

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 cannot give extra time because some students have a class after your class.

1) (10 points) Explain EITHER the equation in Part A OR the equation in Part B.

A) $MD/P = \ell_0 + \ell_Y Y - \ell_r(r + \pi^e)$. Note that the ℓ are just constants, so you can ignore them.

B) $r = \alpha_{LM} - (1/\ell_r)(M/P) - \beta_{LM} Y$. Note that the α , ℓ , and β are constants so you can ignore them. This is the equation for the LM curve.

2) (10 points) Answer EITHER Part A OR Part B.

A) If you pay \$5000 for your textbooks using a debit card to take the money out of your savings account, then what happens to M1 and M2? Explain your logic.

B) If you pay \$5000 for your textbooks using a credit card, then what happens to M1 and M2? Explain your logic.

3) (12 points) Answer EITHER Part A OR Part B.

A) What is the tool **most** commonly used by the Federal Reserve to increase the money supply? Explain how it can be used to increase the money supply. Why does that increase the money supply?

B) What is the tool **least** commonly used by the Federal Reserve to increase the money supply? Explain how it can be used to increase the money supply. Why does that increase the money supply?

4) (14 points) Answer EITHER Part A OR Part B.

A) Use the quantity theory of money to explain how an additional increase in the money supply will just cause more inflation. Is this more likely to occur in the short-run or long-run? Explain your logic.

B) Explain why we need to know whether or not the velocity of money is predictable. Give an example where it is predictable and the example but assuming it is not predictable. Explain why the results are different.

5) (14 points) Answer EITHER Part A OR Part B.

A) The Federal Reserve has created a new definition of money called MZM. That stands for “money, zero-maturity.” In other words, money you can get immediately. It includes all of M1 and the parts of M2 which have no time constraint on accessing your money (money market accounts and savings accounts). Do you think that MZM’s velocity would be as unstable as V1 or as stable as V2? Explain your logic.

B) We said the V1 has become unstable and some economists feel it is predictable. What is the main variable they look at when estimating the size of V1? Explain how an increase in the value of that variable would affect V1 and why it would have that effect.

6) (16 points) For ONE the variables in Part A OR Part B OR Part C, determine if it is normally procyclical, counter-cyclical, or acyclical. Explain your logic. Is it leading, lagging, or roughly coincident? Explain your logic.

A) Employment

B) Nominal interest rates

C) Inventory investment

7) (16 points) Answer EITHER Part A OR Part B.

A) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of an increase in capital. Explain why the curve(s) moved as drawn. What happens to the price level and GDP?

B) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of an increase in the price of capital. Explain why the curve(s) moved as drawn. What happens to the price level and GDP?

8) (16 points) Answer EITHER Part A OR Part B.

A) Draw the IS/LM/FE diagram. Illustrate the effects of an increase in the money supply. Explain why the curve(s) moved as drawn. What happens to real GDP and real interest rates?

B) Draw the IS/LM/FE diagram. Illustrate the effects of an increase in government spending. Explain why the curve(s) moved as drawn. What happens to real GDP and real interest rates?

9) (42 points) Draw the IS/LM/FE diagram, the LRAS/SRAS/AD diagram, and the real MS/real MD diagram. Illustrate EITHER the event in Part A OR the event in Part B on the graphs. Use the same event on all three graphs. Explain why the curves moved as drawn. What happened to the GDP, real interest rate, real money supply, and price level?

A) The future marginal productivity of capital increases.

B) The tax rate on corporations increases.