

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 class after your class.

1) (12 points) Explain EITHER the equation in Part A OR the equation in Part B.

A)  $\pi = \frac{\Delta M}{M} - \eta_Y \frac{\Delta Y}{Y}$  You do not need to explain  $\eta_Y$  but you should state what it is. You can treat  $\Delta X/X$  as a single variable after you define it.

B)  $M/P = L(Y, r+\pi^e)$ . You can treat  $M/P$  as one variable after you define it.

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

A) Use the Endogenous Growth Model to explain why we have patents.

B) Use the Endogenous Growth Model to explain why some economists would like to see the capital gains tax eliminated.

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

A) Some economists feel that the business cycle is **not** less severe than it was a century ago. Explain their logic.

B) I feel that macroeconomic theory would imply that the business cycles should have become less severe. Explain my logic.

4) (16 points) Answer EITHER Part A OR Part B.

A) Does M1 or M2 do a better job as a store of value? Explain your logic while stating what is in M1 and what is in M2.

B) Does M1 or M2 do a better job as a medium of exchange? Explain your logic while stating what is in M1 and what is in M2.

5) (22 points) Answer EITHER Part A OR Part B.

A) Why would you expect the velocity of money to be constant? As the graph on Page 263 shows,  $V_2$  is relatively stable over the past half-century, but  $V_1$  has grown. What do you think caused  $V_1$  to grow without causing  $V_2$  to grow? Explain your logic including both why  $V_1$  grew and why the same event did not affect  $V_2$ .

B) What are the three tools the Federal Reserve uses to affect the money supply? For TWO of those tools, explain how the Fed could use it to decrease the money supply. How would that decrease the money supply?

6) (22 points) Answer EITHER Part A OR Part B.

A) Draw the Solow Growth Model diagram. Illustrate the effects of an improvement in technology. Explain why the curve(s) moved as drawn. What happens to the capital-labor ratio and the GDP per capita? How can you tell?

A) Draw the Solow Growth Model diagram. Illustrate the effects of a decrease in the depreciation rate. Explain why the curve(s) moved as drawn. What happens to the capital-labor ratio and the GDP per capita? How can you tell?