Masaryk University - Brno
Department of Economics – Faculty of Economics and Administration
Lipová 507/41a, Pisárky, Brno

BPE_MIC1 Microeconomics 1 – Fall Semester 2011

Final Exam - 12.12.2011, 9:00-10:30 a.m. Test 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**, **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. ______________________ arises because a single firm can supply a good or service to an entire market at a smaller cost than could two or more firms.
2. If a firm produces nothing, _____________ cost will be zero.
3. ___________ demand curves are summed horizontally to obtain the _____________ demand curve.
4. ____________________ refers to the business practice of selling the same good at different prices to different customers.
5. Economists say that an economy has a/an _____________ when comparing its productivity in a market relative to another economy.
6. ___________ tend to have inelastic demands, whereas ___________ have elastic demands.
7. A _______________ strategy is one that is best for the player, regardless of what strategies other players follow.
8. ____________________ describes a situation in which unregulated market is unable to allocate resources efficiently.
9. Firms that produce a quantity below the efficient scale are said to have __________________ .
10. The marginal product of an input times the price of the output gives ________________ .

True/False
Indicate whether the statement is true or false.

____ 11. Monopolists can achieve any level of profit they desire because they have unlimited market power.

____ 12. All else equal, an increase in demand will cause an increase in producer surplus.

____ 13. The shape of the total cost curve is related to the shape of the production function.

____ 14. Surpluses drive price up while shortages drive price down.

____ 15. Labor supply curves are always upward sloping.

____ 16. For a firm operating in a perfectly competitive industry, marginal revenue and average revenue are equal.

____ 17. Positive statements can be evaluated using data alone, but normative statements cannot.

____ 18. A production possibilities frontier is a graph that shows the combination of outputs that an economy should produce.

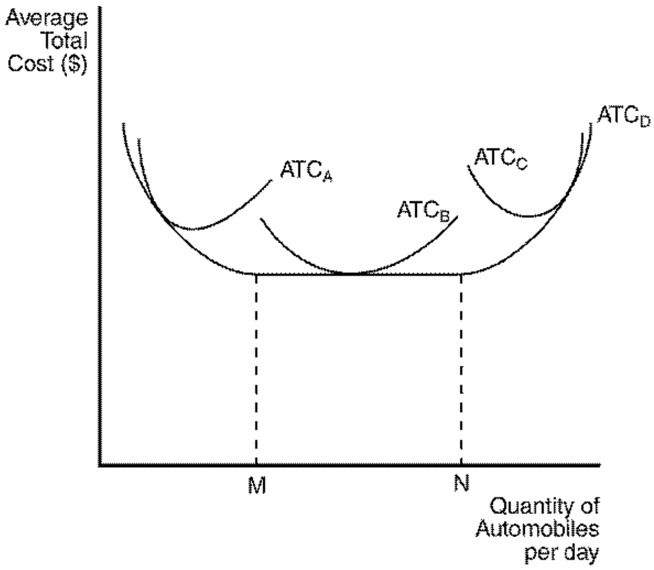
____ 19. If a firm is facing elastic demand, then the firm should decrease price to increase revenue.

____ 20. The indifference curves for perfect substitutes are straight lines.

Multiple Choice

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

____ 21. ***Figure 13-9***
The figure below depicts average total cost functions for a firm that produces automobiles.



Refer to Figure 13-9. Which of the curves is most likely to characterize the short-run average total cost curve of the smallest factory?

a. ATC_A
b. ATC_B
c. ATC_C
d. ATC_D

____ 22. **Refer to Figure 13-9**. The firm experiences economies of scale at which output levels?

a. output levels less than M
b. output levels between M and N
c. output levels greater than N
d. All of the above are correct as long as the firm is operating in the long run.

____ 23. **Refer to Figure 13-9**. In the long run, the firm can operate on which of the following average total cost curves?

a. ATC_A
b. ATC_B
c. ATC_C
d. All of the above are correct.

____ 24. What will happen in the rice market now if sellers expect higher rice prices in the near future?

a. The supply of rice will increase.
b. The supply of rice will decrease.
c. The supply of rice will be unaffected.
d. The demand for rice will decrease.

____ 25. A family on a trip budgets $800 for meals and hotel accommodations. Suppose the price of a meal is $40. In addition, suppose the family could afford a total of 8 nights in a hotel if they don't buy any meals. How many meals could the family afford if they gave up two nights in the hotel?

a. 1
b. 2
c. 5
d. 8

____ 26. When the local used bookstore prices economics books at $15.00 each, it generally sells 70 books per month. If it lowers the price to $7.00, sales increase to 90 books per month. Given this information, we know that the price elasticity of demand for economics books is about

a. 2.91, and an increase in price from $7.00 to $15.00 results in an increase in total revenue.
b. 2.91, and an increase in price from $7.00 to $15.00 results in a decrease in total revenue.
c. 0.34, and an increase in price from $7.00 to $15.00 results in an increase in total revenue.
d. 0.34, and an increase in price from $7.00 to $15.00 results in a decrease in total revenue.

____ 27. When Sam has an income of $1,000, he consumes 30 units of good A and 50 units of good B. After Sam's income increases to $1,500, he consumes 60 units of good A and 45 units of good B. Which of the following statements is correct?

a. Both goods A and B are normal goods.
b. Both goods A and B are inferior goods.
c. Good A is a normal good, and good B is an inferior good.
d. Good A is an inferior good, and good B is a normal good.

____ 28. ***Table 17-17.*** Consider a small town that has two grocery stores from which residents can choose to buy a gallon of milk. The store owners each must make a decision to set a high milk price or a low milk price. The payoff table, showing profit per week, is provided below. The profit in each cell is shown as (Store 1, Store 2).

		Store 2	
		Low Price	*High Price*
Store 1	*Low Price*	(500, 500)	(800, 100)
	High Price	(100, 800)	(650, 650)

Refer to Table 17-17. If grocery store 2 sets a high price, what price should grocery store 1 set? And what will grocery store 1's payoff equal?

a. Low price, $800
b. High price, $650
c. Low price, $100
d. High price, $800

____ 29. **Refer to Table 17-17.** What is the Nash Equilibrium of this price-setting game?

a. Grocery store 1: Low price
Grocery store 2: Low price
b. Grocery store 1: Low price
Grocery store 2: High price
c. Grocery store 1: High price
Grocery store 2: How price
d. Grocery store 1: High price
Grocery store 2: High price

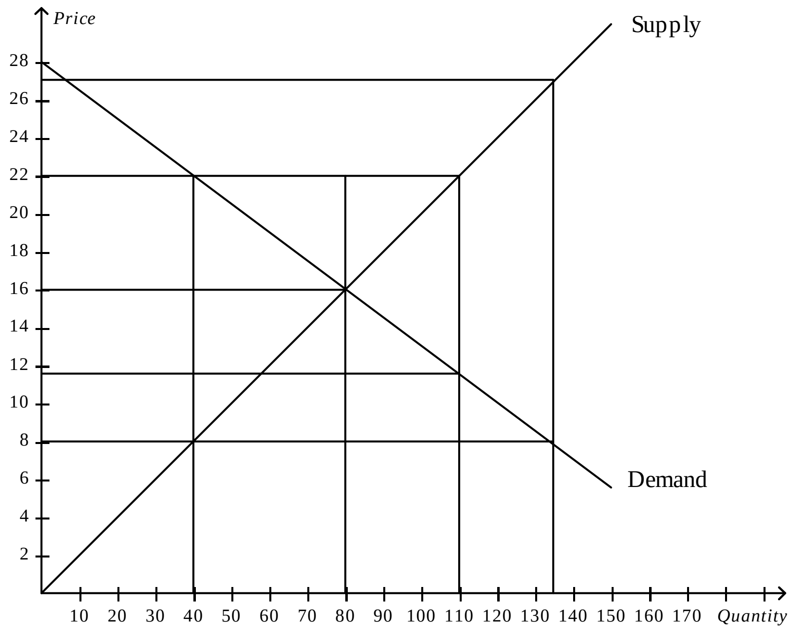
____ 30. A monopolistically competitive firm faces the following demand curve for its product:

Price ($)	10	9	8	7	6	5	4	3	2	1
Quantity	2	4	6	8	10	12	14	16	18	20

The firm has total fixed costs of $20 and a constant marginal cost of $5 per unit. The firm will maximize profit with the production of

a. 6 units of output.
b. 8 units of output.
c. 10 units of output.
d. 12 units of output.

____ 31. ***Figure 7-15***



Refer to Figure 7-15. Assume demand increases and as a result, equilibrium price increases to $22 and equilibrium quantity increases to 110. The increase in producer surplus would be

a. $210.
b. $360.
c. $480.
d. $570.

____ 32. **Refer to Figure 7-15**. The efficient price is

a. $22, and the efficient quantity is 40.
b. $22, and the efficient quantity is 110.
c. $16, and the efficient quantity is 80.
d. $8, and the efficient quantity is 40.

____ 33. **Refer to Figure 7-15.** If 110 units of the good are being bought and sold, then

a. the marginal cost to sellers is equal to the marginal value to buyers.
b. the marginal value to buyers is greater than the marginal cost to sellers.
c. the marginal cost to sellers is greater than the marginal value to buyers.
d. producer surplus is greater than consumer surplus.

____ 34. Suppose that a toxic waste spill renders half of the land in New Jersey uninhabitable. Assuming that land and labor are complements in the production function, what would happen to the wages earned by workers and rents earned by landowners?

a. Both wages and rents would increase.
b. Both wages and rents would decrease.
c. Wages would increase, and rents would decrease.
d. Wages would decrease, and rents would increase.

____ 35. Assume the market for pork is perfectly competitive. When one pork buyer exits the market,

a. the price of pork increases.
b. the price of pork decreases.
c. the price of pork does not change.
d. there is no longer a market for pork.

____ 36. Dallas buys strawberries, and he would be willing to pay more than he now pays. Suppose that Dallas has a change in his tastes such that he values strawberries more than before. If the market price is the same as before, then

a. Dallas's consumer surplus would be unaffected.
b. Dallas's consumer surplus would increase.
c. Dallas's consumer surplus would decrease.
d. Dallas would be wise to buy fewer strawberries than before.

____ 37. A monopolist faces the following demand curve:

Price	Quantity
$51	1
$47	2
$42	3
$36	4
$29	5
$21	6
$12	7

The monopolist has total fixed costs of $60 and has a constant marginal cost of $15. What is the profit-maximizing price?

a. $4
b. $39
c. $36
d. $42

____ 38. A likely example of substitute goods for most people would be

a. peanut butter and jelly.
b. tennis balls and tennis rackets.
c. televisions and subscriptions to cable television services.
d. pencils and pens.

____ 39. ***Table 13-4***
Gallo Cork Factory

Number of Workers	Number of Machines	Output (corks produced per hour)	Marginal Product of Labor	Cost of Workers	Cost of Machines	Total Cost
1	2	5				
2	2	10				
3	2	20				
4	2	35				
5	2	55				
6	2	70				
7	2	80				

Refer to Table 13-4. Each worker at Gallo's cork factory costs $12 per hour. The cost of each machine is $20 per day regardless of the number of corks produced. If Gallo's produces at a rate of 35 corks per hour, what is the total labor cost per hour?

a. $40
b. $48
c. $384
d. $424

____ 40. **Refer to Table 13-4**. Assume Gallo's currently employs 5 workers. What is the marginal product of labor when Gallo's adds a 6th worker?

a. 5 corks per hour
b. 15 corks per hour
c. 25 corks per hour
d. 70 corks per hour

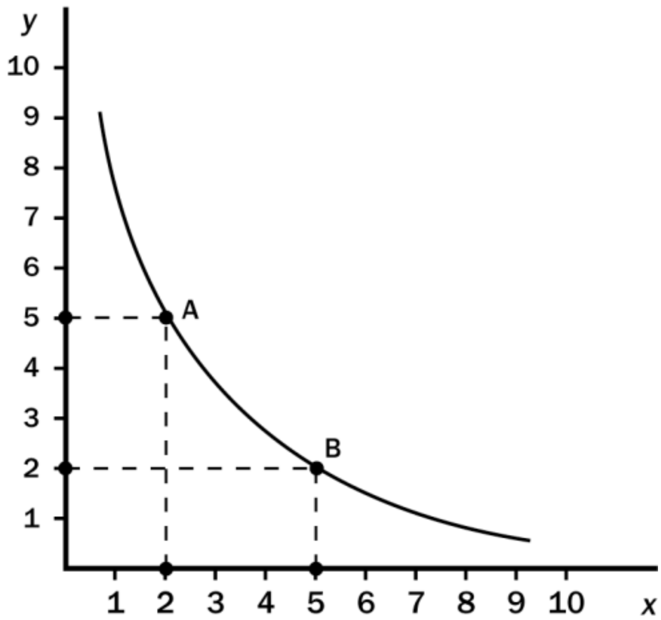
____ 41. ***Scenario 21-1***
Suppose the price of hot wings is $10, the price of beer is $1, and the consumer’s income is $50. In addition, suppose the consumer’s budget constraint illustrates hot wings on the horizontal axis and beer on the vertical axis.

Refer to Scenario 21-1. If the price of beer doubles to $2, then the
a. budget constraint intersects the vertical axis at 25 beers.
b. slope of the budget constraint rises to -2.
c. budget constraint intersects the vertical axis at 100 beers.
d. budget constraint shifts inward in a parallel fashion.

____ 42. **Refer to Scenario 21-1.** If the consumer's income rises to $60, then the budget line for hot wings and beer would
a. now intersect the horizontal axis at 6 orders of hot wings and the vertical axis at 60 beers.
b. not change.
c. now intersect the horizontal axis at 4 orders of hot wings and the vertical axis at 16 beers.
d. rotate outward along the beer axis.

____ 43. Holding all other factors constant and using the midpoint method, if a pencil manufacturer increases production from 40 to 50 boxes when price increases by 20 percent, then supply is
a. inelastic, since the price elasticity of supply is equal to .91.
b. inelastic, since the price elasticity of supply is equal to 1.1.
c. elastic, since the price elasticity of supply is equal to 0.91.
d. elastic, since the price elasticity of supply is equal to 1.1.

____ 44. The following diagram shows one indifference curve representing the preferences for goods X and Y for one consumer.



What is the marginal rate of substitution between points A and B?
a. 2/5
b. 1
c. 5/2
d. 3

____ 45. ***Table 16-2***
The following table shows the total output produced by the top six firms as well as the total industry output for each industry.

Firm	Industry A	Industry B	Industry C	Industry D
1	13,250	8,750	1,750	15,000
2	10,975	7,500	1,725	14,000
3	8,175	6,400	1,700	13,000
4	4,275	5,000	1,675	12,000
5	1,250	4,250	1,650	11,000
6	875	4,000	1,625	10,000
Total	***45,350***	***70,900***	***30,125***	***120,000***

Refer to Table 16-2. Which industry has the lowest concentration ratio?
a. Industry A
b. Industry B
c. Industry C
d. Industry D

____ 46. **Refer to Table 16-2.** Which industry is the most competitive?
a. Industry A
b. Industry B
c. Industry C
d. Industry D

____ 47. Consider a competitive market with 50 identical firms. Suppose the market demand is given by the equation $Q^D = 200 - 10P$ and the market supply is given by the equation $Q^S = 10P$. In addition, suppose the following table shows the marginal cost of production for various levels of output for firms in this market.

Output	Marginal Cost
0	--
1	$5
2	$10
3	$15
4	$20
5	$25

How many units should a firm in this market produce to maximize profit?
a. 1 unit
b. 2 units
c. 3 units
d. 4 units

____ 48. Which of the following might cause the supply curve for an inferior good to shift to the right?
a. An increase in input prices.
b. A decrease in consumer income.
c. An improvement in production technology that makes production of the good more profitable.
d. A decrease in the number of sellers in the market.

____ 49. 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 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.
b. 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.
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 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.

____ 50. Which of the following would be most likely to contribute to the breakdown of a cartel in a natural resource (e.g., bauxite) market?

a. high prices
b. low price elasticity of demand
c. high compatibility of member interests
d. unequal member ownership of the natural resource

Final Exam - 12.12.2011, 9:00-10:30 a.m. Test B
Answer Section

COMPLETION

1. ANS: Natural monopoly

   PTS: 1
2. ANS: variable

   PTS: 1
3. ANS: Individual, market

   PTS: 1
4. ANS: Price discrimination

   PTS: 1
5. ANS: absolute advantage

   PTS: 1
6. ANS: necessities, luxuries

   PTS: 1
7. ANS: dominant

   PTS: 1
8. ANS: Market failure

   PTS: 1
9. ANS: excess capacity

   PTS: 1
10. ANS: value of the marginal product

    PTS: 1

TRUE/FALSE

11. ANS: F PTS: 1 DIF: 2 REF: 15-0
    TOP: Monopoly MSC: Interpretive
12. ANS: T PTS: 1 DIF: 2 REF: 7-2
    TOP: Producer surplus MSC: Applicative
13. ANS: T PTS: 1 DIF: 2 REF: 13-2
    TOP: Total-cost curve | Production function MSC: Interpretive
14. ANS: F PTS: 1 DIF: 2 REF: 4-4
    TOP: Shortage | Surplus MSC: Interpretive
15. ANS: F PTS: 1 DIF: 2 REF: 18-2
    TOP: Labor supply MSC: Interpretive
16. ANS: T PTS: 1 DIF: 2 REF: 14-1
    TOP: Average revenue | Marginal revenue MSC: Interpretive

17. ANS: T PTS: 1 DIF: 2 REF: 2-2
TOP: Positive statements | Normative statements MSC: Interpretive
18. ANS: F PTS: 1 DIF: 2 REF: 3-1
TOP: Production possibilities frontier MSC: Interpretive
19. ANS: T PTS: 1 DIF: 2 REF: 5-1
TOP: Total revenue | Price elasticity of demand MSC: Applicative
20. ANS: T PTS: 1 DIF: 1 REF: 21-2
TOP: Perfect substitutes MSC: Applicative

MULTIPLE CHOICE

21. ANS: A PTS: 1 DIF: 1 REF: 13-4
TOP: Average total cost MSC: Analytical
22. ANS: A PTS: 1 DIF: 2 REF: 13-4
TOP: Economies of scale MSC: Analytical
23. ANS: D PTS: 1 DIF: 1 REF: 13-4
TOP: Average total cost MSC: Analytical
24. ANS: B PTS: 1 DIF: 2 REF: 4-3
TOP: Expectations MSC: Applicative
25. ANS: C PTS: 1 DIF: 3 REF: 21-1
TOP: Budget constraint MSC: Applicative
26. ANS: C PTS: 1 DIF: 2 REF: 5-1
TOP: Midpoint method | Total revenue | Price elasticity of demand
MSC: Applicative
27. ANS: C PTS: 1 DIF: 2 REF: 21-3
TOP: Normal goods | Inferior goods MSC: Applicative
28. ANS: A PTS: 1 DIF: 2 REF: 17-2
TOP: Game theory MSC: Applicative
29. ANS: A PTS: 1 DIF: 2 REF: 17-2
TOP: Nash equilibrium MSC: Applicative
30. ANS: A PTS: 1 DIF: 3 REF: 16-2
TOP: Profit maximization MSC: Applicative
31. ANS: D PTS: 1 DIF: 3 REF: 7-3
TOP: Producer surplus MSC: Applicative
32. ANS: C PTS: 1 DIF: 1 REF: 7-3
TOP: Efficiency MSC: Applicative
33. ANS: C PTS: 1 DIF: 2 REF: 7-3
TOP: Efficiency MSC: Applicative
34. ANS: D PTS: 1 DIF: 3 REF: 18-4
TOP: Land markets MSC: Analytical
35. ANS: C PTS: 1 DIF: 2 REF: 4-1
TOP: Perfect competition MSC: Applicative
36. ANS: B PTS: 1 DIF: 2 REF: 7-1
TOP: Consumer surplus MSC: Interpretive
37. ANS: C PTS: 1 DIF: 3 REF: 15-2
TOP: Profit maximization MSC: Applicative
38. ANS: D PTS: 1 DIF: 2 REF: 4-2
TOP: Substitutes MSC: Applicative
39. ANS: B PTS: 1 DIF: 2 REF: 13-2
TOP: Variable costs MSC: Applicative

40. ANS: B PTS: 1 DIF: 2 REF: 13-2
TOP: Marginal product MSC: Applicative
41. ANS: A PTS: 1 DIF: 2 REF: 21-1
TOP: Budget constraint MSC: Applicative
42. ANS: A PTS: 1 DIF: 1 REF: 21-1
TOP: Budget constraint MSC: Applicative
43. ANS: D PTS: 1 DIF: 2 REF: 5-2
TOP: Midpoint method | Price elasticity of supply MSC: Analytical
44. ANS: B PTS: 1 DIF: 3 REF: 21-2
TOP: Marginal rate of substitution MSC: Analytical
45. ANS: C PTS: 1 DIF: 3 REF: 16-1
TOP: Concentration ratio MSC: Applicative
46. ANS: C PTS: 1 DIF: 3 REF: 16-1
TOP: Concentration ratio MSC: Applicative
47. ANS: B PTS: 1 DIF: 3 REF: 14-2
TOP: Profit maximization MSC: Analytical
48. ANS: C PTS: 1 DIF: 3 REF: 4-3
TOP: Technology MSC: Analytical
49. ANS: B PTS: 1 DIF: 3 REF: 4-4
TOP: Equilibrium MSC: Analytical
50. ANS: D PTS: 1 DIF: 2 REF: 17-1
TOP: Cartels MSC: Interpretive