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 14-point question should take 7 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) Suppose that at a price of $50 each, you produce 1000 ceramic mugs, but at a price of $60 each, you are willing to produce 1100 ceramic mugs. Use the point formula to calculate the elasticity of supply. Show all work including the general formula. What does that number tell you about the type of elasticity of supply? State your logic.
B) Suppose that when your income is $40,000/year you buy 90 bananas and when your income is $60,000/year you buy 110 bananas. Calculate the income elasticity using the arc formula. Show all work including the general formula. What does that number tell you about the income elasticity of demand? State your logic.

2) (10 points) Answer EITHER Part A OR Part B.
A) What is the profit-maximizing equation for all firms? Prove it will maximize profits.
B) Explain why the MC curve takes its shape. (You can refer to your graph for question #7.)

3) (10 points) Answer EITHER Part A OR Part B.
A) What number would you expect for the cross-price elasticity of hamburgers and French fries? Why did you choose that number? Explain your logic.
B) What number would you expect for the income elasticity of small cars. Why did you choose that number? Explain your logic.

4) (10 points) Answer EITHER Part A OR Part B.
A) Suppose you wanted to earn a 20% interest rate. Suppose a friend borrows $100 today agrees to pay $50 a year from today and the rest of the money two years from today. Set up the equation which could be used to tell how much would they have to pay on that date. Do NOT do the calculation. Explain how you chose to put the numbers where you put them.
B) What is the economic reason why you cannot make the following statement: "When the lottery pays you $10,000 a year for four years, they are paying you $40,000. Set up, without explaining, the correct equation to determine the value of what the lottery is paying you.

5) (14 points) Answer EITHER Part A OR Part B.
A) Which normally has a higher interest rate, a credit card or a car loan? Explain your logic. Explain your logic stating two reasons.
B) Suppose you were to start a new car company. Would you set it up as a proprietorship, partnership, or a corporation? Explain your logic stating two reasons.

6) (22 points) Copy the table from the backside of this exam into your bluebook. Fill it in showing all work and if there is no work, then explain how you got the entry.

7) (24 points) Answer EITHER Part A OR Part B.
A) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm who is making money. Find the price and quantity they are producing at. Show their profits. Explain how you found the P, Q, and profits. Do not worry about the industry diagram.
B) Figure #1 on the back has at least four errors. Find THREE errors. Explain how you know those are errors.

L	TPL	APL	MPL
0			
2	100		
4	220		
6	330		
8	400		

Figure #1