

JOHNSON GRADUATE SCHOOL OF MANAGEMENT
CORNELL UNIVERSITY

NCC 5020
Microeconomics for Management

Michael Waldman

SAMPLE EXEMPTION EXAM

Name: _____

Write the letter of the correct answer next to the question number below. Only the answers on this page will be graded.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 21. _____ | 41. _____ |
| 2. _____ | 22. _____ | 42. _____ |
| 3. _____ | 23. _____ | 43. _____ |
| 4. _____ | 24. _____ | 44. _____ |
| 5. _____ | 25. _____ | 45. _____ |
| 6. _____ | 26. _____ | 46. _____ |
| 7. _____ | 27. _____ | 47. _____ |
| 8. _____ | 28. _____ | 48. _____ |
| 9. _____ | 29. _____ | 49. _____ |
| 10. _____ | 30. _____ | 50. _____ |
| 11. _____ | 31. _____ | |
| 12. _____ | 32. _____ | |
| 13. _____ | 33. _____ | |
| 14. _____ | 34. _____ | |
| 15. _____ | 35. _____ | |
| 16. _____ | 36. _____ | |
| 17. _____ | 37. _____ | |
| 18. _____ | 38. _____ | |
| 19. _____ | 39. _____ | |
| 20. _____ | 40. _____ | |

1. A supply curve reveals which of the following?
 - a. The highest price producers are willing to accept for each level of output.
 - b. The difference between quantity demanded and quantity supplied at each price.
 - c. The maximum level of output that an industry can produce, regardless of price.
 - d. How much producers are willing to sell for each price they receive in the market.
 - e. a and b

2. If the actual price were below the equilibrium price in the market for bread,
 - a. a surplus would develop and market forces would tend to make it worse.
 - b. a shortage would develop, but market forces would tend to correct the problem.
 - c. a surplus would develop, but market forces would tend to correct the problem.
 - d. a shortage would develop and market forces would tend to make it worse.
 - e. none of the above

3. Tires and automobiles are complementary goods. As a result, we would expect
 - a. the demand curve for automobiles to shift right when the prices of tires increase.
 - b. the price of automobiles to decrease when the supply curve of tires shifts right.
 - c. the demand curve for automobiles to shift left when the prices of tires increase.
 - d. some tires to be given away with some automobiles.
 - e. b and c

4. Which of these would occur in the sugar market following a fall in the price of a resource used to make sugar?
 - a. The demand curve would shift right.
 - b. The demand curve would shift left.
 - c. The supply curve would shift right.
 - d. The supply curve would shift left.
 - e. none of the above

5. Suppose the demand curve for books is given by $Q_d=120-P$, while the supply curve for books is given by $Q_s=5P$, where P denotes the price. What is the equilibrium quantity of books sold?
 - a. 25
 - b. 50
 - c. 75
 - d. 100
 - e. none of the above

6. Which of the following would cause a shift to the right of the demand curve for gasoline: i) a large increase in the price of public transportation; ii) a large decrease in the price of automobiles; iii) a large reduction in the costs of producing gasoline.
- i) only
 - ii) only
 - i) and ii) only
 - ii) and iii) only
 - i), ii) and iii)
7. Price elasticity measures
- the slope of a demand curve.
 - the inverse of the slope of a demand curve.
 - the percentage change in quantity demanded in response to a one percent change in price.
 - sensitivity of price to change in quantity.
 - none of the above
8. Along any downward sloping straight-line demand curve.
- both the price elasticity and the slope vary.
 - the price elasticity varies, but the slope is constant.
 - the slope varies, but the price elasticity is constant.
 - both the price elasticity and the slope are constant.
 - none of the above is necessarily true
9. When the government controls the price of a product, causing the market price to be above the free market equilibrium price,
- all people gain from the price controls.
 - both producers and consumers gain.
 - only consumers gain.
 - some, but not all, sellers can find buyers for their goods.
 - a and d
10. If the price of steak is \$0.20 per pound and the price of potatoes is \$1.00 per pound, John will maximize his utility when
- he buys only steak with his income.
 - he buys only potatoes with his income.
 - he consumes at a point where his budget line is tangent to one of his indifference curves.
 - he consumes at a point where his budget line intersects one of his indifference curves, resulting in a high consumption of steak.
 - none of the above

11. If a consumer's income doubles and the price she faces double, what will happen to the consumers budget line?
- The intercepts of the budget line will increase.
 - The intercepts of the budget line will decrease.
 - The slope of the budget line may either increase or decrease.
 - Insufficient information is given to determine what effect the change will have on the budget line.
 - There will be no effect on the budget line.
12. When a person consumes two goods (A and B), that person's utility is maximized when the budget is allocated such that
- the marginal utility of A equals the marginal utility of B.
 - the marginal utility of A times the price of A equals the marginal utility of B times the price of B.
 - the ratio of total utility of A to the price of A equals the ratio of the marginal utility of B to the price of A.
 - the ratio of the marginal utility of A to the price of A equals the ratio of the marginal utility of B to the price of B.
 - none of the above
13. The change in the quantity demanded of a good resulting from a change in relative price with the level of satisfaction held constant is called
- the Giffen effect.
 - the real price effect.
 - the income effect.
 - the substitution effect.
 - a and c
14. A local retailer has decided to carry a well-known brand of shampoo. The marketing department tells the retailer that the quarterly demand by an average man is given by $Q_d = 3 - 0.25P$, while the quarterly demand by an average woman is given by $Q_d = 4 - 0.5P$, where P denotes price. The market consists of 10,000 men and 10,000 women. How many bottles of shampoo can the retailer expect to sell per quarter if it charges \$6 per bottle.
- 20,000
 - 33,000
 - 25,000
 - 10,000
 - none of the above
15. A firm's marginal product of labor is 3 and its marginal product of capital is 5. If the firm adds one unit of labor, but does not want its output quantity to change, the firm should
- use 5 fewer units of capital.
 - use 0.6 fewer units of capital.
 - use 1.67 fewer units of capital.
 - also add 1.67 units of capital.
 - none of the above

16. If the average product curve is declining, then
- marginal product must be declining.
 - total product must be declining.
 - marginal product must be lower than average product.
 - marginal cost must be constant.
 - none of the above
17. According to the law of diminishing marginal returns
- the total product of an input will eventually be negative.
 - the total product of an input will eventually decline.
 - the marginal product of an input will eventually be negative.
 - the marginal product of an input will eventually decline.
 - none of the above
18. Increasing returns to scale in production means
- more than twice as much of all inputs is required to double output.
 - less than twice as much of all inputs is required to double output.
 - more than twice as much of only one input is required to double output.
 - isoquants must be linear.
 - a and d
19. In 1985, Alice paid \$20,000 for an option to purchase ten acres of land. By paying the \$20,000, she bought the right to buy the land for \$100,000 in 1993. When she acquired the option in 1985, the land was worth \$120,000. In 1993, it is worth \$110,000. Should Alice exercise the option and pay \$100,000 for the land?
- Yes.
 - No.
 - It depends on what the rate of inflation was between 1985 and 1993.
 - It depends on what the rate of interest was between 1985 and 1993.
 - c and d
20. Farmer Jones bought his farm for \$75,000 in 1975. Today the farm is worth \$500,000, and the interest rate is 10%. ABC corporation has offered to buy the farm today for \$500,000 and XYZ corporation has offered to buy the farm for \$530,000 one year from now. Farmer Jones could earn net profit of \$15,000 (over and above all of his expenses) if he farms the land this year. What should he do?
- Sell to ABC corporation.
 - Farm the land for another year and sell to XYZ corporation.
 - It does not matter; the two deals are equivalent.
 - You are not given enough information to answer this question.
 - none of the above

21. In general, the short run supply curve of a perfectly competitive firm is the same as
- the short run marginal cost curve.
 - the rising portion of the short run marginal cost curve.
 - the rising portion of the average variable cost curve.
 - the rising portion of the short run marginal cost curve above the minimum point of the average variable cost curve.
 - the rising portion of the short run marginal cost curve above the minimum point of the average total cost curve.
22. Consider a perfectly competitive industry which satisfies the property that as new firms enter the market, the increased demand for inputs causes the input prices to rise. For this industry the long run supply curve is
- upward sloping.
 - downward sloping.
 - horizontal.
 - vertical.
 - more information is needed to complete this statement
23. "I'm losing money, but with my investment in equipment, I can't afford to shut down at this time." If this entrepreneur is attempting to maximize profits, his behavior is
- rational if the firm is covering its variable costs.
 - rational if the firm is covering its fixed costs.
 - irrational since closing the plant is necessary to eliminate losses.
 - irrational since fixed costs are only eliminated if the firm shuts down.
 - none of the above
24. You are in the business of harvesting red sea urchin. The sea urchin industry is perfectly competitive. The price of red sea urchin is \$20 per pound. The total, marginal and average total cost of harvesting red sea urchins are given as follows: $TC=2Q^2+2Q+72$, $MC=4Q+2$, $ATC=2Q+2+(72/Q)$, where Q denotes quantity in pounds. What is the profit maximizing level of Q for the firm?
- 0
 - 4.5
 - 9
 - 20
 - 32
25. Consider again the sea urchin industry described in question 24. Given the current market price of \$20, in time
- firms will enter the industry.
 - firms will exit the industry.
 - firms will neither enter nor exit the industry.
 - some firms will enter and some will exit but the total number of firms in the industry will remain constant.
 - more information is needed to complete this statement

26. You are a producer in a perfectly competitive industry. Your total, marginal, and average total cost curves are given by $TC=Q^2+64$, $MC=2Q$, and $ATC=Q+(64/Q)$. If the industry is in a long run competitive equilibrium, what is your output level?
- 0
 - 8
 - 16
 - 24
 - none of the above
27. Consider the situation described in 26. If the industry is in a long run competitive equilibrium, what is the industry price?
- 0
 - 8
 - 16
 - 24
 - none of the above
28. Assume that a profit maximizing monopolist is producing a quantity such that marginal revenue exceeds marginal cost. We can conclude that the
- firm is maximizing profits.
 - firm's output is smaller than the profit maximizing quantity.
 - firm's output is larger than the profit maximizing quantity.
 - not enough information is given to conclude whether the firm is maximizing profits
 - none of the above
29. A multiplant monopolist can produce her output in either of two plants. Her current plan is to produce 100 units of output in plant 1 and 50 units in plant 2. At these output levels the marginal cost in plant 1 is \$30 while the marginal cost in plant 2 is \$20. Clearly, she could increase her profits by
- producing more output in plant 1 and less in plant 2.
 - producing less output in plant 1 and more in plant 2.
 - producing less in both plants until marginal cost is zero.
 - producing more in both plants until marginal revenue is zero.
 - none of the above
30. The monopolist that maximizes profits
- imposes a cost on society because the selling price is above marginal cost.
 - imposes a cost on society because the selling price is equal to marginal cost.
 - does not impose a cost on society because the selling price is above marginal cost.
 - does not impose a cost on society because price is equal to marginal cost.
 - none of the above

31. A monopolist faces the following demand curve, marginal revenue curve, total cost curve, and marginal cost curve for its product: $Q=200-2P$, $MR=100-Q$, $TC=5Q$, and $MC=5$. What is the profit maximizing level of output?
- 0
 - 90
 - 95
 - 100
 - none of the above
32. Same question as in 31, expect now assume that a tax of \$5 for each unit produced is imposed by the state government.
- 0
 - 90
 - 95
 - 100
 - none of the above
33. An amusement park charges an entrance fee of \$20 per person and in addition it charges \$0.50 per ride. This is an example of
- first degree price discrimination.
 - second degree price discrimination.
 - a two-part tariff.
 - intertemporal price discrimination.
 - tying.
34. When a company introduces new audio products, it often initially sets the price high and then about a year later it lowers the price. This is an example of
- first degree price discrimination.
 - second-degree price discrimination.
 - a two-part tariff.
 - intertemporal price discrimination.
 - tying.
35. Consider a monopolist that can sell its output in either of two markets. Which of the following statements is true?
- The marginal revenue in the first market must be equated to marginal cost in order for the firm to have maximized its profits.
 - The marginal revenue in the second market must be equated to marginal cost in order for the firm to have maximized its profits.
 - The marginal revenue in the two markets must be equated.
 - all of the above
 - none of the above

36. In Cournot's duopoly model, each firm assumes that
- rivals will match price cuts, but will not match price increases.
 - rivals will match all reasonable price changes.
 - the price of its rival is fixed.
 - the output level of its rival is fixed.
 - none of the above
37. Which of the following is not conducive to the successful operation of a cartel?
- Market demand for the good is relatively inelastic.
 - The cartel supplies all of the world's output of the good.
 - Cartel members have substantial cost advantages over non-members.
 - The supply of non-cartel members is very price elastic.
 - a, b and c
38. The marginal revenue product of labor equals the
- additional revenue received from selling one more unit of output.
 - additional revenue received from hiring one additional unit of labor.
 - marginal physical product of labor times the average revenue received from the sale of the product.
 - average physical product of labor times the marginal revenue received from the sale of the product.
 - b and d
39. If the market for labor is perfectly competitive, the profit maximizing level of labor occurs where
- $MRP_L < W$ (W denotes the wage).
 - $MRP_L = P$ (P denotes the output price).
 - MRP_L just exceeds W
 - $MRP_L = W$
 - none of the above
40. Because a monopolist hires labor up to the point where the marginal revenue product of labor equals the wage, the monopolist will
- pay less than the going wage rate.
 - pay a wage equal to the marginal product of labor multiplied by the price of the firm's output.
 - pay a wage less than the marginal product of labor multiplied by the price of the firm's output.
 - a and c
 - none of the above

41. You are a competitor in your product market and a monopsonist in the Labor market. The current market price of the product that you produce is \$2. The total product and marginal product of labor are given by $TP=240L-.1L^2$ and $MP=240-.2L$, where L denotes the amount of labor employed. The supply curve for labor and the marginal expenditure curve for labor are given by $L=W$ and $ME_L=2L$, where W is the wage. How much labor should the firm hire in order to maximize profits?
- 0
 - 100
 - 200
 - 300
 - 400
42. To maximize profits, a firm will increase its advertising expenditures until the last dollar of advertising just brings forth an additional dollar of revenue. This statement is true if
- the firm is a monopolist.
 - the firm is in a perfectly competitive industry.
 - the firm's marginal cost of production equals zero.
 - the firm's fixed costs of production equal zero.
 - none of the above
43. When sellers have more information about products than buyers do, we would expect
- sellers to get higher prices for their goods than they would otherwise.
 - buyers to pay lower prices for the goods than they would otherwise.
 - high quality goods to drive low quality goods out of the market.
 - low quality goods to drive high quality goods out of the market.
 - none of the above
44. Which of the following is a response to asymmetric information?
- government intervention
 - development of a reputation for being a high quality seller
 - market signaling
 - all of the above
 - none of the above
45. The concept of moral hazard refers to the problem
- of having to deal with immoral people.
 - where an insured party can affect the probability of the event that triggers payment.
 - where an insured party must agree to a physical examination before obtaining insurance.
 - of job applicants providing false information on job application forms.
 - c and d

46. A steel mill produces rolled steel products and various waste products. Some of the waste is dumped in a nearby stream. Downstream fishermen use the streams as a source of fish. Because of the dumping, some of the fish are killed, and the fishermen's incomes are reduced. The dumping of the waste is an example of
- an externality.
 - a positive externality.
 - an implicit cost to the Dill.
 - a negative externality.
 - none of the above
47. The efficient level of emissions occurs where
- the marginal private cost of producing the good equals the marginal benefit of the good.
 - zero emissions are permitted.
 - the marginal cost of abatement equals the marginal social cost of emissions.
 - the marginal social cost of emissions is at a minimum.
 - a. all of the above
48. When government officials have limited information about costs and benefits of pollution abatement, standards offer
- more certainty about emissions levels than do fees, but leave the costs of abatement uncertain.
 - more certainty about emissions levels than do fees, and they provide more information about costs.
 - less certainty about emissions levels than do fees, and they leave the costs of abatement uncertain.
 - less certainty about emissions levels than do fees, but offer more information about costs.
 - none of the above
49. The Coase Theorem suggests that
- an efficient outcome will occur only if property rights are assigned to individuals who prefer a clean environment.
 - it efficiency requires that property rights be assigned to polluters.
 - efficiency cannot be achieved no matter how property rights are assigned.
 - efficiency can often be achieved no matter how property rights are assigned.
 - none of the above
50. There are two polluting firms in a particular town. The regulatory agency has required that firm 1 reduce emissions by 100 units and that firm 2 reduce emissions by 200 units. With these new emissions levels, firm 1 has a marginal cost of abatement (MCA) of \$12, while firm 2 has an MCA of \$24. If one of the goals of the government is to achieve the target level of total emissions at the minimum possible cost, then
- firm 1 should increase emissions and firm 2 should reduce emissions.
 - firm 1 should reduce emissions and firm 2 should increase

emissions.

- c. both firms should reduce emissions until their MCA's are zero
- d. both firms should increase emissions until their MCA's are zero.
- e. not enough information is given to answer this question

JOHNSON GRADUATE SCHOOL OF MANAGEMENT
CORNELL UNIVERSITY

NCC 5020
Microeconomics for Management

Michael Waldman

SAMPLE EXEMPTION EXAM – ANSWER KEY

Name: Key

Write the letter of the correct answer next to the question number below. Only the answers on this page will be graded.

- | | | |
|------------------|--------------|--------------|
| 1. <u>d</u> | 21. <u>d</u> | 41. <u>c</u> |
| 2. <u>b</u> | 22. <u>a</u> | 42. <u>c</u> |
| 3. <u>c</u> | 23. <u>a</u> | 43. <u>d</u> |
| 4. <u>c</u> | 24. <u>b</u> | 44. <u>d</u> |
| 5. <u>d</u> | 25. <u>b</u> | 45. <u>b</u> |
| 6. <u>c</u> | 26. <u>b</u> | 46. <u>a</u> |
| 7. <u>c</u> | 27. <u>c</u> | 47. <u>c</u> |
| 8. <u>b</u> | 28. <u>b</u> | 48. <u>a</u> |
| 9. <u>d</u> | 29. <u>b</u> | 49. <u>d</u> |
| 10. <u>c</u> | 30. <u>a</u> | 50. <u>b</u> |
| 11. <u>e</u> | 31. <u>c</u> | |
| 12. <u>d</u> | 32. <u>b</u> | |
| 13. <u>d</u> | 33. <u>c</u> | |
| 14. <u>c</u> | 34. <u>d</u> | |
| 15. <u>b</u> | 35. <u>d</u> | |
| 16. <u>c</u> | 36. <u>d</u> | |
| 17. <u>d</u> | 37. <u>d</u> | |
| 18. <u>b</u> | 38. <u>b</u> | |
| 19. <u>a</u> | 39. <u>d</u> | |
| 20. <u>a ord</u> | 40. <u>c</u> | |