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 160 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) (14 points) Answer EITHER Part A OR Part B.
A) Give a numerical example which proves that increasing the excise tax on a good could cause the government to get less tax revenue.
B) Use the table to the right to calculate the person's marginal tax rate, total taxes paid, and average tax rate. Show all work. If there is no work, then explain how you got your answer.

Income	Rate
$0 - $10,000	20%
$10,000 - $30,000	30%
$30,000 - $70,000	40%
>$70,000	50%

2) (14 points) Answer EITHER Part A OR Part B.
A) In our market system, what is the normal rationing mechanism? What is another way we sometimes ration a product? Given an example of that type of rationing.
B) We said that *public goods* are an economic reason for a government. What are they? Given an example and explain why the government must provide it.

3) (16 points) Answer EITHER Part A OR Part B.
A) Explain why fully expected inflation is not an economic problem. What is the problem with fully anticipated inflation?
B) If the CPI last year was 500 and this year was 550, then what was the inflation rate? Show all work and briefly explain what you did. If people had expected inflation of 12%, then who is hurt? Explain your logic.

4) (16 points) Answer EITHER Part A OR Part B.
A) Suppose an economy has 100 working age people. 57 people have jobs, 3 people do not have jobs and are looking for a job, 1 person does not have a job but has quit looking for a job, and the rest are either stay at home parents, in jail, or unable to work. Calculate the unemployment rate and the labor force participation rate. Show all work and briefly describe what you did.
B) What happens to the unemployment rate when a person becomes a discouraged worker? Explain your logic. What happens to the unemployment rate when a person gets moved from full-time to part-time against his wishes? Explain your logic.

5) (20 points) Answer EITHER Part A OR Part B.
A) What is the problem facing Social Security? How would increasing the Social Security tax rate reduce the problem? Would you do it? Explain your logic.
B) What is the problem facing Social Security? How would increasing the return on the Social Security "lock box" reduce the problem? Would you do it? Explain your logic including how the return is increased.

6) (20 points) Answer EITHER Part A OR Part B.
A) Draw the supply and demand for gasoline which creates a negative externality. Use the diagram to prove that the socially optimal level of production is not achieved through the market. How do economists say this problem should be addressed? Show that on the graph. Explain how that solves the problem.
B) Draw the supply and demand for a good with a price ceiling. Prove that the price ceiling hurts the consumer.