

BPE MIC1 Microeconomics 1 – Fall Semester 2010

Final Exam - 06.12.2010, 9:00-10:30 a.m.

Test Version: B

Guidelines and Rules:

1. The test setup has 8 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** and **true/false** questions in the spaces corresponding to the respective questions in the setup sheet.
8. Mark the right answer on the **multiple-choice** questions by circling the true letter directly in the setup sheet
10. 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. Because of diminishing returns, a factor in abundant supply has a low _____ .
2. In terms of price determination, a competitive firm is a _____, whereas a monopolist is a _____.
3. Both monopolistic competition and oligopoly fall in between the more extreme market structures of _____ and _____ .
4. Most markets are not _____ in the real world because there are reasonable substitutes for most goods.
5. The _____ of capital is the price a person pays to own that factor of production indefinitely.
6. The simplest type of oligopoly is _____.
7. The accumulation of machinery used in the production of new goods and services is referred to as _____ .
8. The market for novels has a _____ structure.
9. In the long run, competitive markets are characterized by the assumption for _____ by firms.
10. The fundamental source of monopoly power is _____.

True/False

Indicate whether the statement is true or false.

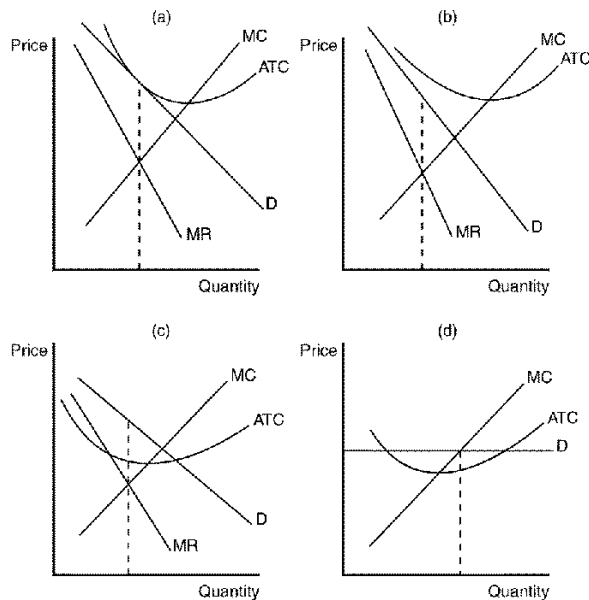
- _____ 11. If two players engaged in a prisoner's dilemma game are likely to repeat the game, they are more likely to cooperate than if they play the game only once.

- ___ 12. When each person specializes in producing the good in which he or she has a comparative advantage, each person can gain from trade but total production in the economy is unchanged.
- ___ 13. All points on a demand curve are optimal consumption points.
- ___ 14. A firm operating in a perfectly competitive industry will continue to operate if it earns zero economic profits because it is likely to be earning positive accounting profits.
- ___ 15. Welfare economics is the study of the welfare system.
- ___ 16. In the United States, technological advances help explain persistently rising employment in the face of rising wages.
- ___ 17. A monopolist that can practice perfect price discrimination will not impose a deadweight loss on society.
- ___ 18. The claim that advertising reduces the elasticity of demand is likely to be made by a defender of advertising.
- ___ 19. In some cases, specialization allows larger factories to produce goods at a lower average cost than smaller factories.
- ___ 20. In a competitive market, there are so few buyers and so few sellers that each has a significant impact on the market price.

Multiple Choice

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

- ___ 21. Consider the market for land. Suppose the value of the marginal product of land decreases. Holding all else constant, what will happen to the equilibrium rental price for land?
- It is not possible to determine what will happen to the equilibrium rental rate.
 - The equilibrium rental rate does not change.
 - The equilibrium rental rate increases.
 - The equilibrium rental rate decreases.
- ___ 22. **Figure 16-4**



Refer to Figure 16-4. Which of the graphs depicts a short-run equilibrium that will not encourage either the entry or exit of firms in a monopolistically competitive industry?

- panel b
- panel a
- panel d
- panel c

- _____ 23. Refer to Figure 16-4. Which of the panels depicts a firm in a monopolistically competitive market earning positive economic profits?
- a. panel b
 - b. panel a
 - c. panel d
 - d. panel c
- _____ 24. Both Diana and Sarah like jazz music and music by the Beatles. Diana likes music by the Beatles much better than jazz music, whereas Sarah prefers jazz music to music by the Beatles. If we were to graph an indifference curve with cd's by the Beatles on the horizontal axis and jazz cd's on the vertical axis, then
- a. Sarah's indifference curve would be steeper than Diana's indifference curve.
 - b. Diana's indifference curve would be steeper than Sarah's indifference curve.
 - c. We do not have enough information to compare their indifference curves.
 - d. Diana and Sarah would have identical indifference curves.
- _____ 25. The owners of capital resources are compensated according to the
- a. value of the marginal product of capital.
 - b. purchase price of the capital stock.
 - c. marginal product of capital.
 - d. absolute level of production of final goods and services.
- _____ 26. A profit-maximizing monopolist charges a price of \$12. The intersection of the marginal revenue and marginal cost curves occurs where output is 10 units and marginal cost is \$6. Average total cost for 10 units of output is \$5. What is the monopolist's profit?
- a. \$60
 - b. \$100
 - c. \$120
 - d. \$70
- _____ 27. A monopolistically competitive market is like both a competitive market and a monopoly in that firms in all three market structures
- a. can earn economic profits in the long run.
 - b. can earn economic profits in the short run.
 - c. charge a price above marginal cost.
 - d. All of the above are correct.
- _____ 28. Carlos goes to the movies every Sunday afternoon. The movie theater offers 4 combinations of popcorn and beverages: the "mini-combo" costs \$5 and includes a small popcorn and a small drink, the "medium-combo" costs \$7 and includes a medium popcorn and a medium drink, the "value-combo" also costs \$7 and includes a small popcorn and a large drink, and the "large-combo" costs \$9 and includes a large popcorn and a large drink. Carlos always purchases the "value-combo." We can conclude that
- a. Carlos cannot afford the "large-combo."
 - b. Carlos cannot afford the "medium-combo."
 - c. Carlos prefers a combo with a larger popcorn-to-beverage ratio.
 - d. Carlos prefers a combo with a smaller popcorn-to-beverage ratio.
- _____ 29. Farm programs that pay farmers not to plant crops on all their land
- a. help farmers directly since they receive government payments but have no real effects on consumers.
 - b. help farmers by cutting costs, which helps consumers by lowering food prices.
 - c. hurt farmers by lowering their total revenue and hurt consumers by causing shortages of some food items.
 - d. help farmers by increasing total revenue in the market but hurt consumers by raising prices.
- _____ 30. Suppose that demand for a good increases and, at the same time, supply of the good decreases. What would happen in the market for the good?
- a. Equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.
 - b. Equilibrium price would increase, but the impact on equilibrium quantity would be ambiguous.
 - c. Equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.
 - d. Equilibrium price would decrease, but the impact on equilibrium quantity would be ambiguous.

31. **Table 17-7.** The table shows the demand schedule for a particular product.

Quantity	Price
0	10
5	9
10	8
15	7
20	6
25	5
30	4
35	3
40	2
45	1
50	0

Refer to Table 17-7. Suppose the marginal cost to produce this product is constant at \$1 per unit. If this market is served by two duopolists who choose their production levels independently, acting in their own self-interest, what is the Nash equilibrium production level for each firm?

- a. 10 units
- b. 5 units
- c. 20 units
- d. 15 units

32. Suppose that a violent earthquake causes the uninhabited Hawaiian island of Mokuauia (also called Goat Island) to fall into the Pacific Ocean. No people are killed or injured, and since the island is undeveloped, no buildings are destroyed. The island was a source of tourist income for Hawaiian landowners. Which of the following statements correctly describes the rents earned by the people who own land on the surrounding islands?

- a. As the supply of vacation land decreases, the marginal productivity of the remaining land will increase; thus, rents will increase.
- b. There would be no change in the rents earned by the other landowners because the effects of supply and demand would exactly cancel each other out.
- c. As the supply of vacation land decreases, the marginal productivity of the remaining land will increase; thus, rents will decrease.
- d. As the supply of vacation land decreases, the marginal productivity of the remaining land will decrease; thus rents will decrease.

33. **Table 13-1**

Alyson's Pet Sitting Service

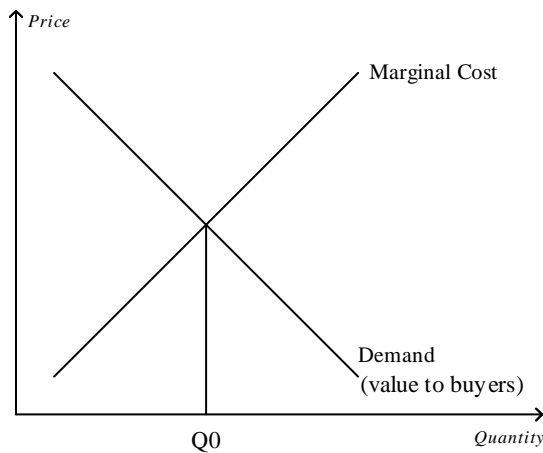
Number of Workers	Output (number of pet visits)
0	0
1	20
2	45
3	60
4	70

Refer to Table 13-1. Alyson's pet sitting service experiences diminishing marginal productivity with the addition of the

- a. third worker.
- b. second worker.
- c. first worker.
- d. fourth worker.

- _____ 34. Which of the following statements about a production function is correct for a firm that uses labor to produce output?
- The quantity of output determines the maximum amount of labor the firm will hire.
 - The production function depicts the relationship between the quantity of labor and the quantity of output.
 - The slope of the production function measures marginal cost.
 - All of the above are correct.
- _____ 35. Granting a pharmaceutical company a patent for a new medicine will lead to
- a product that is priced higher than it would be without the exclusive rights.
 - incentives for pharmaceutical companies to invest in research and development.
 - higher quantities of output than without the patent.
- (i), (ii), and (iii)
 - (ii) and (iii) only
 - (i) and (ii) only
 - (i) and (iii) only
- _____ 36. Inefficiency exists in an economy when a good is
- not produced because buyers do not value it very highly.
 - not distributed fairly among buyers.
 - not being consumed by buyers who value it most highly.
 - being produced with less than all available resources.
- _____ 37. Total revenue
- always increases as price increases.
 - increases as price increases, as long as demand is elastic.
 - decreases as price increases, as long as demand is inelastic.
 - remains unchanged as price increases when demand is unit elastic.
- _____ 38. Assume for Namibia that the opportunity cost of each hut is 200 bowls. Then which of these pairs of points could be on Namibia's production possibilities frontier?
- (200 huts, 30,000 bowls) and (150 huts, 35,000 bowls)
 - (300 huts, 50,000 bowl) and (200 huts, 60,000 bowls)
 - (300 huts, 60,000 bowls) and (200 huts, 80,000 bowls)
 - (200 huts, 40,000 bowls) and (150 huts, 30,000 bowls)

___ 39. **Figure 15-6**



Refer to Figure 15-6. If the monopoly operates at an output level less than Q_0 , then an increase in output toward (but not exceeding) Q_0 would

- a. lower the price and lower total surplus.
 - b. raise the price and raise total surplus.
 - c. lower the price and raise total surplus.
 - d. raise the price and lower total surplus.
- ___ 40. Economies of scale occur when a firm's
- a. long-run average total costs are increasing as output increases.
 - b. long-run average total costs are decreasing as output increases.
 - c. marginal costs are constant as output increases.
 - d. marginal costs are equal to average total costs for all levels of output.
- ___ 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 \$3.33.
 - b. horizontal at a price of \$7.
 - c. positively sloped.
 - d. horizontal at a price of \$5.
- ___ 42. If a market is allowed to move freely to its equilibrium price and quantity, then an increase in supply will
- a. not affect consumer surplus.
 - b. reduce consumer surplus.
 - c. increase consumer surplus.
 - d. Any of the above are possible.

- ___ 43. Which of the following statements regarding a competitive market is *not* correct?
- Price exceeds marginal revenue.
 - Firms can freely enter or exit the market.
 - There are many buyers and many sellers in the market.
 - Price equals average revenue.
- ___ 44. **Table 17-6. The table shows the demand schedule for a particular product.**

Quantity	Price
0	16
1	14
2	12
3	10
4	8
5	6
6	4
7	2
8	0

Refer to Table 17-6. Suppose the market for this product is served by two firms that have formed a cartel. What price will the cartel charge in this market if the marginal cost of production is \$0?

- \$12
 - \$6
 - \$10
 - \$8
- ___ 45. When regulators use a marginal-cost pricing strategy to regulate a natural monopoly, the regulated monopoly
- will experience a loss.
 - may rely on a government subsidy to remain in business.
 - will experience a price below average total cost.
 - All of the above are correct.
- ___ 46. Suppose that the market for labor is initially in equilibrium. An increase in immigration will cause
- the equilibrium wage and the quantity of labor to both rise.
 - the equilibrium wage and the quantity of labor to both fall.
 - the equilibrium wage to rise and the quantity of labor to fall.
 - the equilibrium wage to fall and the quantity of labor to rise.
- ___ 47. Suppose an economy produces two goods, food and machines. This economy always operates on its production possibilities frontier. Last year, it produced 50 units of food and 30 machines. This year it experienced a technological advance in its machine-making industry. As a result, this year the society wants to produce 55 units of food and 30 machines. Which of the following statements is correct?
- The technological advance reduced the amount of resources needed to produce 30 machines, so these resources could be used to produce more food.
 - In order to increase food production in these circumstances without reducing machine production, the economy must reduce inefficiencies.
 - Because the technological advance occurred in the machine-making industry, it will not be possible to increase food production without reducing machine production below 30.
 - Because the technological advance occurred in the machine-making industry, increases in output can only occur in the machine industry.

48. **Figure 17-3.** Katie and Taylor are roommates. On a particular day, their lawn needs to be mowed. Each person has to decide whether to take part in mowing the lawn. At the end of the day, either the lawn will be mowed (if one or both roommates take part in mowing), or it will remain unmowed (if neither roommate mows). With happiness measured on a scale of 1 (very unhappy) to 10 (very happy), the possible outcomes are as follows:

		Katie's Decision	
		Mow	Don't mow
Taylor's Decision	Mow	Katie's happiness = 7 Taylor's happiness = 7	Katie's happiness = 10 Taylor's happiness = 2
	Don't mow	Katie's happiness = 5 Taylor's happiness = 8	Katie's happiness = 4 Taylor's happiness = 4

- Refer to Figure 17-3.** If this game is played only once, then which of the following outcomes is the most likely one?
- Katie mows and Taylor does not mow.
 - Taylor mows and Katie does not mow.
 - Katie and Taylor both mow.
 - All of the above outcomes are equally likely.
49. If workers respond to an increase in the opportunity cost of leisure by taking more leisure, then their labor supply curve is
- upward sloping.
 - vertical.
 - backward sloping.
 - horizontal.
50. A simultaneous increase in both the demand for MP3 players and the supply of MP3 players would imply that
- the value of MP3 players to consumers has decreased, and the cost of producing MP3 players has increased.
 - the value of MP3 players to consumers has increased, and the cost of producing MP3 players has decreased.
 - both the value of MP3 players to consumers and the cost of producing MP3 players has decreased.
 - both the value of MP3 players to consumers and the cost of producing MP3 players has increased.

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Answer Section

Test Version: B

COMPLETION

1. ANS: marginal product
PTS: 1
2. ANS: price taker, price maker
PTS: 1
3. ANS: competition, monopoly
PTS: 1
4. ANS: monopolies
PTS: 1
5. ANS: purchase price
PTS: 1
6. ANS: duopoly
PTS: 1
7. ANS: capital
PTS: 1
8. ANS: monopolistically competitive
PTS: 1
9. ANS: free entry and exit
PTS: 1
10. ANS: barriers to entry
PTS: 1

TRUE/FALSE

- | | | | |
|--------------------------|-------------------|-------------------|-----------|
| 11. ANS: T | PTS: 1 | DIF: 2 | REF: 17-2 |
| TOP: Prisoners' dilemma | | MSC: Interpretive | |
| 12. ANS: F | PTS: 1 | DIF: 2 | REF: 3-2 |
| TOP: Gains from trade | | MSC: Interpretive | |
| 13. ANS: T | PTS: 1 | DIF: 3 | REF: 21-3 |
| TOP: Demand | MSC: Analytical | | |
| 14. ANS: T | PTS: 1 | DIF: 2 | REF: 14-3 |
| TOP: Competitive markets | | MSC: Interpretive | |
| 15. ANS: F | PTS: 1 | DIF: 1 | REF: 7-1 |
| TOP: Welfare | MSC: Definitional | | |
| 16. ANS: T | PTS: 1 | DIF: 2 | REF: 18-1 |
| TOP: Labor demand | | MSC: Applicative | |

17. ANS: T PTS: 1 DIF: 3 REF: 15-4
TOP: Perfect price discrimination MSC: Interpretive
18. ANS: F PTS: 1 DIF: 2 REF: 16-3
TOP: Advertising MSC: Interpretive
19. ANS: T PTS: 1 DIF: 2 REF: 13-4
TOP: Specialization MSC: Interpretive
20. ANS: F PTS: 1 DIF: 1 REF: 4-1
TOP: Competitive markets MSC: Definitional

MULTIPLE CHOICE

21. ANS: D PTS: 1 DIF: 2 REF: 18-1 | 18-3 | 18-4
TOP: Factor markets MSC: Analytical
22. ANS: B PTS: 1 DIF: 2 REF: 16-2
TOP: Short-run equilibrium MSC: Interpretive
23. ANS: D PTS: 1 DIF: 2 REF: 16-2
TOP: Monopolistic competition MSC: Interpretive
24. ANS: B PTS: 1 DIF: 2 REF: 21-2
TOP: Indifference curves MSC: Analytical
25. ANS: A PTS: 1 DIF: 2 REF: 18-4
TOP: Capital MSC: Interpretive
26. ANS: D PTS: 1 DIF: 2 REF: 15-2
TOP: Profit MSC: Applicative
27. ANS: B PTS: 1 DIF: 2 REF: 16-4
TOP: Monopolistic competition | Monopoly MSC: Interpretive
28. ANS: D PTS: 1 DIF: 2 REF: 21-3
TOP: Optimization MSC: Analytical
29. ANS: D PTS: 1 DIF: 2 REF: 5-3
TOP: Total revenue MSC: Applicative
30. ANS: B PTS: 1 DIF: 2 REF: 4-4
TOP: Equilibrium MSC: Interpretive
31. ANS: D PTS: 1 DIF: 3 REF: 17-1
TOP: Duopoly | Nash equilibrium MSC: Applicative
32. ANS: A PTS: 1 DIF: 3 REF: 18-4
TOP: Land markets MSC: Interpretive
33. ANS: A PTS: 1 DIF: 3 REF: 13-2
TOP: Diminishing marginal product MSC: Analytical
34. ANS: B PTS: 1 DIF: 2 REF: 13-2
TOP: Production function MSC: Interpretive
35. ANS: C PTS: 1 DIF: 2 REF: 15-1
TOP: Patents MSC: Interpretive
36. ANS: C PTS: 1 DIF: 2 REF: 7-3
TOP: Efficiency MSC: Interpretive
37. ANS: D PTS: 1 DIF: 2 REF: 5-1
TOP: Total revenue | Price elasticity of demand MSC: Applicative
38. ANS: C PTS: 1 DIF: 3 REF: 3-2
TOP: Production possibilities frontier | Opportunity cost MSC: Analytical
39. ANS: C PTS: 1 DIF: 2 REF: 15-3
TOP: Total surplus MSC: Analytical

40.	ANS: B	PTS: 1	DIF: 1	REF: 13-4
	TOP: Economies of scale		MSC: Definitional	
41.	ANS: D	PTS: 1	DIF: 3	REF: 14-3
	TOP: Competitive markets		MSC: Analytical	
42.	ANS: C	PTS: 1	DIF: 2	REF: 7-3
	TOP: Consumer surplus		MSC: Applicative	
43.	ANS: A	PTS: 1	DIF: 2	REF: 14-1
	TOP: Competitive markets		MSC: Interpretive	
44.	ANS: D	PTS: 1	DIF: 2	REF: 17-1
	TOP: Cartels	MSC: Applicative		
45.	ANS: D	PTS: 1	DIF: 2	REF: 15-5
	TOP: Regulation Natural monopoly		MSC: Interpretive	
46.	ANS: D	PTS: 1	DIF: 2	REF: 18-3
	TOP: Labor-market equilibrium		MSC: Interpretive	
47.	ANS: A	PTS: 1	DIF: 3	REF: 2-1
	TOP: Production possibilities frontier		MSC: Analytical	
48.	ANS: A	PTS: 1	DIF: 3	REF: 17-2
	TOP: Game theory	MSC: Applicative		
49.	ANS: C	PTS: 1	DIF: 2	REF: 18-2
	TOP: Labor supply		MSC: Interpretive	
50.	ANS: B	PTS: 1	DIF: 2	REF: 7-3
	TOP: Efficiency	MSC: Interpretive		