

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 150 points (to be scaled up to 230 points) and is scheduled to take 75 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (12 points) Answer EITHER Part A OR Part B.

A) Explain why the leader in the Von Stackelberg model earns more profit than the follower and more profit than in the Cournot-Nash model.

B) What is a *bilateral monopoly*? Why are there no models of it that I am aware of?

2) (18 points) Answer EITHER Part A OR Part B.

A) Draw the MB/S diagram for a monopsony. Use it to find the equilibrium amount bought and the price paid. Explain how you found them.

B) Draw the D/MC diagram for a firm practicing first degree price discrimination. Find the quantity produced, consumer surplus, producer surplus, and dead weight loss. Explain how you found them.

3) (20 points) Answer EITHER Part A OR Part B.

A) Copy this payoff matrix into your bluebook. Find each of these if they exist: the Nash equilibrium(a), the dominant strategy(ies), cooperative output, and maximin strategies.

Briefly explain how you found each one.

B) Draw the best response function diagram for the Bertrand model when the two firms are producing

identical products. Explain why the two best response functions look as drawn. Where is the equilibrium? What is the economic reason for that outcome? Is the outcome desirable from society's view? Explain your logic.

		Warner Brothers		
		High Price	Med. Price	Low Price
Disney	High Price	15 22	14 17	16 20
	Low Price	8 23	15 19	13 6

4) (22 points) Answer EITHER Part A OR Part B.

A) Draw the *kinked demand curve*. Explain why it takes its shape. Find the equilibrium quantity produced and price charged. Explain how you got them. Illustrate on the graph and explain the economics of how a change in costs may not cause a change in quantity produced and price charged.

B) Draw the diagram for a dominant firm with a competitive fringe. Have the marginal cost curve be upward sloping. Use your diagram to find the quantity the dominant firm produces, the quantity the fringe produces, and the price charged. Explain how you found them.

5) (22 points) Answer EITHER Part A OR Part B.

A) Suppose a firm has no marginal costs of production. They offer to sell a ticket to the concert for

\$10/person and sell a ticket to the play for \$12/person. They also offer to bundle the two for \$14/person. Draw the diagram which will determine who will buy just the concert ticket, who will buy just the ticket to the play, who will buy the bundle, and who will buy anything. Explain how you found each area.

B) Suppose there is a Cournot duopoly with constant marginal costs of \$6/unit. The industry demand curve is given by $P = \$30 - \frac{1}{3}Q_I$. Find the best response functions, BRFs, and equilibrium quantities produced. Do not worry about drawing the BRFs. Draw the equilibrium industry demand, Firm 1's residual demand, and marginal cost curve. Explain how the quantity produced and price are seen on the graph.

6) (28 points) Answer EITHER Part A OR Part B.

A) Draw the demand/MC diagram for a firm which is doing third-degree price discrimination and has an upward sloping marginal cost curve. Find the total quantity produced, quantity sold in each of the two markets, and the prices charged in the two markets. Explain how you found all of them.

B) Draw the demand/MC diagram which has two factories with different upward sloping marginal cost curves. Find the total quantity produced, quantities produced in each factory, and the price charged. Explain how you found all of them.

7) (28 points) Answer EITHER Part A OR Part B.

A) Draw the D/MC/ATC diagram for a monopolistically competitive company which is losing money. Find the price charged and the quantity produced. State how you found them, and know they are losing money. What will happen over time? Illustrate that on the graph. Explain why the curve(s) moved as drawn and why the curve(s) stopped moving where you drew.

B) Draw the D/MC/ATC diagram for a monopoly with downward sloping MC and ATC curves. Suppose the government wanted to put a price ceiling. Illustrate how that could be used to get the company to produce more optimally. Explain how you found the quantity produced and the price charged. In the real world, the price ceiling is not so simple to implement. Explain why that is true.