

**ECO 209Y – L0101
MACROECONOMIC THEORY**

Term Test #1

LAST NAME _____

FIRST NAME _____

STUDENT NUMBER _____

INSTRUCTIONS:

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

DO NOT WRITE IN THIS SPACE

Part I _____/40

Part II _____/10

Part III 1. _____/10

2. _____/10

3. _____/10

TOTAL _____/80

PART I (40 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	13	14	15	16

1. Since 2013, Kathrine has been renting a condominium apartment for \$2,000 a month. She purchased this apartment from her landlord on July 1, 2015 and paid \$500,000 for it. What is the impact of this purchase on 2015 GDP?
 - A) Consumption is unchanged and investment is unchanged.
 - B) Consumption falls by \$12,000 and investment is unchanged.
 - C) Consumption is unchanged and investment rises by \$500,000.
 - D) Consumption falls by \$12,000 and investment rises by \$500,000.
 - E) Consumption rises by \$12,000 and investment is unchanged.
2. Minghe bought a one-year government bond for \$500. He received principal and interest totalling \$540 one year later. During the year the Consumer Price Index (CPI) rose from 120 to 126. The nominal interest rate on the bond was _____ percent, and the real interest rate was _____ percent.
 - A) 8; 2.
 - B) 40; 6.
 - C) 8; 3.
 - D) 8; -2.
 - E) None of the above is correct.

Use this space for rough work.

3. When measuring GDP through the expenditure approach, which one of the following statements about investment is correct:
- A) Net investment may be negative.
 - B) Net investment includes the total of all machinery and equipment produced during the year.
 - C) Gross investment must equal net investment.
 - D) Gross investment plus depreciation equals net investment.
 - E) Net investment is one of the components of total expenditure on goods and services.
4. In the national accounts, which of the following is **not** included in the government expenditure component of aggregate expenditure?
- A) Salaries of civil servants whose responsibilities include the collection of the Harmonized Sale Tax (HST).
 - B) The city of Edmonton's purchase of forms from a Regina printing company.
 - C) Canada pension payments to eligible residents of Sherbrook, Quebec.
 - D) The government of Newfoundland's payment to a New York engineering consulting company.
 - E) The city of Toronto purchase of Canadian flags from a firm in Brazil.
5. Which one of the following expenses is **not** considered as investment when measuring GDP?
- A) A new coffee-maker bought by a Starbuck's franchise.
 - B) The construction of a garage in John's backyard by a private contractor.
 - C) University of Toronto's purchase of the Medical Arts Building at the corner of St. George St. and Bloor St. W.
 - D) A new limousine bought for the use of the CEO of Magna Corporation.
 - E) The construction of a new house for the use of the Premier of Ontario.
6. The popcorn industry produced \$1 billion worth of popcorn in 2015, using \$500 million worth of corn as the only intermediate product. The popcorn industry had profits of \$100 million and additional expenditures totalling \$400,000. These additional expenditures were \$300 million in wages and salaries, \$50 million in rent, and \$50 million in taxes. The contribution of the popcorn industry to the country's GDP in 2015 was
- A) \$350 million.
 - B) \$1 billion.
 - C) \$450 million.
 - D) \$500 million.
 - E) None of the above.

Use this space for rough work.

7. Suppose that an economy produces only apples, bananas, and oranges, and that prices (in dollars) and quantities (in pounds) are as shown in the following table:

Good	Year 2014		Year 2015	
	Quantity	Price	Quantity	Price
Apples	3,000	\$2	4,000	\$3
Bananas	6,000	\$3	5,000	\$2
Oranges	8,000	\$4	9,000	\$5

Using the chain method, what was the (approximate) percentage change in real GDP in 2015?

- A) 7.7 percent.
 - B) 6.8 percent.
 - C) 6.2 percent.
 - D) 5.8 percent.
 - E) None of the above.
8. Suppose that the federal government runs a budget surplus of \$20 billion. It collects \$100 billion in taxes, and it has the following expenditures: \$20 billion in welfare payments, \$10 billion in interest on the national debt, \$10 billion in rent, and \$40 billion in wages. The government contribution to GDP is
- A) \$80 billion.
 - B) \$40 billion.
 - C) \$50 billion.
 - D) \$70 billion.
 - E) none of the above.
9. In 2015, a dealership in Toronto buys 30 new cars from the Ford Motor Company in Oakville, Ontario, at a cost of \$15,000 per car and sells 25 of these cars by the end of the year at a price of \$20,000 each. The remaining cars are then sold in January 2016 at a price of \$18,000 each. In these transactions, the dealership's contribution to GDP in the year 2015 was:
- A) \$450,000.
 - B) \$140,000.
 - C) \$590,000.
 - D) \$125,000.
 - E) none of the above.

Use this space for rough work.

10. Consider a closed economy with a fixed-price level. If investment is very sensitive to the interest rate, which one of the following statements would be correct?
- A) The LM curve will be steep.
 - B) The IS curve will be steep.
 - C) Monetary policy will have a large effect on nominal interest rates.
 - D) Monetary policy will have a large effect on output.
 - E) Fiscal policy will have a large effect on output.
11. Consider a fixed price model of a closed economy, and suppose that consumption demand declines as the interest rate increases. The slope of the IS curve will
- A) be flatter the more sensitive consumption demand is to changes in the interest rate.
 - B) be steeper the more sensitive consumption demand is to changes in the interest rate.
 - C) be flatter if the interest sensitivity of consumption is greater than the interest sensitivity of investment.
 - D) be flatter if the interest sensitivity of investment is greater than the interest sensitivity of consumption.
 - E) not depend on the sensitivity of consumption demand to changes in the interest rate.
12. Consider the fixed-price model of a closed economy. In the short run, a decrease in autonomous investment will
- A) lower the interest rate and increase saving.
 - B) raise the interest rate and increase saving.
 - C) lower the interest rate and decrease saving.
 - D) raise the interest rate and decrease saving.
 - E) lower the interest rate but leave saving unchanged.
13. Suppose that there is a simultaneous tax cut and an open market sale of bonds. As a result of these policies, which of the following will be true?
- A) Both output and the interest rate will increase.
 - B) Both output and the interest rate will decrease.
 - C) The interest rate will increase and output will decrease.
 - D) The interest rate will increase.
 - E) Output will increase.

Use this space for rough work.

14. Consider the IS-LM model of a closed economy with a fixed-price level. The government launches a new project where the purchase of domestic products is financed by selling bonds to the general public. Which of the following best describes the likely impact of this government action?
- A) Income will not change.
 - B) The money supply will not change.
 - C) The rate of interest will fall.
 - D) The rate of interest will not change.
 - E) Both B) and D) are correct.
15. The IS-curve will become flatter if
- A) money demand increases.
 - B) the interest-sensitivity of investment decreases.
 - C) the marginal propensity to consume decreases.
 - D) the marginal propensity to save increases.
 - E) the income tax rate is reduced.
16. An increase in the marginal propensity to save
- A) makes the AE curve steeper.
 - B) causes equilibrium income to fall.
 - C) increases planned investment.
 - D) reduces the budget deficit.
 - E) causes the money supply to rise.
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Use this space for rough work.

PART II (10 marks)

Consider a closed economy with a fixed-price level where the real money demand (L), the real money supply (M/P), and aggregate expenditure (AE) are defined as follows:

$$L = 0.25 Y + 400 - 15 i$$

$$M/P = 600$$

$$AE = 400 + 0.75 Y - 10 i.$$

- a) What are the expressions for the IS and LM curves in this economy? Show all your work. (2 marks)

- b) What are the levels of equilibrium income (Y^*) and equilibrium nominal rate of interest (i^*)? Show all your work. (2 marks)

- c) Suppose that government purchases increase by \$50, i.e., $\Delta G = 50$. If the real money supply remains constant, what are the new levels of equilibrium income and equilibrium nominal rate of interest? Show all your work. **(3 marks)**

- d) Go back to the equilibrium of part b) above. Suppose now that government purchases increase by \$50 but the central bank changes the money supply to keep the interest rate constant. By how much should the central bank change the money supply? Show all your work. **(2 marks)** What is the new level of equilibrium income? Show all your work. **(1 mark)**

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:** *“Government budget deficits tend to crowd out private investment. Therefore, the proposition to force governments to run balanced budgets at all times makes economic sense.”*

2. Critically evaluate the following statement: *“An increase in the income sensitivity of the demand for real balances will enhance the effectiveness of fiscal policy.”* (Show your answer with the help of a diagram and explain the economics. Consider the IS-LM model of a closed economy.)

3. Critically evaluate the following statement: *"In a closed economy, national saving is equal to actual investment. Therefore, the government should implement policies that encourage greater saving to help the economy get out of the recession."* (Show your answer with the help of a diagram and explain the economics.)

(Continue on this page if necessary)

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