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BPE_MIC1 Microeconomics 1 – Fall Semester 2011

Final Exam - 05.12.2011, 9:00-10:30 a.m. **Test B**

Guidelines and Rules:
1. The test setup has 7 pages. It is your responsibility to check that you have all the pages.
2. The time limit is 90 minutes.
3. The exam is worth 50 points.
4. You are NOT allowed to use any books or notes.
5. Any violation of academic honesty will be punished to the fullest extent possible.
6. At most one exam-taker is allowed to be outside the room at one time.
7. Write the answers to the **fill-the-gaps, true/false** and **multiple-choice** questions in the spaces corresponding to the respective questions in the setup sheet.
8. When ready, **submit** the filled setup sheet with **your name** written on the first page.

This exam will count for 50% of your final grade from the course. Good luck!

Fill the gaps

Complete each statement.

1. The fundamental source of monopoly power is ___________________.
2. An increase in price will increase total revenue if the demand is _______________.
3. An economy is ____________ if it is operating on its production possibility frontier.
4. In terms of price determination, a competitive firm is a __________________, whereas a monopolist is a ___________________.
5. Because of diminishing returns, a factor in abundant supply has a low ___________________ .
6. The accumulation of machinery used in the production of new goods and services is referred to as ______________ .
7. ________________ describes the relationship between the quantity of inputs used to make a good and the quantity of output produced of that good.
8. The market for novels has a ____________________________ structure.
9. Both monopolistic competition and oligopoly fall in between the more extreme market structures of _______________ and ________________ .
10. When a group of firms in a market all agree about quantities to produce or prices to charge it is said that they act in __________.

True/False

Indicate whether the statement is true or false.

____ 11. Even the demand for a necessity such as gasoline will respond to a change in price, especially over a longer time horizon.

____ 12. If the marginal productivity of the sixth worker hired is less than the marginal productivity of the fifth worker hired, then the addition of the sixth worker causes total output to decline.

____ 13. Economic profit is greater than or equal to accounting profit.

____ 14. The slope of the budget constraint reveals the relative price of good X compared to good Y.

____ 15. The amount of power that a monopoly has depends on whether there are close substitutes for its product.

____ 16. If one producer is able to produce a good at a lower opportunity cost than some other producer, then the producer with the lower opportunity cost is said to have an absolute advantage in the production of that good.

____ 17. When demand increases so that market price increases, producer surplus increases because (1) producer surplus received by existing sellers increases, and (2) new sellers enter the market.

____ 18. For a firm, strategic interactions with other firms in the market become more important as the number of firms in the market becomes larger.

____ 19. A movement upward and to the left along a given demand curve is called a decrease in demand..

____ 20. For a firm operating in a perfectly competitive industry, marginal revenue and average revenue are equal.

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 21. Ken consumes two goods, Sprite and potato chips. Sprite costs $1 per can, and he consumes it to the point where the marginal utility he receives from his last Sprite is 3. Potato chips cost $2 per bag, and the relationship between the marginal utility he gets from eating a bag of potato chips and the number of bags he eats per month is as follows:

Bags of potato chips	1	2	3	4	5	6
Marginal utility	30	20	12	6	2	0

If Ken is maximizing his utility, how much does he spend on potato chips each month?

a. $12
b. $6
c. $8
d. $2

____ 22. Suppose that the market for labor is initially in equilibrium. If the firm employs labor-saving technology,

a. the equilibrium wage and the quantity of labor will both fall.
b. the equilibrium wage will rise and the quantity of labor will fall.
c. the equilibrium wage will fall and the quantity of labor will rise.
d. the equilibrium wage and the quantity of labor will both rise.

____ 23. Cold Duck Airlines flies between Tacoma and Portland. The company leases planes on a year-long contract at a cost that averages $600 per flight. Other costs (fuel, flight attendants, etc.) amount to $550 per flight. Currently, Cold Duck's revenues are $1,000 per flight. All prices and costs are expected to continue at their present levels. If it wants to maximize profit, Cold Duck Airlines should

a. continue the flight.
b. continue flying until the lease expires and then drop the run.
c. drop the flight immediately.
d. drop the flight now but renew the lease if conditions improve.

____ 24. In January the price of widgets was $2.00, and Wendy's Widgets produced 80 widgets. In February the price of widgets was $2.50, and Wendy's Widgets produced 110 widgets. In March the price of widgets was $3.00, and Wendy's Widgets produced 140 widgets. The price elasticity of supply of Wendy's Widgets was

a. 1.50 when the price increased from $2.00 to $2.50 and 1.18 when the price increased from $2.50 to $3.00.
b. 0.88 when the price increased from $2.00 to $2.50 and 1.08 when the price increased from $2.50 to $3.00.
c. 1.42 when the price increased from $2.00 to $2.50 and 1.32 when the price increased from $2.50 to $3.00.
d. 0.70 when the price increased from $2.00 to $2.50 and 0.76 when the price increased from $2.50 to $3.00.

____ 25. The market for diamond rings is closely linked to the market for high-quality diamonds. If a large quantity of high-quality diamonds enters the market, then

a. the supply curve for diamond rings will shift right, which will create a surplus at the current price. That will decrease price, which will increase quantity demanded and decrease quantity supplied. The new market equilibrium will be at a lower price and higher quantity.
b. the demand curve for diamond rings will shift right, which will create a surplus at the current price. That will decrease price, which will increase quantity demanded and decrease quantity supplied. The new market equilibrium will be at a lower price and higher quantity.
c. the demand curve for diamond rings will shift right, which will create a shortage at the current price. That will increase price, which will decrease quantity demanded and increase quantity supplied. The new market equilibrium will be at a higher price and higher quantity.
d. the supply curve for diamond rings will shift right, which will create a shortage at the current price. That will increase price, which will decrease quantity demanded and increase quantity supplied. The new market equilibrium will be at a higher price and higher quantity.

____ 26. Which of the following statements about the price elasticity of demand is correct?

a. Other things equal, if good *x* has close substitutes and good *y* does not have close substitutes, then the demand for good *x* will be more elastic than the demand for good *y*.
b. Price elasticity of demand reflects the many economic, psychological, and social forces that shape consumer tastes.
c. The price elasticity of demand for a good measures the willingness of buyers of the good to buy less of the good as its price increases.
d. All of the above are correct.

____ 27. The commercial jetliner industry consisting of Boeing and Airbus would best be described as a (an)

a. oligopoly.
b. monopolistically competitive market.
c. perfectly competitive market.
d. monopoly.

____ 28. ***Table 17-8.*** For a certain small town, the table shows the demand schedule for water. Assume the marginal cost of supplying water is constant at $4 per bottle.

Price	**Quantity (bottles)**
$9	100
$8	200
$7	300
$6	400
$5	500
$4	600
$3	700
$2	800

Refer to Table 17-8. If there were many suppliers of bottled water, what would be the price and quantity?
a. The price would be $3 per gallon and the quantity would be 700 gallons.
b. The price would be $4 per gallon and the quantity would be 600 gallons.
c. The price would be $6 per gallon and the quantity would be 400 gallons.
d. The price would be $5 per gallon and the quantity would be 500 gallons.

____ 29. **Refer to Table 17-8**. If there were only one supplier of water, what would be the price and quantity?
a. The price would be $6 per gallon and the quantity would be 400 gallons.
b. The price would be $5 per gallon and the quantity would be 500 gallons.
c. The price would be $7 per gallon and the quantity would be 300 gallons.
d. The price would be $4 per gallon and the quantity would be 600 gallons.

____ 30. **Refer to Table 17-8**. If there are two suppliers of water, Mort and Callie, then what will be their combined level of output when a Nash equilibrium is reached?
a. 600
c. 400
b. 200
d. 800

____ 31. In the long run Firm A incurs total costs of $1,200 when output is 30 units and $1,650 when output is 40 units. Firm A exhibits
a. economies of scale because total cost is rising as output rises.
b. diseconomies of scale because total cost is rising as output rises.
c. diseconomies of scale because average total cost is rising as output rises.
d. economies of scale because average total cost is falling as output rises.

____ 32. The Wacky Widget company has total fixed costs of $100,000 per year. The firm's average variable cost is $5 for 10,000 widgets. At that level of output, the firm's average total costs equal
a. $10
c. $100
b. $150
d. $15

____ 33. Fred's hourly wage increases from $8 to $10. Which of the following describes a consequence of the increase in Fred's wage?
a. Fred may choose to work fewer hours due to the increase in his wage.
b. Both a and b are correct.
c. If Fred’s labor supply curve is upward sloping, Fred will choose to work fewer hours.
d. The opportunity cost of Fred's leisure time has decreased.

____ 34. Suppose consumer income increases. If grass seed is a normal good, the equilibrium price of grass seed will
a. decrease, and producer surplus in the industry will decrease.
b. decrease, and producer surplus in the industry will increase.
c. increase, and producer surplus in the industry will decrease.
d. increase, and producer surplus in the industry will increase.

____ 35. A monopolist faces the following demand curve:

Price	Quantity
$10	5
$9	10
$8	16
$7	23
$6	31
$5	45
$4	52
$3	60

The monopolist has total fixed costs of $40 and a constant marginal cost of $5. At the profit-maximizing level of output, the monopolist's average total cost is

a. $7.50.
c. $6.74.
b. $5.82.
d. $9.00.

____ 36. Suppose a consumer spends her income on two goods: music CDs and DVDs. The price of a CD is $8, and the price of a DVD is $20. If we graph the budget constraint by placing the quantity of CDs purchased on the horizontal axis, what is the slope of the budget constraint?

a. -5.0
b. The slope of the budget constraint cannot be determined without knowing the income the consumer has available to spend on the two goods.
c. -0.4
d. -2.5

____ 37. If Korea is capable of producing either shoes or soccer balls or some combination of the two, then

a. Korea should specialize in the product in which it has an absolute advantage.
b. it would be impossible for Korea to have an absolute advantage over another country in both products.
c. it would be difficult for Korea to benefit from trade with another country if Korea is efficient in the production of both goods.
d. Korea’s opportunity cost of shoes is the inverse of its opportunity cost of soccer balls.

____ 38. Which of the following demonstrates the law of supply?

a. When ketchup prices rose, ketchup sellers increased their quantity supplied of ketchup.
b. When car production technology improved, car producers increased their supply of cars.
c. When sweater producers expected sweater prices to rise in the near future, they decreased their current supply of sweaters.
d. When leather became more expensive, belt producers decreased their supply of belts.

____ 39. Inefficiency exists in an economy when a good is

a. not being produced by the lowest-cost producers.
b. being produced with less than all available resources.
c. being consumed by buyers who value it most highly.
d. not distributed fairly among buyers.

____ 40. Suppose a firm in a competitive market produces and sells 8 units of output and has a marginal revenue of $8.00. What would be the firm's total revenue if it instead produced and sold 4 units of output?

a. $4
c. $32
b. $64
d. $8

____ 41. In the short run, there are 500 identical firms in a competitive market. The firms do not use any resources that are available in limited quantities, and each of them has the following cost structure:

Output	**Total Cost**
0	$0
1	$10
2	$12
3	$15
4	$24
5	$40

The long-run supply curve for this market is

a. horizontal at a price of $5.
b. horizontal at a price of $3.33.
c. horizontal at a price of $7.
d. positively sloped.

____ 42. **Figure 17-2**. John and Michael are roommates. On a particular day, their apartment needs to be cleaned. Each person has to decide whether to take part in cleaning. At the end of the day, either the apartment will be completely clean (if one or both roommates take part in cleaning), or it will remain dirty (if neither roommate cleans). With happiness measured on a scale of 1 (very unhappy) to 10 (very happy), the possible outcomes are as follows:

John's Decision

Michael's Decision	**Clean**	**Don't clean**
Clean	John's happiness = 7 Michael's happiness = 8	John's happiness = 10 Michael's happiness = 3
Don't clean	John's happiness = 3 Michael's happiness = 10	John's happiness = 6 Michael's happiness = 4

Refer to Figure 17-2. In pursuing his own self-interest, Michael will

a. clean only if John cleans.
b. refrain from cleaning whether or not John cleans.
c. clean whether or not John cleans.
d. clean only if John refrains from cleaning.

____ 43. **Refer to Figure 17-2**. The possible outcome in which both John and Michael clean is analogous to which of the following outcomes of the duopoly game?

a. The duopolists collude to achieve the monopoly outcome.
b. The outcome is the one that is least preferable for both the duopolists and for the consumers of their product.
c. The duopolists collude to achieve the monopolistically-competitive outcome.
d. The outcome is the one that is most preferable for consumers of the duopolists' product.

____ 44. **Refer to Figure 17-2**. If this game is played only once, then the most likely outcome is that

a. John and Michael both clean.
b. Michael cleans and John does not clean.
c. neither John nor Michael cleans.
d. John cleans and Michael does not clean.

____ 45. A monopolistically competitive firm has the following cost structure:

Output	1	2	3	4	5	6	7
Total Cost($)	30	32	36	42	50	63	77

The firm faces the following demand curve:

Price ($)	20	18	15	12	9	7	4
Quantity	1	2	3	4	5	6	7

If the government forces this firm to produce at its efficient scale, it will

a. produce 3 units and make $9.
b. produce 7 units and lose $49.
c. produce 5 units and lose $5.
d. produce 4 units and make $6.

____ 46. Which of the following is *not* a determinant of demand?

a. the price of a substitute good
b. the price of a resource that is used to produce the good
c. the price of the good next month
d. the price of a complementary good

____ 47. Suppose that in January a profit-maximizing firm has 25 employees. By February, the firm has decreased employment. One can infer that, when 25 employees are hired, the

a. firm is minimizing losses.
b. firm is losing market share.
c. wage exceeds the value of the marginal product of labor.
d. value of the marginal product of labor exceeds the wage.

____ 48. Suppose a certain firm is able to produce 165 units of output per day when 15 workers are hired. The firm is able to produce 176 units of output per day when 16 workers are hired (holding other inputs fixed). Then the marginal product of the 16th worker is

a. 10 units of output.
b. 11 units of output.
c. 16 units of output.
d. 176 units of output.

____ 49. Bob enjoys fishing and hunting. He divides his leisure hours between the two outdoor activities. Suppose we were to draw Bob’s indifference curves for the two activities, placing fishing on the horizontal axis and hunting on the vertical axis. If Bob’s indifference curves are bowed inward, then

a. the rate at which he is willing to give up an hour of hunting for an hour of fishing changes depending on how many hours of each activity he has done. For example, if Bob has already fished a lot in one week, he will be *less* willing to give up an hour of fishing for an hour of hunting than if he has only fished a little that week.
b. the rate at which he is willing to give up an hour of hunting for an hour of fishing is constant because he must derive the same enjoyment out of each activity.
c. Bob’s indifference curves will not cross. When indifference curves are bowed *outward*, the indifference curves must cross.
d. the rate at which he is willing to give up an hour of hunting for an hour of fishing changes depending on how many hours of each activity he has done. For example, if Bob has already fished a lot in one week, he will be *more* willing to give up an hour of fishing for an hour of hunting than if he has only fished a little that week.

____ 50. Suppose Lauren, Leslie and Lydia all purchase bulletin boards for their rooms for $15 each. Lauren's willingness to pay was $35, Leslie's willingness to pay was $25, and Lydia's willingness to pay was $30. Total consumer surplus for these three would be

a. $90.
b. $45.
c. $30.
d. $15.

Final Exam - 05.12.2011, 9:00-10:30 a.m. Test B
Answer Section

COMPLETION

1. ANS: barriers to entry

   PTS: 1
2. ANS: inelastic

   PTS: 1
3. ANS: efficient

   PTS: 1
4. ANS: price taker, price maker

   PTS: 1
5. ANS: marginal product

   PTS: 1
6. ANS: capital

   PTS: 1
7. ANS: production function

   PTS: 1
8. ANS: monopolistically competitive

   PTS: 1
9. ANS: competition, monopoly

   PTS: 1
10. ANS: collusion

    PTS: 1

TRUE/FALSE

11. ANS: T PTS: 1 DIF: 2 REF: 5-1
    TOP: Price elasticity of demand MSC: Interpretive
12. ANS: F PTS: 1 DIF: 2 REF: 18-1
    TOP: Marginal product of labor MSC: Interpretive
13. ANS: F PTS: 1 DIF: 2 REF: 13-1
    TOP: Accounting profit | Economic profit MSC: Analytical
14. ANS: T PTS: 1 DIF: 2 REF: 21-1
    TOP: Budget constraint MSC: Applicative
15. ANS: T PTS: 1 DIF: 1 REF: 15-1
    TOP: Monopoly MSC: Interpretive
16. ANS: F PTS: 1 DIF: 1 REF: 3-2
    TOP: Comparative advantage MSC: Definitional

17. ANS: T PTS: 1 DIF: 2 REF: 7-2
TOP: Producer surplus MSC: Interpretive
18. ANS: F PTS: 1 DIF: 2 REF: 17-0
TOP: Oligopoly | Game theory MSC: Interpretive
19. ANS: F PTS: 1 DIF: 2 REF: 4-2
TOP: Demand curve MSC: Interpretive
20. ANS: T PTS: 1 DIF: 2 REF: 14-1
TOP: Average revenue | Marginal revenue MSC: Interpretive

MULTIPLE CHOICE

21. ANS: C PTS: 1 DIF: 3 REF: 21-3
TOP: Optimization MSC: Applicative
22. ANS: A PTS: 1 DIF: 2 REF: 18-3
TOP: Labor-market equilibrium MSC: Interpretive
23. ANS: B PTS: 1 DIF: 2 REF: 14-2
TOP: Profit maximization MSC: Analytical
24. ANS: C PTS: 1 DIF: 3 REF: 5-2
TOP: Midpoint method | Price elasticity of supply MSC: Analytical
25. ANS: A PTS: 1 DIF: 3 REF: 4-4
TOP: Equilibrium MSC: Analytical
26. ANS: D PTS: 1 DIF: 2 REF: 5-1
TOP: Price elasticity of demand MSC: Interpretive
27. ANS: A PTS: 1 DIF: 2 REF: 16-1
TOP: Oligopoly MSC: Interpretive
28. ANS: B PTS: 1 DIF: 2 REF: 17-1
TOP: Competitive markets MSC: Applicative
29. ANS: C PTS: 1 DIF: 2 REF: 17-1
TOP: Monopoly MSC: Applicative
30. ANS: C PTS: 1 DIF: 3 REF: 17-1
TOP: Cartels MSC: Applicative
31. ANS: C PTS: 1 DIF: 2 REF: 13-4
TOP: Diseconomies of scale MSC: Analytical
32. ANS: D PTS: 1 DIF: 2 REF: 13-3
TOP: Average total cost MSC: Applicative
33. ANS: A PTS: 1 DIF: 2 REF: 18-2
TOP: Income effect MSC: Analytical
34. ANS: D PTS: 1 DIF: 2 REF: 7-2
TOP: Producer surplus MSC: Applicative
35. ANS: A PTS: 1 DIF: 3 REF: 15-2
TOP: Average total cost MSC: Applicative
36. ANS: C PTS: 1 DIF: 2 REF: 21-1
TOP: Budget constraint MSC: Applicative
37. ANS: D PTS: 1 DIF: 2 REF: 3-2
TOP: Opportunity cost MSC: Applicative
38. ANS: A PTS: 1 DIF: 2 REF: 4-3
TOP: Law of supply MSC: Applicative
39. ANS: A PTS: 1 DIF: 2 REF: 7-3
TOP: Efficiency MSC: Interpretive

40.	ANS:	C	PTS:	1	DIF:	2	REF:	14-1
	TOP:	Marginal revenue			MSC:	Applicative		
41.	ANS:	A	PTS:	1	DIF:	3	REF:	14-3
	TOP:	Competitive markets			MSC:	Analytical		
42.	ANS:	B	PTS:	1	DIF:	2	REF:	17-2
	TOP:	Game theory | Dominant strategy			MSC:	Applicative		
43.	ANS:	A	PTS:	1	DIF:	3	REF:	17-2
	TOP:	Game theory	MSC:	Applicative				
44.	ANS:	C	PTS:	1	DIF:	2	REF:	17-2
	TOP:	Game theory	MSC:	Applicative				
45.	ANS:	C	PTS:	1	DIF:	3	REF:	16-2
	TOP:	Efficient scale			MSC:	Applicative		
46.	ANS:	B	PTS:	1	DIF:	2	REF:	4-2
	TOP:	Determinants of demand			MSC:	Interpretive		
47.	ANS:	C	PTS:	1	DIF:	2	REF:	18-1
	TOP:	Value of the marginal product			MSC:	Analytical		
48.	ANS:	B	PTS:	1	DIF:	1	REF:	13-2
	TOP:	Marginal product			MSC:	Applicative		
49.	ANS:	D	PTS:	1	DIF:	2	REF:	21-2
	TOP:	Marginal rate of substitution			MSC:	Analytical		
50.	ANS:	B	PTS:	1	DIF:	2	REF:	7-1
	TOP:	Consumer surplus			MSC:	Applicative		