ECON 1 Final A Key

1. For demand function P = 24 – 6Q
**A.** demand is elastic at price 16.
B. demand is elastic at price 12.
C. demand is elastic at price 2.
D. demand has unitary elasticity at all points on the function.

2. An Engel curve
A. always slopes up for an inferior good.
**B.** always slopes down for an inferior good.
C. may slope up or down for a normal good
D. does not relate to the normal or inferior good concepts.

3. Comparing the income effects between salt and housing,
A. the income effect for salt will be greater.
**B.** the income effect for housing will be greater.
C. the two income effects will be about the same.
D. the two income effects will be in the opposite direction.

4. The Engel curve for a Giffen good
A. slopes upward.
**B.** slopes downward.
C. is a straight line.
D. is convex.

5. At $5 Joe buys 1 pen; at $1 he buys 3 pens. What is the arc elasticity over this range?
A. -1.5
B. -.66
C. 1
**D.** -0.75

 6. (Appendix) A demand function that has a unitary elasticity at every point
A. will be a horizontal line.
B. will be negatively sloped and a straight line.
C. will have a positive slope when price is low.
**D.** will have a declining slope as price falls.
E. is described by none of the above.

7. Given these two individual demand curves:, what is the equation for the inverse market demand curve?
**A.** P = 100 – 5Q for, P = 120 – 10Q for
B. P = 100 – 2Q
C. P = 200 – 8.33Q
D. P = 100 – 8.33Q
E. P = 100 – .5Q
F. none of the above is true.

8. The short run is defined as that period of time during which
**A.** one or more inputs cannot be freely varied.
B. all inputs are variable.
C. all inputs are fixed.
D. labor is counted as a fixed input.

  

 9. In the graph above, as the consumer moves from indifference curve 1 to 3, his
**A.** real income is rising and his nominal income is constant.
B. real income is falling, and his nominal income is rising.
C. real income is falling and nominal income is constant.
D. real and nominal income are falling, but he can buy more anyway.

10. The cross-price elasticity of demand for complements is
A. is positive.
**B.** is negative.
C. is zero.
D. can not be specified without more information.

11. The income elasticity of demand for an inferior good could be
A. positive.
**B.** negative.
C. zero.
D. any one of the above depending on the other factors involved.

12. The consumer price index overestimates inflation because it
A. compares prices of what consumers actually buy rather than a fixed basket of goods.
B. allows consumers to move along a given indifference curve from one year to the next.
**C.** measures the cost of a market basket in the second year that has too many units of the most inflated items.
D. uses the second year's market basket as the base rather than the first year's basket.

13. Suppose a bank will pay you a 10% interest rate on your deposits for 1 period. In this case you must sacrifice $10 of current consumption to finance
A. $9 of future consumption.
B. $10 of future consumption.
**C.** $11 of future consumption.
D. $1 of future consumption.

14. Suppose you receive Y1 of your income this period and Y2 of your income next period. If you can either borrow or lend at an interest rate r, what is the most you can consume in the current period?
A. Y1(1+r)+Y2
B. Y2(1+r)+Y1
C. Y1/(1+r)+Y2
**D.** Y2/(1 +r)+Y1

 15. If the marginal rate of substitution between future and current consumption is less than one, then this consumer exhibits
A. a positive time preference.
**B.** a negative time preference.
C. a neutral time preference.
D. none of the above.

16. If the demand function for apples is P = 10 – Q, how much is total consumer surplus when the price of the apples equals 5?
A. 25
B. 5
C. 20.
**D.** 12.5

17. If equal amounts of a variable input are sequentially added to the fixed input in a typical production function,
A. the increments to output will decrease first and then increase.
B. the additions to output will be constant.
C. increments to output will increase indefinitely.
**D.** increments to output will first increase at an increasing rate and then at a decreasing rate.

18. The marginal product of a variable input is
A. zero at the point of diminishing returns.
B. the change in the average product that occurs when the variable input is increased one unit.
**C.** the change in the total product that occurs in response to a unit change in the variable input.
D. the second derivative of the total product function.

19. When the marginal product curve lies above the average product curve
A. the average product curve must be falling.
B. the total product curve must be falling.
**C.** the average product curve must be rising.
D. the marginal product curve must be rising.
E. both c and d are correct.

20. For production functions with decreasing returns to scale, a proportional increase in output
A. requires a less-than-proportional growth in all inputs.
**B.** requires a more-than-proportional growth in all inputs.
C. exhibits diminishing returns.
D. requires proportional growth in all inputs.

21. Which of the following statements about isoquant maps is true?
A. They can illustrate diminishing returns to production without having numerical values attached.
B. They cannot illustrate economies of scale unless some numerical values are attached.
C. Such a map would be illogical if an isoquant had a positive slope.
**D.** All of the above are true.
E. None of the above are true.

22. (Appendix) Which of the following production functions exhibits increasing returns to scale?
A. Q = K1/2Ll/2
**B.** Q = Kl/2L2/3
C. Q = Kl/4Ll/3
D. Q = K/L.

23. When costs are at a minimum,
A. the ratio of the MPL/MPK< Price L/Price K.
B. MPL= MPK.
**C.** the extra output we get from the last dollar spent on an input must be the same for all inputs.
D. b and c are true.

24. Once we enter the region of diminishing returns,
A. variable cost increases at a decreasing rate.
**B.** variable cost increases at an increasing rate.
C. variable cost decreases at a decreasing rate.
D. variable cost decreases at an increasing rate.

25. The vertical distance between the average variable cost and average total cost curves
A. is everywhere equal to total fixed costs.
B. is everywhere equal to marginal cost.
C. increases at a decreasing rate.
**D.** decreases as quantity increases.

26. Output for a simple production process is given by Q = 2KL, where K denotes capital, and L denotes labor. The price of capital is $25 per unit and capital is fixed at 8 units in the short run. The price of labor is $5 per unit. What is the total cost of producing 80 units of output?
A. $525
B. $200
C. $233
D. $185
**E.** none of the above

27. The vertical distance between the average total cost and the average variable cost curves at any level of output will always be
A. variable cost.
**B.** average fixed cost.
C. fixed cost less variable cost.
D. total cost less fixed cost.

28. Geometrically, marginal cost at any level of output may be interpreted as the slope of
A. a ray to the total cost curve at that level of output.
B. the total variable cost curve at that level of output.
C. the total cost curve at that level of output.
D. the isoquant at that level of output.
**E.** both b and c.

29. When marginal cost is greater than average total cost,
A. average total cost must be increasing with output.
B. average variable cost must be increasing with output.
C. average fixed cost must be increasing with output.
**D.** Both A and B will be true.

30. The long-run total cost of zero output is equal to
A. variable cost.
B. fixed cost.
**C.** zero.
D. the marginal revenue product of labor.

31. Markets characterized by declining long-run average costs are often referred to as
A. perfect competition.
B. diseconomies of scale.
**C.** natural monopolies.
D. nonprofit organizations.

32. ATC equals
A. AVC + AFC.
B. TC/Q.
C. (TFC + TVC)/Q.
**D.** all of the above.

33. Let the TC curve be given by the equation TC(Q) = 20 + 5Q. The variable cost curve can be expressed as
A. 20 + 5Q.
B. 20.
**C.** 5Q.
D. 5.
E. it cannot be determined from the information given.

34. Let the TC curve be given by the equation TC(Q) = 10 + 5Q. The average total cost can be expressed as
A. 10.
**B.** (10/Q)+5.
C. 10 + (5/Q).
D. none of the above.

35. Which of the following is not a condition for perfect competition?
A. firms take prices as given
B. firms sell a standardized product
**C.** firms are protected by barriers to entry
D. firms have perfect information
E. None of the above are good answers because all are necessary perfect competition conditions.

  

36. In the graph above at a price of P\*, the profit maximizing level of output is
**A.** Q\*.
B. above Q\*.
C. below Q\* but above zero.
D. zero.

 37. In the graph above at P\*, the firm is making \_\_\_\_\_\_\_\_\_\_economic profits.
A. positive
**B.** negative
C. zero
D. an indeterminate level of.

38. In the graph above if the price persists at P\*, the profit maximizing firm will
A. shut down immediately.
**B.** shut down in the long run.
C. operate indefinitely.
D. has a strategy that cannot be predicted without an ATC curve.

39. The demand curve facing a perfectly competitive firm is
**A.** infinitely elastic.
B. perfectly inelastic.
C. downward sloping.
D. none of the above.

 Joe is self-employed in a store that has a rental value of $500 a month which he pays, but he can vacate the building without giving notice. His other expenses are $100 a month for maintenance. He makes $25,000 a year on net sales (total revenue minus the wholesale cost of the product). If he quit his job and worked the same number of hours elsewhere at a job he liked equally well, he estimates that he could make $20,000 a year. No one else can be hired to work in the store.

40. Joe should
**A.** quit his job.
B. keep the job.
C. work part-time.
D. none of the above.

41. At the output where MC = ATC = P, the firm
A. should shutdown.
**B.** has no economic profit.
C. is profit maximizing.
D. should raise output.

 In questions 42–44 we assume that the market these firms operate on is perfectly competitive.

  

42. In the above diagram profit is maximized at point
A. A.
B. B.
**C.** C.
D. D.

43. In the long run
A. the firm will operate at point B.
B. the firm will operate at point C.
C. the firm will operate at point D.
**D.** the total revenue curve will change its slope.

44. At point A
A. MC = MR.
B. the firm is making negative economic profit.
C. the firm could do better by shutting down.
**D.** all of the above are true.

45. In a competitive industry the industry's short-run supply curve is
**A.** the horizontal sum of the marginal cost curves.
B. the vertical sum of the marginal cost curves.
C. determined by the average total cost curve.
D. none of the above.

 46. Producer surplus is given by
**A.** the area above the supply curve but below the price.
B. the area below the supply curve.
C. the area below the demand curve but above the price.
D. none of the above.

47. The elasticity of supply is given by
A. 
**B**. 
**C**. .
D. all of the above.

 48. Given the following two points on a supply curve (P = 10, Q = 5; and P = 12, Q = 8), what is the approximate arc elasticity?
A. .4
**B.** 2.54
C. 1
D. none of the above

49. If a firm is producing where its LMC = price and the LMC is equal to LAC, then it would do better in the long run by
A. increasing output with its existing plant until LMC equals price.
B. increasing plant size until LMC and SAC are identical and equal to price.
C. decreasing plant size until LAC, SAC and price are equal.
**D.** changing nothing because it is already at the long run profit maximizing point.

50. I get $200 revenue from the sale of my product each day. I rent the factory that I use for $90 a day. The raw materials of the operation cost $115 a day. I do all the work myself. Recently, a competitor offered me $30 a day to work for him. Both jobs are equally attractive as far as the work is concerned. My accounting profit is \_\_\_\_\_, and my economic profit is \_\_\_\_\_\_.
**A.** -5, -35
B. -35, -35
C. 25, -5
D. 110, -30.