

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 160 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 the class that follows your class, I cannot give you extra time.

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

A) Suppose that a building will cost you \$100M to build. It will yield profits of \$21M per year for 5 years, starting next year. After that, it is going to be worthless. (It was built by the same people that built Campbell Village.) Is this building worth building if the interest rate for the loan is 5%? Explain your logic.

B) Use the present value formula to prove that investment is a function of interest rates. Mathematically determine if an increase in interest rates will increase or decrease investment.

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

A) Suppose that somebody's income goes up because the economy is strong and the company wants to keep that person around. Using either Friedman's model of consumption or Modigliani's model of consumption, do you think that the person's MPC is going to be large or small? Explain your logic.

B) Either Friedman's theory of consumption or Modigliani's theory of consumption explicitly includes expectations. Which is it? However, implicitly, the other model includes expectations. Explain how it includes expectations.

3) (16 points) Do EITHER Part A OR Part B

A) Given the more realistic models of consumption **and** investment that we examined since test two, do you think the IS curve is going to be, in net, flatter or steeper? Explain your logic.

B) Given the more realistic models of consumption **and** investment that we examined since test two, do you think the autonomous expenditure multiplier is going to be, in net, larger or smaller? Explain your logic.

4) (18 points) Explain EITHER the equation in Part A OR the equation in Part B.

A)  $I_t = \alpha \cdot (AY_t - AY_{t-1})$ . In particular, tell me why we multiply  $Y_t$  and  $Y_{t-1}$  by  $\alpha$ , then subtract them, and finally multiply by  $\alpha$  to get the term on the left.

B)  $\frac{\Delta Y}{\Delta T_0} = \frac{-a}{1 - (\alpha + b)}$ . In particular, tell me why there is a "-a" in the numerator, an "a" in the

denominator, and a "b" in the denominator and why they affect the term on the left in the manner the equation describes.

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

A) Draw an IS/LM diagram and show an autonomous decrease in exports. Suppose the *Balanced Budget Amendment* had passed. What would the government have to do with fiscal policy? Why would they have to do that? Illustrate that on the IS/LM diagram.

B) Having an income tax has two effects upon the IS/LM diagram. One effect is on the slope of one curve and the other is on the stability of a curve. Explain these effects using an IS/LM diagram in your explanation.

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

A) The current Bush Administration is running a large deficit. Should the Federal Reserve monetize it? Why or why not? Use an IS/LM diagram in your answer.

B) One problem with continual government deficits is crowding out. Use an IS/LM diagram to explain what it is. Explain what that problem is and why it may take time to occur.