Quiz #6 -- November 16, 2022

You have until the end of class to complete the quiz. Answer the questions on the answer sheet. Pick the alternative that best completes the statement or answers the question. Be sure to write and bubble in your name and PantherID on the answer sheet. You may keep the test booklet.

1. In a Cournot market with two firms, the inverse market demand curve is $P = 50 - 2Q$, where $Q = q_1 + q_2$ (Firm 1's output = q_1; Firm 2's output = q_2). If Firm 2 produces 10 units of output, what is Firm 1's residual demand curve?
   A) $P = 40 - 2q_1$
   B) $P = 40 - q_1$
   C) $P = 10 - 2q_1$
   D) $P = 30 - 2q_1$

2. If a firm has market power but cannot prevent its customers from reselling the product, the firm will:
   A) produce a quantity of output at which price equals marginal cost.
   B) offer quantity discounts or engage in versioning.
   C) produce a quantity of output at which marginal revenue equals marginal cost.
   D) engage in perfect price discrimination.

Use the following to answer question 3.

Table 10.9

Maximum Willingness to Pay		
	One-Night Stay	**One Round of Golf**
Peter	$180	$50
Bruce	170	70
Lynn	100	80

3. (Table 10.9) The marginal cost of a one-night stay and one round of golf are \$50 and \$10, respectively. Which of the following statements is (are) TRUE?

   I. If a firm is using a pure bundling strategy, the bundle price should be set at \$230 to maximize producer surplus.

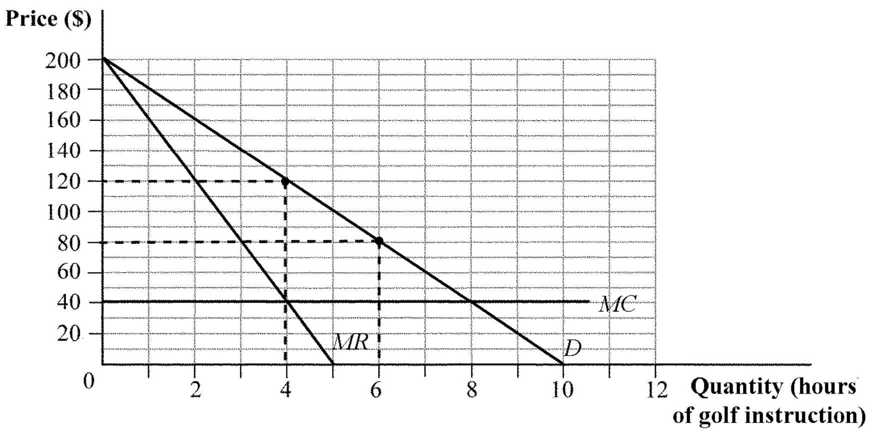
   II. Suppose a firm uses the following mixed bundling strategy: the bundle price is \$240, or the price for a one-night stay is \$180 and the price per round of golf is \$80. With this strategy, producer surplus is \$380.

   III. If a firm prices each item separately such that the price for a one-night stay is \$100 and the price per round of golf is \$50, producer surplus will be \$270.

   A) I
   B) I, II, and III
   C) II and III
   D) I and III

Use the following to answer question 4.

Figure 10.8



4. (Figure 10.8) If the golf instructor set a single price to maximize profit, she would earn producer surplus of _____. If she set a price of $120 an hour for the first four hours of instruction and $80 an hour for each hour of instruction beyond four hours, she would earn producer surplus of _____.
   A) $500; $800
   B) $320; $400
   C) $80; $120
   D) $480; $960

5. A Nash equilibrium occurs when:
   A) each firm is doing the best it can in light of the actions taken by other firms.
   B) an oligopoly industry is characterized by excess demand despite a market-clearing price.
   C) each firm is doing the worst it can in light of the actions taken by other firms.
   D) an oligopoly industry is characterized by excess supply despite a market-clearing price.

Use the following to answer question 6.

Table 11.1

Payoffs: Henry's Monthly Profit, Nancy's Monthly Profit

		Nancy's Nissan	
		Open Sunday	**Closed Sunday**
Henry's Hyundai	**Open Sunday**	\$70K, \$70K	\$100K, \$40K
	Closed Sunday	\$40K, \$100K	\$80K, \$80K

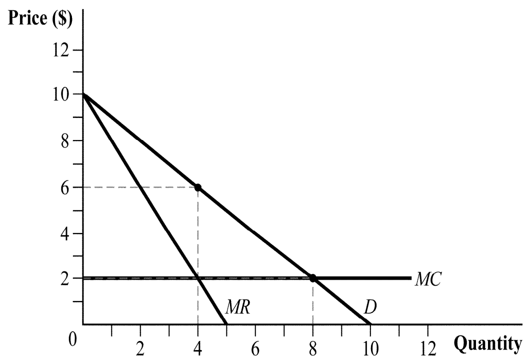
6. (Table 11.1) If car dealerships are allowed to be open on Sunday, what is the Nash equilibrium?
   A) There is no Nash equilibrium in this market.
   B) Henry earns \$70K and Nancy earns \$70K.
   C) Henry earns \$80K and Nancy earns \$80K.
   D) Henry earns \$100K and Nancy earns \$100K.

7. To practice indirect price discrimination, a firm must have:
   I. a Lerner index equal to zero.
   II. market power and the ability to prevent resale.
   III. customers with different demand curves, without the firm knowing which customers have which type of demand before purchase of the product.

   A) II and III
   B) I and III
   C) I, II, and III
   D) I and II

Use the following to answer question 8.

Figure 10.1



8. (Figure 10.1) The deadweight losses under monopoly and perfect price discrimination are _____ and _____, respectively.
   A) $0; $32
   B) $8; $0
   C) $8; $16
   D) $16; $0

9. The market inverse demand curve is $P = 60 - Q$. The three firms in this industry are acting like a monopolist, evenly splitting output. The marginal cost is $6. Suppose one of the firms produces an additional unit of output. The cheating firm's profit will change from:
   A) $50 to $40.
   B) $34 to $67.
   C) $230 to $252.
   D) $243 to $260.

10. The purchase price for Stata version 12 (statistical software used by many economists) is $895. For users of Stata version 11, the price to upgrade to version 12 is $395. Which of the following statements is (are) TRUE?
    A) Stata is practicing first-degree price discrimination by charging different groups different prices.
    B) Stata is segmenting its market by past purchasing behavior.
    C) Stata is using a two-part tariff strategy.
    D) The current users of Stata are less price-sensitive than possible future users.

Answer Key - F22-6

1. D
2. C
3. C
4. B
5. A
6. B
7. A
8. B
9. D
10. B