

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 14-point question should take 7 minutes. Because of classes after yours, I cannot give extra time.

1) (14 points) Answer EITHER Part A OR Part B.

A) According to the Bureau of Economic Analysis (part of the US government), the growth rate of GDP in the first quarter of this year was at a 2.5% annual rate. According to Okun's law, should the unemployment rate go up, stay constant, or go down? How do you know? Regardless of what you just answered, explain to me the economics of how GDP can rise and have the unemployment rate still rise. (<http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>).

B) Use Friedman's Permanent Income Hypothesis to explain why one part of the second half of the final may be a useless waste of time.

2) (14 points) Explain EITHER the equation in Part A OR the equation in Part B.

A) $\frac{\Delta Y}{Y} = \frac{\Delta A}{A} + a_K \frac{\Delta K}{K} + a_N \frac{\Delta N}{N}$ Do not worry about the a_K and a_N . Treat $\Delta X/X$ as one variable.

B) $c_1 + \frac{c_1}{1+r} = a + y_0 + \frac{y_1}{1+r}$ You can treat the left-hand side of the equation as one variable if you tell me what that term means. Explain a , y_0 , y_1 , and r .

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

A) Write the equation for the Quantity Theory of Money. Why does it matter if V is constant? Explain how one implication of the theory would be different if the velocity was unstable.

B) Explain why unemployment may be a leading indicator near the peak and a lagging indicator near the trough.

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

A) Draw the labor supply/labor demand diagram. Illustrate the effects of an increase in the income tax rate. Explain why the curve(s) moved as drawn. What happens to the real wage rate and the level of employment?

B) Draw the inter-temporal budget constraint. Illustrate the effects of an increase in the interest rate on the graph. Explain why the curve moved as drawn.

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

A) Use the MPK^f/uc_K diagram to prove that an increase in the depreciation rate will have an ambiguous effect upon the level of investment.

B) Use the S/I diagram for a small open economy to explain the twin deficits.

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

A) Use the Solow Growth Model to explain why I feel that by the end of your life, the USA will probably not be the most powerful economy in the world. Make sure you mention one or two ways in which our economy is different from other rich countries.

B) The Endogenous Growth Model yields results which imply that government policies can affect long-term growth of an economy. What changes to our tax system could help our long-term growth? State one change and explain how it would help the economy grow faster.

