

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) (6 points each) For TWO of the following goods, give me an estimate of the value for the own-price elasticity of demand. Explain why you chose that number.

- A) Dell computer
- B) Gasoline
- C) Bethany College education

2) (10 points) Answer EITHER Part A OR Part B.

- A) What is meant by *decreasing marginal utility*? Explain why economists assume it exists.
- B) What is the substitution effect? How does it relate to the demand curve?

3) (10 points) For EITHER *promoting competition* OR *public goods*, explain what that means and why it is an economic reason for having a government.

4) (12 points) Suppose that if the price is \$20/unit you buy 100 but you buy 50 at a price of \$30/unit.

Calculate the elasticity of demand using EITHER the arc formula OR the point formula. Show all work and state which formula you are using. What type of elasticity is that? State how you reached that conclusion.

Income Bracket	Tax Rate
\$0 - \$20,000	10%
\$20,000 - \$50,000	20%
\$50,000 - \$120,000	30%
>\$120,000	40%

5) (16 points) Answer EITHER Part A OR Part B.

A) Use the table to the upper-right which has the Income Brackets and tax rates to find the total taxes paid, marginal tax rate and average tax rate. Show all work. If there is no work to show, then briefly explain how you got your answer.

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	20		
4	32		
6	36		

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

A) What is the problem facing Social Security? For the solution of “reducing benefits for those people who after retirement earn more than a certain amount,” how would that reduce the problem? Would you use it? Why or why not?

B) What is the problem facing Social Security? For the solution of “raising the Social Security tax on income,” how would that reduce the problem? Would you use it? Why or why not?

7) (20 points) Answer this question for EITHER a *negative externality* OR a *positive externality*. What is it? Use a supply and demand diagram to prove they prevent the market from choosing the socially optimal output and price. From an economic point of view, what is the best way to reach the socially optimal output and price? Illustrate that on the graph and explain how your graph results in the socially optimal output and price.