

RYERSON UNIVERSITY

ECN 104 INTRODUCTORY MICROECONOMICS

INSTRUCTOR: TSOGBADRAL GALAABAATAR

Instructions:

1. Select the best answer for each multiple choice question and record the letter you have chosen on the scanner sheet. Answer all 75 questions.
2. No references (formula sheet, notes, books, etc.) are permitted.
3. Only non-programmable calculators are allowed.

STUDENT'S NAME: _____

(Please Print)

ID# _____

Good Luck!

1. What happens if there is a shortage of a good at the current price?
 - a. Sellers are producing more than buyers wish to buy.
 - b. The market must be in equilibrium.
 - c. The price is below the equilibrium price.
 - d. Quantity demanded equals quantity supplied.

2. Why do markets move toward equilibrium of supply and demand?
 - a. because of the actions of buyers and sellers
 - b. because of government regulations placed on market participants
 - c. because of increased competition among sellers
 - d. because of buyers' ability to affect market decisions

3. Which of the following would definitely result in a higher price in the market for Snickers?
 - a. demand increases and supply decreases
 - b. demand and supply both decrease
 - c. demand decreases and supply increases
 - d. demand and supply both increase

4. Suppose that the number of buyers in a market decreases and a technological advancement occurs. What would we expect to happen in the market?
 - a. The equilibrium price would increase, but the impact on the amount sold in the market would be ambiguous.
 - b. The equilibrium price would decrease, but the impact on the amount sold in the market would be ambiguous.
 - c. Equilibrium quantity would increase, but the impact on equilibrium price would be ambiguous.
 - d. Both equilibrium price and equilibrium quantity would increase.

5. Beef is a normal good. You observe that both the equilibrium price and quantity of beef have risen over time. Which of the following would be most consistent with this observation?
 - a. Consumers have experienced an increase in income and beef-production technology has improved.
 - b. The price of chicken has risen. (Chicken and beef are substitute goods).
 - c. Consumer tastes have changed so as to prefer beef less than before.
 - d. The demand curve for beef must be positively sloped.

6. Market demand is given as $Q_d = 60 - P$. Market supply is given as $Q_s = 3P$. What would result if the market price were \$30?
- a shortage of 60
 - a surplus of 60
 - a surplus of 30
 - a shortage of 30
7. Suppose that a decrease in the price of X results in less of good Y sold. What are X and Y called?
- complementary goods
 - normal goods
 - inferior goods
 - substitute goods
8. If Francis receives an increase in his pay, what would we expect?
- Francis's demand for each good he purchases to remain unchanged
 - Francis's demand for normal goods to decrease
 - Francis's demand for normal goods to increase
 - Francis's demand for inferior goods to increase
9. What is the law of demand?
- When the price of a good falls, buyers respond by purchasing more.
 - When income levels increase, buyers respond by purchasing more.
 - When buyers' tastes for the good increase, they purchase more of the good.
 - When the price of a good or service rises, buyers respond by purchasing more.
10. What might cause a movement along the supply curve?
- a change in technology
 - a change in input prices
 - a change in expectations about future prices
 - a change in the price of the good or service
11. What does a consumer's willingness to pay measure?
- the cost of a good to the buyer
 - how much a buyer values a good
 - how much a buyer has to pay to receive a good
 - how much a seller receives from the sale of a good

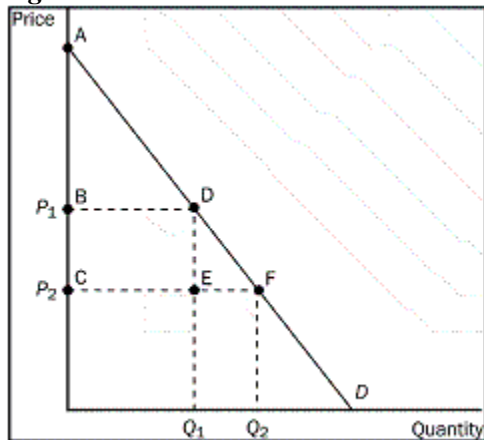
12. Suppose Brock is willing to pay \$400 for a new suit, but is able to buy the suit for \$350. What is his consumer surplus?
- \$50
 - \$150
 - \$350
 - \$400
13. Suppose Lauren, Leslie, and Lydia all purchase bulletin boards for their rooms for \$15 each. Lauren's willingness to pay was \$35, Leslie's willingness to pay was \$25, and Lydia's willingness to pay was \$30. Which of the three receives the most consumer surplus from her purchase?
- Lauren
 - Leslie
 - Lydia
 - They each received the same consumer surplus since they each paid the same for the bulletin board.

Table 1

Buyer	Willingness to Pay
John	\$10.00
David	\$8.00
Megan	\$5.50
Ava	\$5.00
Aidan	\$4.50

14. **Refer to Table 1.** If the market price is \$5.50, what is the consumer surplus in the market?
- \$3.50
 - \$4.50
 - \$7.00
 - \$12.00
15. **Refer to Table 1.** If the market price is \$5.25, who will purchase the good?
- All five would purchase the good.
 - Only John.
 - John, David and Megan.
 - John and David

Figure 1



16. **Refer to Figure 1.** Which area represents consumer surplus at a price of P_1 ?
- ABD
 - ACF
 - BCDE
 - DEF
17. **Refer to Figure 1.** When the price falls from P_1 to P_2 , which area represents the increase in consumer surplus to existing buyers?
- ABD
 - ACF
 - BCED
 - DEF
18. **Refer to Figure 1.** When the price falls from P_1 to P_2 , which area represents the increase in consumer surplus to new buyers entering the market?
- ABD
 - ACF
 - BCDE
 - DEF
19. What is producer surplus?
- the area under the supply curve to the left of the amount sold
 - the amount a seller is paid, less the cost of production
 - the amount represented by the area under the supply curve
 - the cost to sellers of participating in a market

20. If demand decreases, what happens to the price of a product, as well as producer surplus?
- They increase.
 - They decrease.
 - They remain the same.
 - They may increase, decrease, or remain the same.
21. At the equilibrium price, which buyers will purchase the good?
- those who value the good at more than the price
 - those who value the good at less than the price
 - those who have the money to buy the good
 - those who consider the good a necessity
22. Suppose that the equilibrium price in the market for widgets is \$5. If a law increased the minimum legal price for widgets to \$6, what would happen to producer surplus?
- It would necessarily increase even if the higher price resulted in a surplus of widgets.
 - It would necessarily decrease because the higher price would create a surplus of widgets.
 - It might increase or decrease.
 - It would be unaffected.
23. Which of the following statements about economic profit is most accurate?
- It will never exceed accounting profit.
 - It is most often equal to accounting profit.
 - It is always at least as large as accounting profit.
 - It is a less complete measure of profitability than accounting profit.
24. What does marginal cost tell us?
- the value of all resources used in a production process
 - the marginal increment to profitability when price is constant
 - the amount by which total cost rises when output is increased by one unit
 - the amount by which output rises when labour is increased by one unit
25. When marginal cost exceeds average total cost, what do we know?
- Average fixed cost must be rising.
 - Average total cost must be rising.
 - Average total cost must be falling.
 - Marginal cost must be falling.

26. Some costs do not vary with the quantity of output produced. What are those costs called?
- marginal costs
 - average costs
 - fixed costs
 - total costs
27. For a firm, what is the relationship between the quantity of inputs and quantity of output called?
- the profit function
 - the production function
 - the total-cost function
 - the quantity function
28. When do economies of scale occur?
- when long-run average total costs rise as output increases
 - when long-run average total costs fall as output increases
 - when average fixed costs are falling
 - when average fixed costs are constant

Table 2

Measures of Cost for ABC Inc. Widget Factory			
Quantity of Widgets	Variable Costs	Total Costs	Fixed Costs
0			\$10
1	\$ 1		
2	3	\$13	
3	6	16	
4	10		
5		25	
6	21		10

29. **Refer to Table 2.** What is the average fixed cost of producing five widgets?
- \$1.00
 - \$2.00
 - \$3.00
 - \$4.00
30. **Refer to Table 2.** What is the average total cost of producing one widget?
- \$1.00
 - \$10.00
 - \$11.00
 - \$22.00

31. **Refer to Table 2.** What is the marginal cost of producing the sixth widget?
- \$1.00
 - \$3.50
 - \$5.00
 - \$6.00
32. What is the fundamental reason that marginal cost eventually rises as output increases?
- economies of scale
 - diseconomies of scale
 - diminishing marginal product
 - rising average fixed cost
33. What do we know about a competitive market?
- No single buyer or seller can influence the price of the product.
 - There is a small number of sellers.
 - The goods offered by the different sellers are markedly different.
 - Entry into the market is difficult.
34. For a firm in a perfectly competitive market, the price of the good is always which of the following?
- equal to marginal revenue
 - equal to total revenue
 - greater than average revenue
 - less than average revenue
35. When will a profit-maximizing firm in a competitive market always make marginal adjustments to production?
- as long as average revenue is greater than average total cost
 - as long as average revenue is equal to marginal cost
 - as long as marginal cost is greater than average total cost
 - as long as price is above or below marginal cost

Table 3

Quantity	Total Revenue	Total Cost
0	\$0	\$4
1	20	14
2	40	26
3	60	40
4	80	56
5	100	74
6	120	94
7	140	116
8	160	140
9	180	166

36. **Refer to Table 3.** At which quantity of output is marginal revenue equal to marginal cost?

- a. 2
- b. 3
- c. 4
- d. 6

37. **Refer to Table 3.** What is the maximum profit available to this firm?

- a. \$20
- b. \$24
- c. \$26
- d. \$28

38. **Refer to Table 3.** If the firm finds that its marginal cost is \$18, what should it do?

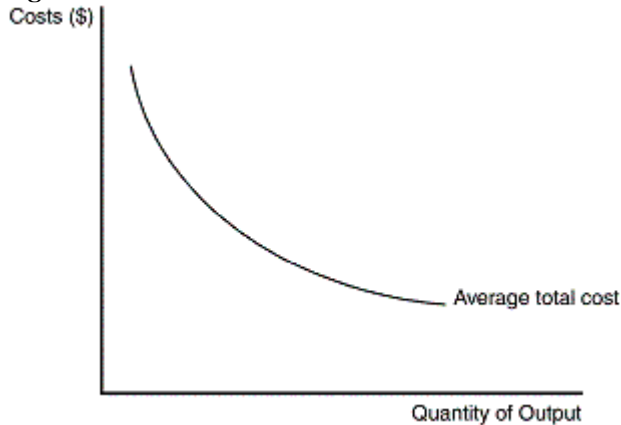
- a. It should increase production to maximize profit.
- b. It should increase the price of the product to maximize profit.
- c. It should increase the marginal revenue of the product to maximize profit.
- d. It should decrease production to maximize profit.

39. In a competitive market, a firm's short-run supply curve is part of which of the following curves?

- a. marginal revenue
- b. average variable cost
- c. average total cost
- d. marginal cost

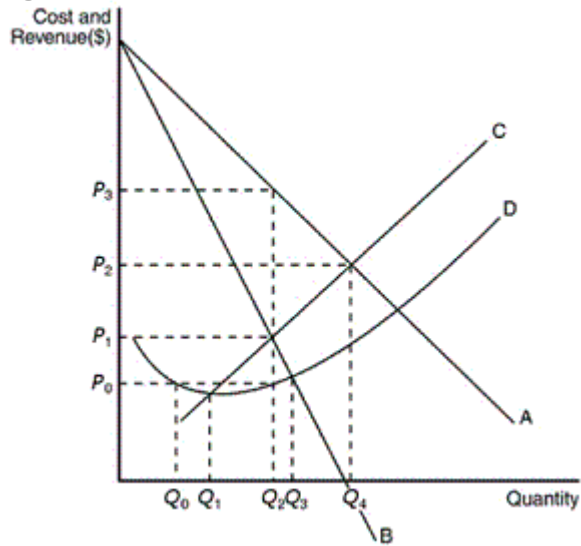
40. In the long run, when will a profit-maximizing firm choose to exit a market?
- when average fixed cost is falling
 - when variable costs exceed sunk costs
 - when marginal cost exceeds marginal revenue at the current level of production
 - when total revenue is less than total cost
41. A firm's marginal cost has a minimum value of \$2; its average variable cost has a minimum value of \$4; and its average total cost has a minimum value of \$5. At what product price will the firm shut down?
- below \$2
 - below \$4
 - below \$5
 - below \$1
42. In a market that allows free entry and exit, when does the process of entry and exit end for the typical firm in the market?
- when economic profit is zero
 - when total revenue is equal to average total cost
 - when average revenue exceeds marginal cost
 - when accounting profit is zero
43. Market demand is given as $Q^D = 120 - P$. Market supply is given as $Q^S = 4P$. Each identical firm has $MC = 6Q$ and $ATC = 3Q$. What quantity of output will a typical firm produce in this competitive market?
- 4
 - 6
 - 16
 - 24

Figure 2



44. **Refer to Figure 2.** The shape of the average total cost curve reveals information about the nature of the barrier to entry that might exist in a monopoly market. Which of the following monopoly types best coincides with the figure?
- ownership of a key resource by a single firm
 - a natural monopoly
 - a government-created monopoly
 - a dynamic monopoly
45. **Refer to Figure 2.** In view of what is known about the relationship between average total cost and marginal cost, what do we know about the marginal cost curve for this firm?
- It must lie entirely above the average total cost curve.
 - It must lie entirely below the average total cost curve.
 - It must be upward sloping.
 - It does not exist.
46. If a profit-maximizing monopolist faces a downward-sloping market demand curve, what do we know?
- Its average revenue is less than the price of the product.
 - Its average revenue is greater than the price of the product.
 - Its average revenue is less than marginal revenue.
 - Its marginal revenue is less than the price of the product.
47. Marginal revenue can become negative for which of the following firms?
- both competitive and monopoly firms
 - competitive firms, but not monopoly firms
 - monopoly firms, but not competitive firms
 - neither competitive nor monopoly firms

Figure 3



48. Refer to Figure 3. What is a profit-maximizing monopoly's total revenue?

- a. $P_2 \times Q_4$
- b. $P_3 \times Q_2$
- c. $(P_3 - P_0) \times Q_2$
- d. $(P_3 - P_0) \times Q_4$

49. Refer to Figure 3. What is a profit-maximizing monopoly's profit?

- a. $P_2 \times Q_4$
- b. $P_3 \times Q_2$
- c. $(P_3 - P_0) \times Q_2$
- d. $(P_3 - P_0) \times Q_4$

50. In theory, perfect price discrimination results in which of the following outcomes?

- a. It decreases the monopolist's profits.
- b. It decreases consumer surplus.
- c. It increases deadweight loss.
- d. It decreases total output.

51. A monopolist faces the following demand curve:

Price	Quantity Demanded
\$8	300
7	400
6	500
5	600
4	700
3	800
2	900
1	1000

The monopolist has fixed costs of \$1000 and has a constant marginal cost of \$2 per unit. If the monopolist were able to perfectly price discriminate, how many units would it sell?

- a. 400
- b. 500
- c. 700
- d. 900

52. A monopolist faces market demand given by $P = 120 - Q$. For this market, $MR = 120 - 2Q$ and $MC = 4Q$. What quantity of output will the monopolist produce in order to maximize profits?

- a. 20
- b. 24
- c. 80
- d. 120

53. Let P = price; MR = marginal revenue; and MC = marginal cost. For a profit-maximizing monopolist, which of the following is the correct relationship?

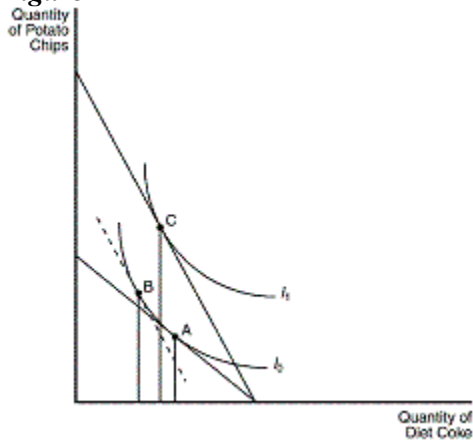
- a. $P = MR = MC$
- b. $P = MR < MC$
- c. $P = MR > MC$
- d. $P > MR = MC$

54. What does a budget constraint show?

- a. the prices that a consumer chooses to pay for products he consumes
- b. the purchases made by consumers
- c. the consumption bundles that a consumer can afford
- d. the bundles of consumption that makes a consumer equally happy

55. What determines the slope of the budget constraint?
- the relative price of commodities represented on the axes
 - the level of income of the consumer
 - the indifference curves of a consumer
 - the preferences of a consumer
56. An increase in income will cause a shift in the budget constraint in which direction?
- outward
 - toward the good most consumed
 - toward the good least consumed
 - inward
57. What can we say about the marginal rate of substitution?
- It is the slope of a budget constraint.
 - It is always constant.
 - It is the slope of an indifference curve.
 - It is the point at which the budget constraint is tangent to the indifference curve.
58. What does a bowed in indifference curve reflect?
- a consumer's unwillingness to substitute one good for another
 - a consumer's desire to specialize in the consumption of one good over another
 - a consumer's decreasing willingness to give up a good that she has in abundance
 - a consumer's increasing willingness to give up a good that she has in abundance
59. When two goods are perfect complements, what types of indifference curves will they have?
- indifference curves with a positive slope
 - indifference curves that are bowed in
 - straight line indifference curves
 - indifference curves that are right angles

Figure 4



60. Refer to Figure 4. If the consumer is currently at point A in the figure, a movement to point B as a result of a decrease in the price of potato chips represents which effect?
- the substitution effect
 - the income effect
 - the budget effect
 - the price effect
61. Refer to Figure 4. A movement from point B to point C represents which effect?
- the substitution effect
 - the income effect
 - the budget effect
 - the price effect
62. For the normal goods cola and pizza, what is a likely result of the income effect when the price of pizza falls?
- The consumer feels richer, so he buys more cola.
 - The consumer feels richer, so he buys less cola.
 - Cola becomes relatively more expensive, so the consumer buys more cola.
 - Cola becomes relatively less expensive, so the consumer buys less cola.
63. The substitution effect of an increase in the interest rate could cause an increase in which of the following?
- consumption when young and savings when young
 - consumption when old and savings when young
 - consumption when young and savings when old
 - savings when old and consumption when old

64. Given a consumer's indifference map, how may the demand curve for a good be derived?
- by moving a consumer's budget constraint as her income rises
 - by moving a consumer's budget constraint as her income rises and she makes choices
 - by moving a consumer's budget constraint as the market price changes
 - It cannot be derived from consumer theory.
65. When are violations of the law of demand assumed to occur?
- commonly
 - only when goods are Giffen goods
 - only when the substitution effect dominates the income effect
 - only when the income effect dominates the substitution effect
66. A firm's demand for a factor of production is derived from its decision to supply a good in the market. What do we call this type of demand?
- differentiated demand
 - secondary demand
 - derived demand
 - hybrid demand-supply
67. How is the value of the marginal product of labour calculated?
- by multiplying the price of output by the quantity of labour
 - by multiplying the price of output by the marginal product of labour
 - by multiplying the wage by the quantity of labour
 - by multiplying the wage by the marginal product of labour

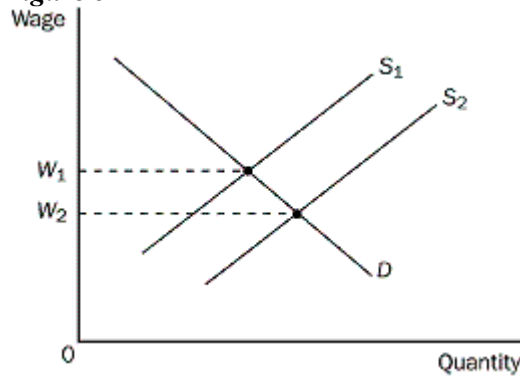
Table 4

Number of Workers	Output	Marginal Product of Labour	Value of Marginal Product of Labour	Wage	Marginal Profit
0	0	---	---	---	---
1	100		\$1000	\$500	\$500
2		80	800	500	
3		60		500	100
4	280		400	500	
5		20		500	

68. Refer to Table 4. What is the market price of the final good?
- \$5
 - \$6
 - \$8
 - \$10

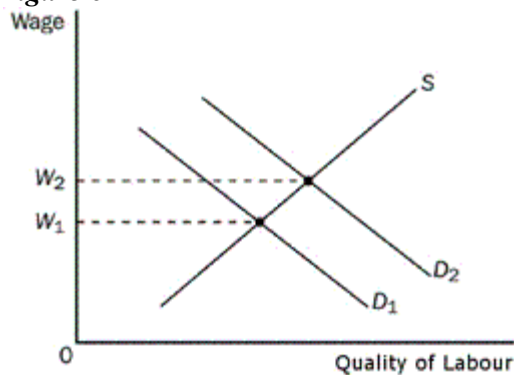
69. **Refer to Table 4.** What is the fourth worker's contribution to total revenue?
- a. -\$100
 - b. \$200
 - c. \$400
 - d. \$500
70. **Refer to Table 4.** To maximize its profit, how many workers will the firm hire?
- a. 2
 - b. 3
 - c. 4
 - d. 5
71. A competitive firm will hire workers up to the point at which the value of the marginal product of labour equals which of the following?
- a. average total cost
 - b. average variable cost
 - c. wage
 - d. price per unit of output
72. The determination of the demand for land is essentially the same as the determination of which of the following?
- a. demands for goods and services
 - b. demands for labour and capital
 - c. supplies of labour and capital
 - d. supplies of all factors of production

Figure 5



73. Refer to Figure 5. What could possibly explain the shift of the labour supply curve from S_1 to S_2 ?
- a. technological progress
 - b. a change in the price of firms' output
 - c. a change in workers' attitudes toward the work-leisure tradeoff
 - d. an increase in workers' productivity

Figure 6



74. Refer to Figure 6. The shift of the labour demand curve from D_1 to D_2 could possibly be explained by which of the following factors?
- a. a change in workers' attitudes toward the work-leisure tradeoff
 - b. retirements of baby boom generation workers
 - c. an increase in the price of firms' output
 - d. immigration
75. Refer to Figure 6. Assume that $W_1 = \$20$ and $W_2 = \$22$ and that the market stays in equilibrium. What would happen to the marginal product of labour if labour demand curve shifts from D_1 to D_2 ?
- a. The shift decreases the value of the marginal product of labour by more than \$2.
 - b. The shift does not change the value of the marginal product of labour.
 - c. The shift increases the value of the marginal product of labour by less than \$2.
 - d. The shift increases the value of the marginal product of labour by \$2.