Chapter 6 Practice

Multiple Choice

1. Factors of production are:
   A. inputs and outputs.
   B. outputs only
   C. inputs only
   D. the minimum set of inputs that can produce a certain fixed quantity of output.

2. Given the simple production function Q = 3K + 4L, where L is the quantity of labor employed and K is the quantity of capital employed, assuming K = 2 and L = 3, what would it mean if output was less than 18?
   A. The firm is out of business.
   B. The firm is not employing labor and capital efficiently.
   C. The production function was not specified correctly.
   D. Labor is less productive than capital.

3. The production function represents:
   A. the quantity of inputs necessary to produce a given level of output.
   B. the various recipes for producing a given level of output.
   C. the minimum amounts of labor and capital needed to produce a given level of output.
   D. the set of all feasible combinations of inputs and outputs.

4. A labor requirements function represents:
   A. the set of feasible levels of labor that will produce a given level of output.
   B. the various recipes for producing a given level of output.
   C. the minimum amount of labor necessary to produce a given level of output.
   D. the set of all feasible combinations of labor and outputs.

5. Technically inefficient points are:
   A. points in the production set but not on the production function.
   B. points on the production function.
   C. points contained in neither the production set nor the production function.
   D. points that are never observed in practice.

6. The labor requirements function is derived from:
   A. the demand curve.
   B. the supply curve.
   C. the production function.
   D. the capital requirement function.

7. The production set represents:
   A. the set of all technically feasible combinations of inputs and outputs.
   B. the technically efficient combinations of inputs and outputs.
   C. the maximum output the firm can produce from a given level of inputs.
   D. the minimum amounts of inputs necessary to produce a given level of output.

8. When labor is the only input to the production function, why must it be true that when the marginal product of labor is greater than the average product of labor, the average product of labor is increasing and vice versa?
   A. When the marginal product of labor is above the average product of labor, an additional unit of labor will produce a greater marginal product than average, thus raising the average.
   B. When the marginal product of labor is below the average product of labor, an additional unit of labor will produce a greater marginal product than average, thus raising the average.
   C. When the marginal product of labor is above the average product of labor, an additional unit of labor will produce a smaller marginal product than average, thus reducing the average.
   D. When the marginal product of labor is above the average product of labor, an additional unit of labor will produce a zero marginal product.

9. For a simple graph of a production function with Q on the y-axis and L on the x-axis, which of the following statements is true?
   A. The slope of the production function at a specific point equals the marginal product of labor whereas the average slope of the production function equals the average product of labor.
   B. The average product of labor is equal to the slope of the ray from the origin to the apex of the production function for all values of L.
   C. The slope of the production function at a specific point equals the marginal product of labor whereas the slope between the origin and a specific point on the production function equals the average product of labor.
   D. The average product of labor is never equal to the slope of the ray from the origin to the apex of the production function.

L	Q
0	0
1	20
2	50
3	90
4	125
5	140
6	150

10. Given the table above, the marginal productivity of the third worker is:
    A. 30.
    B. 40.
    C. 50.
    D. 90.

11. 1. Given the table above, the average productivity of the fifth worker is:
    A. 20.
    B. 28.
    C. 30.
    D. 140.

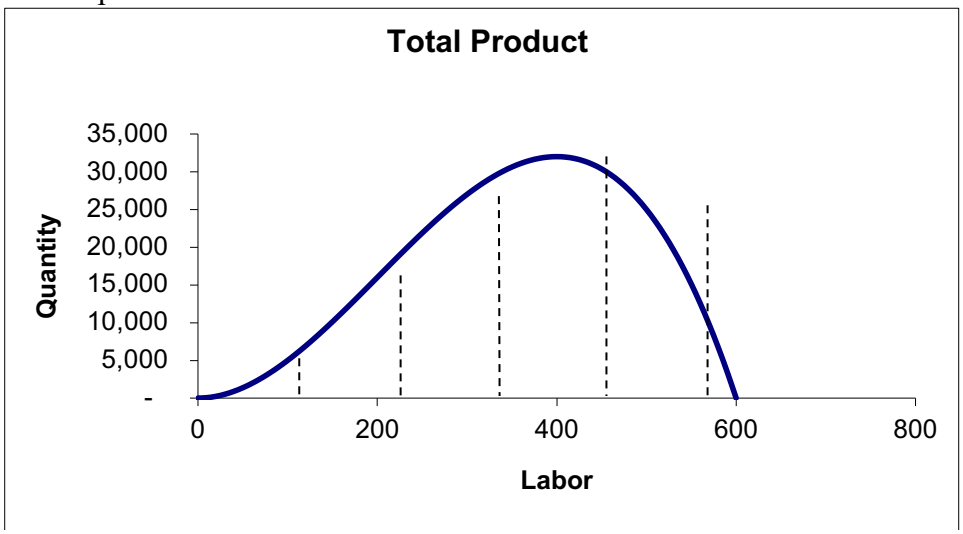
12. 2. Given the table above, marginal productivity is maximized with the _____ worker.
    A. second
    B. third
    C. fourth
    D. sixth

13. Given the table above, average productivity is maximized with the _____ worker.
    A. second
    B. third
    C. fourth
    D. sixth

14. Suppose a production function has only one input, labor. What can you tell about the slope of the production function, assuming output is on the y-axis and labor is on the x-axis, if production exhibits constant marginal returns to labor?
    A. The slope of the production function is positive and increasing exponentially.
    B. The slope of the production function is a positive constant.
    C. The slope of the production function is negative.
    D. The slope cannot be determined.

15. If marginal product is greater than average product:
    A. total product must be increasing.
    B. marginal product must be decreasing.
    C. marginal product must be increasing.
    D. average product may be increasing or decreasing.

16. Which one of these is false when compared to the relationship between marginal and average product?
    A. When average product is increasing in labor, marginal product is greater than average product. That is, if AP_L increases in L, then $MP_L > AP_L$.
    B. When average product is decreasing in labor, marginal product is less than average product. That is, if AP_L decreases in L, then $MP_L < AP_L$.
    C. The relationship between MP_L and AP_L is not the same as the relationship between the marginal of anything and the average of anything.
    D. When average product neither increases nor decreases in labor because we are at a point at which AP_L is at a maximum, then marginal product is equal to average product.



17. Average product reaches a maximum when labor equals:
    A. 100
    B. 200
    C. 300
    D. 400

18. Marginal product reaches a maximum when labor equals:
    A. 100
    B. 200
    C. 300
    D. 400

19. When labor equals 100:
    A. average product is less than marginal product
    B. average product is greater than marginal product.
    C. average product is equal to marginal product.
    D. the relationship between average product and marginal product cannot be determined from a total product graph.

20. Diminishing marginal returns set in at labor equals:
    A. 100
    B. 200
    C. 300
    D. 400

21. Diminishing marginal returns occur when the total product function is:
    A. decreasing.
    B. increasing at a decreasing rate.
    C. increasing at a constant rate.
    D. increasing at an increasing rate.

22. Increasing marginal returns occur when the total product function is:
    A. decreasing.
    B. increasing at a decreasing rate.
    C. increasing at a constant rate.
    D. Increasing at an increasing rate.

23. The law of diminishing marginal returns states that:
    A. when the marginal product is above the average product, average product must be increasing.
    B. when the marginal product is below the average product, average product must be decreasing.
    C. as the use of one input increases holding the quantities of the other inputs fixed, the marginal product of the input eventually declines.
    D. as the use of all inputs increases, the marginal product of the inputs eventually declines.

24. Given the production function $Q = L^2$, calculate the average product of labor for $L = 2$, and also calculate the marginal product of labor between $L = 1$ and $L = 2$.
    A. The average product of labor is 2 and the marginal product of labor is 2.
    B. The average product of labor is 1 and the marginal product of labor is 3.
    C. The average product of labor is 3 and the marginal product of labor is 2.
    D. The average product of labor is 2 and the marginal product of labor is 3.

25. An isoquant represents:
    A. all combinations of inputs that produce a given level of output at the same cost.
    B. all combinations of inputs that produce a given level of output.
    C. all combinations of output that require the same levels of inputs.
    D. all combinations of inputs that cost the same amount.

26. Suppose the production function can be expressed as $Q = 2\sqrt{KL}$. Which of the following combinations of capital and labor (K, L) lie on the same isoquant?
    A. (5, 6) and (4, 5)
    B. (3, 2) and (7, 1)
    C. (4, 3) and (2, 6)
    D. (10, 3) and (15, 4)

27. The expression given below explains:

$$MP_L = \frac{\text{change in quantity of output Q}}{\text{change in quantity of labor L}} | \text{K is held constant} = \frac{\Delta \text{Q}}{\Delta \text{L}} | \text{K is held constant}$$

    A. Product hill
    B. Marginal product of labor
    C. Non-marginal product
    D. Total product

28. The $MRTS_{L,K} =$ _____.
    A. $\frac{MP_K}{MP_L}$
    B. $\frac{-\Delta L}{\Delta K}$
    C. $\frac{MP_L}{MP_K}$
    D. $\frac{-MP_K}{MP_L}$

29. The rate at which one input can be exchanged for another input without altering the level of output is called the:
    A. marginal product curve.
    B. average product curve.
    C. marginal rate of technical substitution.
    D. law of diminishing marginal productivity.

30. The marginal rate of technical substitution of labor for capital is defined as:
    A. The rate at which the quantity of capital can be decreased for every one unit increase in the quantity of labor, holding the quantity of output constant
    B. The rate at which the quantity of capital must be increased for every one unit decrease in the quantity of labor, holding the cost of output constant.
    C. The rate at which the cost of labor and capital increases as output rises.
    D. The rate at which output rises as capital increases, holding labor constant.

31. Consider a production function of the form $Q = K^2L^2$ with marginal products $MP_K = 2KL^2$ and $MP_L = 2K^2L$. What is the marginal rate of technical substitution of labor for capital at the point where K = 5 and L = 5?
A. 5
B. 25
C. 50
D. 1

32. When isoquants are convex to the origin,:
A. the marginal rate of technical substitution is inverted.
B. the marginal rate of technical substitution is decreasing.
C. the marginal rate of technical substitution is constant.
D. the marginal rate of technical substitution is increasing.

33. The slope of the isoquant can be expressed as:
A. the ratio of the input prices.
B. the ratio of the inputs.
C. the ratio of the marginal productivities of the inputs.
D. the sum of the marginal productivities of the inputs.

	K=0	K=1	K=2	K=3	K=4
L=0	0	0	0	0	0
L=1	0	1	2	3	4
L=2	0	8	16	24	32
L=3	0	27	54	81	108
L=4	0	64	128	192	256

34. Based on the table above, holding labor constant, what do you notice about the marginal productivity of capital?
A. The marginal productivity of capital is always increasing.
B. The marginal productivity of capital is always constant.
C. The marginal productivity of capital is always decreasing.
D. The marginal productivity of capital increases, then decreases.

35. Based on the table above, holding capital constant at 3 units, the marginal productivity of the second laborer is
    A. 8.
    B. 12.
    C. 21.
    D. 24.

36. Based on the table above, holding labor constant at 2 units, the average productivity of three units of capital is
    A. 8.
    B. 12.
    C. 21.
    D. 24.

37. Total product hill is:
    A. A single line graph that shows the relationship between the quantity of output and the quantity of one of two inputs employed by the firm
    B. A two-dimensional graph that shows the relationship between the quantity of output and the quantity of one of two inputs employed by the firm
    C. A three-dimensional graph that shows the relationship between the quantity of output and the quantity of the two inputs employed by the firm
    D. A four-dimensional graph that shows the relationship between the quantity of output and the quantity of the two inputs employed by the firm

38. When a production function can be expressed as $Q = (aK)(bL)$, the relationship between capital and labor in the production function is that:
    A. capital and labor are perfect substitutes, and the isoquants are linear.
    B. capital and labor must be combined in fixed proportions, and the isoquants are L-shaped.
    C. capital and labor are substitutable, and the isoquants are convex to the origin.
    D. capital and labor are perfect substitutes, and the isoquants are L-shaped.

39. When a production function can be expressed as $Q = min\{aK, BL\}$, the relationship between capital and labor in the production function is that:
    A. capital and labor are perfect substitutes, and the isoquants are linear.
    B. capital and labor must be combined in fixed proportions, and the isoquants are L-shaped.
    C. capital and labor are easily substituted, and the isoquants are convex to the origin.
    D. capital and labor are perfect substitutes, and the isoquants are L-shaped.

40. A measure of how quickly the marginal rate of technical substitution of labor for capital changes as we move along an isoquant is the:
    A. capital-labor ratio
    B. elasticity of substitution
    C. input substitution possibility frontier
    D. rate of technological progress

41. The marginal rate of technical substitution in production is analogous to the marginal rate of substitution for the consumer's optimization problem in that
    A. the slope of the consumer's indifference curve is the opposite of the ratios of the marginal utilities of the two goods, whereas the slope of the production isoquant is the opposite of the ratio of the marginal product of labor relative to the marginal product of capital.
    B. the slope of the consumer's indifference curve is equal to the ratio of the marginal utilities of the two goods, whereas the slope of the production isoquant is the opposite of the ratio of the marginal product of labor relative to the marginal product of capital.
    C. the slope is equal in both instances.
    D. they are calculated by subtracting the price ratio from the output level.

42. If capital cannot easily be substituted for labor, then the elasticity of substitution is:
    A. negative.
    B. close to zero.
    C. close to one.
    D. approaching infinity.

43. Consider a production function $Q = 3K + 4L$, when L is graphed on the x-axis and K is graphed on the y-axis, the marginal rate of technical substitution is equal to:
    A. 4/3 and the isoquant is convex to the origin.
    B. 4/3 and the isoquant is a straight line.
    C. ¾ and the isoquant is a straight line.
    D. 12 and the isoquant is convex to the origin.

44. When a production function has the form $Q = aL + bK$, we can say that:
    A. the production function is linear and the inputs are perfect substitutes.
    B. the production function is linear and the inputs are perfect complements.
    C. the production function is linear and the inputs are used in fixed factor proportions only.
    D. the production function is non-linear and the inputs are perfect substitutes.

45. Which of the following is true?
   A. The Cobb-Douglas production function is given by the general formula $Q = AL^{\alpha}K^{\beta}$ and the constant elasticity of substitution is equal to 0.
   B. The Cobb-Douglas production function is given by the general formula $Q = AL^{\alpha}K^{\beta}$ and the constant elasticity of substitution is equal to 1.
   C. The Cobb-Douglas production function does not exhibit a constant elasticity of substitution.
   D. The Cobb-Douglas production function always takes the form $Q = K^2 L^2$.

46. For the production function $Q = aK + bL$, where the variables are graphed as usual, the equation for a typical isoquant is _____.
   A. $K = \frac{Q-bL}{a}$
   B. $L = \frac{Q-aK}{b}$
   C. $K = \frac{Q^2}{L}$
   D. $K = aQ - bL$

47. For the production function$Q = 20\sqrt{KL}$, the equation for a typical isoquant is _____.
   A. $K = \frac{20L}{Q^2}$
   B. $K = \frac{Q^2}{20L}$
   C. $L = \frac{K}{20Q}$
   D. $K = 20(QL)^2$

48. The region of upward sloping backward bending isoquants is:
   A. Economic region of production
   B. Uneconomic region of production
   C. Marginal rate of production
   D. Marginal rate of technical substitution

49. For the production function Q = aL + bK, where a and b are constants, the $MRTS_{L,K}$:
   A. declines as the firm substitutes labor for capital.
   B. remains constant as the firm substitutes labor for capital.
   C. implies upward-sloping, straight-line isoquants.
   D. is undefined.

50. A fixed proportions production function:
   A. is not observed in practice.
   B. has straight line isoquants.
   C. has L-shaped isoquants.
   D. has a constant marginal rate of technical substitution as the firm substitutes labor for capital.

51. A production function of the form $Q = AL^{\alpha}K^{\beta}$ is a(n):
    A. isoquant function
    B. Cobb–Douglas production function
    C. fixed-proportions function
    D. perfect complements function

52. Suppose every molecule of salt requires exactly one sodium atom, Na, and one chlorine atom, Cl. The production function that describes this is:
    A. Q = Na + Cl
    B. Q = Na x Cl
    C. Q = min(Na, Cl)
    D. Q = max(Na, Cl)

53. Consider the production function$Q = 5K + 10L$. The $MRTS_{L,K}$ is:
    A. 2.00
    B. 1.50
    C. 1.00
    D. 0.50

54. Consider the CES production function$Q = [3L^{.67} + 3K^{.67}]^{1.5}$. The elasticity of substitution is:
    A. 0.3
    B. 1.5
    C. 0.67
    D. 3.00

55. A type of production function that includes linear production functions, fixed-proportions production functions, and Cobb-Douglas production functions as special cases is:
    A. Cobb-Douglas production function
    B. Constant elasticity of substitution (CES) production function
    C. Fixed proportions production functions
    D. Linear production functions

56. Returns to scale refers to:
    A. the increase in output that accompanies an increase in one input, all other inputs held constant.
    B. a change in a production process that enables a firm to achieve more output from a given combination of inputs.
    C. the number of units of increase in output that can be obtained from an increase in one unit of input.
    D. the percentage by which output will increase when all inputs are increased by a given percentage.

57. The production function $Q = KL$ exhibits:
    A. increasing returns to scale.
    B. constant returns to scale.
    C. decreasing returns to scale.
    D. undefined returns to scale.

58. The production function $Q(L, K, M) = 25K^{0.5}L^{0.5}M^{0.5}$ exhibits:
    A. decreasing returns to scale.
    B. constant returns to scale.
    C. increasing returns to scale.
    D. either decreasing or constant returns to scale, but more information is needed to determine which one.

59. Assuming a firm uses capital and labor to produce output, which of the following is not always a true statement?
    A. Assuming the marginal products of labor and capital are greater than zero, doubling the inputs of capital and labor will lead to greater output.
    B. Assuming the marginal products of labor and capital are less than zero, doubling the inputs of capital and labor will lead to less output.
    C. Assuming the marginal products of labor and capital are greater than zero, doubling the inputs of capital and labor will lead to double the output.
    D. Assuming the marginal products of labor and capital are greater than zero, doubling the input of capital and keeping the input of labor constant will lead to greater output.

60. Consider the CES production function $Q = [aL^{\frac{\sigma-1}{\sigma}} + bK^{\frac{\sigma-1}{\sigma}}]^{\frac{\sigma}{\sigma-1}}$. This production function exhibits:
    A. decreasing returns to scale.
    B. constant returns to scale.
    C. increasing returns to scale.
    D. either decreasing or constant returns to scale, but more information is needed to determine which one.

61. A production manager notices that when she triples all of her inputs simultaneously, her output doubles. The production manager determines that for this range of output, the production function exhibits:
    A. increasing returns to scale.
    B. constant returns to scale.
    C. decreasing returns to scale.
    D. undefined returns to scale.

62. Given a production function Q = 3LK, we can say that:
    A. this production function is not Cobb-Douglas.
    B. this production function is Cobb-Douglas and exhibits decreasing returns to scale.
    C. this Cobb-Douglas production function does not exhibit a constant elasticity of substitution.
    D. this production function is Cobb-Douglas and exhibits increasing returns to scale.

63. Identify the true statement.
    A. Decreasing returns to scale and diminishing marginal returns are just two different ways of saying the same thing.
    B. Returns to scale pertains to the impact on output of increasing all inputs simultaneously; diminishing marginal returns pertains to the impact of changing a single input while holding all other inputs constant.
    C. Returns to scale pertains to the impact on output of changing a single input while holding all other inputs constant; diminishing marginal returns pertains to the impact on output of increasing all inputs simultaneously.
    D. Returns to scale can be identified by calculating the slope of an isoquant.

64. Assume that labor is measured along the horizontal axis and capital is measured along the vertical axis. If the $MRTS_{L,K}$ decreases as we move inward toward the origin along the ray (slope of the isoquant becomes flatter), we are observing:
    A. neutral technological progress.
    B. labor-saving technological progress.
    C. capital-saving technological progress.
    D. both labor-saving and capital-saving technological progress.

65. Suppose over time that a firm's production process undergoes capital-saving technological progress. This implies:
    A. the isoquants corresponding to any particular level of output will shift outward from the origin and the $MRTS_{L,K}$ along any ray from the origin will increase.
    B. the isoquants corresponding to any particular level of output will shift outward from the origin and the $MRTS_{L,K}$ along any ray from the origin will decrease.
    C. the isoquants corresponding to any particular level of output will shift inward toward the origin and the $MRTS_{L,K}$ along any ray from the origin will increase.
    D. the isoquants corresponding to any particular level of output will shift inward toward the origin and the $MRTS_{L,K}$ along any ray from the origin will decrease.

66. Let a firm's production function be $Q = 100(aL + bK)$. The production function then becomes $Q = 500(aL + bK)$. Which of the following statements is true?
    A. Neutral technological progress has occurred.
    B. Labor-saving technological progress has occurred.
    C. Capital-saving technological progress has occurred.
    D. Economies of scale have increased.

67. Consider the production function $Q = [c + aL^{\frac{\sigma-1}{\sigma}} + bK^{\frac{\sigma-1}{\sigma}}]^{\frac{\sigma}{\sigma-1}}$ where c is some constant different than zero. This production function exhibits:
    A. decreasing returns to scale.
    B. constant returns to scale.
    C. increasing returns to scale.
    D. either decreasing or constant returns to scale, but more information is needed to determine which one.

True/False

68. Technically inefficient points are points in the production set but not on the production function.

69. Technically inefficient points are points on the production function.

70. Technically inefficient points are points contained in neither the production set nor the production function.

71. Technically inefficient points are points that are never observed in practice.

72. Technically inefficient points only exist with older firms.

73. Because the production function identifies the maximum amount of output that can be produced from a given combination of inputs, only technically efficient input combinations are found on the production function.

74. The production function identifies the technically feasible combinations of inputs.

75. For a simple graph of a production function with Q on the y-axis and L on the x-axis, the slope of the production function at a specific point equals the marginal product of labor whereas the average slope of the production function equals the average product of labor.

76. For a simple graph of a production function with Q on the y-axis and L on the x-axis, the average product of labor is equal to the slope of the ray from the origin to the apex of the production function for all values of L.

77. For a simple graph of a production function with Q on the y-axis and L on the x-axis, the slope of the production function at a specific point equals the marginal product of labor whereas the slope between the origin and a specific point on the production function equals the average product of labor.

78. For a simple graph of a production function with Q on the y-axis and L on the x-axis, the average product of labor is never equal to the slope of the ray from the origin to the apex of the production function.

79. When the marginal product of labor is falling, the average product of labor is falling.

80. When the marginal product curve lies above the average product curve, then average product is rising.

81. Consider comparing the relationship between marginal and average product. When average product is increasing in labor, marginal product is greater than average product. That is, if AP_L increases in L, then $MP_L > AP_L$.

82. Consider comparing the relationship between marginal and average product. When average product is decreasing in labor, marginal product is less than average product. That is, if AP_L decreases in L, then $MP_L < AP_L$.

83. Consider comparing the relationship between marginal and average product. The relationship between MP_L and AP_L is not the same as the relationship between the marginal of anything and the average of anything.

84. Consider comparing the relationship between marginal and average product. When average product neither increases nor decreases in labor because we are at a point at which AP_L is at a maximum, then marginal product is equal to average product.

85. The law of diminishing marginal returns states that when the marginal product is above the average product, average product must be increasing.

86. The law of diminishing marginal returns states that when the marginal product is below the average product, average product must be decreasing.

87. The law of diminishing marginal returns states that as the use of one input increases holding the quantities of the other inputs fixed, the marginal product of the input eventually declines.

88. The law of diminishing marginal returns states that as the use of all inputs increases, the marginal product of the inputs eventually declines.

89. The marginal rate of technical substitution in production is analogous to the marginal rate of substitution for the consumer's optimization problem in that the slope of the consumer's indifference curve is the opposite of the ratios of the marginal utilities of the two goods, whereas the slope of the production isoquant is the opposite of the ratio of the marginal product of labor relative to the marginal product of capital.

90. The marginal rate of technical substitution in production is analogous to the marginal rate of substitution for the consumer's optimization problem in that the slope of the consumer's indifference curve is equal to the ratio of the marginal utilities of the two goods, whereas the slope of the production isoquant is the opposite of the ratio of the marginal product of labor relative to the marginal product of capital.

91. The marginal rate of technical substitution in production is analogous to the marginal rate of substitution for the consumer's optimization problem in that the slope is equal in both

instances.

92. The marginal rate of technical substitution in production is analogous to the marginal rate of substitution for the consumer's optimization problem in that they are calculated by subtracting the price ratio from the output level.

93. The Cobb-Douglas production function is given by the general formula $Q = AL^{\alpha}K^{\beta}$ and the constant elasticity of substitution is equal to 0.

94. The Cobb-Douglas production function is given by the general formula $Q = AL^{\alpha}K^{\beta}$ and the constant elasticity of substitution is equal to 1.

95. The Cobb-Douglas production function does not exhibit a constant elasticity of substitution.

96. The Cobb-Douglas production function always takes the form $Q = K^2 L^2$.

97. For the production function $Q = aK + bL$, where the variables are graphed as usual, the equation for a typical isoquant is $K = \frac{Q-bL}{a}$.

98. For the production function $Q = aK + bL$, where the variables are graphed as usual, the equation for a typical isoquant is $L = \frac{Q-aK}{b}$.

99. For the production function $Q = aK + bL$, where the variables are graphed as usual, the equation for a typical isoquant is $K = \frac{Q^2}{L}$.

100. For the production function $Q = aK + bL$, where the variables are graphed as usual, the equation for a typical isoquant is $K = aQ - bL$.

101. Decreasing returns to scale and diminishing marginal returns are just two different ways of saying the same thing.

102. Returns to scale pertains to the impact on output of increasing all inputs simultaneously; diminishing marginal returns pertains to the impact of changing a single input while holding all other inputs constant.

103. Returns to scale pertains to the impact on output of changing a single input while holding all other inputs constant; diminishing marginal returns pertains to the impact on output of increasing all inputs simultaneously.

104. Returns to scale can be identified by calculating the slope of an isoquant.

105. Let a firm's production function be $Q = 100(aL + bK)$. The production function then becomes $Q = 500(aL + bK)$. Neutral technological progress has occurred.

106. Let a firm's production function be $Q = 100(aL + bK)$. The production function then becomes $Q = 500(aL + bK)$. Labor-saving technological progress has occurred.

107. Let a firm's production function be $Q = 100(aL + bK)$. The production function then becomes $Q = 500(aL + bK)$. Capital-saving technological progress has occurred.

108. Let a firm's production function be $Q = 100(aL + bK)$. The production function then becomes $Q = 500(aL + bK)$. Economies of scale have increased.

Answers

Multiple Choice

1. Ans: C
2. Ans: B
3. Ans: B
4. Ans: C
5. Ans: A
6. Ans: C
7. Ans: A
8. Ans: A
9. Ans: C
10. Ans: B
11. Ans: B
12. Ans: B
13. Ans: C
14. Ans: D
15. Ans: A
16. Ans: C
17. Ans: C
18. Ans: B
19. Ans: A
20. Ans: B
21. Ans: B
22. Ans: D
23. Ans: C
24. Ans: D
25. Ans: B
26. Ans: C
27. Ans: B
28. Ans: C
29. Ans: C
30. Ans: A
31. Ans: D
32. Ans: B
33. Ans: C
34. Ans: B
35. Ans: C
36. Ans: A
37. Ans: C
38. Ans: C
39. Ans: B
40. Ans: B
41. Ans: A
42. Ans: B
43. Ans: B
44. Ans: A
45. Ans: B
46. Ans: A
47. Ans: B
48. Ans: B
49. Ans: B
50. Ans: C
51. Ans: B
52. Ans: C
53. Ans: A
54. Ans: D
55. Ans: B
56. Ans: D
57. Ans: A
58. Ans: C
59. Ans: C
60. Ans: B
61. Ans: C
62. Ans: D
63. Ans: B
64. Ans: B
65. Ans: C
66. Ans: A
67. Ans: A

True/False

68. Ans: True
69. Ans: False
70. Ans: False
71. Ans: False
72. Ans: False
73. Ans: True
74. Ans: False
75. Ans: False
76. Ans: False
77. Ans: True
78. Ans: False
79. Ans: False
80. Ans: True
81. Ans: True
82. Ans: True
83. Ans: False
84. Ans: True
85. Ans: False
86. Ans: False
87. Ans: True

Ans: False

88. Ans: True
89. Ans: False
90. Ans: False
91. Ans: False
92. Ans: False
93. Ans: True
94. Ans: False
95. Ans: False
96. Ans: True
97. Ans: False
98. Ans: False
99. Ans: False
100. Ans: False
101. Ans: True
102. Ans: False
103. Ans: False
104. Ans: True
105. Ans: False
106. Ans: False
107. Ans: False