Name: _____ **Class:** _____ **Date:** _____ **ID: A**

CH 12

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

____ 1. The fundamental goal of a firm is
a. different for each firm.
b. to make a quality product.
c. to maximize profit.
d. to gain market share.
e. decrease its employment of workers in order to cut its costs.

____ 2. Lauren runs a chili restaurant in San Francisco. Her total revenue last year was $110,000. The rent on her restaurant was $48,000, her labor costs were $42,000, and her materials, food and other variable costs were $20,000. Lauren could have worked as a biologist and earned $50,000 per year. An economist calculates her implicit costs as
a. $150,000.
b. $63,000.
c. $50,000.
d. $110,000.
e. $0 because Lauren did not work as a biologist.

____ 3. Which of the following is(are) an explicit cost in Jim's business venture?
a. the salary Jim could have earned at another job
b. the interest Jim does not earn because he invested his savings in his business
c. the wages Jim pays his workers
d. Jim's normal profit
e. Answer A, answer B, and answer D are correct.

____ 4. A cost incurred in the production of a good or service and for which the firm does not need to make a direct monetary payment, is referred to as ____ cost.
a. a minimized
b. a maximized
c. an explicit
d. an implicit
e. an invisible

____ 5. An implicit cost is
a. when a money payment is made only because a factor of production is used.
b. when a factor of production is used but a money payment is not made.
c. when a money payment is made.
d. not relevant to an entrepreneur's decision making.
e. considered part of the owner's economic profit.

____ 6. Suppose Billy owns a hair salon in Dallas. He has one large hair dryer for which he paid $1,000. If he can sell the dryer one year later for $800, his total economic depreciation equals
a. $1,000.
b. $200.
c. $800.
d. $500.
e. None of the above answers are correct.

____ 7. April quit her job as an accountant at Ernst and Young, where she was paid $45,000 per year. She started her own landscaping business. She rents machines and tools for $50,000 and pays $10,000 as wages to her help. These are her only costs. April earned total revenue of $100,000.
   a. Her accountant calculates her profit as $40,000.
   b. She has an economic loss.
   c. Her explicit cost is $105,000.
   d. Both answers A and B are correct.
   e. Both answers A and C are correct.

____ 8. Bill is an economics professor who earns $40,000 teaching but decides to leave and fulfill his dream of catering barbecues. During his first year of barbecuing he earned total revenue of $60,000. He spent $30,000 on food and supplies. He also paid his wife $10,000 to help serve food. The normal profit for an entrepreneur running a barbecue business is $3,000. He also rented an industrial grill/fry truck for $12,000. An accountant would conclude that Bill's profit was
   a. $30,000.
   b. $20,000.
   c. $8,000.
   d. –$2,000.
   e. $40,000

____ 9. Bill is an economics professor who earns $37,000 teaching but decides to leave and fulfill his dream of catering barbecues. During his year of barbecuing he earned total revenue of $60,000. He spent $30,000 on food and supplies. He also paid his wife $10,000 to help serve food. The normal profit for an entrepreneur running a barbecue business is $3,000. Bill also rented an industrial grill/fry truck for $12,000. Bill had an economic
   a. profit of $20,000.
   b. loss of –$32,000.
   c. loss of –$42,000.
   d. profit of $28,000.
   e. profit of zero.

____ 10. Which of the following is a long-run and not a short-run decision for a firm?
   a. hiring fewer people
   b. increasing plant capacity by fifty percent
   c. hiring more people
   d. Answer A and answer B are correct.
   e. Answer B and answer C are correct.

____ 11. The change in the total product that results from a one-unit increase in the quantity of labor employed is known as
   a. changed total product.
   b. marginal product.
   c. average product.
   d. total product.
   e. None of the above answers is correct.

Quantity of labor (workers)	Total product (hair stylings per day)
0	0
1	10
2	25
3	45
4	60
5	70

____ 12. The above table shows the total product schedule for Hair Today, a hair styling salon. Based on the table, the marginal product for Hair Today
a. never reaches a maximum.
b. decreases after the 1st worker.
c. reaches a maximum with the 4th worker.
d. reaches a maximum with the 3rd worker.
e. reaches a maximum with the 5th worker.

____ 13. Chuck owns a factory that produces leather footballs. His total fixed cost equaled $86,000 last year. His total cost equaled $286,000 last year. Hence Chuck's
a. total variable cost was zero.
b. incurred an economic loss.
c. total variable cost equaled $200,000.
d. total variable cost equaled $372,000.
e. None of the above answers is correct.

____ 14. If Melissa owns a software company that incurs no fixed costs, then
a. her total cost equals her total variable cost.
b. she will earn an economic profit.
c. her total variable cost is less than her total cost.
d. her total cost equals zero.
e. her marginal cost must equal zero.

Output (gallons of ice cream per hour)	Total cost (dollars)
0	1
1	2
2	3
3	5
4	8
5	11

____ 15. The Jerry-Berry Ice Cream Shoppe's total cost schedule is in the above table. Based on the table, the marginal cost of producing the fourth gallon of ice cream is
a. $2.
b. $3.
c. $5.
d. $8.
e. $32.

Quantity of labor (workers)	Total product (dogs groomed per week)
0	0
1	40
2	100
3	150
4	190
5	220
6	240

____ 16. Anna owns a dog grooming salon in Brunswick, Georgia. The above table has Anna's total product schedule. Anna pays each worker $300 per week and she pays rent of $600 a week for her salon. These are her only costs. When Anna has a staff of 2 workers, her average variable cost equals
a. $2,400.
b. $300.
c. $6.00.
d. $10.00.
e. $600.

____ 17. Anna owns a dog grooming salon in Brunswick, Georgia. The above table has Anna's total product schedule. Anna pays each worker $300 per week and she pays rent of $600 a week for her salon. These are her only costs. When Anna has a staff of 6 workers, her average variable cost equals
a. $2,400.
b. $300.
c. $7.50.
d. $10.00.
e. $1,800.

____ 18. Anna owns a dog grooming salon in Brunswick, Georgia. The above table has Anna's total product schedule. Anna pays each worker $300 per week and she pays rent of $600 a week for her salon. These are her only costs. When Anna has a staff of 6 workers, her average fixed cost equals
a. $600.
b. $2.50.
c. $7.50.
d. $10.00.
e. $6.00.

____ 19. The vertical distance between the total cost curve and the total variable cost curve ____ as output increases and the vertical distance between the average total cost curve and average variable cost curve ____ as output increases.
a. is constant; decreases
b. decreases; is constant
c. increases; decreases
d. decreases; increases
e. decreases; decreases

____ 20. The marginal cost curve is U-shaped. Over the range of output for which the marginal cost is falling as output increases, the marginal product is
a. increasing.
b. decreasing.
c. constant.
d. probably changing, but there is no stable relationship between the marginal cost and the marginal product.
e. not defined.

____ 21. A firm has economies of scale when its average total cost of production ____ as the size of a its plant and its labor force ____.
a. decreases; increase by the same percentage
b. does not change; increase by the same percentage
c. increases; increase by the same percentage
d. decreases; do not change
e. decreases; decrease by the same percentage

____ 22. Economies of scale occur when, as output increases, the
a. long-run average cost increases.
b. long-run average cost decreases.
c. short-run average total cost decreases.
d. long-run average cost stays constant.
e. long-run fixed cost decreases.

____ 23. Diseconomies of scale occurs when the average total cost of production ____ as the size of a plant and its labor force ____.
a. decreases; increase by the same percentage
b. does not change; increase by the same percentage
c. increases; increase by the same percentage
d. decreases; do not change
e. increases; do not change

____ 24. The long-run average cost curve is U-shaped because of which of the following?
a. decreasing marginal returns as more labor is hired
b. constant fixed costs as output is increased
c. economies and diseconomies of scale
d. increasing marginal returns as more labor is hired
e. decreasing average fixed costs as output is increased

____ 25. The long-run average cost curve
a. is an upside down U-shape.
b. is constructed using the short-run marginal cost curves.
c. shows economies and diseconomies of scale.
d. Both answer A and answer B are correct.
e. Both answer A and answer C are correct.

____ 26. Which of the following variables do you need to know to calculate marginal cost?
i. change in total cost
ii. marginal product of labor
iii. change in quantity of labor used
iv. change in output

a. i and ii
b. i and iv
c. ii and iv
d. i, iii, and iv
e. Only ii

____ 27. Which of the following contributes to increasing marginal returns?
a. decreasing implicit costs
b. increasing explicit costs
c. specialization of labor
d. Both answer A and answer B are correct.
e. Both answer A and answer C are correct.

____ 28. The law of decreasing returns applies to
a. the long-run average cost curve.
b. average total cost.
c. diseconomies of scale.
d. changes in a variable input with a given quantity of fixed inputs.
e. changes in a fixed input with a given quantity of variable inputs.

____ 29. Once production has reached the maximum average product of labor, if production increases then
a. average fixed cost rises.
b. total costs decrease.
c. total product decreases.
d. decreasing marginal returns occur.
e. the plant size must be increased.

____ 30. As output increases, average total cost decreases
a. constantly.
b. as the average product of labor decreases.
c. initially and then starts to increase.
d. in the long run and the short run.
e. as long as average fixed cost decreases.

____ 31. Suppose one week Fresh Cuts Lawn Service hires 10 units of labor and 10 units of capital, and cuts 50 yards. The next week, Fresh Cuts increases its labor hired and its capital by 10 percent, and cuts 55 yards. Which of the following statements correctly describes Fresh Cuts?
i. Fresh Cuts has increased its explicit costs.
ii. Fresh Cuts has definitely experienced increasing marginal costs.
iii. Fresh Cuts has experienced economies of scale.

a. i only
b. i and ii
c. ii and iii
d. i, ii, and iii
e. Only iii

____ 32. A firm's fundamental goal is to
a. maximize output.
b. minimize costs.
c. maximize total revenue.
d. maximize profit.
e. drive its competitors out of business.

____ 33. Which of the following is an implicit cost?
i. wages paid to workers
ii. the normal profit
iii. the electric bill
a. i only.
b. ii only.
c. i and ii.
d. ii and iii.
e. i, ii, and iii.

____ 34. Increasing marginal returns to labor
a. occur when a particularly efficient worker is employed.
b. describe the portion of a total product curve where the marginal product is negative.
c. mean that two workers produce less than twice the output of one worker.
d. are the result of specialization and division of labor in the production process.
e. occur only when there are increasing marginal returns to capital.

____ 35. The average product is the greatest in the short run when the
a. total product is maximized.
b. marginal product is equal to zero.
c. marginal product is maximized.
d. marginal product is equal to the average product.
e. marginal product is greater than the average product.

____ 36.

Quantity of labor (workers)	Total product (rolls of film processed per hour)
0	0
1	2
2	5
3	8
4	15
5	22
6	26
7	28

The table above shows the total product schedule for Rick's Films, a film developing hut. When the ____ worker is hired, the average product of labor ____ the marginal product of labor.
a. 4th; exceeds
b. 5th; exceeds
c. 6th; exceeds
d. 7th; is less than
e. 7th; equals

____ 37.

Quantity of labor (workers)	Total product (rolls of film processed per hour)
0	0
1	2
2	5
3	8
4	15
5	22
6	26
7	28

The table above shows the total product schedule for Rick's Films, a film developing hut. When does the average product of labor equal the marginal product of labor?

a. between the 4th and 5th workers
b. at the 5th worker
c. between the 5th and 6th workers
d. between the 6th and 7th workers
e. between 0 workers and the 3rd worker

____ 38. If 25 workers can pick 100 flats of strawberries per hour, then average product is

a. 100 flats per hour.
b. 125 flats per hour.
c. 75 flats per hour.
d. 4 flats per hour.
e. More information is needed about how many flats 24 workers can pick.

____ 39. Total variable cost

a. includes the cost of capital.
b. includes the cost of labor.
c. includes both the cost of capital and of labor.
d. does not change when production changes.
e. is positive when output is zero.

____ 40. The total variable cost curve ____ because ____ as output increases.

a. slopes upward; variable cost increases
b. slopes upward; marginal cost increases
c. slopes downward; variable cost increases
d. slopes downward; marginal cost increases
e. is horizontal; fixed cost does not change

____ 41. Which of the following is correct for variable and marginal costs?

a. They will equal zero if nothing is produced.
b. The two costs will never equal each other.
c. They will both increase if fixed costs increase.
d. Adding the two yields total cost.
e. Both include only explicit costs of production.

____ 42. When marginal cost is positive, total cost is ____ as output increases.
a. increasing
b. decreasing
c. constant
d. negative
e. undefined

____ 43.

Labor (workers)	Output
0	0
1	20
2	50
3	70
4	80
5	85

The table above shows a total product schedule. Suppose that labor cost $20 per worker and fixed costs are $60. The total cost of producing 80 units equals
a. less than $5.
b. more than $5 and less than $110.
c. more than $110 and less than $120.
d. more than $120 and less than $150.
e. more than $150.

____ 44. If marginal cost increases when output increases, then
a. marginal product must decrease when output increases.
b. average fixed cost is constant.
c. total cost is constant.
d. average variable cost must increase when output increases.
e. average total cost must decrease when output increases.

____ 45. If another worker is hired with a marginal product greater than the previously hired worker, which of the following will be true?
a. total costs will decrease
b. fixed costs will decrease
c. marginal cost will increase
d. marginal cost will decrease
e. average fixed costs will increase

____ 46. Cost curves shift if
i. technology changes.
ii. there are changes in the prices of factors of production.
iii. productivity changes.
a. only i.
b. i and iii.
c. only ii.
d. i and ii.
e. i, ii, and iii.

____ 47. An increase in the price of labor (a variable resource) shifts
a. all cost curves upward.
b. the variable cost curves upward but leaves the fixed cost curves unchanged.
c. the fixed cost curves upward but leaves the variable cost curves unchanged.
d. the marginal cost curve rightward.
e. none of the cost curves.

____ 48. If we know the amount of total cost, average total cost, average variable cost, and marginal cost for each level of output, how can we find the level of output where the marginal product is the greatest?
a. It is the output for which the marginal cost equals average variable cost.
b. It is the output for which the total cost is maximized.
c. It is the output for which the marginal cost is minimized.
d. It is the output for which the marginal cost equals average total cost.
e. There is no way to find where marginal product is the greatest knowing only cost data.

____ 49. A firm can enjoy economies of scale because of increased specialization of
a. capital only.
b. labor only.
c. capital and/or labor.
d. neither capital nor labor.
e. costs.

____ 50. Bob is an entrepreneur who hires college students to sell hot dogs in the busy downtown area of his hometown. Each student is paid the same wage rate, given an identically supplied hot dog cart, and assigned to a specific area. If as Bob increases his scale of operation from 3 carts to 4 carts, each cart produces and sells the same number of hot dogs per day, Bob experiences
a. economies of scale.
b. diseconomies of scale.
c. constant returns to scale.
d. decreasing total costs.
e. zero marginal cost.