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 150 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I can give some extra time but not much.

Economics 302

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

- A) Suppose another steel mill in this area closes. What would happen to the unemployment rate and labor force participation rate? Explain your logic. Which type of unemployment changed? Explain your logic.
- B) Suppose you bought \$1000 worth of stock in Microsoft and paid \$10 in commissions. What happens to GDP? Explain your logic. Which part of GDP changed? Why did you choose that part?

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

- A) Explain  $c = b_p y_p + b_t y_t$  where "p" means permanent and "t" means temporary. For the parameters  $b_p$  and  $b_t$ , you do not need to say what happens when they change, but you do need to say what their values are approximately and why you chose those values.
- B) Explain  $r_{a-t} = i(1-t) \pi^e$
- 3) (12 points) We gave several reasons why expansionary fiscal policy and/or expansionary monetary policy might not have as big an impact on the economy as we hoped, or possibly no impact at all. State ONE of the reasons and explain why that would render the policy less effective.

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

- A) Draw the inter-temporal budget constraint. Choose a point where you are saving some now. Explain how you know you are saving some. Illustrate the effects of the recent falling of the stock market over the past week. Explain why the curve moved as drawn. Given your diagram, would you expect saving to increase or decrease? Explain your logic.
- B) Draw the graph for Modigliani's Life Cycle Model. Illustrate the effects of a temporary tax cut. Explain why the curve(s) moved as drawn. What happens to the amount of consumption? Explain your logic.

### 5) (16 points) Answer EITHER Part A OR Part B.

- A) Draw the labor supply/labor demand diagram. Illustrate the effects of a temporary tax cut. Explain why the curve(s) moved as drawn. What happens to the wage rate and number of people hired?
- B) Draw the labor supply/labor demand diagram. Illustrate the effects of a new improved technology. Explain why the curve(s) moved as drawn. What happens to the wage rate and number of people hired?

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

- A) Draw the MPK $^{f}uc_{\kappa}$  diagram. Illustrate the effects of an increase in the depreciation rate. Explain why the curve(s) moved as drawn. What happens to the user cost of capital, the desired amount of capital, and the level of investment?
- B) Draw the S/I diagram for a small open economy with a current account surplus. Explain how you know there is a current account surplus. Illustrate the effects of an increase in the price of capital. Explain why the curve(s) moved as drawn. What happens to the interest rate, level of saving, level of investment, and the current account surplus?

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

- A) Draw the Solow Growth Model diagram. The USA has a smaller saving rate and a faster population growth rate than most other developed countries. Use that to determine whether or not we will have the most important economy in the future. Explain your logic.
- B) Write the equation for the Endogenous Growth Model. Use it to explain why President George W. Bush gave tax cuts to dividends and capital gains.