Department of Economics
University of Toronto

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February 13, 2015

ECO 209Y
MACROECONOMIC THEORY AND POLICY

Term Test #3

LAST NAME ______________________________

FIRST NAME _____________________________

STUDENT NUMBER _______________________

Indicate your section of the course:

☐ **Tuesday, 10-12 – L0101** ☐ **Tuesday, 2-4 – L0201**

☐ **Wednesday, 2-4 – L0301** ☐ **Thursday, 2-4 – L0401**

INSTRUCTIONS:

1. The total time for this test is 1 hour and 45 minutes.
2. Aids allowed: a simple, non-programmable calculator.
3. Use pen instead of pencil.

DO NOT WRITE IN THIS SPACE

Part I	_________/30	Part III	1.	_________/10
Part II	_________/15		2.	_________/10
			3.	_________/10
TOTAL	_________/75			

PART I (30 marks)

Instructions:
- Enter your answer to each question in the table below.
- Each correct answer is worth 2.5 marks. ***Note that a deduction of 0.5 mark will be made for each incorrect answer.*** Table cells left blank will receive a zero mark (i.e., no deduction).
- **Do NOT guess your answers!**

1	2	3	4	5	6	7	8	9	10	11	12

1. Suppose that as a result of greater uncertainty in the world economy, foreign investors choose to invest more in a safe country such as Canada. Given the above, which of the following statements best describes the most likely outcome in Canada?

A) The rate of interest will fall but net exports will rise.
B) The rate of interest will rise but net exports will fall.
C) The rate of interest and net exports will both rise.
D) The rate of interest and net exports will both fall.
E) The rate of interest will remain unchanged but net exports will fall.

2. Consider an open economy with a fixed-price level, imperfect capital mobility, and a flexible exchange rate. Which of the following best describes the impact of a decrease in the international rate of interest?

A) Equilibrium income will rise, the rate of interest will fall, the current account will improve, and the capital account will deteriorate.
B) Equilibrium income will fall, the rate of interest will fall, the current account will deteriorate, and the capital account will improve.
C) Equilibrium income will rise, the rate of interest will rise, the current account will improve, and the capital account will deteriorate.
D) Equilibrium income will fall, the rate of interest will fall, the current account will improve, and the capital account will deteriorate.
E) Equilibrium income will rise, the rate of interest will fall, the current account will deteriorate, and the capital account will improve.

Use this space for rough work.

3. Consider an open economy with a fixed-price level, flexible exchange rates, and imperfect capital mobility. Which of the following best describes the impact of an increase in the tax rate?

A) Output and the exchange rate will decline.
B) Output and the exchange rate will rise.
C) The interest rate will rise and the exchange rate will fall.
D) Output will fall and the exchange rate will rise.
E) Output will fall and the interest rate will rise.

4. Consider a model of an open economy with fixed prices, flexible exchange rates, and perfect capital mobility. Given an increase in the level of U.S. income, which one of the following statements is true with respect to its impact on the Canadian economy?

A) Net exports will increase and equilibrium income will rise.
B) Net exports will increase, the Canadian dollar will appreciate, and the balance in the capital account will deteriorate.
C) Exports will increase, the Canadian dollar will appreciate but the balances in both the current and the capital accounts will remain unchanged.
D) Exports will increase, the Canadian dollar will appreciate, the balance in the current account will improve, and the balance in the capital account will deteriorate.
E) Net exports will increase, the Canadian dollar will depreciate, and the balance in the capital account will deteriorate.

5. The price of oil was $106 a barrel in June 2014 and dropped to less than $50 a barrel by the end of January 2015. Which one of the following might be most responsible for this price decrease?

A) A U.S. and Saudi conspiracy to weaken the Russian and Iranian economies.
B) An increase in oil output by OPEC countries.
C) A drop in demand due to lower rates of growth of China's economy.
D) The expansion of oil extraction from nonconventional sources.
E) A Saudi conspiracy to maintain its market share.

Use this space for rough work.

6. Consider a model of an open economy with fixed prices, flexible exchange rates, and perfect capital mobility. Which one of the following statements is correct?

- **A)** Expansionary monetary policy will appreciate the domestic currency.
- **B)** Fiscal expansion is very effective in stimulating aggregate demand.
- **C)** Fiscal expansion causes a depreciation of the domestic currency.
- **D)** An increase in exogenous exports will increase net exports.
- **E)** None of the above is correct.

7. Which of the following actions will lead to an expansion of the money supply?

- **A)** The government of Canada sells bonds to the Bank of Canada.
- **B)** The Bank of Canada buys government bonds from the public.
- **C)** The government of Canada sells bonds to the commercial banks.
- **D)** The government of Canada sells bonds to the public.
- **E)** Both A) and B) above.

8. Consider the *M1* definition of money and suppose that banks are presently paying interest on chequing account deposits. If a change in government regulations now forbids banks to pay interest on chequing accounts, which of the following best describes the most likely outcome?

- **A)** The demand for money will decrease.
- **B)** The demand for money will increase.
- **C)** The demand for money will remain unchanged.
- **D)** The demand for currency will fall while the demand for chequing accounts deposits will rise.
- **E)** The demand for chequing account deposits will fall but the overall demand for money will not change.

9. The monetary base is $20 billion, vault cash held by commercial banks is equal to $3 billion, commercial banks' deposits at the Central Bank are $7 billion, and the public's deposits at the commercial banks are $70 billion. The money multiplier is equal to

- **A)** 2.5.
- **B)** 3.0.
- **C)** 4.0.
- **D)** 5.0.
- **E)** 5.5.

Use this space for rough work.

10. In an open economy, a flatter aggregate demand (*AD*) curve implies a

- **A)** larger difference between the fiscal policy and the monetary policy multipliers.
- **B)** larger sum of the fiscal policy and the monetary policy multipliers.
- **C)** larger monetary policy multiplier and a smaller fiscal policy multiplier.
- **D)** larger fiscal policy multiplier and a smaller the monetary policy multiplier.
- **E)** smaller difference between the fiscal policy and the monetary policy multipliers.

11. Which of the following will cause the *AD*-curve to shift up to the right?

- **A)** An increase in the real money supply due to an increase in the price level.
- **B)** A decrease in the real money supply due to an increase in the nominal money supply.
- **C)** A decrease in the interest sensitivity of investment.
- **D)** An increase in the income sensitivity of the demand for real balances.
- **E)** An increase in autonomous imports.

12. According to neoclassical theory, a profit-maximizing firm will hire more labour if the

- **A)** real wage rate exceeds the marginal product of labour.
- **B)** nominal wage rate is lower than the value of the marginal product of labour.
- **C)** marginal product of labour exceeds the nominal wage rate.
- **D)** real wage rate equals the marginal product of labour.
- **E)** nominal wage rate exceeds the marginal product of labour.

Use this space for rough work.

PART II (15 marks)

Consider a closed economy where the price level is fixed and equal to 1. In this economy, the expressions for the *IS* and *LM* curves are respectively given by:

$$i = 30 - 0.02Y \quad \text{and} \quad i = -0.1M + 0.02Y,$$

where Y is income and M is the nominal money stock in the economy. This economy is initially in equilibrium at $Y = 1250$.

a) What is the size of the nominal money stock at the initial equilibrium? <u>Show how you obtained this figure</u>. **(2 marks)**

b) If the desired currency-deposit ratio (*cu*) of the public is 0.2 and the desired cash-reserve ratio (*re*) of the banks is 0.1, what is the value of the money multiplier (*mm*)? <u>Show how you obtained this figure</u>. **(2 marks)**

c) Of the total nominal money stock of part a) above, how much is it held in currency (CU_P) and how much in deposits (D)? What are the total reserves (R) of the commercial banks? Show how you obtained these figures. **(3 marks)**

d) Suppose that full-employment income is Y^* = 1400. If the central bank decides to implement expansionary monetary policy to achieve full-employment, by how much should the money supply (M) be increased? **(2 marks)** What must the central bank do to cause M to increase by this amount? Show how you obtained all figures. **(1 mark)**

e) As a result of the expansionary monetary policy implemented by the central bank of part d) above, what are the changes in the currency (ΔCU_P) and deposits (ΔD) held by the public? What is the change in the reserves (ΔR) of the banks? Show how you obtained all figures. **(3 marks)**

f) Suppose the government decides to achieve full-employment by increasing government purchases while keeping the rate of interest unchanged at the level of the initial equilibrium of part a) above. What is the required increase in the nominal money stock (ΔM) and the monetary base (ΔB)? **(2 marks)**

PART III (30 marks)

Instructions: Answer the following three questions in the space provided. You may continue your answer on page 12 if additional space is required (***but clearly indicate that your answer continues on page 12***). Each question is worth 10 marks.

1. **Critically evaluate the following statement:** *"The undervaluation of the yuan (the Chinese currency) is the underlying cause of the large deficit in the U.S. trade account."*

(Continue on page 12 if necessary)

2. **Critically evaluate the following statement:** *"A sale of gold by the commercial banks to the Bank of Canada, a transfer of the Government of Canada's deposits from the Bank of Canada to the commercial banks, a sale of bonds by the general public to the commercial banks, and an increase in the Bank Rate will all result in a decrease in the money supply."* **In your analysis, assume a fixed currency-deposit ratio of the public and a fixed desired cash-reserve ratio of the commercial banks.**

(Continue on page 12 if necessary)

3. **Critically evaluate the following statement:** *"If the central bank increases the money supply, equilibrium output will rise, the equilibrium rate of interest will fall, and the balance of the current account will deteriorate."* **(Show your answer with the help of appropriate diagrams and explain the economics. Consider an open economy with a fixed-price level, flexible exchange rates, and no capital mobility. Assume exogenous money supply and a recessionary gap at the initial equilibrium.)**

(Continue on page 12 if necessary)

(Continue on this page if necessary)