



AP[®] Microeconomics 2005 Free-Response Questions Form B

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2005 AP[®] MICROECONOMICS FREE-RESPONSE QUESTIONS (Form B)

MICROECONOMICS

SECTION II

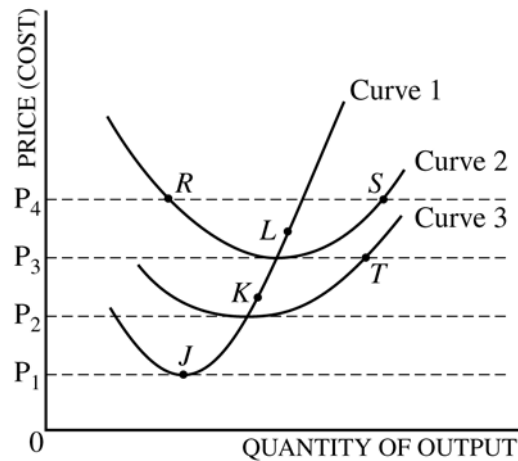
Planning time—10 minutes

Writing time—50 minutes

Directions: You have fifty minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. Use a pen with black or dark-blue ink.

1. Petsall Corporation is a profit-maximizing monopolist. It sells a patented rabies vaccine for pets and earns economic profits.
 - (a) Draw a correctly labeled graph that shows each of the following for Petsall.
 - (i) Output and price of the vaccine
 - (ii) Area of economic profits
 - (b) Assume that Petsall hires its production workers in a perfectly competitive labor market at the wage rate of \$20 per hour.
 - (i) State the marginal conditions for hiring the profit-maximizing amount of labor.
 - (ii) Draw a correctly labeled graph that shows the labor supply and demand curves for Petsall and indicate the profit-maximizing quantity of labor.
 - (c) Suppose that the market wage rate now falls to \$15 per hour. Show on your diagram in (b) (ii) how each of the following would be affected.
 - (i) The supply of labor to Petsall
 - (ii) The amount of labor Petsall would hire
 - (d) Given the lower wage rate in (c), indicate how each of the following would change.
 - (i) Total fixed cost
 - (ii) Marginal cost
 - (iii) Price of the product

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2. The graph above shows the short-run cost structure of a firm in a perfectly competitive industry.
- Identify the cost curves that are denoted by each of the following labels.
 - Curve 1
 - Curve 2
 - Curve 3
 - Explain why curve 1 does each of the following as output increases.
 - Initially decreases
 - Finally increases
 - What measure of cost is represented by the vertical distance between curve 2 and curve 3?
 - Explain why the vertical distance between curve 2 and curve 3 decreases as output increases.
 - Using the letters on the graph, identify two points on the firm's short-run supply curve.

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3. Assume that bread and butter are complementary goods. The government begins to subsidize the production of wheat, which is an input in the production of bread.
- (a) For each of the following markets, draw correctly labeled supply and demand graphs and show the effect of the subsidy on the equilibrium price and quantity in the short run.
- (i) The wheat market
 - (ii) The bread market
 - (iii) The butter market
- (b) If the demand for bread is price elastic, how will total revenues for the bread producers change as a result of the government subsidy?

END OF EXAMINATION