AP® Microeconomics
2007 Free-Response Questions
Form B

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MICROECONOMICS

Section II

Planning time—10 minutes

Writing time—50 minutes

Directions: You have 50 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. Assume that the cellular telephone industry is monopolistically competitive.

   (a) Assume that cellular telephone manufacturers are earning short-run economic profits. Draw a correctly labeled graph for a typical firm in the industry and show each of the following.

      (i) The profit-maximizing output and price

      (ii) The area representing economic profit

   (b) At the profit-maximizing price you identified in part (a), would the typical firm's demand curve be price inelastic? Explain.

   (c) Given the information in part (a), what happens to the demand curve for the typical firm in the long run? Explain.

   (d) Using a new correctly labeled graph, show the profit-maximizing output and price for the typical firm in the long run.

   (e) Does the typical firm produce an output level that minimizes its average total cost in the long run?

   (f) In long-run equilibrium, does the typical firm produce the allocatively efficient level of output? Explain.

GO ON TO THE NEXT PAGE.

2. Two airline companies, Airtouch and Windward, operate a route from City X to City Y, transporting a mix of passengers and freight. They must file their schedules with the National Transportation Board each year and cannot alter them during that year. Those schedules are revealed only after both companies have filed. Each airline must choose between a morning and an evening departure. The relevant payoff matrix appears below, with the first entry in each cell indicating Airtouch's daily profit and the second entry in each cell indicating Windward's daily profit.

		Windward	
		Morning	Evening
Airtouch	Morning	\$1,000, \$700	\$700, \$600
	Evening	\$750, \$950	\$900, \$800

(a) In which market structure do these firms operate? Explain.

(b) If Windward chooses an evening departure, which departure time is better for Airtouch?

(c) Identify the dominant strategy for Windward.

(d) Is choosing an evening departure a dominant strategy for Airtouch? Explain.

(e) If both firms know all of the information in the payoff matrix but do not cooperate, what will be Windward's daily profit?

3. For each of the following statements, indicate whether it is true, false, or uncertain and explain why.

(a) Average total cost is always greater than average variable cost by a constant amount.

(b) In the short run, a perfectly competitive firm always maximizes profit when average total cost is at minimum.

(c) If a firm shuts down in the short run, its profits will equal zero.

STOP

END OF EXAM