

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 150 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 can give the full 1 hour 20 minutes, but no more.

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

A)  $r_{a-t} = i(1 - t) - \pi$

B)  $uc_k = (r + d)p_k$

2) (16 points) Answer EITHER Part A OR Part B.

A) Draw the S/I diagram for a small open economy with a current account deficit. Explain how you know it is a current account deficit. Draw the effects of an increase in government spending. Explain why the curve(s) moved as drawn. What happens to the interest rate, the level of savings, and the level of investment?

B) Use the *endogenous growth model* to explain what the government can do to increase long-term growth of the full-employment level of GDP. State two things they can do and explain how that would have the desired effect.

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

A) Draw the effects of an increase in the depreciation rate on the Solow Growth Model's diagram. Explain why the curve(s) moved as drawn. What happens to the steady-state equilibrium level of capital/labor ratio? What is the economic reason for that?

B) Draw the effects of an increase in the depreciation rate on the  $uc_k/MPK^f$  diagram. Explain why the curve(s) moved as drawn. What happens to the desired level of capital? What is the economic reason for that?

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

A) If I gave you NNP and asked you to calculate NI, what information would you need? How would you use it? Why would you use it in that manner?

B) Explain why an increase in the wage rate can have an ambiguous effect upon the quantity of labor supplied. Which effect do we assume to be bigger? Why do we assume that?

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

A) Draw an SRAS/LRAS/AD diagram in an inflationary gap. State how you know it is an inflationary gap. If the government does nothing, then how will the economy get back to full employment? Illustrate that on the graph and explain why the curve(s) moved as drawn.

B) Is inflation pro-cyclical or counter-cyclical? Which type of shock (supply or demand) would give this result? Illustrate that on the LRAS/SRAS/AD diagram. Explain how that movement shows the cyclicity you described.

6) (18 points) Answer EITHER Part A OR Part B.

A) Draw the graph for the Life-cycle Model. Draw the effects of a temporary government stimulus package. Explain why the curve(s) moved as drawn. What happens to private savings? Explain your logic.

B) Draw the supply and demand for labor. Illustrate the effects of anticipated future tax increases. Explain why the curve(s) moved as drawn. What happens to the wage rate and number of people employed at full employment.