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 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 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (10 points) Answer EITHER Part A OR Part B.
A) Why do we call the demand for labor a "derived demand"?
B) How can repeating a game result in the parties choosing the cooperative solution even when it is not a Nash equilibrium? Explain your logic.

2) (20 points) 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 strategy. Briefly explain how you found each one.

		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

3) (20 points) Answer EITHER Part A OR Part B.
A) Draw an indifference curve/budget constraint diagram for income vs. leisure. Draw an increase in the wage rate. Explain why the line(s) moved as drawn. Given your diagram, are you in the upward sloping or the downward sloping part of the supply of labor curve? Explain your logic.
B) Draw two individual firms' demand for labor. Draw the sum of those two. Assume that they are representative of two firms are a perfectly competitive industry. (Ignore the problem that two firms is a duopoly and pretend they act as if they are perfectly competitive.) Why isn't the industry demand for labor the same as the third line you drew? Explain your logic including stating if the industry's labor demand is steeper or flatter than the summation.

4) (24 points) Answer EITHER Part A OR Part B.
A) Suppose there is an election. The challenger goes first. They have a choice of running an attack ad or running a nice ad. The incumbent then decides whether to run an attack ad or a nice ad. There is a fixed number of voters, so if one candidate gains a vote, then the other candidate loses a vote. If both run attack ads, then the incumbent gains two votes. If both run nice ads, the challenger gains a vote. If one runs an attack ad and the other runs a nice ad, the one running the attack ad will gain 100 votes. Do the extensive form (decision tree) of this game. Find the equilibrium. Explain how you found it.
B) For all auctions, the seller wants more bidders. Is this more important for a "common value auction" or a "private value auction"? Explain your logic. Suppose there is one person who values an item much more than the others. Would the seller want an "English auction" or a "Dutch auction"? Explain your logic. Make sure you define all four terms in quotations.

5) (26 points) Answer EITHER Part A OR Part B.
A) Draw the kinked demand curve diagram. Explain how you got the MR curve. Why does the MR curve take that strange shape? Use the diagram to show why firms may not change their prices even when their costs of production go up and go down. What is the economic reason for not changing the price charged?
B) Draw the industry demand, supply curve for the fringe, and marginal cost curve for the dominant firm facing a competitive fringe. Derive the dominant firm's demand and marginal revenue curves. Explain how you found them. Find their output, price charged, and the fringe's output. State how you found them.