

## Midterm 2- Economics 105 – Fall 2000

You will have 45 minutes to complete this exam. It is divided into 75 points.

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**Multiple Choice:** (30 points total, 3 points each) Choose the best answer, and enter on your scantron.

- 1) Over 1999, the U.S inflation rate was 2.3%, and the nominal interest rate was 4.6%. The ex post real interest rate was:
    - a) 2.3%
    - b) 4.6%
    - c) 6.9%
    - d) Not enough information to know
  - 2) Which of the following could explain why the natural rate of unemployment is lower in the U.S. than in Canada? The U.S. has:
    - a) a higher rate of job separation.
    - b) fewer industries that are unionized.
    - c) more sectoral shifts in the economy.
    - d) more firms that pay efficiency wages.
  - 3) Which of the following could lower the amount of wait unemployment in the U.S.?
    - a) decrease worker retraining programs
    - b) lower unemployment benefits
    - c) increase the degree of unionization
    - d) lower the minimum wage
  - 4) Assuming prices are flexible, which of the following could cause inflation today?
    - a) a rise in money supply today.
    - b) a fall in money demand today.
    - c) an expected rise in money supply in the future.
    - d) all of the above
  - 5) Which of the following is not implied by the quantity theory of money:
    - a) inflation equals the rate of money growth, if output and velocity are constant
    - b) transactions velocity is defined as price level multiplied by transactions divided by money
    - c) a classical dichotomy, in which changes in real variables do not affect nominal variables.
    - d) If both money supply and output double, while velocity is constant, price level will not change.
  - 6) According to the AS-AD model, a temporary favorable supply shock (like a fall in the cost of oil) will cause which of the following to happen in the short run?
    - a) recession and inflation
    - b) recession, no inflation
    - c) output boom and inflation
    - d) output boom and negative inflation
  - 7) According to the Keynesian Cross analysis (where investment is assumed exogenous and the marginal propensity to consume is between 0 and 1), a rise in government purchases by 1\$ would raise output by:
    - a) less than 1\$
    - b) 1\$
    - c) more than 1\$
    - d) it is impossible to tell
  - 8) Which of the following would make the LM curve flatter?
    - a) When income rises people like to hold a lot more cash
    - b) When income rises, people like to hold a lot less cash
    - c) When the interest rate rises, people like to hold a lot less cash.
    - d) When the interest rate rises, investment falls a lot.
  - 9) Which of the following would make the IS curve flatter?
    - a) The marginal propensity to consume is small.
    - b) Investment is very responsive to the interest rate
    - c) Money demand is very responsive to the interest rate.
    - d) Both a and b
  - 10) Which of the following are usually important for ending a hyper-inflation:
    - a) Cut the growth rate in money supply.
    - b) Cut government spending or raise taxes.
    - c) End reliance on seigniorage.
    - d) All of the above
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**Problem 1: AS-AD** (15 points) Write answer in your blue-book.

Japan has recently experienced a series of bank failures. Regard this as a permanent fall in the level of velocity of money in the economy. Use the AS-AD model from chapter 9 (where AD is based on the quantity theory of money) to explain the effects this would have on the economy. In particular, what will happen to output and the price level in the short run and the long run? Could the bank failures lead to a recession? Use a graph to illustrate your explanation. Be sure to label the axes, curves, and mark the equilibrium points.

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**Problem 2: IS-LM and Keynesian Cross** (30 points total) Write answers in your blue-book.

As a result of the end of the Cold War, military spending has fallen in the U.S. Analyze the short-run effects of such a cut in government purchases in the Keynesian IS-LM model. (Apply the usual assumptions unless stated otherwise: price level is fixed in the short run, consumption is a function of disposable income with a constant marginal propensity between 0 and 1, investment is just a function of the interest rate, and money demand is a function of both the interest rate and income.)

- a) (6 pts) Graphically illustrate the short-run effect of this policy in an IS-LM graph. Be sure to label the axes, the curves, and use arrows showing the direction the curves shift. Also mark the initial equilibrium as point '1', and the short-run equilibrium as point '2'.
- b) (8 pts) State if the equilibrium levels of the following variables rise, fall, don't change, or if it is impossible to tell: interest rate, output, investment, and consumption.
- c) (8 pts) Suppose that in this economy investment does not depend at all on the interest rate but is just fixed at some exogenous level (as in the Keynesian Cross). For each of the variables listed in part (b) above, state if the variable would move by a larger magnitude than in part (b), a smaller amount, the same, or if it is impossible to tell. Explain your reasoning.
- d) (8 pts) Return to assuming that investment is a function of the interest rate. Suppose now that the government does not want the cut in government purchases to cause a recession. So instead it plans to change taxes at the same time that it cuts government spending, so that it cancels out any effect on GDP. If government spending is cut by \$10 billion, and the marginal propensity to consume is 0.75, how much should taxes be changed in order to keep output constant? (Be specific about the direction and magnitude.) Does this joint fiscal policy successfully cancel out all effects on the economy? In particular, are there any changes in investment or consumption (say rise, fall, or no change for each)? Explain