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 240 points (to be scaled down to 240 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) Explain the difference between a Dutch auction and an English auction.
B) Explain the difference between diversifiable risk and non-diversifiable risk.

2) (12 points) Answer EITHER Part A OR Part B.
A) State the Coase Theorem. Explain why it might hold. (Do not worry about the flaws in the logic.)
B) A few schools have started to give some tuition deals where the student pays not tuition, but for the twenty years after graduation, they give the school 5% of their income. Explain the economics of why schools would do this.

3) (18 points) Answer EITHER Part A OR Part B.
A) Explain the difference between first degree and second degree price discrimination. Which one has production efficiency? Explain your logic.
B) What do the terms *parallel conduct* and *predatory pricing* mean? Why are they illegal?

4) (18 points) Answer EITHER Part A OR Part B.
A) Draw the diagram for a monopsony in raw materials. Explain why the curves have their names, how you found the quantity bought, and the price paid.
B) Draw the labor supply/demand diagram for a firm in a perfectly competitive output market. Draw another line on that graph which would be for a firm which is a monopoly in the output market. Explain why they are different.

5) (20 points) Answer EITHER Part A OR Part B.
A) Suppose you paid $5005 for a bond which has been around for a few years. It has a face value of $5000, a coupon rate of 6%, with interest paid annually, and a maturity date of 5/8/2025. Set up the present value calculation which you could use to find the rate of return you are getting. Briefly explain how you knew what to put in each entry. Without doing the calculation, is the return greater than 6%, equal to 6%, or less than 6%? Explain your logic.
B) Suppose you are deciding whether or not to build a factory. If you build the factory, it will cost you $10 million this year to build. For the next ten years, it will cost you $3 million per year to operate, but you will get $4 million in revenue. At the end of the ten years, you plan to sell it for $2 million. Set up the equation you could use to calculate the rate of return the factory gives you. Briefly state how you decided what goes where. How would you use that equation to figure out if the factory is worth it? Do not actually do the calculation.

6) (20 points) For EITHER technological efficiency OR production efficiency OR consumption efficiency, write the appropriate equation. Show it on an appropriate graph. Briefly explain how your graph shows that efficiency.

7) (20 points) Answer EITHER Part A OR Part B.
A) Draw the diagram for the monopsony. Find the quantity sold, price charged, producer surplus, consumer surplus, and deadweight loss. Briefly state how you found each of those values and why you labeled the lines what you did rather than MC, D, and something else.
B) Suppose two firms in an Cournot-Nash duopoly have constant marginal costs of $4/unit. The products are identical and the demand for the industry is given by $Q_I = 10 - \frac{1}{4}P$. Draw the diagram necessary to derive the reaction functions (a.k.a., best response functions). Explain how you got the diagram. Derive the best response functions but do **not** draw the reaction functions

8) (20 points) Answer EITHER Part A OR Part B.
A) Draw the MEC/MAC diagram for a pollutant. Explain why the curves take their shape. How do economists say is the best way to achieve the optimal level of pollution? Explain how that would achieve the optimal level of pollution. Why doesn't the current system used by the EPA achieve that? Explain your logic for that last part without drawing a graph.
B) Draw the supply and demand diagram for a public good where there are two consumers who are not identical. Find the total demand curve ad explain how you found it. How do we find the optimal quantity produced?

9) (22 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 strategy. Briefly explain how you found each one.

		Warner Brothers		
		High Price	Med. Price	Low Price
Disney	High Price	15 18	16 14	11 6
	Low Price	3 10	4 13	5 7

B) 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 challenger gains 10 votes. If both run nice ads, the incumbent gains 6 votes. If one runs an attack ad and the other runs a nice ad, the one running the attack ad will gain 80 votes. Do the extensive form (decision tree) of this game. Find the equilibrium. Explain how you found it.

10) (26 points) Answer EITHER Part A OR Part B.
A) Draw a PPF/CPF/indifference curve diagram for bread and shampoo with bread on the horizontal axis. Show the autarky point and explain how you found it. Suppose that the world price of bread is lower than our price. Show the new price line and find the new production and consumption points. State how you knew which way the price line moved. Show our exports and imports and state how you knew they were where you drew them. State how you know that trade made us better off.
B) Draw an Edgeworth Box for Allison and Jared. There are 10 coats and 15 umbrellas. Draw two indifference curves for each person such that you can find two points on the contract curve. State how you know they are on the contract curve. Draw the contract curve. Use that graph to find the utility possibilities frontier. Draw it and explain how you found it.

11) (26 points) Answer EITHER Part A OR Part B.
A) Draw the MC/ATC/AVC/D diagram for a monopolistically competitive firm which is making negative profits but still staying in business. Find the quantity produced, price charged, and the losses. Explain how you found them. Show what happens over time to the diagram. Explain why the curve(s) moved as drawn.
B) Draw the D/MC/ATC/AVC diagram for a monopoly. Find the quantity produced, the price charged, the consumer surplus, profits, and dead-weight loss. BRIEFLY state how you found each item.

12) (28 points) Answer EITHER Part A OR Part B.
A) Draw two budget constraints and indifference curves for goods vs. leisure. Use them to find two points on the labor supply curve and plot it. Explain how you found the two budget constraints and how you found the two points on the labor supply curve.
B) 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?