

ECON 221: PRACTICE EXAM 2

Answer all of the following questions.

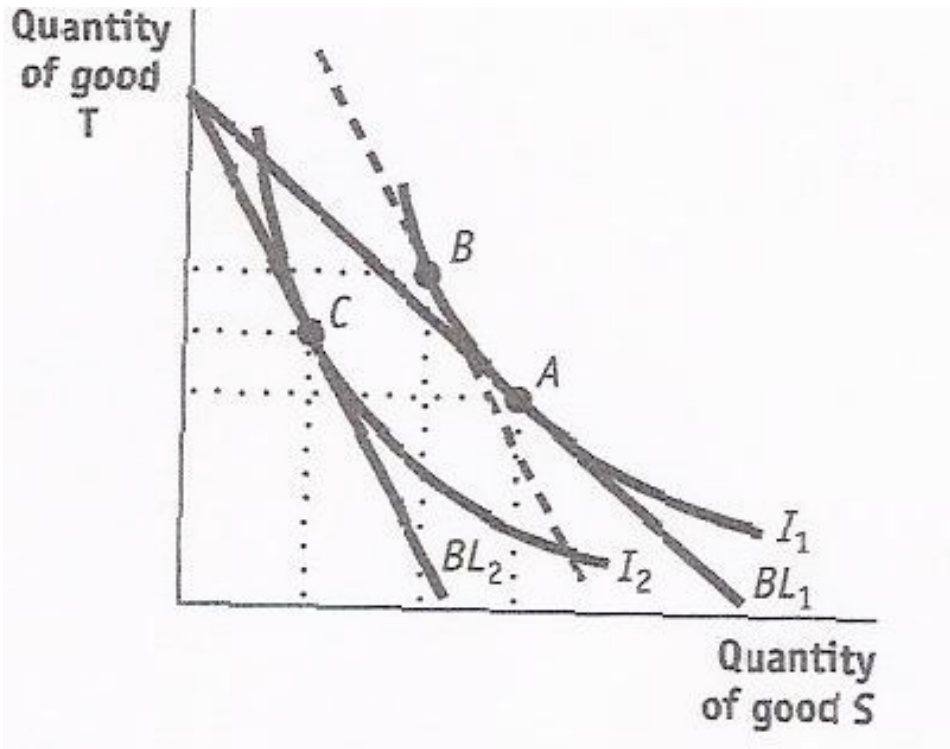
Use the following information to answer the questions below.

Labor	Q	TC	TVC	AC	AVC	MC
0	0	100	0	--	--	
1	10	110	10	11	1	
2	25	120	20	4.8	.8	
3	35	130	30	3.71	.85	
4	40	140	40	3.5	1	
5	42	150	50	3.57	1.19	

- The marginal product of the third worker is:
 - 3
 - 10
 - 25
 - 35
 - 50
- How much are the fixed costs per unit of labor?
 - 50
 - 100
 - 150
 - 200
 - 250
- Which of the following statements accurately describes the relationship between average product (AP) and marginal product (MP)?
 - AP rises when MP is above it, and falls when MP is below it
 - MP intersects AP at the maximum of MP
 - AP and MP are always parallel to each other
 - AP and MP are either both rising or both falling at all levels of labor
 - AP is always rising when MP is falling and vice versa
- Under standard assumptions, which of the following is *not* a property of indifference curves?
 - They are downward sloping and convex
 - They fill the plane and never cross
 - Their slope is equal, in magnitude, to the relative prices of the goods
 - Baskets on indifference curves further away from the origin provide more satisfaction than those, which are close to the origin.
- An indifference curve shows the bundles of goods which
 - Have the same marginal values
 - The consumer can purchase, given his income and the prices he faces.
 - Are the most preferred of the baskets within his budget
 - Are all equally desirable, providing the consumer with some fixed level of satisfaction.

6. Increasing returns to labor exist when
1. At least one factor, such as capital, is fixed and the variable marginal product of labor increases as the use of labor is increased.
 2. One production task is performed and so all the workers can specialize in that one task.
 3. The gains from teamwork are exhausted
 4. Total product is just about to reach its maximum
 5. Average product of labor is at its maximum

Use the graph below to answer questions 7-9. It shows an increase in the price of good S.



7. What is the horizontal distance of the substitution effect?
1. AC
 2. BC
 3. AB
 4. BA
 5. None of the above
8. What is the horizontal distance of the income effect?
1. AC
 2. BC
 3. AB
 4. BA
 5. None of the above
9. The graph indicates that good S is
1. A normal good
 2. An inferior good
 3. A Giffen good
 4. None of the above

10. The law of diminishing returns, as encountered when facing diminishing returns to labor, says that
1. As we continually add variable inputs to a fixed amount of other resources, output eventually increases at a decreasing rate.
 2. As plant size is increased, costs fall.
 3. As fixed inputs are increased, implicit costs rise.
 4. Teamwork and specialization really never exist.
 5. Marginal costs fall as we attempt to produce more output using the same amount of fixed inputs.

Juan Gonzalez saved \$50,000 to start the J.G. Home Remodeling Company. He quit a job that paid \$60,000 per year, rented a furnished showroom for \$15,000 for the year, purchased \$50,000 in capital equipment (an amount that could have earned an annual rate of interest of 5%), and incurred costs of \$25,000 for secretarial help and advertising. In his first year, his revenue was \$100,000. Use this information to answer questions 8-10.

11. What are the implicit costs of the J.G. Home Remodeling Company?

1. \$5,000
2. \$25,000
3. \$60,000
4. \$62,500

12. The economic profit of the J.G. Home Remodeling Company is

1. \$60,00
2. \$40,000
3. \$0
4. -\$2,500

13. The accounting profit of the J.G. Home Remodeling Company is

1. \$100,000
2. \$60,000
3. \$40,000
4. \$0

14. Suppose the budget line for a consumer shifts outward with no change in slope. If the quantity consumed of one good decreases, we can conclude that:

1. It has no close substitutes
2. The price of that one good must have risen
3. It is an inferior good
4. It is a normal good
5. Demand for that good is highly elastic

15. If preferences are complete and transitive:

1. The indifference curves must be upward sloping
2. The indifference curves cannot intersect
3. The indifference curves must be convex to the origin
4. The indifference curves must be straight lines
5. The indifference curves must be "L" shaped.

16. The difference between average total cost and average variable cost:

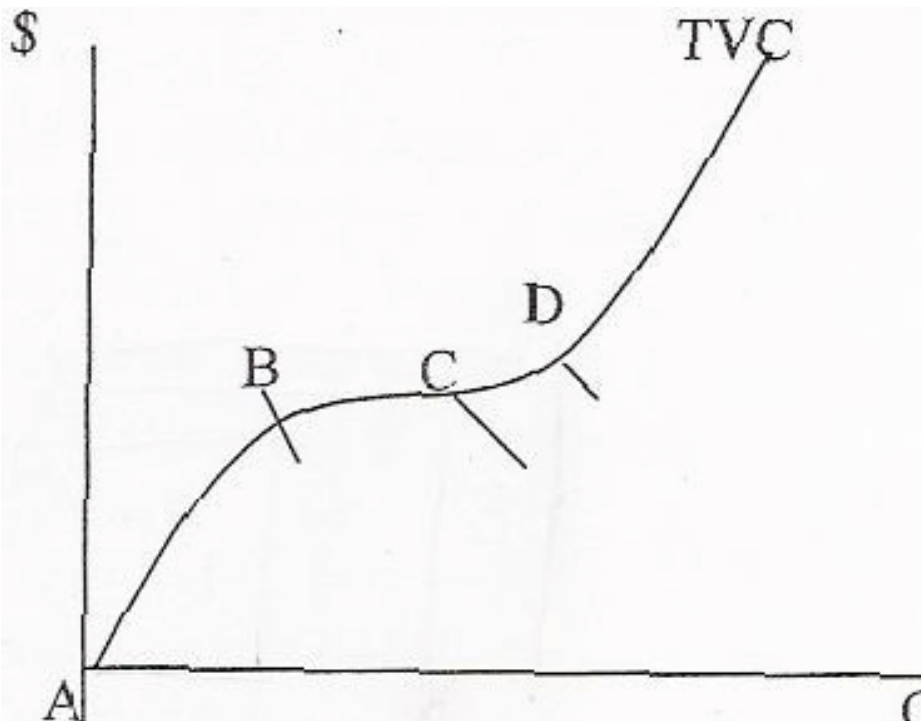
1. Is constant with respect to output
2. Is equal to total fixed cost
3. Is equal to marginal cost
4. Is negative
5. None the above

17. Which bundle on a given indifference curve will be preferred by a consumer?

1. The bundle located farthest from the origin
2. The bundle located closest to the origin
3. A bundle that has more of both goods
4. All bundles on the indifference curve are equally desirable, so no point is preferred to another on a given curve.

18. In the figure below, you are given the total variable cost curve (TVC). Marginal costs are minimized at:

1. Point A
2. Point B
3. Point C
4. Point D
5. None of the above



19. When average variable costs are falling, which of the following is **NOT** true:

1. Average fixed cost is decreasing
2. Marginal cost is below average variable cost
3. Average product is increasing
4. Marginal product is above average product
5. Marginal product is totally decreasing

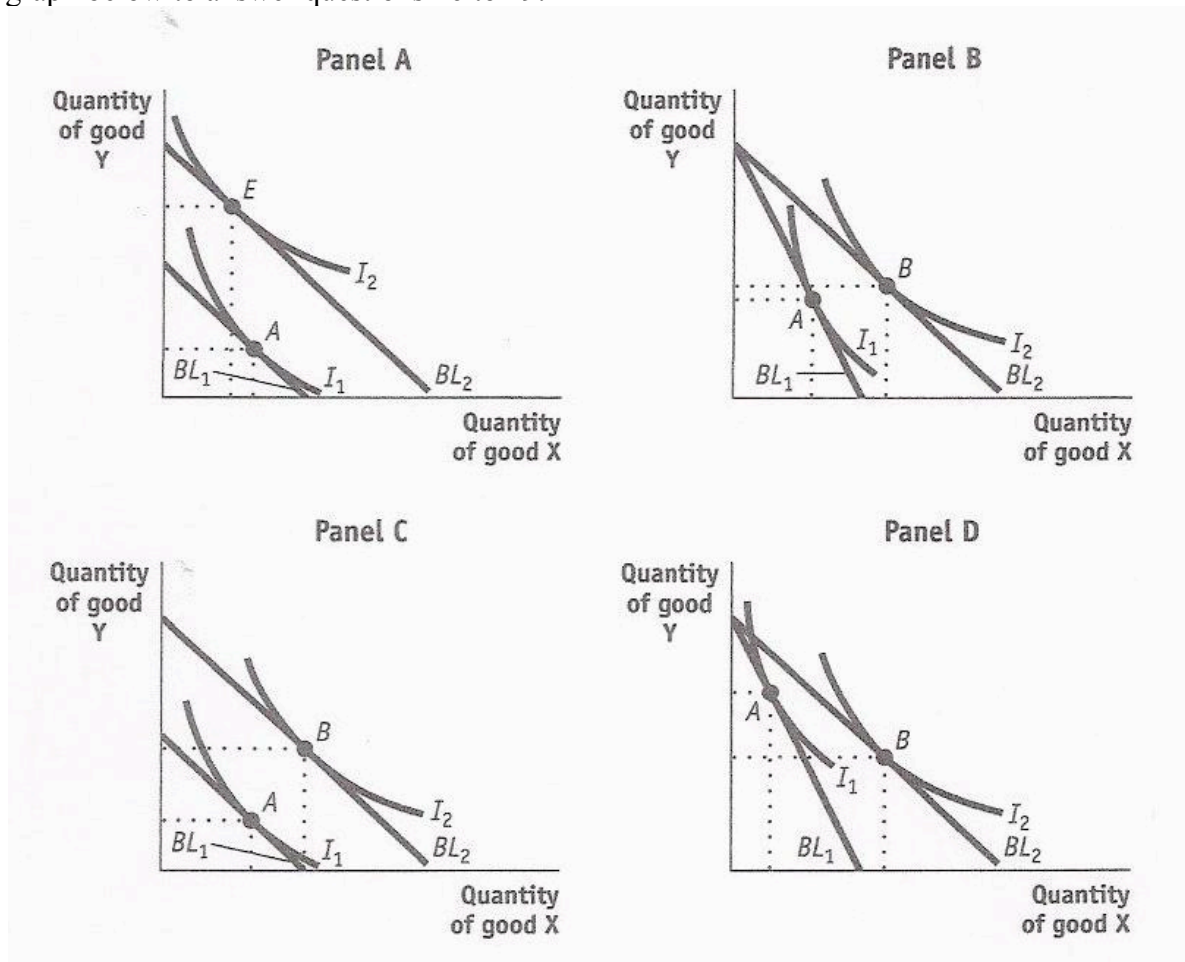
20. When the substitution and income effect move in the opposite direction but the income effect dominates the substitution effect, what type of good is being considered?
1. Normal good
 2. Giffen good
 3. Inferior Good
 4. Substitute good
 5. Complement Good
21. Consider consumer choice between consumption of housing, a normal good, and consumption of all other goods. When the price of housing increases
1. The income effect and substitution both increase the consumption of housing
 2. The income effect increases consumption of housing while the substitution effect decreases the consumption of housing
 3. The income effect decreases the consumption of housing while the substitution effect increases the consumption of housing
 4. The income and substitution effect both decrease the consumption of housing
 5. None of the above

Number of Workers	Total Gyros per Hour
1	4
2	10
3	17
4	22
5	25

22. The table above provides the total number of workers and the resulting total output of Gyro's Unlimited per hour, holding all other inputs constant. Which of the following statements can be made with certainty based on the available information?
1. The firm faces decreasing returns to scale
 2. Diminishing marginal returns begin when the second worker is hired
 3. The firm faces increasing returns to scale
 4. The firm should not hire 5 workers
 5. Diminishing marginal returns begin with the fourth worker hired
23. At the point where a straight line from the origin is tangent the total variable cost curve,
1. Marginal cost is greater than average variable cost
 2. Marginal cost equals average variable cost
 3. Marginal cost is less than average variable cost
 4. Average cost is minimized

24. Which of the following is most likely to be an implicit cost of the Doxie Bun Dog Bed Co.?
1. The liability insurance premiums that the company must pay to protect itself against a worker or someone else being injured.
 2. The cost of materials.
 3. The per-hour wages paid to factory workers.
 4. The costs of shipping the dog beds produced to retailers.
 5. The value of the time the kids of the owner spend working in the factory.
25. Emma has weekly income of \$200. A textbook costs \$50 and a pad of paper \$1. When Emma's budget line is drawn with textbooks on the horizontal axis,
1. The horizontal intercept is 200 pads of paper
 2. The slope of the budget line is \$200
 3. The horizontal intercept is 4 textbooks
 4. The budget line shows that Emma cannot buy 3 textbooks
 5. The vertical intercept is 4 textbooks

Use the graph below to answer questions 26 to 29.



26. Which panel shows an increase in income when good X and good Y are both normal goods?
1. Panel A
 2. Panel B
 3. Panel C
 4. Panel D
 5. None of the above

27. Which panel shows an increase in income when good X is an inferior good and good Y is a normal good?
1. Panel A
 2. Panel B
 3. Panel C
 4. Panel D
 5. None of the above
28. Which panel shows a decrease in the price of good X when good Y is a normal good?
1. Panel A
 2. Panel B
 3. Panel C
 4. Panel D
 5. None of the above
29. Which panel shows a decrease in the price of good X when good Y is an inferior good?
1. Panel A
 2. Panel B
 3. Panel C
 4. Panel D
 5. None of the above
30. Cecilia sees hamburgers and hot dogs as perfect substitutes. She will always substitute one hamburger for one hot dog regardless of how many hot dogs or hamburgers she is already purchasing. If the price of a hamburger is greater than the price of a hot dog, Cecilia will
1. Buy mostly hot dogs and very few hamburgers
 2. Buy all hot dogs and no hamburgers
 3. Buy most hamburgers and very few hot dogs
 4. Be indifference to the combination of hamburgers and hot dogs that she buys
31. As output increases, the vertical distance between the firm's TC curve and its TVC curve:
1. Will decrease
 2. Will stay the same
 3. Will increase
 4. Will increase and then decrease
 5. Will vary according to what is happening to average fixed cost
32. When the price of an orange falls, the income effect
1. Increases the consumption of oranges if oranges are a normal good
 2. Increases the consumption of oranges if oranges are an inferior good
 3. Always increase the consumption of oranges
 4. Always decrease the consumption of oranges
 5. None of the above
33. Over the range of output where the MP curve slopes upward, the
1. MC curve slopes downward
 2. AFC curve slopes upward
 3. Firm is experiencing economies of scale
 4. Firm is experiencing diseconomies of scale
 5. Total cost curve slopes downward

34. The LRAC curve,
1. Equals the minimum points on all the SRAC curves.
 2. Equals the lowest possible marginal cost of producing different levels of output
 3. Equals the lowest attainable average total cost for all levels of output when all inputs can be varied
 4. Generally lies above the short-run ATC curves.
35. When a firm is experiencing economies of scale,
1. The marginal product curve slopes upward
 2. The intersection of SRAC and LRAC is below capacity
 3. Diminishing returns to labor have been suspended
 4. The MC curve slopes downward
 5. The intersection of SRAC and LRAC is above capacity

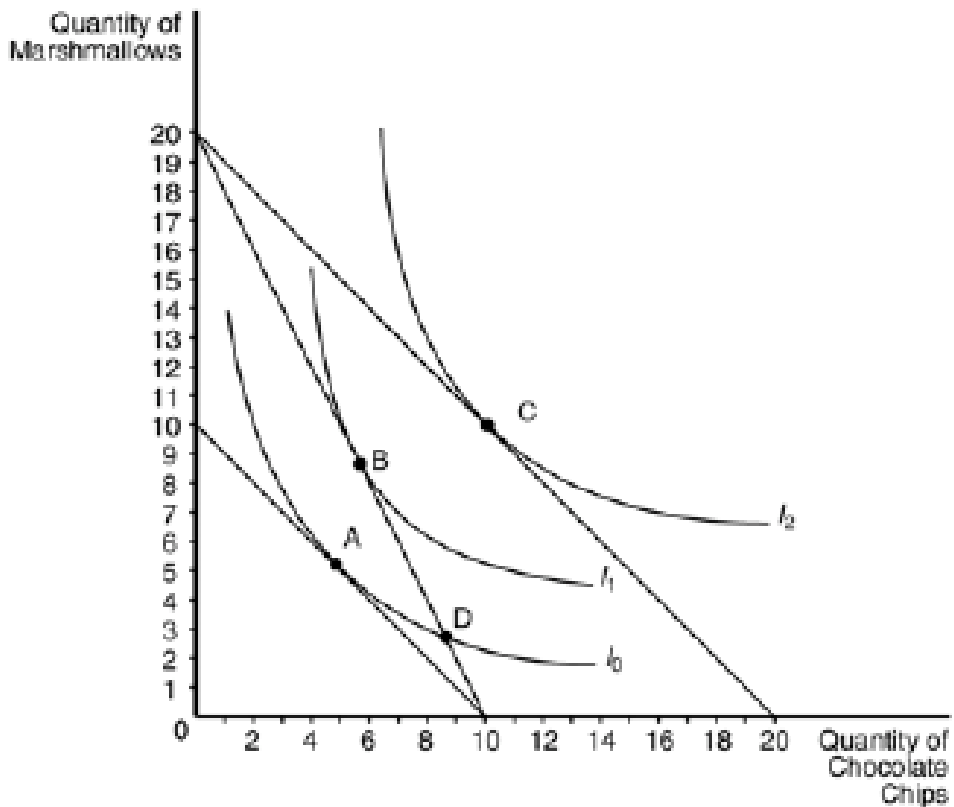
The following table shows four methods of production photon torpedoes. Use the information in the table to answer the next three questions.

Method	Labor	Capital
1	5	10
2	10	7
3	15	5
4	20	5

36. Which is the most technologically inefficient method of making a photon torpedo?
1. Method 1 only
 2. Method 2 only
 3. Method 3 only
 4. Method 4 only
 5. None of the methods
37. If labor costs are \$10 per unit and capital is \$20 per unit, which is an economically efficient method of making a photon torpedo?
1. Method 1 only
 2. Method 2 only
 3. Method 3 only
 4. Method 4 only
 5. All four methods are economically efficient
38. In a production process, if all the inputs are increased by 20% and output increases by more than 20%, the firm is experiencing
1. Increasing returns to scale
 2. Decreasing returns to scale
 3. Constant returns to scale
 4. None of the above

39. When long-run average costs increase when output increases, there definitely are
1. Economies of scale
 2. Diseconomies of scale
 3. Diminishing returns
 4. Constant returns to scale
 5. None of the above
40. If a firm's marginal product of labor is greater than its average product of labor, then an increase in the use of labor necessarily will
1. Reduce its total product
 2. Raise its average product of labor
 3. Raise its marginal product of labor
 4. Not change its average product of labor
 5. Reduce its marginal product of labor

Use the graph below to answer question 41.



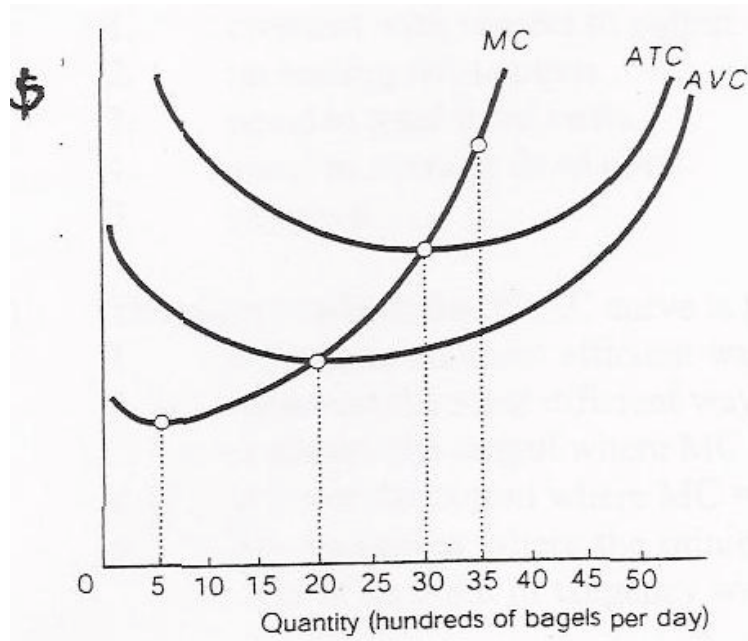
41. Assume that the consumer depicted above has an income of \$100 and currently optimizes at point A. When the price of marshmallows falls to \$5, the optimizing consumer will choose to purchase how many units of marshmallows?
1. 20
 2. 10
 3. 9
 4. 4

42. If a firm is earning zero economic profits,
1. Its revenues are sufficient to pay its explicit costs but not its implicit costs
 2. The owner will not be able to pay him or herself a salary
 3. It will shutdown in the long run but will continue to operate in the short run
 4. The owners are earning a return on their time and investment that is equal to its opportunity costs of that time and investment
 5. Its revenues are sufficient to pay its fixed costs but not its variable costs
43. A 30% increase in both the prices of good X and good Y will
1. Will leave the position of the budget line unchanged
 2. Will cause the budget line to shift out parallel to itself
 3. Will cause the budget line to shift in parallel to itself
 4. Will make the budget line shallower
 5. Will make the budget line steeper
44. Right angled indifference curves
1. Are never encountered
 2. Indicate that the goods in question are perfect substitutes
 3. Indicate that the goods in question must be consumed in fixed proportions
 4. Suggest that indifference curves will intersect
 5. Indicate that the two goods are inferior goods
45. The formula for a budget line can be written:
1. $M = -P_x X + P_y Y$
 2. $M = -\frac{P_x}{P_y} X + \frac{M}{P_y}$
 3. $Y = -\frac{P_x}{P_y} X + \frac{M}{P_y}$
 4. $Y = -\frac{P_x}{P_y} X + \frac{M}{P_x}$
 5. 1 and 3 above

Harry Hollywood has \$50 per week to spend on movie tickets and rentals; the price of a movie ticket is \$10 and plotted on the horizontal axis and the price of a movie rental (DVD or video) is \$5 and is plotted on the vertical axis.

46. If we measure movie rentals on the horizontal axis and movie tickets on the vertical axis, what is the slope of the budget line?
1. 1/5
 2. 1/2
 3. -1/2
 4. -2
47. The quantity demanded of an inferior good increases as its price falls because
1. The substitution effect and the income effect move in the same direction
 2. The substitution effect dominates the income effect
 3. The income effect dominates the substitution effect
 4. None of the above

Use the graph below to answer questions 48 and 49.



48. For which of the following levels of output does the average product exceed the marginal product of labor by the most?
1. At 500 bagels daily
 2. At 2000 bagels daily
 3. At 3500 bagels daily
 4. All of the above
49. For which of the following levels of output does the marginal product exceed the average product of labor by the most?
1. At 500 bagels daily
 2. At 2000 bagels daily
 3. At 3500 bagels daily
 4. None of the above
50. When the marginal product of labor is greater than the average product of labor, what MUST be the case?
1. Average product is falling
 2. Average variable and average total cost are falling
 3. Average variable and average total cost are rising
 4. Marginal cost is rising throughout the relevant range
 5. None of the above