

BPE MIC1 Microeconomics 1 – Fall Semester 2011

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

Test A

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 accumulation of machinery used in the production of new goods and services is referred to as _____ .
2. Because of diminishing returns, a factor in abundant supply has a low _____ .
3. In terms of price determination, a competitive firm is a _____, whereas a monopolist is a _____.
4. The fundamental source of monopoly power is _____.
5. The market for novels has a _____ structure.
6. Both monopolistic competition and oligopoly fall in between the more extreme market structures of _____ and _____ .
7. An economy is _____ if it is operating on its production possibility frontier.
8. An increase in price will increase total revenue if the demand is _____.
9. 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 _____.
10. _____ describes the relationship between the quantity of inputs used to make a good and the quantity of output produced of that good.

True/False

Indicate whether the statement is true or false.

- _____ 11. 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.
- _____ 12. A movement upward and to the left along a given demand curve is called a decrease in demand..

- ___ 13. Even the demand for a necessity such as gasoline will respond to a change in price, especially over a longer time horizon.
- ___ 14. 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.
- ___ 15. Economic profit is greater than or equal to accounting profit.
- ___ 16. 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.
- ___ 17. The slope of the budget constraint reveals the relative price of good X compared to good Y.
- ___ 18. For a firm operating in a perfectly competitive industry, marginal revenue and average revenue are equal.
- ___ 19. The amount of power that a monopoly has depends on whether there are close substitutes for its product.
- ___ 20. For a firm, strategic interactions with other firms in the market become more important as the number of firms in the market becomes larger.

Multiple Choice

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

- ___ 21. If Korea is capable of producing either shoes or soccer balls or some combination of the two, then
- Korea should specialize in the product in which it has an absolute advantage.
 - it would be impossible for Korea to have an absolute advantage over another country in both products.
 - it would be difficult for Korea to benefit from trade with another country if Korea is efficient in the production of both goods.
 - Korea's opportunity cost of shoes is the inverse of its opportunity cost of soccer balls.
- ___ 22. Which of the following is *not* a determinant of demand?
- the price of a resource that is used to produce the good
 - the price of a complementary good
 - the price of the good next month
 - the price of a substitute good
- ___ 23. Which of the following demonstrates the law of supply?
- When leather became more expensive, belt producers decreased their supply of belts.
 - When car production technology improved, car producers increased their supply of cars.
 - When sweater producers expected sweater prices to rise in the near future, they decreased their current supply of sweaters.
 - When ketchup prices rose, ketchup sellers increased their quantity supplied of ketchup.
- ___ 24. 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
- 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.
 - 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.
 - 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.
 - 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.

- _____ 25. Which of the following statements about the price elasticity of demand is correct?
- 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.
 - Price elasticity of demand reflects the many economic, psychological, and social forces that shape consumer tastes.
 - 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 .
 - All of the above are correct.
- _____ 26. 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
- 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.
 - 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.
 - 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.
 - 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.
- _____ 27. 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. \$15. | c. \$45. |
| b. \$30. | d. \$90. |
- _____ 28. Suppose consumer income increases. If grass seed is a normal good, the equilibrium price of grass seed will
- decrease, and producer surplus in the industry will decrease.
 - increase, and producer surplus in the industry will increase.
 - decrease, and producer surplus in the industry will increase.
 - increase, and producer surplus in the industry will decrease.
- _____ 29. Inefficiency exists in an economy when a good is
- being produced with less than all available resources.
 - not distributed fairly among buyers.
 - not being produced by the lowest-cost producers.
 - being consumed by buyers who value it most highly.
- _____ 30. 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. | c. 16 units of output. |
| b. 11 units of output. | d. 176 units of output. |
- _____ 31. 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. \$15 | d. \$150 |
- _____ 32. 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
- diseconomies of scale because total cost is rising as output rises.
 - diseconomies of scale because average total cost is rising as output rises.
 - economies of scale because total cost is rising as output rises.
 - economies of scale because average total cost is falling as output rises.

- _____ 33. 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
- firm is losing market share.
 - firm is minimizing losses.
 - wage exceeds the value of the marginal product of labor.
 - value of the marginal product of labor exceeds the wage.
- _____ 34. Fred's hourly wage increases from \$8 to \$10. Which of the following describes a consequence of the increase in Fred's wage?
- The opportunity cost of Fred's leisure time has decreased.
 - Fred may choose to work fewer hours due to the increase in his wage.
 - If Fred's labor supply curve is upward sloping, Fred will choose to work fewer hours.
 - Both a and b are correct.
- _____ 35. Suppose that the market for labor is initially in equilibrium. If the firm employs labor-saving technology,
- the equilibrium wage and the quantity of labor will both rise.
 - the equilibrium wage and the quantity of labor will both fall.
 - the equilibrium wage will rise and the quantity of labor will fall.
 - the equilibrium wage will fall and the quantity of labor will rise.
- _____ 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?
- 5.0
 - 2.5
 - 0.4
 - The slope of the budget constraint cannot be determined without knowing the income the consumer has available to spend on the two goods.
- _____ 37. 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
- 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.
 - 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.
 - 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.
 - Bob's indifference curves will not cross. When indifference curves are bowed *outward*, the indifference curves must cross.
- _____ 38. 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?

- \$2
- \$6
- \$8
- \$12

48. **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	
		Clean	Don't clean
Michael's Decision	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
- refrain from cleaning whether or not John cleans.
 - clean only if John cleans.
 - clean only if John refrains from cleaning.
 - clean whether or not John cleans.
49. **Refer to Figure 17-2.** If this game is played only once, then the most likely outcome is that
- John and Michael both clean.
 - John cleans and Michael does not clean.
 - Michael cleans and John does not clean.
 - neither John nor Michael cleans.
50. **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?
- The duopolists collude to achieve the monopoly outcome.
 - The duopolists collude to achieve the monopolistically-competitive outcome.
 - The outcome is the one that is most preferable for consumers of the duopolists' product.
 - The outcome is the one that is least preferable for both the duopolists and for the consumers of their product.

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Answer Section

Test A

COMPLETION

1. ANS: capital
PTS: 1
2. ANS: marginal product
PTS: 1
3. ANS: price taker, price maker
PTS: 1
4. ANS: barriers to entry
PTS: 1
5. ANS: monopolistically competitive
PTS: 1
6. ANS: competition, monopoly
PTS: 1
7. ANS: efficient
PTS: 1
8. ANS: inelastic
PTS: 1
9. ANS: collusion
PTS: 1
10. ANS: production function
PTS: 1

TRUE/FALSE

- | | | | |
|--|--------|-------------------|-----------------|
| 11. ANS: F | PTS: 1 | DIF: 1 | REF: 3-2 |
| TOP: Comparative advantage | | MSC: Definitional | |
| 12. ANS: F | PTS: 1 | DIF: 2 | REF: 4-2 |
| TOP: Demand curve | | MSC: Interpretive | |
| 13. ANS: T | PTS: 1 | DIF: 2 | REF: 5-1 |
| TOP: Price elasticity of demand | | MSC: Interpretive | |
| 14. ANS: T | PTS: 1 | DIF: 2 | REF: 7-2 |
| TOP: Producer surplus | | MSC: Interpretive | |
| 15. ANS: F | PTS: 1 | DIF: 2 | REF: 13-1 |
| TOP: Accounting profit Economic profit | | | MSC: Analytical |
| 16. ANS: F | PTS: 1 | DIF: 2 | REF: 18-1 |
| TOP: Marginal product of labor | | MSC: Interpretive | |

17. ANS: T PTS: 1 DIF: 2 REF: 21-1
TOP: Budget constraint MSC: Applicative
18. ANS: T PTS: 1 DIF: 2 REF: 14-1
TOP: Average revenue | Marginal revenue MSC: Interpretive
19. ANS: T PTS: 1 DIF: 1 REF: 15-1
TOP: Monopoly MSC: Interpretive
20. ANS: F PTS: 1 DIF: 2 REF: 17-0
TOP: Oligopoly | Game theory MSC: Interpretive

MULTIPLE CHOICE

21. ANS: D PTS: 1 DIF: 2 REF: 3-2
TOP: Opportunity cost MSC: Applicative
22. ANS: A PTS: 1 DIF: 2 REF: 4-2
TOP: Determinants of demand MSC: Interpretive
23. ANS: D PTS: 1 DIF: 2 REF: 4-3
TOP: Law of supply MSC: Applicative
24. ANS: B PTS: 1 DIF: 3 REF: 4-4
TOP: Equilibrium MSC: Analytical
25. ANS: D PTS: 1 DIF: 2 REF: 5-1
TOP: Price elasticity of demand MSC: Interpretive
26. ANS: C PTS: 1 DIF: 3 REF: 5-2
TOP: Midpoint method | Price elasticity of supply MSC: Analytical
27. ANS: C PTS: 1 DIF: 2 REF: 7-1
TOP: Consumer surplus MSC: Applicative
28. ANS: B PTS: 1 DIF: 2 REF: 7-2
TOP: Producer surplus MSC: Applicative
29. ANS: C PTS: 1 DIF: 2 REF: 7-3
TOP: Efficiency MSC: Interpretive
30. ANS: B PTS: 1 DIF: 1 REF: 13-2
TOP: Marginal product MSC: Applicative
31. ANS: B PTS: 1 DIF: 2 REF: 13-3
TOP: Average total cost MSC: Applicative
32. ANS: B PTS: 1 DIF: 2 REF: 13-4
TOP: Diseconomies of scale MSC: Analytical
33. ANS: C PTS: 1 DIF: 2 REF: 18-1
TOP: Value of the marginal product MSC: Analytical
34. ANS: B PTS: 1 DIF: 2 REF: 18-2
TOP: Income effect MSC: Analytical
35. ANS: B PTS: 1 DIF: 2 REF: 18-3
TOP: Labor-market equilibrium MSC: Interpretive
36. ANS: C PTS: 1 DIF: 2 REF: 21-1
TOP: Budget constraint MSC: Applicative
37. ANS: A PTS: 1 DIF: 2 REF: 21-2
TOP: Marginal rate of substitution MSC: Analytical
38. ANS: C PTS: 1 DIF: 3 REF: 21-3
TOP: Optimization MSC: Applicative
39. ANS: C PTS: 1 DIF: 2 REF: 14-1
TOP: Marginal revenue MSC: Applicative

40. ANS: C PTS: 1 DIF: 2 REF: 14-2
TOP: Profit maximization MSC: Analytical
41. ANS: C PTS: 1 DIF: 3 REF: 14-3
TOP: Competitive markets MSC: Analytical
42. ANS: B PTS: 1 DIF: 3 REF: 15-2
TOP: Average total cost MSC: Applicative
43. ANS: C PTS: 1 DIF: 2 REF: 16-1
TOP: Oligopoly MSC: Interpretive
44. ANS: C PTS: 1 DIF: 3 REF: 16-2
TOP: Efficient scale MSC: Applicative
45. ANS: C PTS: 1 DIF: 2 REF: 17-1
TOP: Competitive markets MSC: Applicative
46. ANS: A PTS: 1 DIF: 2 REF: 17-1
TOP: Monopoly MSC: Applicative
47. ANS: B PTS: 1 DIF: 3 REF: 17-1
TOP: Cartels MSC: Applicative
48. ANS: A PTS: 1 DIF: 2 REF: 17-2
TOP: Game theory | Dominant strategy MSC: Applicative
49. ANS: D PTS: 1 DIF: 2 REF: 17-2
TOP: Game theory MSC: Applicative
50. ANS: A PTS: 1 DIF: 3 REF: 17-2
TOP: Game theory MSC: Applicative