

2007 NATIONAL ECONOMICS CHALLENGE
NCEE/Goldman Sachs Foundation

Round I – Microeconomics
Regional Competition, Adam Smith Division

Please select the one best answer.

1. John and Carla each purchase extra car insurance from Pike's Peak Auto Insurance. John buys the policy because he knows he's a bad driver. Carla decides, after purchasing the added coverage, to drive less safely. What problems does Pike's Peak face with regard to John and Carla?

<u>John</u>	<u>Carla</u>
A. adverse selection	principal-agent
B. principal agent	adverse selection
C. moral hazard	adverse selection
D. principal agent	moral hazard
E. adverse selection	moral hazard

2. Which is an important component of the Coase Theorem as it applies to a dispute between parties?
 - A. clearly defined property rights
 - B. equal transaction costs across parties
 - C. complete information on the part of the arbitrator
 - D. many parties with relatively equal bargaining power
 - E. an initial allocation of the right that is efficient before bargaining takes place

3. In the market for Good Y, the law of supply and the law of demand hold. The equilibrium price is \$100. If demand is more elastic than supply in absolute value at and around this equilibrium, by how much will a \$0.50 excise tax increase the price of good Y?
 - A. \$0.50.
 - B. more than \$0.25 but less than \$0.50.
 - C. \$0.25.
 - D. less than \$0.25 but more than zero.
 - E. zero

4. Consider a monopoly's decision on how many workers to hire. Suppose that the monopoly faces a linear demand curve for its product: $P = 20 - Q$ where P is the price of the good and Q is the output. Letting L be the number of workers it hires, the monopoly's production function is also linear: $Q = 2L$ (output is equal to two times the number of workers it hires). The wage rate is constant at \$20. Given this information, how many workers will this profit-maximizing monopoly hire?
 - A. 2.5
 - B. 5
 - C. 7.5
 - D. 10
 - E. 20

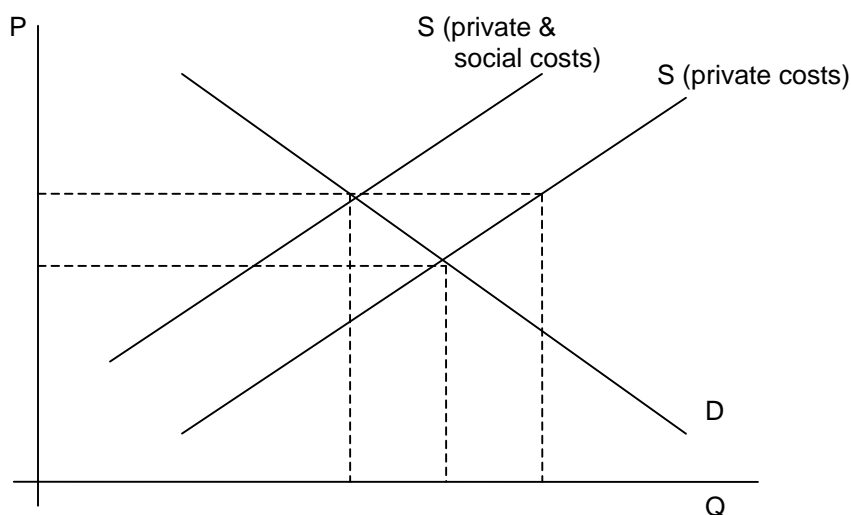
5. Suppose Luke allocates exactly \$120 a month to purchase of candy bars (C) and bones for his dog (B). His marginal utility for candy bars is given by the equation $MU_C = B$ and his marginal utility for dog bones is given by the equation $MU_B = 2C$. The price of candy bars is \$2 and the price of dog bones is \$4. What is Luke's utility maximizing level of candy bar purchases per month?
- A. 10
 - B. 15
 - C. 20
 - D. 30
 - E. 60
6. Which is true about oligopolistic firms in markets that are considered perfectly contestable?
- A. they are free from antitrust litigation
 - B. they collude and share monopoly profits
 - C. they undertake near-perfect price discrimination
 - D. they set price equal to the mean average cost of their members
 - E. they behave as though they were in a perfectly competitive industry
7. Suppose Manny's can produce 50 midlocks a day at a total cost of \$160. Brenda's can produce 120 bailcams a day at a total cost of \$60. If Manny's and Brenda's were to merge, the total cost of 50 midlocks and 120 bailcams would be \$210. Which is true about bailcams and midlocks?
- A. combined production leads to economies of scale
 - B. combined production leads to economies of scope
 - C. combined production leads to constant returns to scale
 - D. combined production leads to decreasing marginal cost
 - E. combined production leads to increasing returns to scale
8. Suppose a state government is considering raising the tax on a pack of cigarettes to increase the price by 40 percent. If the initial quantity demanded of cigarettes is 110 million packs in the state and the price elasticity of demand for cigarettes is $-1/2$ (computed with the mid-point formula), how many packs of cigarettes is expected to be demanded after the increased tax?
- A. 105
 - B. 100
 - C. 95
 - D. 90
 - E. 80
9. A bilateral monopoly is a situation where
- A. there is only one buyer and one seller.
 - B. there is only one seller of two products.
 - C. there are two sellers that collude and share monopoly profits.
 - D. the only two competing firms in an industry undertake a horizontal merger.
 - E. a monopoly splits into two non-competing companies to sell in two different areas, usually countries.

10. Consider a country that produces only two goods, Good X and Good Y. The country's production possibilities frontier (PPF) exhibits increasing opportunity costs. What will be the effect of an increase in unemployment?
- The PPF will shift inward.
 - The prices of Good X and Good Y will both fall.
 - There will be a movement along the PPF up and to the left.
 - There will be a movement along the PPF down and to the right.
 - There will be a movement from a point on or inside the PPF toward the origin.
11. Which of the following prohibited any person from being a director of two or more competing corporations?
- Clayton Act
 - Sherman Act
 - Cellar-Kefauver Act
 - Robinson-Patman Act.
 - Federal Trade Commission Act
12. A perfectly competitive firm is currently producing at a point where the price of the last unit produced exceeds its marginal cost. In order to maximize profits in the short-run, this firm should
- increase production.
 - decrease production.
 - shut down.
 - increase the product price.
 - decrease the product price.
13. The table below shows the willingness to pay for 27" LCD Televisions. If the market price of 27" LCD televisions is \$1000, the total consumer surplus will be:

Buyer	Willingness to Pay
Roger	\$1,500
Michelle	\$1,200
Ken	\$1,000
Tomoko	\$750
Kim	\$500

- \$700.
- \$750.
- \$1,450.
- \$2,250.
- \$3,700.

14. Consider the following market for Good J.



If the market for Good J is left alone from government intervention, which is true?

- A. the equilibrium price will result in a surplus
 - B. the equilibrium price will result in a shortage
 - C. the equilibrium quantity will be lower than optimal
 - D. the equilibrium quantity will be efficient
 - E. the equilibrium quantity will be greater than optimal
15. The table below shows the total output produced by different combinations of labor in the market for bagels. Which of the following is true based on this information?

Labor Units	Output	Product Price
0	0	\$3.00
1	8	\$3.00
2	15	\$3.00
3	21	\$3.00
4	26	\$3.00

- A. Production is taking place in a perfectly competitive market and the marginal revenue product of the fourth unit of labor is \$76.
- B. Production is taking place in a perfectly competitive market and the marginal revenue product of the fourth unit of labor is \$52.
- C. Production is taking place in a perfectly competitive market and the marginal revenue product of the fourth unit of labor is \$15.
- D. Production is taking place in an imperfectly competitive market and the marginal revenue product of the fourth unit of labor is \$76.
- E. Production is taking place in an imperfectly competitive market and the marginal revenue product of the fourth unit of labor is \$15.

