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 June 20, 2006.

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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. (3 points each; total of 30 points.)

1. Suppose the NAIRU falls significantly due to new labor market reforms. Then a good economic policy would be to:
   a. Reduce the monetary base.
   b. Increase the monetary base.
   c. Reduce the money multiplier.
   d. A permanent tax increase.
   e. Reduce government expenditures.

2. Given what you know about the concept of crowding out, “crowding in” could be:
   a. An increase in the reserve requirement for banks.
   b. Banks holding more excess reserves, reducing the money multiplier.
   c. An increase in investment when the government reduces expenditure.
   d. A decrease in consumption when the government increases expenditure.
   e. A rise in the velocity of money.

3. Suppose the government engages in a contractionary fiscal policy but the FED engages in a stabilization policy so as to keep output fixed. After this policy mix, all of the following are now true EXCEPT:
   a. Interest rates are lower.
   b. Investment is higher.
   c. Consumption is higher.
   d. Unemployment does not change.
   e. The money multiplier is lower.

4. Suppose that the FED aims to keep inflation at a fixed level. If inflation is forecast to fall in six months time, then the FED should:
   a. Raise interest rates in six months time.
   b. Raise interest rates today.
   c. Increase the monetary base today.
   d. Reduce interest rates in six months time.
   e. Reduce the money multiplier today.
5. Many economic commentators are predicting a large fall in house prices in the near future. If this happens, then, according to the credit channel view of monetary policy:

- a. Banks will lend less which will cause an economic contraction.
- b. People will feel poorer in the future and will consume less.
- c. The money multiplier will rise.
- d. Investment will fall due to less future profits.
- e. The construction industry will suffer a contraction.

6. Suppose that unemployment is below the NAIRU. Then good fiscal policy would be a:

- a. Temporary increase in taxes for consumers.
- b. A permanent increase in taxes for consumers.
- c. A temporary fall in taxes for consumers.
- d. A permanent fall in taxes for consumers.
- e. An increase in government expenditure.

7. If the FED always keeps the interest rate fixed, then all of the following are true EXCEPT:

- a. There is no crowding out.
- b. Fiscal policy is more powerful than if the FED kept the money supply fixed.
- c. Shifts in the IS curve will have greater effects on output.
- d. If the money multiplier rises, the FED will decrease the monetary base.
- e. The structural budget balance will now be lower.

8. Suppose that government expenditure falls when interest rates rise (and vice versa) because of higher borrowing costs. Now:

- a. The IS curve will be flatter.
- b. The Keynesian multiplier is higher.
- c. The money multiplier is lower.
- d. The IS curve will shift less when fiscal policy changes.
- e. Monetary policy is less powerful.
9. Consider the following two observations: a) rich people have a lower marginal propensity to consume than poor people and b) a rise in the minimum wage transfers income from rich owners of firms to poorer workers. Then a rise in the minimum wage would cause:

   a. The LM curve to flatten.
   b. The IS curve to shift to the right.
   c. The IS curve to steepen.
   d. The IS curve to shift to the left.
   e. The money multiplier to fall.

10. If output growth is growing faster than potential output growth then:

    a. The FED should raise interest rates.
    b. The government should cut tax rates.
    c. Unemployment is falling.
    d. The FED should increase the money supply.
    e. Unemployment is above the NAIRU.
B. IS – LM Model Problems. Answer BOTH of the following questions.

1. In 2005 the U.S. economy was at potential but the government’s budget was in substantial deficit. In 2006, oil prices increase to over $70 per barrel. As a result, many energy-intensive businesses had to change their production processes to less efficient techniques. Also in 2006, there was a big increase in imports as consumers bought more fuel efficient Japanese and German automobiles instead of less fuel efficient American ones. In addition, the government reduced personal income tax rates. The effect of the change in taxes in income was smaller than the effect of imports. Finally, the FED changed monetary policy to keep the unemployment rate steady at its 2005 level. (35 points.)

   a. Based only on this information, use an IS-LM Model diagram with a Okun’s Law diagram to clearly show the effects of these events on equilibrium income, interest rates, and the unemployment rate.
b. Provide a brief economic explanation of how these events affect your model diagrams and what happens to equilibrium income, the interest rate, and the unemployment rate. Be sure to discuss the adjustment process that moves the economy from its initial equilibrium position to its final equilibrium position.
2. In 1989, West Germany was at potential output with a balanced budget. In 1990, East Germany was effectively incorporated into West Germany. For simplicity, assume that German potential output did not change. To effectively do this, required substantial increases in West German government spending on infrastructure building, environmental cleanup, and unemployment benefits to East German workers who lost their jobs. To finance this increase in government spending, the West German government also increased tax rates. However, the increase in tax rates only partially paid for the increase in government spending. These sharp changes in fiscal policy caused a substantial decline in both consumer spending and business investment. The changes in government spending, consumer spending, and business investment were of the same orders of magnitude. Finally, the Bundesbank, the West German central bank, was determined to stabilize economic activity at full employment. (35 points.)

a. Based only on this information, use an IS-LM Model diagram with a Budget Balance line to clearly show the effects of reunification on Germany’s equilibrium income, interest rates, actual budget balance, and structural budget balance.
b. Provide a brief economic explanation of how these events affect your model diagrams and what happens to equilibrium income, the interest rate, the actual budget balance and the structural budget balance. Be sure to discuss the adjustment process that moves the economy from its initial equilibrium position to its final equilibrium position.