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 some extra time, but not much.

1) (10 points) The definition of a business cycle includes the phrases "recurrent but not periodic" and "co-movement". For one of them, explain what that means and why it is important for the definition.

2) (12 points) Answer EITHER Part A OR Part B.
A) Some economists say the data may not support the argument that the business cycle has become less severe than before World War II. Explain their logic.
B) I say theory says that the business cycle should be less severe now than before World War II. Explain my logic.

3) (14 points) For EITHER inventory investment OR nominal interest rates, determine if it is pro-cyclical, counter-cyclical or acyclical. Explain your logic. Is it leading, lagging, or roughly coincident? Explain your logic.

4) (14 points) Answer EITHER Part A OR Part B.
A) Explain $M^d/P = \ell_0 + \ell_Y Y - \ell_r(r + \pi^e)$ The ℓ are just constants which do not need to be explained.
B) Explain $r = \alpha_{LM} - (1/\ell_r)(M/P) + \beta_{LM} Y$ The α, β, and ℓ are just constants which do not need to be explained. This is for the LM curve.

5) (16 points) Answer EITHER Part A OR Part B.
A) Draw the real MS/MD diagram. Illustrate the effects of a decrease in the price level. Explain why the curve(s) moved as drawn. What happens to the real money supply and the interest rate?
B) Draw the real MS/MD diagram. Illustrate the effects of an increase in the money supply assuming that the neutrality of money holds. Explain why the curve(s) moved as drawn. What happens to the real money supply and the interest rate?

6) (18 points) Answer EITHER Part A OR Part B.
A) Draw the IS/LM/FE diagram. Illustrate the effects of a decrease in the MPK^f. Explain why the curve(s) moved as drawn. What happens to the GDP and the interest rate?
B) Draw the IS/LM/FE diagram. Illustrate the effect of an improvement in technology. Explain why the curve(s) moved as drawn.

7) (18 points) Answer EITHER Part A OR Part B.
A) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of foreigners deciding that they do not like our goods as much. Explain why the curve(s) moved as drawn. What happens to the price level and real GDP? (This has actually happened this year between Japan and South Korea.)
B) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of a decrease in the money supply. Explain why the curve(s) moved as drawn. What happens to the price level and real GDP?

8) (48 points) Answer EITHER Part A OR Part B.
A) Draw the IS/LM/FE, real MS/MD, and LRAS/SRAS/AD diagrams with your diagrams showing that the economy is in an inflationary gap. State how you know the economy is in an inflationary gap. If the government <u>did nothing</u>, how would the economy get back to equilibrium? Why would that occur? Illustrate the effects of that on your diagrams. Explain why the curve(s) moved as drawn. What happens

to the real GDP, the real interest rate, the price level, and the real money supply?
B) Draw the IS/LM/FE, real MS/MD, and LRAS/SRAS/AD diagrams with your diagrams showing that the economy is in an inflationary gap. State how you know the economy is in an inflationary gap. If the government was to do fiscal policy, how would the economy get back to equilibrium? Why would that occur? Illustrate the effects of that on your diagrams. Explain why the curve(s) moved as drawn. What happens to the real GDP, the real interest rate, the price level, and the real money supply?