

Introduction to Agricultural Economics
Agricultural Economics 105
Spring 2015
Second Hour Exam – Version 1

Name _____ Section _____

There is only *ONE* best, correct answer per question. Place your answer on the attached sheet. DO NOT RIP THE ANSWER SHEET FROM THE TEST. HAND IN BOTH THE TEST AND ANSWER SHEET. Each question is worth 2 1/2.

1. The government wants to discourage its citizens from smoking cigarettes. A politician determines the best method would be the imposition of a lump sum tax on cigarette producers. Is this an effective method to discourage smoking?
 - a. Yes, the companies will produce fewer cigarettes and make lower profits.
 - b. Yes, the companies will charge a higher price for cigarettes.
 - c. No, the companies will charge a lower price and sell more cigarettes.
 - d. No, the companies will charge the same price and sell the same quantity of cigarettes.
 - e. There is not enough information to answer this question.

2. Now suppose another politician determines the best method would be the imposition of a per unit tax on cigarette producers. Is this an effective method to discourage smoking?
 - a. Yes, the companies will produce fewer cigarettes and make lower profits.
 - b. Yes, the companies will charge a higher price for cigarettes.
 - c. No, the companies will charge a lower price and sell more cigarettes.
 - d. No, the companies will charge the same price and sell the same quantity of cigarettes.
 - e. There is not enough information to answer this question.

3. Suppose a grocery store sells chicken and pork. You calculate the cross price elasticity for chicken as 1.2. The store has a sale on pork. What happens to the demand curve for chicken?
 - a. No change to the demand curve for chicken.
 - b. Leftward shift of the demand curve for chicken.
 - c. Rightward shift of the demand curve for chicken.
 - d. Movement along the demand curve for chicken.
 - e. Only a shift in the demand curve for pork.

4. Frank Underwood wants to win an election to the city council. He proposes a law that regulates the maximum price to be charged for rent of an apartment. This is an example of
 - a. a price floor.
 - b. a price ceiling.
 - c. a price basement.
 - d. a price window.
 - e. none of the above

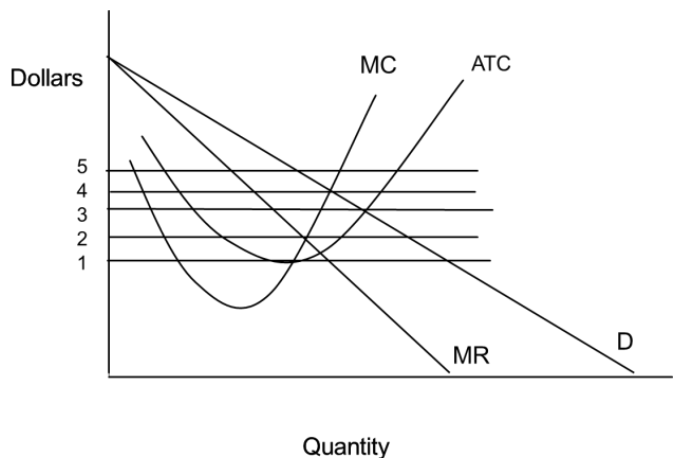
5. What is the effect of the policy from **Question 4**, if the competitive equilibrium price is \$500 dollars and the new maximum price allowed is \$100?
 - a. A shortage of apartments.
 - b. A surplus of apartments.
 - c. Everyone gets an apartment that wants one.
 - d. Many new apartments are built to take advantage of the new price.
 - e. No effect.

6. Petyr owns a steel mill that emits pollution, a negative externality. The pollution leads to costly health problems for the neighbors. The marginal cost to society of producing the steel includes
 - a. Petyr's marginal cost to produce steel and the price consumers pay for steel.
 - b. the health costs of those affected by pollution.
 - c. the price consumers pay for steel.
 - d. Petyr's marginal cost to produce steel.
 - e. Petyr's marginal cost to produce steel and the health costs of those affected by pollution.

7. Tryion owns a winery located next to a steel mill owned by Joffrey. Currently, Joffrey does not control the level of pollution of his mill which is causing \$100 in damage to Tyrion's winery. The cost to control the pollution is \$25. When the pollution is controlled, Tyrion produces \$50 more in his winery. One possible outcome of applying the Coase theorem is
 - a. Tyrion should pay for the control for Joffrey.
 - b. Joffrey is the one polluter, under the polluter pay principle, Joffrey should install the pollution control.
 - c. the government should force Joffrey to install the pollution control.
 - d. the cost for Tyrion to purchase the pollution control is higher than his benefits.
 - e. nothing can be done to solve the problem.

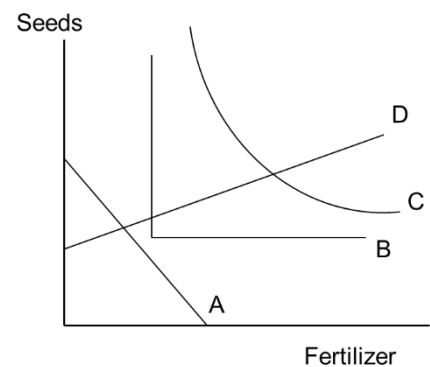
8. Which of the following is the NOT an example of a public good?
- National defense.
 - An outdoor firework show.
 - A large public park.
 - Your car.
 - A lighthouse
9. You have just been given a brand new car. The only caveat is you must let anyone drive your car anytime they desire. Which characteristic of property rights has been violated?
- Universality.
 - Exclusivity.
 - Transferability.
 - Enforceability.
 - All of the above.
10. A large number of restaurants sell hamburgers; examples include Chili's, McDonald's, Burger King, Wendy's, Whataburger, etc. No two burgers, however, are exactly the same. The burger market is an example of
- Perfect competition.
 - Monopoly.
 - Oligopoly.
 - Monopsony.
 - Monopolistic competition.
11. A tradeoff exists between a clean environment and economic activity in that
- studies show that individuals with higher levels of income pollute less than low-income individuals.
 - efforts to reduce pollution typically are not completely successful.
 - laws that reduce pollution raise costs of production which reduce output.
 - employing individuals to clean up pollution causes increases in employment and income.
 - there is no effect.
12. If the market demand curve for a commodity has a negative slope then the market structure must be
- perfect competition.
 - monopoly.
 - oligopoly.
 - monopolistic competition.
 - The market structure cannot be determined from the information given.

13. A monopolist charges \$20 / unit of output and currently sells 24,000 units. Its marginal revenue is \$7 and its marginal cost is \$5 and rising. Using only this information, the monopolist should
- do nothing.
 - increase output to increase economic profits.
 - shut down.
 - decrease output which will cause an increase in price.
 - decrease output, which will result in an increase in the firm's positive economic profit
14. The first piece of legislation prohibiting restrictive business practices was the
- Clayton Act of 1914.
 - Robinson Act of 1878.
 - Packers and Stockyards Act of 1921.
 - Capper-Volstead Act of 1922.
 - Sherman Act of 1890.
15. The U.S. beer industry is characterized by only a few firms, with the largest firm having a fifty percent market share. One reason for this is economies of scale. This means that
- as beer production increases, costs increase significantly.
 - patents have allowed beer producers to have low costs of production.
 - as beer production increases, the average total cost of production falls.
 - if the industry were made perfectly competitive, the costs of production would fall.
 - government limits entry into the beer industry.
16. The relevant portions of the demand curve for a monopoly and a firm in monopolistic competition are ____ and ____.
- elastic and elastic.
 - elastic and unitary.
 - inelastic and elastic.
 - inelastic and unitary.
 - inelastic and inelastic.
17. Given the following monopoly market structure, what price will be charged?
- 5.
 - 4.
 - 3.
 - 2.
 - 1.



18. To address climate change, the U.S. EPA is considering requiring all firms that emit CO₂ to install a Carbon Capture and Storage Technology. This is an example of
- a per unit tax.
 - a lump sum tax.
 - Coase theorem.
 - command and control.
 - government intervention in a market characterized by perfect competition.
19. Under which type of market structure is it predicted that firms will follow another firm's price decreases but not their price increases (stickiness in prices).
- Oligopoly.
 - Monopoly.
 - Perfect competition.
 - Monopolistic competition.
 - All structures.
20. If the $\frac{MPP_{\text{labor}}}{\text{wage rate}}$ ratio is equal to $\frac{50}{10}$ and the $\frac{MPP_{\text{capital}}}{\text{rental rate}}$ ratio is equal to $\frac{2500}{500}$, what would you suggest to the producer to increase profits?
- Use more labor as it is cheaper.
 - Use more capital as it is cheaper.
 - Use more labor as its cost per unit of production is cheaper.
 - Use more capital as its cost per unit of production is cheaper.
 - Do nothing.

21. Which of the isoquants best describe the relationship between fertilizer and seeds in corn production discussed in class?



- A.
 - B.
 - C.
 - D.
 - All were discussed in class in relationship to isoquants.
22. The rate at which the business is willing to substitute between two inputs in the production process and keep the same production level is known as:
- production possibilities curve (PPC)
 - marginal rate of product transformation (MRPT)
 - rate of diminishing marginal utility
 - marginal rate of technical substitution (MRTS)
 - marginal rate of substitution in exchange

23. Production possibilities curves (PPC) typical are negatively sloped, implying
- that the perfectly competitive market structure is the best economic way to allocate resources.
 - that society must choose among various attainable combinations of goods.
 - that economic resources are unlimited.
 - that society faces decreasing opportunity costs.
 - private and public goods need to be allocated differently.
24. The difference between a pure public good and a pure private good is a public good is _____ and _____ in consumption, whereas, a private good is _____ and _____ in consumption
- non-rival and elastic; non-rival and inelastic
 - not associated with consumer and producer surplus; associated with producer and consumer surplus
 - non-excludable and non-rival; excludable and rival
 - excludable and rival; non-excludable and non-rival
 - inferior and elastic; normal and luxury
25. To encourage increased production, the country of ZODOOV is considering setting the minimum price for natural gas at \$23 / million cubic feet. To be binding this price must be
- above the competitive market equilibrium price.
 - below the competitive market equilibrium price.
 - equal to the competitive market equilibrium price.
 - does not matter as the government set price will prevail.
 - equal to the competitive price plus the per unit tax being added to natural gas.
26. In terms of deadweight loss to society, which of the following is the correct ranking of market structures (rank largest to smallest deadweight loss)?
- Perfect competition, monopoly, monopolistic competition.
 - Perfect competition, monopolistic competition, monopoly.
 - Monopoly, perfect competition, monopolistic competition.
 - Monopoly, monopolistic competition, perfect competition.
 - Monopolistic competition, perfect competition, monopoly.

Use the following information for questions 27-29. Two trucking firms exist to move goods between El Paso and Midland. The following payoff matrix shows their profits for alternative pricing strategies. The two firms can either keep the rates the same or cut their rates.

		AAA Trucking Company	
		Cut Rates	Hold Rates
Joe's Excellent Trucing Service	Hold Rates	AAA = \$500 Joe's = \$100	AAA = \$400 Joe's = \$400
	Cut Rates	AAA = \$250 Joe's = \$150	AAA = \$200 Joes' = \$450

27. Assuming no collusion, what is the best strategy for Joe's Excellent Trucking Service if the AAA trucking company decides to hold their rates / cut their rates?

- a. Hold / Cut rates.
- b. Hold / Hold rates.
- c. Cut / Hold rates.
- d. Cut / Cut rates.
- e. Not enough information given.

28. If the two firms are allowed to collude and trust each other, the outcome of the games is

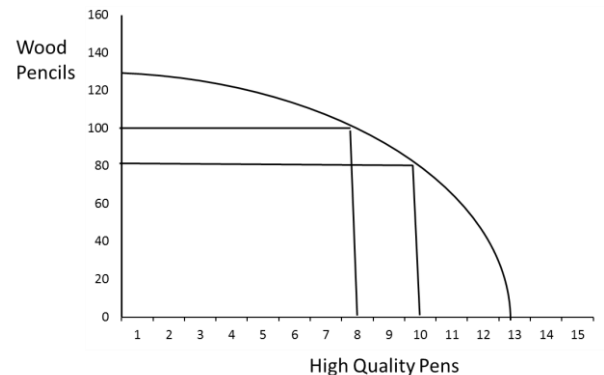
- a. Both firms Hold their rates.
- b. Both firms Cut their rates.
- c. Joe's Cuts their rates but AAA Hold their rates.
- d. Joe's Hold their rates but AAA Cuts their rates Cut / Cut rates.
- e. Not enough information given.

29. If the two firms are not allowed to collude, the outcome of the games is

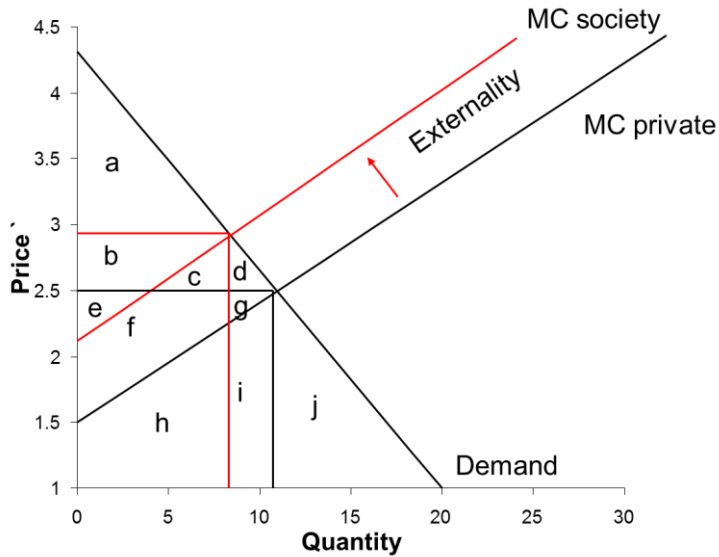
- a. Both firms Hold their rates.
- b. Both firms Cut their rates.
- c. Joe's Cuts their rates but AAA Hold their rates.
- d. Joe's Hold their rates but AAA Cuts their rates Cut / Cut rates.
- e. Not enough information given.

30. Calculate the marginal rate of product transformation for the following production possibility curve for the two points illustrated.

- a. 10
- b. -10
- c. 1
- d. -0.1
- e. -10



Use the following graph of a negative externality to answer questions 31 - 32.



31. Which area represents the change in consumer surplus if the market goes from the market equilibrium to the equilibrium associated with society's optimal point?

- a. a.
- b. $a + b + c + d$.
- c. $b + c + d$.
- d. $e + c + f$.
- e. $a + b + c$.

32. Which of the following statement is incorrect concerning the figure?

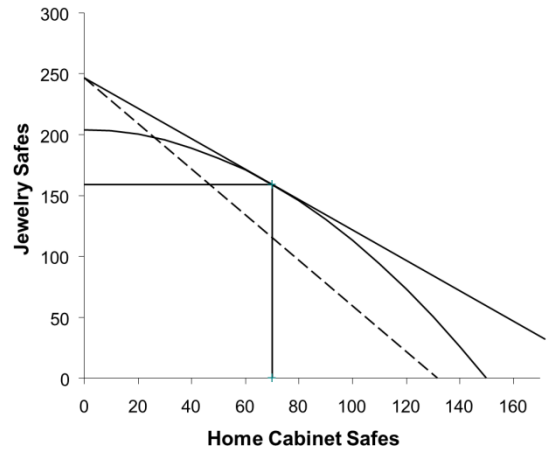
- a. A Pigovian tax places a price on the right to pollute.
- b. The equilibrium quantity of output in the market is greater than the socially optimum.
- c. The equilibrium price in the market is greater than the socially optimum.
- d. Too much of the pollution is being produced.
- e. The market fails to allocate resources efficiently.

33. Which of the following are examples of differentiated products?

- a. Coke and Pepsi.
- b. 7-11 Store and Rattlers Country Store.
- c. Dell Computers and HP Computers.
- d. Exxon gasoline and Shell gasoline.
- e. All are examples.

34. The U.S. Security Company's production of Jewelry Safes and Home Cabinet Safes is depicted by the following graph. The two solid lines represent the company's situation before any change. The shift from the solid line to the dotted line represents a

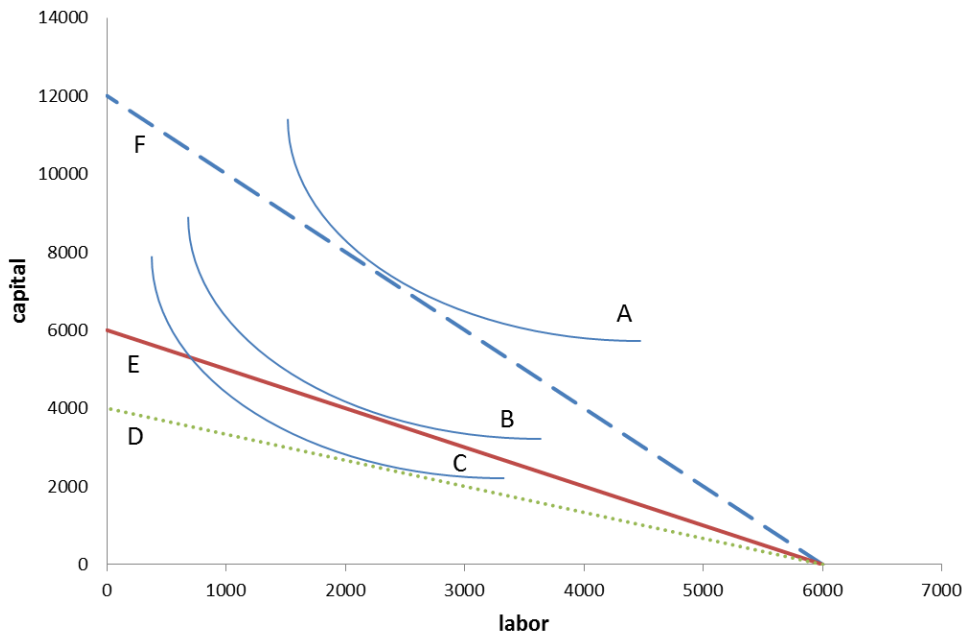
- a. increase in the price of Home Cabinet Safes.
- b. increase in the price of Jewelry Safes.
- c. decrease in the price of Jewelry Safes.
- d. decrease in the price of Home Cabinet Safes.
- e. increase in production technology.



35. For the shift represented in question 34, U.S. Security Company's new equilibrium would be best represented by

- a. increase in the production of both Cabinet safe and Jewelry safes.
- b. decrease in the production of both Cabinet safe and Jewelry safes.
- c. increase in the production of Jewelry safes and decrease in the production of Cabinet safes.
- d. decrease in the production of Jewelry safes and increase in the production of Cabinet safes.
- e. Price information is necessary to answer this question.

Refer to the following figure for questions 36 - 38. This figure represents the amount of capital and labor necessary to produce cell phones.



36. What is changing between the three isoquants lines given in the figure?
- Price of labor relative to capital.
 - Price of capital relative to labor.
 - Total costs.
 - Level of output.
 - Technology.
37. Assuming the price of labor is \$20 / unit and capital is \$30 / unit and the firm has \$120,000 to spend, what is the least cost combination of inputs that maximizes production?
- Use all labor as this input is cheaper.
 - Tangency between lines C and D.
 - Tangency between lines B and E.
 - Tangency between lines A and F.
 - Need to know MR and MC curves.
38. Which isoquant is associated with the largest output level?
- F
 - E
 - D
 - A
 - C
39. Total water use and population in the U.S have
- both been increasing.
 - both been decreasing.
 - water use has been decreasing and population increasing.
 - water use have been fairly constant while population has been increasing.
 - both have been fairly constant over the past several decades.
40. In England, fishing streams, lakes, and rivers are almost all privately owned. In the United States, fishing streams, lakes and rivers are mostly owned by state, tribal, or federal governments. Because of the incentives in these two systems
- streams, lakes, and rivers are probably better protected from over-fishing and pollution in England
 - streams, lakes, and rivers are probably better protected from over-fishing and pollution in the United States
 - streams, lakes and rivers are probably equally protected from over-fishing and pollution in England and the United States
 - no one will be allowed to fish in England's streams, lakes, and rivers

41. The socially economic efficient level of pollution abatement for a given level of abatement occurs when:
- a. there is no pollution damaging the environment.
 - b. marginal benefits of pollution control are equal.
 - c. the market for the good is in equilibrium such as in perfect competition.
 - d. the marginal costs of abatement are equal.
 - e. the marginal cost of abatement equals the marginal cost of pollution damage.

There are 41 questions, only 40 will be graded. Please pick the one question you do not want graded by placing XXX in the answer line. If you do not pick a question to not be graded, question 41 will not be graded.

Test Version 1		Name	
Question	Answer	Question	Answer
1		22	
2		23	
3		24	
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21		Grade	