

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 120 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 an exam after your exam.

1) (10 points each) For TWO of the following, give me a number you would expect that elasticity to be. Explain why you chose that number.

- A) Own-price elasticity of a prescription drug which has no generic form available.
- B) Income elasticity of lobster.
- C) Cross-price elasticity of computers and paper.

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

- A) West Liberty State College is allowing students over 23 to take one course without paying tuition. If they pass the course, they can apply for admissions. They say the course is free. Is that true? **If yes**, then explain why West Liberty State College would do that. **If no**, then explain why it is not free stating at least two different types of costs.
- B) The phrases “time is money” and “there is no such thing as a free lunch” were originally said by economists. Explain them using economic theory.

3) (12 points each) Calculate TWO of the following elasticities. Show all work. What does that number tell you? Briefly explain your logic.

- A) At a price of \$4/gallon, you buy 10 gallons of gas a week, but at a price of \$2/gallon, you buy 12 gallons of gas a week. Use the point elasticity formula.
- B) When your income is \$40,000/year you buy 75 steaks/year, but when your income is \$60,000/year, you buy 125 steaks/year. Use the arc elasticity formula.
- C) When the price of bananas are \$2/lb, you buy 5 lbs of cherries/year, but when the price of bananas is \$3/lb, you buy 4 lbs of cherries/year. Use the point elasticity formula.

4) (14 points) Answer EITHER Part A OR Part B.

- A) What is the shutdown price for a perfectly competitive firm in the short-run? Explain why that is the shutdown point and explain why they may stay open even when losing money.
- B) Suppose you won the lottery. (I don't know why you would play because it is rigged against you.) They tell you that you will get \$100,000 a year for 20 years. Set up the calculation which will tell you how much you won. Do NOT do the calculation. Briefly explain how you knew what numbers to put where.

5) (18 points) Answer EITHER Part A OR Part B.

- A) What is the *Lemons Problem*? What can the market do to reduce the problem without government intervention?
- B) There are both good and bad aspects to unions. Explain how they can hurt the people they represent.

6) (18 points) Answer EITHER Part A OR Part B.

- A) What is meant by *tax base*? How can increasing a tax result in less revenue for the government?
- B) What is meant by a *negative externality*? Without drawing a graph, explain the economists' solution to them. Explain how that solution will reduce the problem.

7) (20 points) Answer EITHER Part A OR Part B.

A) Socialists want small Gini coefficients and the free market tends to result in large Gini coefficients. What are the economic problems caused by very small and very large Gini coefficients? Explain the causes of those problems.

B) What is *human capital*? What role does it play in how much people get paid?

8) (20 points) Answer EITHER Part A OR Part B.

A) Draw the labor supply/labor demand diagram for auto-mechanics. Illustrate a decrease in new car sales on the diagram. Explain why the curve(s) moved as drawn. What happens to the wage rate and number of people employed? Explain your logic.

B) Use the table to the right to draw the Lorenz curve. Briefly explain what you did. What value would you estimate for the Gini Coefficient? How did you reach that conclusion?

Quintile	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
% of income	5%	10%	15%	20%	50%

9) (22 points) Answer EITHER Part A OR Part B.

A) Draw the supply and demand for economics textbooks. Illustrate on it an increase in the price of paper. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold?

B) Draw the supply and demand for wooden desks. Illustrate on it an increase in the price of wooden doors. Explain why the curve(s) moved as drawn. What happens to the price and quantity sold?

10) (22 points) Answer EITHER Part A OR Part B.

A) What is the problem facing Social Security? For the solution of “taxing unearned income as well as earned income,” how would that reduce the problem? Would you use it? Why or why not?

B) Copy the table to the lower-right into your test booklet. Fill it in. Show all calculations. If there is no calculation to show, then briefly explain how you reached the conclusion.

Q	Total Utility	Marginal Utility	Average Utility
0			
2	40		
4	60		
5	65		

11) (24 points) Answer EITHER Part A OR Part B.

A) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm which is making positive profits. Find the quantity they produce at and the price they charge. Explain how you found them and how you know they are making positive profits. (You do NOT need to draw the profits.) Illustrate what happens over time. Explain why the curve(s) moved as drawn.

B) Draw the ATC/AVC/MC/D/MR diagram for a monopoly which is making positive profits. Find the quantity they produce at and the price they charge. Draw the profits on the diagram. Explain how you found the price, quantity, and the profits.

12) (26 points) Answer EITHER Part A OR Part B.

A) Draw the supply and demand for gasoline. Illustrate an increase in the gas tax on it. Explain why the curve(s) moved as drawn. What happens to the price the consumers pay, the after-tax price the producers receive, and the quantity sold? In your graph who pays more of the tax? How can you tell?

B) Some governments put price ceilings on renting out apartments and call them “rent controls.” They do this to help the consumer. Draw the supply and demand for apartments to explain how it actually hurts the consumer.

Happy Holidays. I hope you enjoy the break. I enjoyed having you in class. This class eventually became one of my favorite group of students.