2026

AP® Microeconomics

Free-Response Questions

MICROECONOMICS
SECTION II
TIME – 1 HOUR

Directions:

Section II has 3 questions and lasts 1 hour.

You may use the available paper for scratch work and planning, but only work written in the free-response booklet will be scored. Any work done on scratch paper will not be scored. Label parts (e.g., A, B, C) and sub-parts (e.g., i, ii, iii) as needed. Use a pencil or a pen with black or dark blue ink to write your responses.

Include correctly labeled graphs, if useful or required, in explaining your answers. A correctly labeled graph must have all axes and curves clearly labeled and must show directional changes. If the question prompts you to "Calculate," you must show how you arrived at your final answer.

A calculator is allowed in this section. You may use a handheld calculator that is approved for this exam or the calculator available in this application.

You may pace yourself as you answer the questions in this section, or you may use these optional timing recommendations:

It is suggested that you spend the first 10 minutes reading all of the questions and planning your answers. Then, it is suggested that you spend about 25 minutes on question 1 and about 12 minutes each on questions 2 and 3.

You can go back and forth between questions in this section until time expires. The clock will turn red when 5 minutes remain—**the proctor will not give you any time updates or warnings.**

Note: This exam was originally administered digitally. It is presented here in a format optimized for teacher and student use in the classroom.

1. Feram and Ocel are the only two steel manufacturers in the region. Feram is deciding whether to transport its steel with Truck or Rail. Ocel is deciding whether to produce its steel as Sheets or Beams. The payoff matrix shows the payoffs for each combination of strategies. The first entry in each cell shows Feram's profit, and the second entry shows Ocel's profit. Each firm independently and simultaneously chooses its strategy. Assume that Feram and Ocel know all the information in the matrix and do not cooperate.

		Ocel	
		Sheets	Beams
Feram	Truck	\$40 million, \$95 million	\$20 million, \$125 million
	Rail	\$50 million, \$75 million	\$30 million, \$25 million

Part A

What is Feram's most profitable strategy if Ocel chooses to produce Sheets?

Part B

Does Ocel have a dominant strategy? Explain using numbers from the payoff matrix.

Part C

Identify the Nash equilibrium (or equilibria) for this game, or state that none exists.

Part D

Suppose Feram incurs a \$20 million increase in the cost of Rail transport, with no change in the cost of Truck transport. Redraw the payoff matrix, including the firms, strategies, and payoffs, showing how the \$20 million increase in the cost of Rail transport affects the payoff matrix.

Part E

Suppose instead that Feram and Ocel now cooperate and merge into one new firm, Acier, which is now the only producer of steel in the region. Acier produces the profit-maximizing quantity of steel and is earning positive economic profit. Draw a correctly labeled graph for Acier, and show each of the following.

i. Acier's profit-maximizing quantity, labeled Q_1
ii. Acier's profit-maximizing price, labeled P_1
iii. The average total cost curve, labeled ATC, consistent with Acier earning positive economic profit
iv. The area of deadweight loss, shaded completely

Part F

Government regulators impose a lump-sum tax on Acier. In the short run, will Acier's profit-maximizing price of steel increase, decrease, or remain the same as a result of the lump-sum tax? Explain.

2. The table shows Protecto's short-run cost schedule of producing helmets.

Quantity of Helmets	Total Cost ($)	Marginal Cost ($)
4	200	30
5	235	35
6	275	40
7	320	45
8	375	55
9	440	65
10	520	80

Protecto produces and sells as many helmets as it wants at a market price of $60 each, and Protecto's fixed cost is $80.

Part A

Identify the market structure in which Protecto sells helmets.

Part B

Calculate Protecto's average variable cost when it produces 4 helmets. Show your work.

Part C

Calculate Protecto's economic profit when it sells 5 helmets. Show your work.

Part D

Identify Protecto's profit-maximizing quantity of helmets. Explain your answer using marginal analysis and numbers.

Part E

Protecto is earning positive economic profit in the short run. As the market for helmets adjusts to long-run equilibrium, will the market price of helmets increase, decrease, or remain the same? Explain.

3. In Gurkeland, the domestic market for cucumbers is characterized by a downward-sloping demand curve and an upward-sloping supply curve, and the market for cucumbers is currently in equilibrium at a price of $20 per bushel.

Part A

Draw a correctly labeled graph of the market for cucumbers and show the equilibrium price, labeled $20, and the equilibrium quantity, labeled Q_1.

Part B

Suppose that Gurkeland engages in free trade with other countries and that the world price of cucumbers is $10 per bushel.

i. On your graph in part A, show the world price of cucumbers, labeled $10, and the quantity of cucumbers sold by domestic producers, labeled Q_2.

ii. Will total economic surplus in Gurkeland increase, decrease, or remain the same after engaging in free trade?

Part C

Now suppose that the government of Gurkeland imposes a $5 tariff per bushel on the import of cucumbers.

i. On your graph in part A, show the new quantity of cucumbers, labeled Q_3, that will be sold by domestic producers as a result of the $5 tariff imposed on the import of cucumbers.

ii. As compared with the free trade described in part B, will domestic producer surplus in the market for cucumbers increase, decrease, or remain the same as a result of the $5 tariff imposed on the import of cucumbers? Explain.

STOP

END OF EXAM