

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 150 points (to be scaled up to 210 points) and is scheduled to take 75 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I can give some extra time, but not much.

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

A) Suppose that \$100 of dividends are paid by Ford to a Canadian and \$130 worth of interest is paid by the Mexican government to Americans. Does that affect GDP, GNP, NNP, NI, PI, or DPI? Explain why you chose that statistic and tell me how much it went up or down.

B) Does the depreciation rate affect GDP, GNP, NNP, NI, PI, or DPI? Explain your logic. Does retained earnings affect GDP, GNP, NNP, NI, PI, or DPI? Explain your logic.

2) (16 points) Explain EITHER the equation in Part A OR the equation in Part B.

A) $r_{a-t} = \frac{(1-t)i - \pi^e}{1 + \pi^e}$. Note that you need to explain π^e twice because it appears twice.

B) $uc_k = \frac{(r+d)p}{1-\tau}$

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

A) I told you about an article which said record number of people quit their jobs in July. What type of unemployment is that? Explain your logic. However, the unemployment rate went down in July. How could that happen? Explain your logic. <https://www.bloomberg.com/news/articles/2018-09-11/job-openings-in-u-s-increased-in-july-to-record-6-94-million?srnd=premium>

B) Explain the economics as to how the unemployment rate can grow and still have GDP grow.

4) (16 points) All statistics have problems with their definition which renders them less useful than we would like them to be. For EITHER real GDP per capita OR the unemployment rate, explain TWO reasons why that statistic can give misleading results. Give an example of both problems and make sure both problems are for the same statistic.

5) (18 points) Answer EITHER Part A OR Part B.

A) Illustrate the effects of a stock market crash on the intertemporal budget constraint. Explain why the curve moved as drawn. What happens to the saving this period? Explain your logic.

B) Explain why an increase in the depreciation rate will have an ambiguous effect upon the investment curve.

6) (20 points) Answer EITHER Part A OR Part B.

A) Draw the graph for the Life-Cycle Model. Illustrate the effects of a temporary decrease in the person's income. Explain why the curve(s) moved as drawn. What happens to the person's current consumption and current saving? Briefly explain how you reached the conclusion.

B) Explain Ricardian Equivalence. Make sure you explain how it gets the word "equivalence" in the name, why it occurs, and how it affects fiscal policy. Like all macroeconomic theories, it holds some of

the time, but not all of the time. Do you think it holds most of the time or do you think it does not hold most of the time? Explain your logic.

7) (24 points) Illustrate the effects of EITHER the event in Part A OR the event in Part B on both the labor supply/demand diagram and the production function with labor on the axis. Explain why the curve(s) moved as drawn. Mark on your diagram the real wage rate, the level of employment, and the level of production. State how you found each one. Use the SAME event on both diagrams.

A) A hurricane destroys a lot of buildings.

B) People realize there is a tradeoff between leisure and the number of things they buy. Because there are lots of new inventions, they decide they now value leisure less than they used to and value things more than they used to.

8) (30 points) Illustrate the effects of EITHER the event in Part A OR the event in Part B on both the MPK^f/uc_K diagram and the S/I diagram. Explain why the curves moved as drawn. What happens to the level of saving, the level of investment, the user cost of capital, and the desired amount of capital? Use the SAME event on both diagrams.

A) The price of capital decreases.

B) A new technology makes capital more productive.