Please sign the following oath:

The answers on this test are entirely my own work. I neither gave nor received any aid while taking this test. I will not discuss the questions on this test until after 5:00 p.m. on November 1, 2005.

Signature

Any test turned in without a signature indicating that you have taken this oath will be assigned a grade of zero.

Graph Instructions

When drawing diagrams, the following rules apply:

a. Completely, clearly and accurately label all axis, lines, curves, and equilibrium points.

b. The original diagram and equilibrium points MUST be drawn in black.

c. The first shift of any line(s) and the new equilibrium points MUST be drawn in red.

d. Any subsequent shifts in curves and new equilibrium points MUST be drawn in another color, first blue and then green.

Do NOT open this test until instructed to do so.
A. Multiple Choice Questions. Circle the letter corresponding to the best answer. (30 points.)

1. From 1992 to 2004, the ratio of the money supply to the monetary base in Japan fell by one-half. This could have been due to:
   b. Increases in the monetary base.
   c. People increasing their deposits at banks.
   d. Lower reserve requirements imposed on banks.

2. If the LM curve is horizontal, then all of the following are true except:
   a. There is more crowding out, compared to the usual case.
   b. Output changes (in response to changes in demand) are the same as in the Keynesian cross analysis.
   c. Fiscal policy is very effective, compared to the usual case.
   d. If investment increases by I, output increases by the multiplier times I.

3. In the IS-LM model, output will become more sensitive to changes in the money supply if:
   a. Investment becomes less sensitive to interest rates.
   b. The marginal propensity to import increases.
   c. The marginal propensity to import decreases.
   d. The marginal propensity to consume decreases.

4. Suppose unemployment is at the NAIRU and potential output suddenly increases. Then, if the fiscal authority wishes to stabilize the economy, a good policy would be to:
   a. Reduce government expenditure.
   b. A permanent tax cut to consumers.
   c. A temporary tax cut to consumers.
   d. A permanent tax cut for business firms.
5. Suppose the monetary authority increases the money supply significantly. This creates a lot of uncertainty, thereby making consumers save more. We can represent this as:

   a. A shift in of both the IS curve and the LM curve.
   b. A shift in of the IS curve and a shift out of the LM curve.
   c. A shift out the IS curve and a shift in of the LM curve.
   d. A shift out of both the IS curve and the LM curve.

6. Changes in government purchases lead to larger changes in output if:

   a. The demand for money becomes less sensitive to income.
   b. The demand for money becomes less sensitive to interest rates.
   c. They are financed by increases in tax rates.
   d. The marginal propensity to import increases.

7. Suppose the structural budget balance is positive. Then, all else constant, the level of government debt will:

   a. Fall over time.
   b. May either rise or fall over time.
   c. Eventually become unsustainable.
   d. Stabilize at a fixed level.

8. Suppose that a fall in interest rates raises house prices and stock prices, which increases consumer wealth and therefore collateral they can offer. Then according to the credit channel dynamic of monetary policy:

   a. The IS curve should shift out since people feel wealthier.
   b. The IS curve should shift out since low interest rates raise consumer confidence.
   c. The money multiplier should rise since banks will now hold less excess reserves.
   d. The money multiplier should fall as banks become more reluctant to lend.
9. In the early 2000s, interest rates were lowered, but output fell. This could have been due to:

   a. Increases in the money multiplier.
   b. A steeper IS curve.
   c. An outward shift of the LM curve.
   d. An inward shift of the IS curve.

10. Suppose the Fed is concerned about economic volatility, i.e., the Fed wants to minimize changes in output. It can adopt either of two policies: Policy A which keeps the interest rate fixed or Policy B which keeps the money supply fixed. If the IS curve shifts a lot, the Fed should:

    a. Adopt policy A.
    b. Adopt policy B.
    c. Be indifferent to A or B.
    d. Adopt A and B.
B. IS-LM Model. Answer BOTH of the following questions.

1. In 1965, the U.S. economy was operating with an unemployment rate that was well below its natural rate while the government was running both actual and structural budget deficits. In 1966, the Johnson administration and Congress increased spending for the war in Vietnam, fully financing this increased spending with a temporary tax rate increase. (40 points.)

   a. Use a standard IS-LM model with a Budget Balance line to clearly show how these actions would affect equilibrium income, the interest rate, and both the actual and structural budget balances. Show the effects of the increased spending in red and the increased tax rate in blue.
b. Provide a brief economic explanation of the adjustment process as the economy moves from its initial equilibrium position to its new equilibrium position. Be sure to discuss what happens to equilibrium income, the interest rate, and both the actual and structural budget balances.
c. After these fiscal policy changes were implemented, the Federal Reserve acted to move the economy to its potential level. On your diagram above, clearly show what would happen to equilibrium income, the interest rate, and both the actual and structural budget balances. Show the effects of this monetary policy change in green.

d. Provide a brief economic explanation of the adjustment process that occurs after the Fed’s actions. Be sure to discuss what happens to equilibrium income, the interest rate, and both the actual and structural budget balances.
2. In 1979, the economy was in equilibrium with a cyclical budget deficit. The next year, the administration and Congress changed fiscal policy to return the economy to potential output. Once potential output was achieved, business confidence soared. (30 points.)

   a. Use a standard IS-LM model with an Okun’s Law line to clearly show how these events would affect equilibrium income, the interest rate, and the unemployment rate. Show the effects of the fiscal policy changes in red and the effects of the change in business confidence in blue.
b. Provide a brief economic explanation of the adjustment process that occurs as the economy moved from its initial equilibrium position to its final equilibrium, position. Be sure to discuss what happens to equilibrium income, the interest rate, and the unemployment rate.
c. After these events occur, the Federal Reserve uses monetary policy to move the economy back to potential output. On your diagram above, clearly show how this would affect equilibrium income, the interest rate, and the unemployment rate. Show the effects of the monetary policy changes in green.

d. Provide a brief economic explanation of the adjustment process that occurs after the monetary policy adjustment. Be sure to discuss what happens to equilibrium income, the interest rate, and the unemployment rate.