

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 can give extra time but not a lot.

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

A) If you knew NDP and wanted to calculate NI, what would you need to add and subtract? Explain why you would add or subtract each entry.

B) If you knew NI and wanted to calculate PI, what would you need to add and subtract? Explain why you would add or subtract each entry.

2) (14 points) Answer EITHER Part A OR Part B.

A) Voting has advantages over the market and the market has advantages over voting. What is the biggest advantage which voting has over the market? Explain why the market does not have that. What is the biggest advantage of the market over voting? Explain why voting does not have that.

B) Suppose a factory will cost \$5000 to rent for a year. It will be able to make hats at a cost of \$40/hat. They will be able to sell 900 hats (each to a different person) at \$50/hat. The factory causes a negative externality which hurts 800 people \$6 each. Should the project be done? Will the market do it? If the government was asked to do it, would they do it? For all three parts, show all calculations and explain your logic.

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

A) How can increasing a tax rate cause tax revenue to decrease? Use a general explanation that can apply to all taxes, but give a numerical example which shows how it can occur. I want specific numbers, not a graph.

B) Suppose a person earns \$100,000 and is facing the tax table to the right. What is that person's marginal tax rate, total taxes paid, and average tax rate? Show all calculations. If there are no calculations, state how you got the number.

Income bracket	Tax rate
\$0 - \$30,000	10%
\$30,000 - \$90,000	20%
\$90,000 - \$145,000	25%
>\$145,000	35%

4) (14 points) Every statistic has problems with the definition and the way it is calculated, which makes it less useful than we would like it to be. For EITHER the unemployment rate OR the CPI, explain two problems with the definition or calculation. Explain why it has those problems.

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

A) When we compare GDP from two countries, we run into two problems which make the numbers not comparable. What are those two problems? Briefly explain how we correct for those two problems.

B) What are meant by the *value added method of calculating GDP* and the *expenditure method of calculating GDP*? Explain how they are done and why they should give the same value.

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

A) What are the two long-term trends which will cause the Social Security Trust Fund to run out of money? One of the proposals to save Social Security is to increase or eliminate the cap on income taxable by Social Security. How would that reduce the problem? If you were President of the USA,

would you use that as part of the solution to the Social Security problem? Explain your logic.

B) What are the two long-term trends which will cause the Social Security Trust Fund to run out of money? One of the proposals to save Social Security is to increase the retirement age. How would that reduce the problem? If you were President of the USA, would you use that as part of the solution to the Social Security problem? Explain your logic.

7) (16 points) Answer EITHER Part A OR Part B.

A) Suppose at the start of a year, the PCE Index is 700 and people expect 9% inflation. At the end of the year, the PCE Index is 735. How much was inflation? Show all calculations. Name two groups of people who are hurt by this inflation. Explain how they are hurt.

B) Suppose a country has 1000 people of working age. 540 of them have jobs. 60 people do not have jobs but are looking for a job. 100 people do not have a job, would like a job, but are not looking. 140 people are stay-at-home parents. The rest are retired. Calculate the labor force participation rate and the unemployment rate. Show all work and state which people you are adding together.