

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

- A) Explain how an increase in wealth affects the demand for money.
 B) Explain how an increase in the liquidity of other assets affects the demand for money.

2) (14 points) Explain EITHER of the equations below.

A) $\pi = \frac{\Delta M}{M} - \eta_Y \frac{\Delta Y}{Y}$ Explain the two variables and the parameter η_Y .

B) $\frac{M^d}{P} = L(Y, r + \pi^e)$ Explain all three variables, but not the “function operator.”

3) (18 points) Answer EITHER Part A OR Part B.

- A) If you were the government and you wanted to increase “s” in the $\Delta K/K = sA - d$ equation, then what would you do? Give TWO actions and explain how they will have that result.
 B) If you were the government and you wanted to increase “A” in the $\Delta K/K = sA - d$ equation, then what would you do? Give TWO actions and explain how they will have that result.

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

- A) Draw the Solow Growth Model diagram. Use it to explain how Solow reached the conclusion that all economies would converge to the same equilibrium.
 B) Draw the Solow Growth Model diagram. Use it to explain how why it is unlikely that we will have the optimal amount of capital per worker in the steady-state equilibrium.

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

- A) Draw the Solow Growth Model diagram. Illustrate an increase in the depreciation rate. Explain why the curve(s) moved as drawn. What happens to the output per worker and the capital-labor ratio? Explain how the graph shows those results.
 B) Draw the Solow Growth Model diagram. Illustrate an increase in the savings rate. Explain why the curve(s) moved as drawn. What happens to the output per worker and the capital-labor ratio? Explain how the graph shows those results.

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

- A) When we wrote the equation in Question #2, Part A, we made an assumption about the velocity of money. What was that assumption? Why might that assumption be false?
 B) When interest rates increases, what do you do with the money you want to keep liquid? How des that affect M1 and M2? Given what you just wrote, would you expect M1 or M2 to have the less stable velocity? Explain your logic.