservation price for the bundle even if their reservation prices for each part of the bundle is different.*

**Part III: Short Answer.** *Answer the following.* 15 points each.

1. Matilda “Maharajah of Meditation” Mason maintains Mega Mats, a mattress manufactory and maker of the Massive Mat. Massive Mats are carefully made gigantic mattresses, requiring a great deal of specialized equipment that won’t work with padding of any other size or texture. Suppose that the price of her mattresses falls thanks to a reduction in employment (people can’t afford an oversized mattress). Once selling 3,000 Massive Mats at $500 each, Matilda’s now selling 2,000 at $300 each. Using arc price-elasticity, calculate the elasticity of supply and indicate if the supply of Massive Mats is elastic, inelastic, or unit elastic. Then explain why your answer makes sense given the information above and keeping in mind the determinants of elasticity of supply.

*Ok first the calculation (you shouldn’t need a calculator but you could use one if you need to):*

$$\frac{{3000-2000}/{\frac{3000+2000}{2}}}{{500-300}/{\frac{500+300}{2}}}=\frac{{1000}/{2500}}{{200}/{400}}=\frac{{2}/{5}}{{1}/{2}}=\frac{4}{5}=0.8$$

*Note the result is inelastic since the result is less than one.*

*Why does this make sense? Because Massive Mats use specially made equipment—Matilda’s factory is not flexible. If the price of her mats falls, she can’t even switch to a smaller mat. Making these mats is about the only things she can use her capital for.*

*Note the implications this has for Matilda when times are good: it’s particularly important to charge a high price when the market can bare it because she’ll need that income to cover her overhead during lean times. This is why jewelry often has a high mark-up: it’s a luxury item with an inelastic supply curve.*

1. We discussed why productivity increases when people specialized. Specifically, we discussed two basic theories: one from Adam Smith and one from David Ricardo. Explain the difference between these theories. Also provide an example of a ***person***’s specialization leading to greater productivity that either Ricardo or Smith could explain but the other could not. Be sure to justify your answer.

*The main distinction between Smithian and Ricardian specialization is that Smith notes efficiency gains occur even though different people are interchangeable. The greater productivity originates from people doing the same job over and over again. Ricardo emphasizes how differences in people’s endowments lead to greater efficiency because people can leverage that advantage into greater productivity.*

*Consider the jobs of a jockey and a basketball player. While Smith would be able to explain some of the efficiency gain when two people move from doing both to each doing one (a person wouldn’t have to drive to two different locations and would have less opportunity to develop the needed muscle memory, for example), he wouldn’t be able to explain why it matters which person specializes in what. That the taller person would better at basketball and the shorter at riding a horse can only be explained by their endowment. If the taller person rode and the shorter person shot, they wouldn’t be as good if the roles were reversed: something that Ricardian specialization can explain but Smithian specialization cannot.*