

Name: _____

ECO 101 Principles of Microeconomics

Final Exam Spring 2006 Form

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There are 30 multiple choice questions and 5 short answer questions on this double-sided exam, so be careful not to skip any questions!

Part I: Multiple Choice (60 points)

Read each question carefully and select the best response. Fill in the corresponding circle on your answer sheet.

1. If the total output of candles in Nick's Wicks shop increases from 20 per hour to 30 per hour as he hires the second worker, then
 - a. the marginal product of the second worker is 20 candles.
 - b. the marginal product of the second worker is 30 candles.
 - c. if the price of each candle is \$2, the marginal revenue product (MRP) of the second worker is \$20.
 - d. if the price of each candle is \$2, the marginal revenue product (MRP) of the second worker is \$30.

Output (pizzas per hour)	Total cost (dollars)
0	20
1	35
2	49
3	61
4	71
5	79
6	85

2. Paulette owns a pizza parlor. Her total cost schedule is in the above table. Her marginal cost of producing the fifth pizza is
 - a. \$16
 - b. \$10.
 - c. \$8
 - d. \$6.
3. When firms in an oligopoly successfully collude and do not cheat on a cartel agreement, they achieve long-run economic profit similar to:
 - a. perfect competition.
 - b. monopoly.
 - c. monopolistic competition.
 - d. non-colluding oligopolies.
4. The price of a resource with a perfectly inelastic supply,
 - a. is pure economic rent.
 - b. consists of only opportunity cost and has no economic rent.
 - c. cannot change.
 - d. is determined by the supply.
5. What does monopolistic competition have in common with perfect competition?
 - a. a large number of firms and freedom of entry and exit
 - b. a standardized product

- c. product differentiation
 - d. the ability to earn an economic profit in the long run
6. In the long run, existing firms exit a perfectly competitive market when
- a. economic profits are zero.
 - b. economic profits are greater than zero.
 - c. normal profits are greater than zero.
 - d. they incur an economic loss.
7. If the price elasticity of supply for a good is 0.5, then
- a. an increase in the price boosts the quantity supplied by a larger percentage.
 - b. the supply is elastic.
 - c. the percentage change in the quantity supplied is less than the percentage change in price.
 - d. None of the above answers are correct.
8. If a firm does not produce any output, its
- a. total fixed cost must be zero.
 - b. economic profit must be positive.
 - c. total variable cost must be zero.
 - d. total costs must be zero.
9. If all households in a nation receive the same income, the nation's Lorenz curve would
- a. be horizontal.
 - b. be vertical.
 - c. be a 45° line.
 - d. run along the horizontal axis until it reached 50 percent of households, and then run vertically up to 100 percent of income.
10. Economies of scale occurs when the average total cost of production ____ as output ____.
- a. increases, increases
 - b. decreases, decreases
 - c. decreases, increases
 - d. remains constant, increases
11. Which of the following explains why flood control is a public good?
- a. There are external benefits associated with its production.
 - b. The government usually produces flood control projects.
 - c. It is nonexclusive and therefore cannot be kept from people who do not pay.
 - d. All of the above
12. Other things remaining the same, the
- a. higher the interest rate, the greater the quantity of capital demanded.
 - b. lower the interest rate, the smaller the quantity of capital demanded.
 - c. higher the interest rate, the smaller the quantity of capital demanded.
 - d. interest rate and the quantity of capital demanded are not related.
13. Suppose the equilibrium wage for nurses is \$17/hour. Some nurses receiving this wage are actually willing to work for only \$15/hour. This \$2 difference is known as
- a. pure economic rent.
 - b. differential economic rent.
 - c. inframarginal economic rent.
 - d. consumer surplus.
14. What does monopolistic competition have in common with monopoly?
- a. a large number of firms
 - b. a downward-sloping demand curve

- c. the ability to collude with respect to price
 - d. mutual interdependence
15. When firms in a perfectly competitive market incur economic losses, exit by some firms means the market supply will ____ and price will ____.
- a. increase; decrease.
 - b. decrease; increase
 - c. decrease; decrease
 - d. increase; increase
16. Problems with the measurement of poverty in the U.S. include
- a. the complexity of a cost-of-living index that includes typical household expenses.
 - b. the use of before-tax income.
 - c. a poverty threshold calculation based only on the cost of food.
 - d. both b and c.
17. A statement that argues that “if taxes on gasoline increase, gasoline consumption will decrease” is an example of what kind of statement?
- a. a conservative statement
 - b. a macroeconomic statement
 - c. a normative statement
 - d. a positive statement
18. For a natural monopoly, economies of scale
- a. exist due to patent protection.
 - b. exist over in the long-run average cost curve over the entire range of output.
 - c. cause legal barriers to entry.
 - d. all of the above.
19. For a product with external costs (negative externalities)
- a. market equilibrium results in too much of the good being produced.
 - b. market equilibrium results in too little of the good being produced.
 - c. the market will not provide the good; it must be publicly funded.
 - d. large economies of scale work as a barrier to firm entry.
20. Suppose that the price of flour used to produce bagels increases. Hence the equilibrium price of a bagel ____ and the equilibrium quantity ____.
- a. rises; increases
 - b. rises; decreases
 - c. falls; increases
 - d. falls; decreases
21. Sam’s income is \$60.00. The combinations of gasoline and coffee along one of Sam’s indifference curves are combinations
- a. that require the same total expenditure.
 - b. that he can afford with his \$60.00 income.
 - c. that give Sam the same total utility.
 - d. that give him the same marginal utility.
22. If the demand curve for desktop computers shifts rightward and at the same time the supply curve shifts leftward, then
- a. the equilibrium price definitely increases.
 - b. the equilibrium price definitely decreases.
 - c. the equilibrium quantity definitely increases.

- d. the equilibrium quantity definitely decreases.
23. Consumers regard Dell computers and Gateway computers as substitutes. If the price of a Dell computer decreases,
- a. the demand for Dell computers will increase.
 - b. the demand for Gateway computers will increase
 - c. the demand for Gateway computers will decrease
 - d. the supply of Dell computers will increase
24. Which of the following groups experience the highest poverty rate in the U.S.?
- a. married-couple households
 - b. black households
 - c. elderly (over 65) households
 - d. female-headed households
25. The concept of diminishing marginal utility is that increases in the consumption of a good lead to
- a. a decrease in total utility.
 - b. a decrease in marginal utility.
 - c. an increase in marginal utility.
 - d. no change in marginal utility.
26. A bowed out (concave) production possibility frontier (curve) shows that the
- a. opportunity cost of a good is constant as more of the good is produced.
 - b. opportunity cost of a good decreases as more of the good is produced.
 - c. opportunity cost of a good increases as more of the good is produced.
 - d. opportunity cost relationship is linear.
27. In the market for financial capital, government deficits _____ the _____ for financial capital, causing interest rates to _____.
- a. increase; supply; fall
 - b. decrease; supply; rise
 - c. increase; demand; rise
 - d. decrease; demand; fall
28. Under the substitution effect of a wage change
- a. an increase in the wage leads people to spend more time on leisure and nonmarket work.
 - b. the labor supply curve has a negative slope.
 - c. an increase in the wage leads to an increase in the quantity of labor supplied.
 - d. all of the above.
29. The official poverty rate in the United States is approximately
- a. 5%
 - b. 9%
 - c. 13%
 - d. 28%
30. Suppose the demand for peaches sold from one roadside stand in Georgia is elastic. This fact means that a 7 percent increase in the price charged by the owner of this stand would lead to
- a. a greater than 7 percent increase in the quantity demanded at this stand.
 - b. a less than 7 percent increase in the quantity demanded at this stand.
 - c. a greater than 7 percent decrease in the quantity demanded at this stand.
 - d. a less than 7 percent decrease in the quantity demanded at this stand.

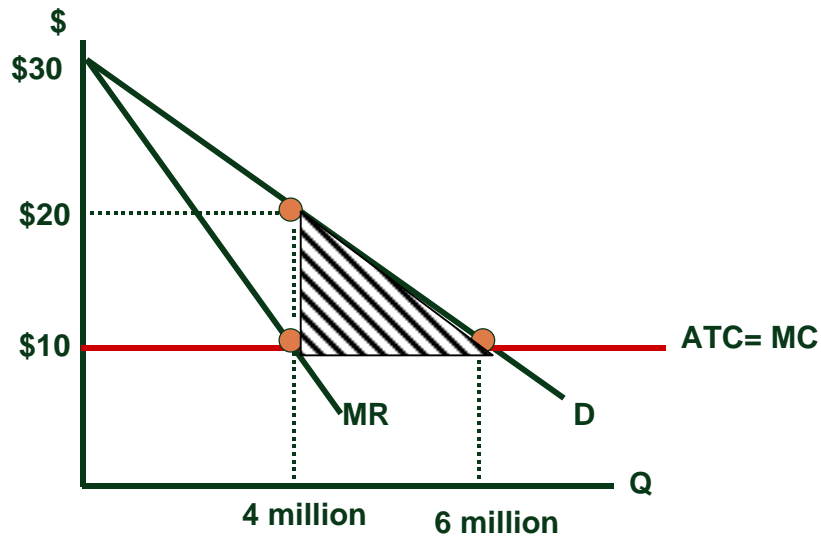
Multiple choice answers:

1. C
2. C
3. B
4. A
5. A
6. D
7. C
8. C
9. A
10. B
11. C
12. C
13. D
14. B
15. B
16. D
17. D
18. B
19. A
20. B
21. C
22. A
23. C
24. D
25. B
26. D
27. A
28. C
29. C
30. D

Part II: Short Answer (40 points)

Answer each question in the space provided. Be sure to answer each question completely.

1. Consider the graph below



a. What is the profit maximizing price and output of the monopoly?

Q = 4 million, P = \$20

b. What is the profit maximizing price and output under perfect competition?

Q = 6 million, P = \$10

c. Under monopoly, what is the economic profit? (show your work)

$(20-10) \times 4 \text{ million} = \40 million

d. On the graph, identify the consumer surplus under perfect competition and the deadweight loss under monopoly.

striped triangle = deadweight loss

consumer surplus under PC = large triangle with points (0,30), (0,10), (6 million, 10)

2. (8 points) Consider the demand schedule for gasoline below

Price per gallon	Quantity (millions gal.)
\$1.00	90
\$2.00	80
\$3.00	70
\$4.00	60

a. Calculation the elasticity of demand for gasoline when the price rises from \$2 to \$3 per gallon. Show your work to receive full credit.

$$\% \text{ change in } Q = -10/75$$

$$\% \text{ change in } P = 1/(2.5)$$

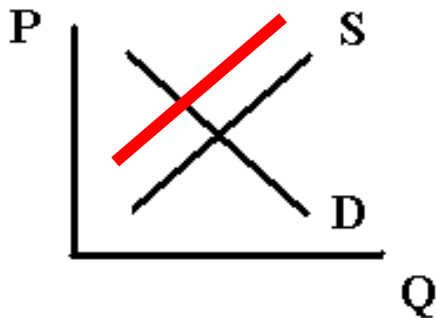
$$Ed = 10(2.5)/75 = -.33$$

b. Is the demand for gasoline inelastic? What characteristics of gasoline make it a good with an inelastic demand?

Yes, the demand for gasoline is inelastic since $.33 < 1$.

Gasoline has few, if any, real substitutes, and is considered a necessity

3. (6 points) Consider the graph below of the market for ground coffee. Suppose a drought in South America devastates the coffee bean crop. SHOW what happens to the market for coffee on the graph above and EXPLAIN below what happens to the equilibrium price and quantity of ground coffee.



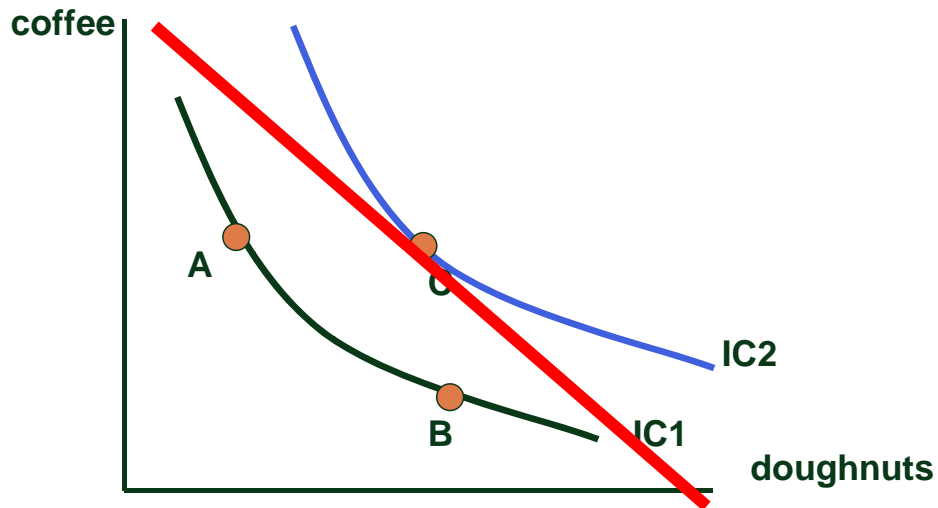
The coffee bean crop devastation increases the cost of production of coffee, decreasing supply and shifting the supply curve LEFT

With the new supply curve, price rises and quantity falls.

4. (8 points) Describe how market incentives are able to postpone or even prevent the exhaustion of nonrenewable resources.

With market incentives, price sends a signal. As a resource becomes scarcer, its price rises. This higher price gives consumers an incentive to conserve and use substitutes. This higher price gives firms the incentive to find new sources or develop alternatives.

5. (8 points) Consider the graph of indifference curves below:



a. Which point has the highest total utility?

Point C has the highest total utility because it is on the highest indifference curve

b. How does total utility at point A compare to total utility at point B?

Points A and B have the same total utility since they are on the same indifference curve

c. Suppose there is a consumer equilibrium at point C. Draw in a budget line that would correspond to an equilibrium at that point.

See line drawn above