ECO 209Y
MACROECONOMIC THEORY AND POLICY

Term Test #1

October 26, 2018

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INSTRUCTIONS:

- The total time for this test is *1 hour and 45 minutes*.

- The only aid allowed is a ***non-programmable*** calculator.

- ***Write your name and identifying information above but keep this test paper 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* consists of one quantitative problem (15 points); and *Part III* includes 3 short-answer questions (30 points). The *total* point-value of the test is *80 points*.

- The answers to the 14 multiple-choice questions of *Part I* must be recorded in the *bubble sheet* provided on **page 10** of this test paper. Only the answers recorded in the bubble sheet will be marked. Cells left blank will receive a zero mark for that question. No deductions will be made for incorrect answers.

- In *Parts II and III*, write your answers clearly and concisely in the space provided immediately after each question. *Your entire answer must fit in the designated space.* No extra space/pages are possible and you cannot use blank space for other questions.

- ***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)

1. The photocopy shop at Harbord & Spadina had revenues of $600 thousand and a profit of $60 thousand in 2017. That year, the total expenditures of this shop were $160 thousand in wages and salaries, $50 thousand in rent, $200 thousand in paper and ink, and $100 thousand in taxes. In addition, the depreciation of the capital stock of the shop was $30 thousand. The contribution of this photocopy shop to Canada's GDP in 2017 was

   A) $600 thousand.
   B) $500 thousand.
   C) $400 thousand.
   D) $300 thousand.
   E) none of the above.

2. 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 2016		Year 2017	
	Quantity	Price	Quantity	Price
Apples	2,000	$2	3,000	$3
Bananas	4,000	$3	6,000	$2
Oranges	6,000	$4	5,000	$5

   Using the chain method, in 2017 the rate of growth of real GDP was approximately:

   A) 6.5 percent.
   B) 6.8 percent.
   C) 7.1 percent.
   D) 7.5 percent.
   E) None of the above is correct.

3. A Canadian company imported 100 TV sets from Korea for $250 each in 2017. The company sold 80 of them in 2017 for $450 each, and the rest in 2018 for $400 each. How much did these transactions contribute to Canada's GDP in 2017?
   A) $45,000
   B) $36,000
   C) $19,000
   D) $16,000
   E) None of the above is correct.

Use this space for rough work.

4. Consider an economy without depreciation of the capital stock, without government transfer payments, and where personal income taxes are the only source of government revenues. If GDP is $850 billion, government budget surplus is $20 billion, consumption is $600 billion, government purchases is $180 billion, and net exports is $0 billion, which of the following is true in this economy?
    A) Disposable income is $660 billion.
    B) Investment is $80 billion.
    C) Private savings is $50 billion.
    D) Government revenues is $210 billion.
    E) None of the above is correct.

5. Nominal GDP was $1,575 billion in 2010 and $2,125 billion in 2017. The GDP deflator was 85.0 in 2010 and 105.7 in 2017, where 2015 was the base year. What was the percentage change in real GDP from 2010 to 2017?
    A) 7.8 percent.
    B) 8.2 percent.
    C) 8.5 percent.
    D) 9.1 percent.
    E) None of the above is correct.

6. Suppose that the government has a balanced budget. It collects $40 billion in taxes, purchases $10 billion in goods and services from private companies, pays $10 billion in welfare benefits, pays $2 billion in interest on the national debt, and pays government workers $18 billion in wages. The government contribution to GDP is
    A) $10 billion.
    B) $12 billion.
    C) $18 billion.
    D) $28 billion.
    E) $40 billion.

7. In the *AE* model of a closed economy, if consumer confidence falls and consumers decide to save more, then
    A) consumption and investment will decrease.
    B) consumption will decrease while investment will not change.
    C) consumption will decrease while investment will increase.
    D) consumption and investment will not change.
    E) investment will increase while consumption will not change.

8. The ultimate objective of the so-called "starve the beast" theory is
    A) to eliminate government deficits.
    B) to reduce wasteful expenditures by the government.
    C) to improve efficiency in the economy.
    D) to minimize the size of the government.
    E) none of the above.

Use this space for rough work

9. In a model where income taxes are the only source of government revenues, which one of the following best describes the impact of an increase in exogenous imports?
    A) Overall aggregate expenditure will increase.
    B) The government budget deficit will increase.
    C) The level of private savings will increase.
    D) The level of consumption will increase.
    E) The trade deficit will decrease.

10. We can expect the *IS* curve to become flatter as
    A) the marginal propensity to save increases.
    B) the marginal propensity to consume increases.
    C) investment becomes less sensitive to income changes.
    D) investment becomes less sensitive to interest rate changes.
    E) the tax rate increases.

11. If investment were very sensitive to changes in the interest rate, which one of the following would be true?
    A) The expenditure multiplier would be relative large.
    B) The *AE* curve corresponding to each interest rate would be relatively flat.
    C) A given change in the interest rate would cause a relatively large shift outward of the *IS* curve.
    D) The slope of the *IS* curve would be relatively steep.
    E) None of the above would be true.

12. Statistics Canada reported that the Canadian economy added 63,300 jobs this past September, decreasing the national unemployment rate to 5.9 percent from 6.0 percent in August. Which one of the following took place in September to explain this outcome?
    A) A significant increase in both part-time and full-time jobs.
    B) A decrease in full-time job and a significant increase in part-time jobs.
    C) A significant increase in full-time jobs with little change in part-time jobs.
    D) A decrease in part-time job and a significant increase in full-time jobs.
    E) A significant increase in part-time jobs and a small increase in full-time jobs.

13. After the previous provincial government raised Ontario's minimum wage from $11.40 to $14 last January, the province's unemployment rate
    A) remained basically unchanged.
    B) increased to its highest level in the last five years.
    C) fell to its lowest level in the last 18 years.
    D) increased by less than it was expected.
    E) increased more or less as it was expected.

14. Statistics Canada reported that last August Canada recorded its first trade surplus in more than 18 months. This was due to
    A) an increase in exports combined with little change in imports.
    B) an increase in exports combined with a decrease in imports.
    C) an increase in imports combined with a much greater increase in exports.
    D) a decrease in imports combined with little change in exports.
    E) a decrease in exports combined with a much greater decrease in imports.

Use this space for rough work.

PART II (15 points)

Consider a closed economy with fixed price level. This economy is characterized by the following equations (all dollar figures in billions):

$C = 200 + 0.75\ YD$
$I = 275 - 20\ i$
$G = 250$
$TA = 50 + 0.2\ Y$
$TR = 150$
$Y_{fe} = 1750$

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a) What is the equation for the *AE* curve? **(2 points)** What is the size of the aggregate expenditure multiplier (α_{AE})? **(1 point)**

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b) What is the equation for the *IS* curve? **(2 points)** If the central bank sets the rate of interest at 8 percent (i.e., $i = 8$), what is the level of equilibrium income (Y^*)? **(1 point)**

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c) At the equilibrium of part b), what is the size of the government budget surplus (*BS*)? **(1 point)**

d) You have been hired as an economic advisor to the Minister of Finance. Given the situation of the economy you have described above, what policy would you advise the Minister to implement? <u>Briefly explain</u>. **(4 points)**

e) All else equal, how much should government spending on goods and services (G) increase to move the economy to full employment (i.e., to $Y_{fe} = 1750$)? **(2 points)**

f) Go back to the equilibrium of part b) above. If the government decides to achieve full employment through a change in the rate of interest, at what level should the central bank set the rate of interest? **(2 points)**

PART III (30 points)

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

1. If the U.S. economy were to go into recession, what would be the likely impact on the Canadian economy? **(Show your answer with the help of a diagram and <u>explain</u> the economics. Consider the *AE* model of an open economy.)**

2. **Critically evaluate the following statement:** *"To increase the rate of investment and help the economy get out of a recession, the government should implement policies that encourage greater savings."* **(Show your answer with the help of a diagram and <u>explain</u> the economics. Consider the AE model of a closed economy.)**

3. **Critically comment on the following statement:** *"Government budget deficits tend to crowd out private investment. Therefore, the proposition of forcing governments to run balanced budgets makes economic sense."*