



AP[®] Microeconomics 2004 Free-Response Questions

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2004 AP[®] MICROECONOMICS FREE-RESPONSE QUESTIONS

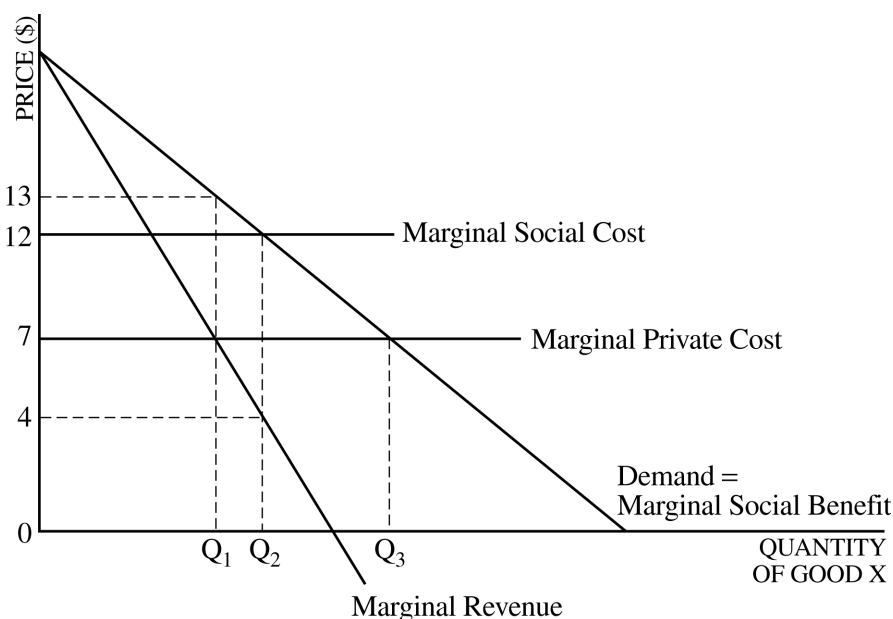
MICROECONOMICS

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.

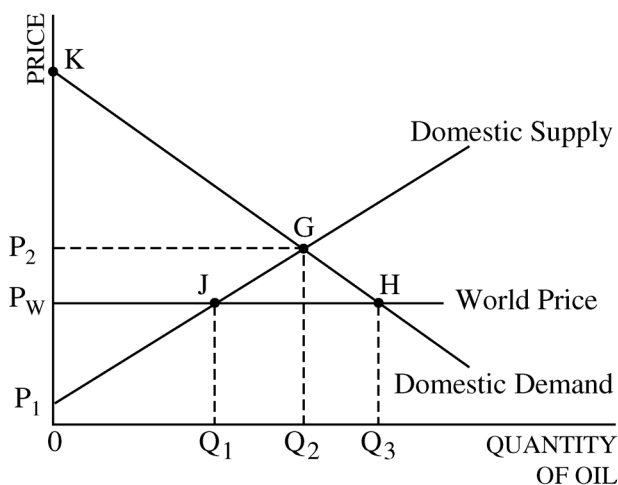


1. The production of good X creates an externality. The following questions are based on the graph above, which shows the marginal revenue, marginal social benefit, marginal private cost, and marginal social cost associated with the production of good X.
 - (a) Is the externality positive or negative? Explain.
 - (b) Using labeling from the graph above, identify the socially optimum output. Explain how you determined your answer.
 - (c) Suppose that good X is produced by a profit-maximizing monopoly. Answer each of the following.
 - (i) Using labeling from the graph above, identify the unregulated firm's output. Explain how you determined your answer.
 - (ii) To produce the socially optimum output, indicate whether the government should tax or subsidize the firm.
 - (iii) Calculate the dollar value of the needed per-unit tax or subsidy.

QUESTION 1 CONTINUES ON PAGE 3.

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- (d) Suppose that good X is produced in a perfectly competitive industry. Answer each of the following.
- (i) Using labeling from the graph on the previous page, identify equilibrium output in the absence of regulation. Explain how you determined your answer.
 - (ii) To produce the socially optimum output, indicate whether the government should tax or subsidize the firms in the industry.
 - (iii) Calculate the dollar value of the needed per-unit tax or subsidy.



2. The graph above shows the demand for oil by United States residents, the supply of oil by United States producers, and the world price of oil. Use the labeling of the graph to answer the following questions.
- (a) Identify the following before international trade occurs.
 - (i) Price of oil in the United States market
 - (ii) Quantity of oil produced in the United States
 - (b) Now assume that the United States begins to import oil at the world market price of P_w . Identify the quantity imported by the United States.
 - (c) Identify the consumer surplus in the United States market for each of the following cases.
 - (i) Before international trade
 - (ii) After international trade
 - (d) Identify the producer surplus in the United States market for each of the following cases.
 - (i) Before international trade
 - (ii) After international trade
 - (e) Identify the net gain in total surplus from trade.

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3. Assume that a profit-maximizing firm in a monopolistically competitive industry is in long-run equilibrium.
- (a) Draw a correctly labeled graph that shows the profit-maximizing firm's price and output.
 - (b) Assume that the city in which this industry operates eliminates the business license fee (a fixed cost) for all firms in this industry. How does the elimination of the license fee affect each of the following for the individual firm in the short run? Explain your answers.
 - (i) Output
 - (ii) Economic profits

END OF EXAMINATION