

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 150 points (to be scaled up to 210 points) and is scheduled to take 75 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I can give extra time but not much.

1) (10 points) Answer EITHER Part A OR Part B.

A) As the press is regularly reporting, a recession is normally declared when there are two consecutive quarters of declining real GDP. As [this web page](#) shows, the first two quarters of this year, real GDP shrank at 1.6% and 0.6% respectively, before growing in the third quarter by 2.6%. Why wasn't the first half of this year called a recession? Explain your logic. If you give a plausible explanation and argue it fully, you will get full credit, even if it is not the actual reason.

B) Assuming that the business cycle has become less severe since World War II, what do you think is the economic reason for that? Explain how that makes it less severe.

2) (12 points) Explain EITHER the equation in Part A OR the two equations in Part B.

A)  $MD/P = L(r + \pi^e, Y)$

B) AD:  $Y = f(P)$  & LM:  $r = f(Y)$

3) (12 points) For EITHER *new private housing permits* OR *average duration of unemployment*, determine if the variable is pro-cyclical, counter-cyclical, or acyclical. Explain your logic. Also determine if its leading, lagging, or roughly coincident. Explain your logic.

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

A) Draw the real MS/real MD diagram. Illustrate the effects of a decrease in the discount rate. Explain why the curve(s) moved as drawn. What happens to the real amount of money and the real interest rates? State how you reached that conclusions.

B) Draw the real MS/real MD diagram. Illustrate the effects of an increase in the price level. Explain why the curve(s) moved as drawn. What happens to the real amount of money and the real interest rates? State how you reached that conclusions.

5) (18 points) For the second half of the final exam, you will be given a situation and be asked to solve it with both fiscal and monetary policy. However, some economists feel that is impossible to do. For EITHER fiscal policy OR monetary policy, explain one reason why that policy may not work. Use an appropriate graph to prove your point.

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

A) Draw the LRAS/SRAS/AD diagram. Illustrate the effects of a decrease in the future marginal productivity of capital. Explain why the curve(s) moved as drawn. What happens to the price level, real GDP, inflation, and unemployment rate? State how you know each one.

B) Draw the LRAS/SRAS/AD diagram. Illustrate the effects of a decrease in government spending, assuming Ricardian Equivalence does not hold. Explain why the curve(s) moved as drawn. What happens to the price level, real GDP, inflation, and unemployment rate? State how you know each one.

7) (18 points) Answer EITHER Part A OR Part B.

A) Draw the IS/LM/FE diagram. Illustrate the effects of a increase in the amount of capital. Explain why the curve(s) moved as drawn. What happens to the real GDP, unemployment rate, and real interest rate? State how you know each one.

B) Draw the IS/LM/FE diagram. Illustrate the effects of an increase in the income tax rate, assuming Ricardian Equivalence does not hold. Explain why the curve(s) moved as drawn. What happens to the real GDP, unemployment rate, and real interest rate? State how you know each one.

8) (46 points) Answer EITHER Part A OR Part B.

A) Draw the SRAS/LRAS/AD diagram, IS/LM/FE diagram, and the real MS/real MD diagram for an economy with 8% unemployment rate. Explain how you know the unemployment rate is correct. If the economy is left alone, what will happen to bring the economy back to full employment? Illustrate the effects of that on the graphs. Explain why the curves moved as drawn.

B) Draw the SRAS/LRAS/AD diagram, IS/LM/FE diagram, and the real MS/real MD diagram for an economy with 4% unemployment rate. Explain how you know the unemployment rate is correct. What is the best monetary policy to bring the economy back to full employment? Illustrate the effects of that policy on the graphs. Explain why the curves moved as drawn.