

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 170 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) (10 points) Answer EITHER Part A OR Part B.

A) What happens to M1 and M2 when you charge something on a credit card? Explain your logic.

B) Would M1 or M2 be a better medium of exchange? Explain your logic.

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

A) Explain  $MD/P = f(r, i^m, \pi^e)$

B) Explain  $\pi = \Delta M/M - \eta_Y \Delta Y/Y$ . Explain  $\Delta M/M$  as one variable and  $\Delta Y/Y$  as one variable. Also explain  $\eta_Y$ .

3) (16 points) Answer EITHER Part A OR Part B.

A) Use the Solow Growth Model diagram to prove that it is highly unlikely that the long-run capital-labor ratio is actually the socially optimal one,  $k_G$ , a.k.a., "golden rule capital-labor ratio."

B) What can the government do to make the economy grow faster in the Endogenous Growth Model? Give TWO things the government can do and explain how it can have the desired effect.

4) (18 points) Answer EITHER Part A OR Part B.

A) Draw the graph for the Solow Growth Model. Illustrate the effects of an increase in the savings rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of savings per worker and the capital-labor ratio?

B) Draw the graph for the Solow Growth Model. Illustrate the effects of an increase in the depreciation rate. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of savings per worker and the capital-labor ratio?

5) (20 points) Answer EITHER Part A OR Part B.

A) Why do we care if the velocity of money is constant? Name one reason it might not be constant. Explain why that might change the velocity.

B) Which definition of money, M1 or M2, should work best with our theory when trying to predict what is happening in our economy? Explain your logic. Why did the velocity of M1 become unstable over since the early 1980s? Explain the causation.

6) (24 points) Answer EITHER Part A OR Part B.

A) Draw the S/I diagram for a large country which is running a current account surplus. Explain how you know your diagram shows it running a current account surplus. Draw the effects of a decrease in the selling price of capital in the rest of the world. Explain why the curve(s) moved as drawn. What happens to interest rates, the level of savings and investment in both countries, and the current account surplus?

B) Draw the S/I diagram for a large country which is running a capital financial account deficit. Explain how you know your diagram shows it running a capital financial account deficit. Draw the effects of an increase in the future productivity of capital in the rest of the world. Explain why the curve(s) moved as drawn. What happens to interest rates, the level of savings and investment in both countries, and the capital financial account deficit?