

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 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. I cannot give a few extra minutes because of the class after ours.

1) (12 points) Do EITHER part A OR part B.

A) Prior to World War II, the business cycles were more extreme than the ones since the war. What has caused the change in the cycles?

2) What are the “built-in stabilizers”? Why are they called that?

2) (14 points) Do EITHER part A OR part B.

A) Suppose that the taxes are given by  $T = -10 + 0.1Y$  and the government spends \$100. Given that GDP is \$1000 and full employment level of GDP is \$1200, what are (1) the government budget deficit/surplus and (2) the full employment budget deficit/surplus? Show all work.

B) How does the presence of an income tax, compared to a lump-sum tax, affect the shape(s) of the IS/LM diagram? Why does it have that effect?

3) (14 points) Do EITHER part A OR part B.

A) Suppose that there is an investment project that costs \$1000 this year. You expect to earn \$525 next year and \$525 the year after. If the interest rate is 5%, would you be willing to do the project? Explain the logic of your decision.

B) We said that the interest rate-elasticity of demand for investment depends upon the price-elasticity of supply for capital. Explain why that is the case. It may help to write the present value calculation.

4) (18 points) Do EITHER part A OR part B.

A) We showed that gross investment may be a function of both GDP and the growth rate of GDP. What effects do GDP and the growth rate of GDP have on investment? Why do they have those effects?

B) Does the accelerator process make investment more variable or less variable than GDP? Why does the accelerator have that effect?

5) (20 points) Do EITHER part A OR part B.

A) Use an IS/LM diagram to explain what is meant by government spending causing crowding out.

B) Use an IS/LM diagram to illustrate an increase in government spending with monetization of the deficit. Explain why the curve(s) moved as drawn.

6) (22 points) Do EITHER part A OR part B.

A) Assume that Friedman’s permanent income hypothesis or Modigliani’s life-cycle model of consumption are realistic. Some governments propose that during a time of high unemployment, there should be a temporary increase in government spending to stimulate the economy. Illustrate a temporary increase in government spending on the IS/LM diagram. Explain why the curve(s) moved as drawn and explain how your graph shows the effects of either Friedman’s or Modigliani’s model.

B) Draw the IS/LM diagram with the MPC of .9. Illustrate how the curve(s) will change its(their) shape(s) under either Friedman’s permanent income hypothesis or Modigliani’s life-cycle model of consumption. Explain why the curve(s) shape(s) is(are) different.