# ECO 209Y MACROECONOMIC THEORY AND POLICY <br> <br> Term Test \#3 

 <br> <br> Term Test \#3}

February 12, 2018

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(e.g., LIHAO118):


## INSTRUCTIONS:

- The total time for this test is $\mathbf{1}$ hour and $\mathbf{4 5}$ minutes. Manage your time properly!
- The only aid allowed is a non-programmable calculator.
- Write your name and identifying information above but keep this test paper and the Supplement closed until the start of the test is announced.
- There are three parts to the test: Part I consists of 14 multiple-choice questions (35 points); Part II is one quantitative problem (10 points); and Part III includes 3 shortanswer questions ( 30 points). The total point-value of the test is 75 points.
- This test includes 8 pages plus the Supplement. The Supplement contains the multiplechoice questions but you must record your answers to each multiple-choice question in the table provided on the next page. Anything written on the Supplement will not be graded. We will only collect the test papers, not the Supplement.
- In Parts II and III, write your answers clearly and concisely in the space provided immediately after each questions. Your entire answer must fit in the designated space. No extra space/pages are possible. You cannot use blank space for other questions nor can you write answers on the Supplement.
- It is best to write in PENCIL and use an ERASER as needed. This way you can make sure to fit your final answer in the appropriate space.
- Please write legibly. If I can't read your handwriting, I can't award you any marks!


## PART I (35 points)

## Instructions:

- Enter your answer to each of the 14 multiple-choice questions (see the Supplement) in the table below.
- Each correct answer is worth 2.5 points.
- Note that no deduction will be made for incorrect answers. Table cells left blank will receive zero points.
- Do NOT guess your answers! Manage your time properly!

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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## PART II (10 points)

Consider the Neo-Keynesian monetary model of a closed economy where the equations for the IS curve and the real demand for money are, respectively, $\boldsymbol{i}=17.5 \mathbf{- 0 . 0 0 5 Y}$ and $L=0.2 Y-20 i$.
a) Suppose the central bank implements monetary policy following a money-supply rule where the endogenous money supply function is MIP = 300 + $\mathbf{2 0} \boldsymbol{i}$. What are the equilibrium levels of income and interest rate? (3 points)
b) If through an open market operation the central bank causes the supply of money to increase to MIP = 400 + 20 i, what are the equilibrium levels of income and interest rate now? (2 points)
c) Suppose instead that the central bank implements monetary policy following an interest-rate rule and the interest rate is set at $\boldsymbol{i}=4$. What are the equilibrium levels of income and interest rate? ( $\mathbf{3}$ points)
d) If the central bank reduces its target for the overnight rate and the banks decrease the rate of interest to $\boldsymbol{i}=\mathbf{3}$, what are the equilibrium levels of income and interest rate now? (2 points)

## PART III (30 points)

Instructions: Answer the following three questions in the space provided. Each question is worth a maximum of 10 points.

1. Consider the Neo-Keynesian monetary model where the central bank implements monetary policy following an interest-rate rule. Suppose that the central bank reduces the target for the overnight rate of interest. What will be the economic impact of such a policy? (Show your answer with the help of an IS-LM diagram and explain the economics. Assume a closed economy with a recessionary gap.)
2. The U.S. has been experiencing significant macroeconomic imbalances - large current account deficits and large government budget deficits. Its trade deficit with China accounts for a large share of its total current account deficit, while China's purchases of U.S. treasury bills largely contributes to financing its fiscal deficit. The Trump administration is now considering the imposition of stiff tariffs on the imports of Chinese goods to eliminate the current account deficit. In your view, what will be the likely economic impact of these tariffs on the U.S. economy? (In your answer you must clearly explain the expected effect on GDP, interest rate, and the balances in the current and capital accounts. Note that you do not need to use diagrams to answer this question.)
3. Critically evaluate the following statement: "Minimum wages are a good example of self-defeating interventionism since the well-meaning attempt to dictate higher wages ends up reducing employment and ultimately hurting the very workers they were supposed to help." (Note: In your answer you should refer to the readings discussed in the case study on minimum wages.)

## DO NOT WRITE ON THIS PAGE

NOTE THAT ANYTHING
WRITTEN ON THIS PAGE WILL NOT BE GRADED

# ECO 209Y MACROECONOMIC THEORY AND POLICY <br> Term Test \#3 

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## SUPPLEMENT

## INSTRUCTIONS:

- Read these instructions but keep this Supplement closed until the start of the test is announced.
- This Supplement contains the test's multiple-choice questions but you must record your answers to each of the 14 multiple-choice questions in the table provided on page 2 of the test paper. Anything written on this Supplement will not be graded. We will only collect the test papers, not the Supplement.
- Each correct answer is worth 2.5 marks. Table cells left blank will receive a zero mark. Although no deduction will be made for incorrect answers, do NOT guess your answers!
- The only aid allowed is a non-programmable calculator.

1. Suppose the Bank of Canada buys $\$ 10$ million of bonds in the open market and, at the same time, sells foreign currency for $\$ 4$ million. If the money multiplier is 2 , in the new NeoKeynesian monetary equilibrium the money supply will
A) increase by $\$ 28$ million.
B) increase by $\$ 20$ million.
C) increase by $\$ 12$ million.
D) fall by $\$ 28$ million.
E) fall by $\$ 20$ million.
2. Assume the stock of high-powered money is $\$ 50$ billion, the money supply is $\$ 200$ billion, the desired currency-deposit ratio is 0.2 , and that there are no excess reserves in the banking system. What is the banks' desired cash-reserve ratio?
A) 0.5 .
B) 0.4 .
C) 0.2 .
D) 0.1 .
E) None of the above is correct.
3. Suppose the government has a balanced budget and the money multiplier is equal to 2 . If the government now finances a new expenditure of $\$ 1.5$ billion by selling bonds to the Bank of Montreal, the money supply will:
A) increase by $\$ 0.75$ billion.
B) increase by $\$ 1.5$ billion.
C) increase by $\$ 3$ billion.
D) increase by more than $\$ 1.5$ billion but less than $\$ 3$ billion.
E) remain unchanged.
4. Assume that the desired currency-deposit ratio is 0.2 , the desired reserve-deposit ratio is 0.2 , the money supply is $\$ 42$ billion, and the banking system has excess reserves of $\$ 2$ billion. In the new Neo-Keynesian monetary equilibrium the money supply will be:
A) $\$ 36$ billion.
B) $\$ 40$ billion.
C) $\$ 44$ billion.
D) $\$ 48$ billion.
E) None of the above is correct.
5. Suppose the Bank of Canada makes an open market sale of $\$ 100$ million, buys $\$ 50$ million worth of euros in the exchange market, and spends $\$ 75$ million renovating the Bank's headquarter in Ottawa. As a result of these transactions, the monetary base will:
A) increase by $\$ 25$ million.
B) increase by $\$ 50$ million.
C) increase by $\$ 75$ million.
D) decrease by $\$ 50$ million.
E) None of the above is correct.
6. Consider a new cash-deposit of $\$ 10,000$ to the Canadian banking system. Assuming that all banks are initially holding the desired level of reserves, the bank that initially receives this deposit will find itself with
A) no excess reserves if there is no reserve requirement.
B) $\$ 1,000$ of excess reserves if its desired reserve ratio is 10 percent.
C) $\$ 2,000$ of excess reserves if its desired reserve ratio is 20 percent.
D) $\$ 9,000$ of excess reserves if its desired reserve ratio is 10 percent.
E) $\$ 10,000$ of excess reserves if its desired reserve ratio is 100 percent.
7. Consider an economy currently in monetary equilibrium. The public holds $20 \%$ of their real balances ( $M$ ) in cash ( $C U_{P}$ ). Banks hold $15 \%$ of the public's deposits ( $D$ ) as reserves (R) and their reserves are $\$ 45$ million at the present time. Given the above, which one of the following statements is correct?
A) The money multiplier ( mm ) is approximately 3.5 .
B) The monetary base (B) is $\$ 120$ million.
C) The money supply is $\$ 350$ million.
D) The quantity of cash held by the public $\left(\mathrm{Cu}_{\mathrm{p}}\right)$ is $\$ 80$ million.
E) Both B) and D) are correct.
8. A profit-maximizing firm will hire additional units of labour
A) as long as the nominal wage rate is greater than the value of the marginal product of labour.
B) as long as the value of the marginal product of labour is greater than the nominal wage rate.
C) as long as the nominal wage rate is smaller than the marginal product of labour.
D) as long as the real wage rate is greater than the marginal product of labour.
E) up to the point where the marginal product of labour is equal to the nominal wage rate.
9. Which of the following is NOT reflected in a shift of the AD-curve?
A) A change in net exports due to an increase in the foreign price level.
B) A change in the interest sensitivity of the demand for real balances.
C) A change in government transfer payments.
D) A change in real money balances due to a change in the price level.
E) Both A) and D).
10. The concept of "diminishing marginal product of labour" suggests that the slope of the shortrun production function
A) increases as the quantity of labour decreases.
B) decreases as the quantity of capital increases.
C) increases as the quantity of labour increases.
D) equals zero for all quantities of labour.
E) is negative.
11. Suppose the Bank of Canada follows an interest-rate rule when implementing monetary policy. Which one of the following best describes the likely outcome of a decrease in the target for the overnight rate of interest?
A) The banks' desired cash-reserve ratio will decrease and their reserves will rise.
B) The banks' desired cash-reserve ratio will rise and their reserves will decrease.
C) The banks' desired cash-reserve ratio and their reserves will both decrease.
D) The banks' desired cash-reserve ratio and their reserves will both rise.
E) The banks' cash-reserve ratio will remain unchanged and their reserves fill decrease.
12. In the Post-Keynesian Structuralist model, the LM curve will have a negative slope if:
A) the income elasticities of the demands for loans and money are both negative.
B) the income elasticity of the demand for loans is positive but the income elasticity of the demand for money is negative.
C) the income elasticity of the demand for loans is negative but the income elasticity of the demand for money is positive.
D) the income elasticity of the demand for money is greater than the income elasticity of the demand for loans.
E) the income elasticity of the demand for loans is greater than the income elasticity of the demand for money.
13. The Trump administration has recently reduced the U.S. corporate tax rate from $35 \%$ to $20 \%$. Which of the following statements best describes the most likely impact of this tax change?
A) Corporate profits will increase and thus productive investment and employment will rise.
B) The government deficit will rise, thus causing consumers' confidence to fall and consumption expenditure to decrease.
C) Corporate profits will increase, thus allowing greater compensation for CEOs and the payment of higher dividends to shareholders.
D) Corporate profits will increase and thus corporations will hire more workers and wages will rise.
E) The reduction in corporate taxes will pay for itself as a result of the expansion of the economy and the tax base.
14. Canada created more than 420,000 jobs in 2017 and the rate of unemployment in December fell to 5.7 percent. Some argue, however, that the Canadian economy may not be operating at full employment yet. Which one of the following suggests that the economy is not a full employment?
A) Average real wages increased only moderately in 2017.
B) Many of those currently working part-time would prefer to hold full-time positions.
C) Many workers are overqualified for their jobs.
D) The participation rate is similar to the one at the start of the Great Recession.
E) All of the above do.
