

ECO 209Y
MACROECONOMIC THEORY AND POLICY

Term Test #2

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 3 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

1. Suppose the money supply is an increasing function of the interest rate. Then,
 - A) the LM curve will be flatter than when the money supply is fixed.
 - B) the LM curve will be steeper than when the money supply is fixed.
 - C) the IS curve will be steeper than when the money supply is fixed.
 - D) the IS curve will be flatter than when the money supply is fixed.
 - E) both the IS and the LM curves will be flatter than when the money supply is fixed.
2. Looking at the macroeconomic statistics for a hypothetical closed economy, you discover that at the beginning of the year, the nominal supply of money was \$400 million and by the end of the year it was equal to \$420 million. You also found that the inflation rate in this economy was 4%. In this case, you would expect the LM curve
 - A) to shift up as the real money supply falls.
 - B) to shift up as the real money supply rises.
 - C) to shift down as the real money supply falls.
 - D) to shift down as the real money supply rises.
 - E) not to shift.
3. Consider a fixed-price level, closed economy. Expansionary monetary policy is more effective in increasing output when the
 - A) income sensitivity of money demand is large.
 - B) interest rate sensitivity of investment is large.
 - C) IS curve is very steep.
 - D) LM curve is very flat.
 - E) interest rate sensitivity of money demand is large.

Use this space for rough work.

Use the following information to answer questions 4 and 5 below. Consider the fixed-price model of the economy where the expression for the IS curve is $i = 10 - 0.001 Y$ and the expression for the LM curve is $i = -2 + 0.002 Y$. The simple Keynesian multiplier (α_{AE}) for this economy is 2.5 and the interest sensitivity of the demand for real balances (h) is 20. The level of full employment income (Y_{fe}) is \$4500. All money figures are in millions of dollars.

4. Suppose the government wants to achieve full-employment income without altering the initial equilibrium rate of interest. To this end, the government increases its expenditure on goods and services at the same time that the Bank of Canada increases the money supply. By how much should government expenditure be increased?
 - A) \$100.
 - B) \$50.
 - C) \$300.
 - D) \$200.
 - E) By none of the above.
5. By how much should the real supply of money be increased?
 - A) \$16.
 - B) \$12.
 - C) \$20.
 - D) \$18.
 - E) By none of the above.
6. Suppose that income per capita in Mexico is 45,000 pesos and that the nominal exchange rate for Mexican pesos is 0.10. Further suppose that a given consumption basket of goods and services costs \$2,250 in Canada and 15,000 pesos in Mexico. Using the PPP exchange rate, income per capita in Mexico is:
 - A) \$7,500.
 - B) \$6,750.
 - C) \$4,500.
 - D) \$9,250.
 - E) none of the above.
7. Consider a small open economy with a fixed-price level, fixed exchange rates, and **no** capital mobility. If the government imposes an import quota, in the new equilibrium:
 - A) net exports, the money supply, and income will all be lower.
 - B) net exports, the money supply, and income will all be higher.
 - C) net exports will remain unchanged, but the money supply and income will both be higher.
 - D) net exports, the money supply, and income will all remain unchanged.
 - E) net exports will remain unchanged, the money supply will be lower, and income will be higher.

Use this space for rough work.

8. Consider a model of an open economy with a fixed-price level, fixed exchange rates, and **imperfect** capital mobility. If the Bank of Canada pursues expansionary monetary policy, which one of the following would describe the most likely outcome?
- A) Both equilibrium rate of interest and equilibrium income will remain unchanged and foreign currency reserves will decrease.
 - B) Equilibrium interest will fall, equilibrium income will rise, and foreign currency reserves will decrease.
 - C) Equilibrium interest will remain unchanged, equilibrium income will rise, and foreign currency reserves will decrease.
 - D) Both equilibrium interest and equilibrium income will remain unchanged and foreign currency reserves will increase.
 - E) Equilibrium interest will fall, equilibrium income will increase, and foreign currency reserves will increase.
9. Consider a model of an open economy with a fixed-price level, fixed exchange rates, and **perfect** capital mobility. Suppose that the initial equilibrium income is below full employment and that there is external balance. An increase in autonomous exports will cause
- A) foreign reserves to decrease, the balance in the current account to improve, and the balance in the capital account to deteriorate.
 - B) foreign reserves to increase, the balance in the current account to improve, and the balance in the capital account to deteriorate.
 - C) foreign reserves to increase, but the balance in both the current and the capital account to remain unchanged.
 - D) foreign reserves to increase, the balance in the current account to deteriorate, and the balance in the capital account to improve.
 - E) Both B) and C) are possible.
10. Suppose you are an adviser to the government and the economy is experiencing a balance-sheet recession. If you must choose only one policy and the objective is to increase GDP, which one of the following policies will you advise the national government to implement?
- A) A reduction in corporate taxes to induce investment.
 - B) A reduction in income taxes to increase consumption.
 - C) Open market purchases by the central bank.
 - D) An increase in transfer payments to the provinces to finance new highway construction.
 - E) An increase in transfer payments to municipalities to help pay off their debts.
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Use this space for rough work.

PART II (15 marks)

Consider an open economy with a fixed-price level, fixed exchange rates, and imperfect capital mobility. This economy is characterized by the following behavioural equations:

$$C = 70 + 0.8 YD$$

$$I = 120 - 20 i + 0.1 Y$$

$$G = 200$$

$$TA = 0.25 Y$$

$$TR = 0$$

$$NX = -40 + 300 e - 0.1 Y$$

$$L = 0.2 Y - 10 i$$

$$M/P = 150$$

$$CF = -50 + 10 i$$

- a) What is the equation for the IS curve in this model? (2 marks)

- b) What is the equation for the LM curve in this model? (2 marks)

c) What is the equation for the BP curve in this model? **(2 marks)**

d) Suppose the central bank sets the value of the exchange rate at $e = 0.5$. What are the values of Y and i when $e = 0.5$? **(2 marks)**

- e) Is the external sector in equilibrium at the level of Y obtained in part d) above? If not, what is the size of the deficit or surplus? What are the balances in the current account and the capital account? **(3 marks)**

- f) Given the situation described in part e), what will the central bank do to maintain the exchange rate at $e = 0.5$? As a result of this action by the central bank, what will be the new equilibrium Y and i ? What will be the new level of M/P ? **(4 marks)**

PART III (30 marks)

Instructions: Answer the following three questions in the space provided. You may continue your answer on pages 11-12 if additional space is required (**but clearly indicate that your answer continues on page 11 or 12**). Each question is worth 10 marks.

1. **Explain** with the help of appropriate diagrams whether the following statement is true or false: “An increase in the income sensitivity of the demand for real balances will have an expansionary effect on the economy, i.e, it will cause the equilibrium level of income to rise.”
[Note: Consider a closed economy with a fixed-price level.]

2. **Explain** with the help of appropriate diagrams whether the following statement is true or false: “An increase in the U.S. price level will cause Canadian GDP to rise.” [Note: Consider an open economy with a fixed-price level, fixed exchange rates, and no capital mobility. Assume external balance and a recessionary gap at the initial equilibrium.]

3. **Explain** with the help of appropriate diagrams whether the following statement is true or false: “An increase in autonomous investment will cause equilibrium output to increase, the equilibrium rate of interest to rise, the balance of the current account to deteriorate, and the balance of the capital account to improve.” [Note: Consider an open economy with a fixed-price level, fixed exchange rates, and imperfect capital mobility. Assume external balance and a recessionary gap at the initial equilibrium.]

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