

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 I have a meeting after your class.

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

A) Suppose there are 1000 hats sold a day and the government decides to tax them \$9/hat. Why is it wrong to say that the government will earn \$9000/day? What is the correct thing to say? Explain why that occurs.

B) Explain the difference between an *ad valorem* tax and a *specific* tax.

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

A) Suppose you are calculating GDP, NDP, NI, PI and DPI. You are given that retained earnings is \$200. At which step is that added or subtracted? Explain your logic. For example, you could say "That is something firms get but not included in NDP, so it is added when calculating NI."

B) All statistics have problems with the way it is calculated and/or defined, which make it less useful than we would like. What are two problems with the calculation/definition of GDP? Explain the problem.

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

A) Voting and the market have different advantages and disadvantages. In what situation would a consumer prefer the market over voting? Explain your logic.

B) Suppose a building costs \$2000 to rent. You can use it to make 600 coats which cost \$40/coat to make and sell for \$60/coat. There is a negative externality which affects 800 people. It costs each of those 800 people \$4 each. Should it be done? Will the market do it? Would the government do it? Show all calculations and briefly explain each part.

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

A) Suppose you buy \$10,000 worth of stock and pay \$5 in commissions. How much does GDP go up? Which part of GDP is that? Explain your logic. If you don't use a number, explain why you did not use it.

B) Suppose you buy a \$6000 used car which the dealer paid \$4000 for. How much does GDP go up? Which part of GDP is that? Explain your logic. If you don't use a number, explain why you did not use it.

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

A) Suppose that Alex is not working and is looking for a full-time job. Today, Alex finally takes a job which is only 10 hours a week. What happens to the unemployment rate and labor force participation rate? Explain your logic. Which type of unemployment is that? Explain your logic.

B) Suppose Chris was a coal miner who was recently laid off because the amount of electricity which comes from coal is almost exactly $\frac{1}{3}$ of what it was in 2008. ([Statista](#)) What happens to the unemployment rate and labor force participation rate? Explain your logic. Which type of unemployment is that? Explain your logic.

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

A) Suppose at the start of a year, the PCE Index is 900 and people expect 10% inflation. At the end of the year, the PCE Index is 945. How much was inflation? Show all calculations. Name two groups of people who are hurt by this inflation. Explain how they are hurt.

B) What are the two costs of correctly anticipated high inflation? Briefly explain those costs. Which one will actually disappear when there is extremely high inflation like Zimbabwe's inflation rate in November of 2008 which peaked at 89,700,000,000,000,000,000%? ([Wikipedia](#)) Explain your logic.

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

A) Why is the Social Security Trust Fund projected to run out of money by about 2035? Briefly explain the two long-term trends which have been causing it to shrink. Some people propose solving the problem by "means testing benefits". How would that reduce the problem? Explain your logic. Would you use that as part of a package to save Social Security? Why or why not?

B) Why is the Social Security Trust Fund projected to run out of money by about 2035? Briefly explain the two long-term trends which have been causing it to shrink. Some people propose solving the problem by raising the Social Security tax. How would that reduce the problem? Explain your logic. Would you use that as part of a package to save Social Security? Why or why not?