

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) Explain ONE of the following equations.

A) $r = f(Y)$ for the LM curve.

B) $r = f(Y)$ for the book's explanation of the IS curve.

C) $Y = f(r)$ for my explanation of the IS curve.

2) (12 points) Answer EITHER Part A OR Part B.

A) Why have business cycles since World War II become less severe?

B) Why do some economists feel the premise of Part A is wrong? (In other words, why do they feel the data is misleading?)

3) (14 points) For EITHER *commercial and industrial loans outstanding* OR *new housing building permits*, determine whether it is pro-cyclical, counter-cyclical, or acyclical. Explain your logic. Is the variable leading, lagging, or roughly coincident? Explain your logic.

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

A) What is the equation for the Quantity Theory of Money? Explain how some economists use it to conclude that in the long-run, the only effect of an increase in the money supply is increased inflation.

B) Why might it make sense that the velocity of money is constant? Why did the velocity of M1 increase during the 1960s through the early 1980s and then again starting in 1996? (It is the same explanation for both periods, so if you can figure either one out, you have the answer.)

5) (18 points) Draw the IS/LM/FE diagram. Illustrate the effects of EITHER a increase in government spending OR the Fed's buying bonds on the open market. Explain why the curve(s) moved as drawn. What happens to the real interest rate and the real GDP?

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

A) Draw the real MS/real MD diagram. Illustrate the effects of a decrease in taxes. Explain why the curve(s) moved as drawn. What happens to the real quantity of money and the real interest rate?

B) Draw the real MS/real MD diagram. Use it to prove the neutrality of money.

7) (18 points) Draw the LRAS/SRAS/AD diagram. Illustrate the effects of EITHER an increase in taxes OR the Fed's selling bonds on the open market. Explain why the curve(s) moved as drawn. What happens to the price level and real GDP?

8) (44 points) Draw the LRAS/SRAS/AD, IS/LM/FE, and real MS/real MD diagrams. Illustrate the effects of EITHER the event in Part A OR the event in Part B on all three graphs. Use the same event for all three graphs. Explain why the curves moved as drawn. What happens to the price level, interest rates and real GDP?

A) There is a temporary negative supply shock.

B) The future marginal productivity of capital goes up.