

Write your name on the cover of the test booklet and nowhere else. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 14-point question should take 7 minutes. I cannot give extra time because the class that follows yours.

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

- A) The Cournot Duopoly we drew, was it a pure or differentiated oligopoly? How can you tell?
 B) The *kinked demand* model concludes that the firms are not likely to change their prices. If they do not compete through prices, then how might they compete?

2) (12 points) Answer EITHER Part A OR Part B.

- A) Monopolistically competitive is an oxymoron. Explain how those industries get that name.
 B) Draw the demand curve for a dominant firm with a competitive fringe. Explain why it takes that shape. DO NOT draw its marginal revenue curve.

3) (16 points) Answer EITHER Part A OR Part B.

- A) Suppose that an industry currently has a Herfindahl-Hirschman Index of 1000. Two firms, with 10% and 5% of the market are thinking about merging? If the Department of Justice follows its own guidelines, will they be allowed to merge? Show all work and explain how you reached your decision.
 B) The Department of Justice does not always follow its own guidelines. Use an example to explain why they may not.

4) (20 points) Use the payoff matrix below to find the following, if they exist: each players' dominant strategy, each players' secure strategy, the Nash equilibrium, and the cooperative equilibrium. Briefly explain how you got each one and show all work. You may write on the matrix itself.

| | | Mighty Mighty Bosstones | |
|----------------|----------------|-------------------------|--------------|
| | | High Price | Medium Price |
| Less Than Jake | Low Price | 1010 | 1020 |
| | Very Low Price | 980 | 750 |
| | | 540 | 600 |
| | | 1080 | |

5) (40 points) Answer EITHER Part A OR Part B.

- A) Suppose that the industry demand curve for a Cournot Duopoly is given by $P = 130 - (\frac{1}{2})Q$. The firms have a marginal cost curve given by $MC = 10$. Draw the industry demand and derive the firm demand curve. Use that diagram to derive one firm's best response function. Find the equilibrium outputs of the two firms, and the price they sell it for. Show all work and briefly explain what you did.
 B) Draw the SRATC/SRAVC/SRMC/D/MR diagram for a monopolistically competitive firm which is losing money but staying in business. State how you know they are losing money but staying in business. Show what will occur over time. Explain why the curve(s) moved as drawn. If the slope changed tell me why it changed, and if it did not change, tell me why it did not. Explain how you knew where to stop the curve(s) movement.