

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 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (12 points) Answer EITHER Part A OR Part B.

A) Question #3 in Homework #5 provided statistics which stated that if you save for 40 years for retirement, you only have to save half as much when compared to waiting 10 years and saving for 40 years. What were the two reasons why those extra 10 years matter so much?

B) When we calculated the government spending multiplier, we made some assumptions. What did we assume about interest rates? If we relax that assumption, what will happen to the size of the government spending multiplier? Explain your logic.

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

A) Explain how opportunity costs affect the demand curve.

B) Not everybody attended the review session last night. Use terminology from this course to explain why some of you missed the review session.

3) (14 points) Answer EITHER Part A OR Part B.

A) Draw a PPF for hats and coats. Find a spot on the graph where the opportunity costs of a coat is two hats. Do the mathematics to prove that the opportunity costs of a coat is two hats as you claim.

B) Suppose a person has an income of \$50,000 and the tax table to the right was correct. What is that person's marginal tax rate, total taxes paid, and average tax rate? Show all work. If there is no work, then state how you got your answer.

Bracket	Rate
\$0 - \$20,000	15%
\$20,000 - \$40,000	25%
\$40,000 - \$80,000	30%
> \$80,000	40%

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

A) Suppose there is a project which will cost \$1000. It will enable the organization who does the project to sell 1 item to each of 700 people at \$5 profit per item. There is a negative externality which affects 900 people and it costs each of them \$2 each. Should the project be done? Explain your logic. Would the market provide it? Explain your logic. Would the government provide it? Explain your logic.

B) All statistics have problems with their definition and/or how they are calculated which cause them to be less useful than we would like. What are two problems with the unemployment rate? Explain why they make it less useful than we would like.

5) (14 points) Answer EITHER Part A OR Part B.

A) What are "lags" and why might they mean that counter-cyclical monetary policy (like in the second half of the final) is futile?

B) What is "Ricardian equivalence" and why might they mean that counter-cyclical fiscal policy (like

in the second half of the final) is futile?

6) (16 points) Answer EITHER Part A OR Part B.

A) Draw the S/D diagram for football helmets. Illustrate the effects of an increase in the price of motorcycle helmets. Explain why the curve(s) moved as drawn. What happens to the price and quantity of football helmets? Explain your logic.

B) Draw the S/D diagram for natural gas. Use it to prove that the optimal price and quantity will not be achieved because of the negative externality caused by it. Do NOT worry about reducing the problem.

7) (18 points) Answer EITHER Part A OR Part B.

A) What is the long-term problem facing Social Security? What two long-term trends will result in the problem getting worse for the next decade or even longer? One proposal to reduce the problem is to means test the benefits. How would that reduce the problem? If you were president of the USA, would you include that as part of your solution? Explain your logic.

B) We said that expansionary monetary policy may not work if the economy is in a Keynesian liquidity trap. Use an appropriate graph to explain this argument.