

Name: \_\_\_\_\_

Student #: \_\_\_\_\_

**QUEEN'S UNIVERSITY AT KINGSTON**  
**FACULTY OF ARTS AND SCIENCE**  
***Department of Economics***  
**ECONOMICS 112**  
**Final Examination**

**Econ 112 Section 001 – Prof Ugurhan Berkok**

**April 25, 2023**

**INSTRUCTIONS TO STUDENTS:**

This examination is 3 HOURS in length.

There are 6 sections to this examination.

This exam is printed on both sides of the page.

Mark your selections in PENCIL on the Answer Sheet. Fill in the appropriate rectangle completely, but stay within its limits. There is only one correct answer for each question; multiple answers will be marked as incorrect. If you make changes, be sure to erase completely.

Before you begin the exam please record your **Student Number, Name, and Test Form A** in the appropriate sections of the Answer Sheet. For detailed instructions on filling in this information see the back of this page.

**The following aids are allowed:**  
Casio FX-991 calculator

**PLEASE NOTE:**

**Proctors are unable to respond to queries about the interpretation of exam questions.  
Do your best to answer exam questions as written.**

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**Before You Begin the Exam:**

1. Write your Student # under "**I.D. Number**" on the Answer Sheet and fill in the appropriate rectangle below each number. See example below.
2. Print your **Last Name** (family name) followed by first name in the appropriate space, and fill in the appropriate rectangle under each letter. (If your name is too long to fit in the spaces provided, please enter as many letters as you can.) See example below.
3. Under "**Test Form**", fill in "A". See example below.

**I.D. NUMBER**

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0	1	0	0	0	0	0	0
1	1	1	1	1	1	1	1
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3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
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**DO NOT MARK IN THIS AREA**

**LAST NAME**

G	I	D	D	I	E
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B	B	B	B	B	B
C	C	C	C	C	C
D	D	D	D	D	D
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F	F	F	F	F	F
G	G	G	G	G	G
H	H	H	H	H	H
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**FIRST NAME**

A	B	B	B	B	B	B	B
B	C	C	C	C	C	C	C
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D	E	E	E	E	E	E	E
E	F	F	F	F	F	F	F
F	G	G	G	G	G	G	G
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**CODE**

A	B	B	B	B	B	B	B
C	D	D	D	D	D	D	D
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**TEST FORM**

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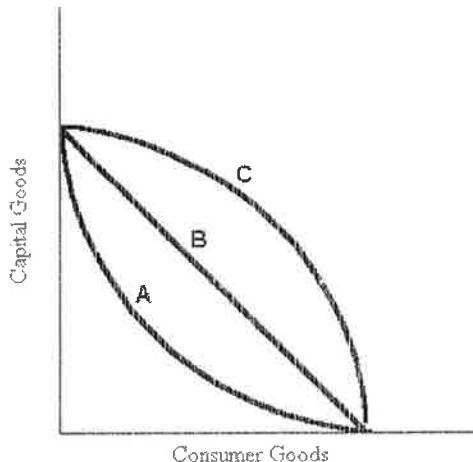
**EXAM NUMBER**

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**Part A** [40 marks]

This section consists of 40 questions that survey the course material.

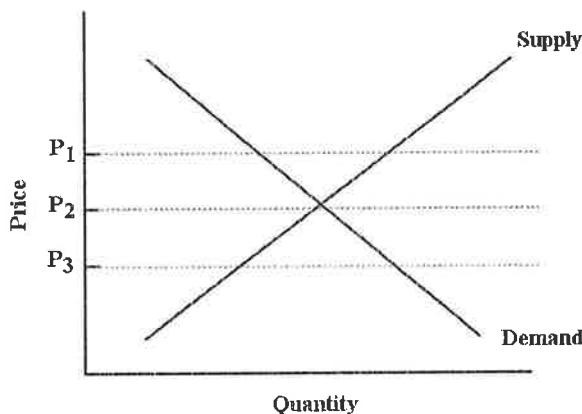
Answer all 40 questions; each question is worth 1 mark.



**FIGURE 1-4**

- 1) Refer to Figure 1-4. Which production possibilities boundaries are consistent with increasing opportunity costs?
  - A) boundary A only
  - B) boundaries A and B
  - C) boundary C only
  - D) boundaries B and C
  - E) boundaries A, B, and C
  
- 2) Which of the following is a positive economic statement?
  - A) There should be one price for gasoline throughout Canada.
  - B) The higher the price for gasoline, the less of it will be consumed.
  - C) Substitutes for fossil fuels should be developed.
  - D) Canada should reduce its imports of consumer goods.
  - E) Corporations in Canada should pay more taxes.
  
- 3) Which of the following would cause a movement along the demand curve for ski-lift tickets, other things being equal?
  - A) a change in tastes in favour of skiing
  - B) an increase in price as the supply curve for lift tickets shifts to the left
  - C) a rise in the price of ski boots and skis
  - D) a rise in average household income
  - E) an increase in population

- 4) A fall in the price of raw milk (which is used in the production of ice cream) will
- A) decrease the supply of ice cream, causing the supply curve of ice cream to shift to the left.
  - B) increase the supply of ice cream, causing the supply curve of ice cream to shift to the right.
  - C) decrease the supply of ice cream, causing the supply curve to shift to the right.
  - D) have no effect on the supply curve of ice cream but cause a downward movement along the supply curve of ice cream.
  - E) increase the supply of ice cream, causing the supply curve to shift to the left.

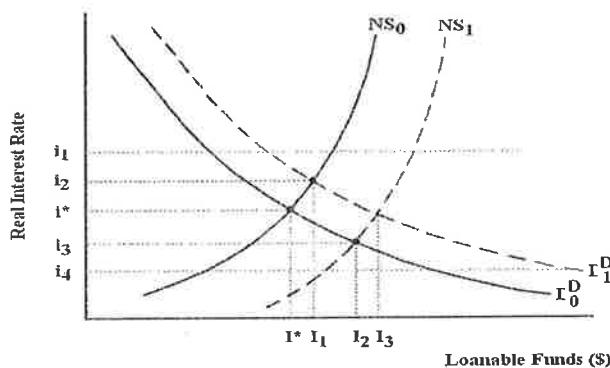


**FIGURE 3-5**

- 5) Refer to Figure 3-5. If supply and demand were to increase simultaneously, this would lead to
- A) an increase in  $P$  and in  $Q$ .
  - B) a decrease in  $P$  and in  $Q$ .
  - C) an increase in  $Q$  and an indeterminate change in  $P$ .
  - D) an increase in  $P$  and an indeterminate change in  $Q$ .
  - E) no change in  $P$  or  $Q$ .
- 6) When considering the present value of any financial asset that makes a stream of payments in the future, we know that if the market interest rate falls,
- A) the present value of the asset will rise.
  - B) the future value of the asset will rise.
  - C) the current value of the asset will fall.
  - D) the present value of the asset will fall.
  - E) the present value of the asset is unaffected.
- 7) The federal government's "primary (or operating) budget deficit"
- A) includes domestic borrowing but excludes foreign borrowing.
  - B) excludes debt-service payments.
  - C) is the amount of government borrowing in a fiscal year.
  - D) is the amount of tax revenue minus the amount of interest paid on the public debt.
  - E) is the most important indicator of the level of government spending.

- 8) A decrease in long-run real GDP (potential GDP) would be most likely caused by a (an)
- decrease in factor productivity.
  - decrease in interest rates.
  - decrease in unemployment rates.
  - increase in factor-utilization rates.
  - increase in unemployment rates.
- 9) Which of the following purchases by households is considered as consumption expenditure for the purposes of national-income accounting?
- legal services
  - a new house
  - a Government of Canada Treasury bill
  - tractors for use on a family farm
  - the purchase of company stock
- 10) The effectiveness of monetary policy in bringing about changes in real GDP is enhanced when the
- investment demand curve and money demand function are both relatively flat.
  - investment demand curve and money demand function are both relatively steep.
  - investment demand curve is relatively steep and the money demand function is relatively flat.
  - investment demand curve is relatively flat and the money demand function is relatively steep.
  - none of the above -- monetary policy is always equally effective.
- 11) Consider a small economy where factor supply is 4000 units, the factor utilization rate is 0.8 and a simple measure of productivity (GDP per factor employed) is \$50. This economy's GDP is
- \$40 000
  - \$160 000
  - \$200 000
  - \$320 000
  - \$500 000

*The diagram below shows the market for loanable funds assuming that national income is at potential.*

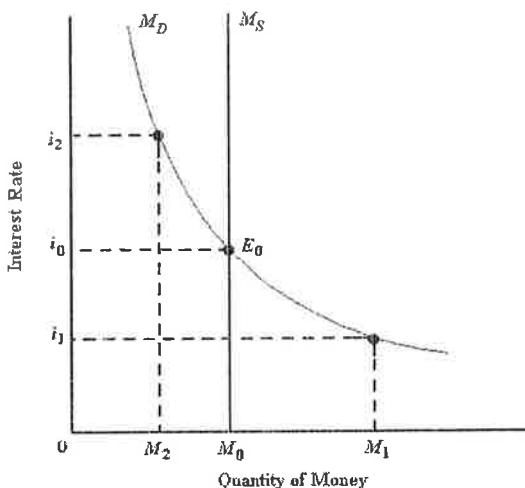


**FIGURE 26-2**

- 12) Refer to Figure 26-2. Suppose national saving is reflected by  $NS_0$  and investment demand is reflected by  $I_0^D$ . Now suppose there is a reduction in government purchases. What is the effect on investment demand?
- National saving shifts to  $NS_1$ , causing an increase in the quantity of investment demanded from  $I^*$  to  $I_2$ .
  - There is no effect on  $NS$  or  $ID$ , and the quantity of investment demanded remains at  $I^*$ .
  - Investment demand shifts to  $I_1^D$ , causing an increase in the quantity of investment demanded from  $I^*$  to  $I_1$ .
  - Investment demand shifts to  $I_3^D$ , causing an increase in the quantity of investment demanded from  $I^*$  to  $I_3$ .
  - National saving shifts to  $NS_1$ , and investment demand shifts to  $I_1^D$ , causing an increase in the quantity of investment demanded from  $I^*$  to  $I_3$ .

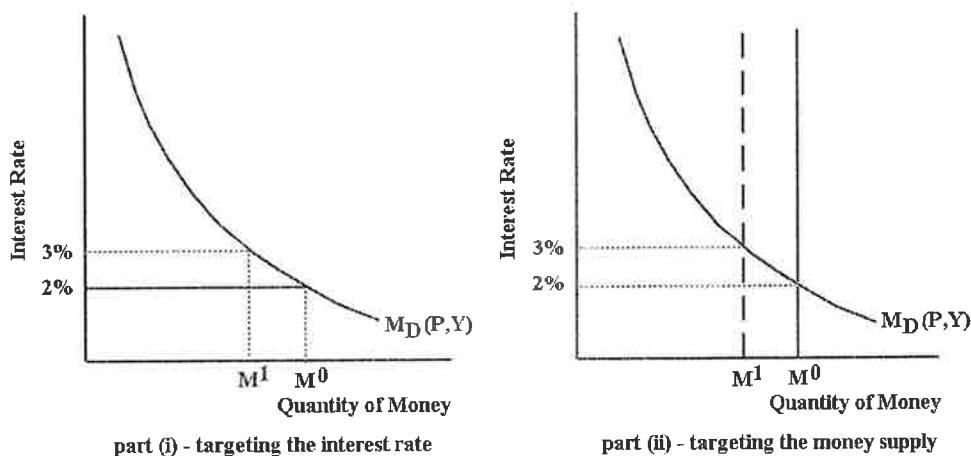
- 13) In an effort to maintain inflation at its targeted level the Bank of Canada designs its policies, in the short run, to
- A) eliminate all unemployment.
  - B) keep real GDP close to potential output.
  - C) minimize the growth of the money supply.
  - D) allow the aggregate supply curve to close any output gaps.
  - E) eliminate all negative shocks to the economy.
- 14) The "paradox of thrift" refers to the understandable tendency of people who are worried about their economic situation to \_\_\_\_\_ their saving, but in aggregate this behaviour causes a \_\_\_\_\_ recession.
- A) decrease, more severe
  - B) decrease; less severe
  - C) increase; more severe
  - D) increase; less severe
  - E) increase; shorter
- 15) If real GDP falls, other things being equal, we can expect
- A) an increase in the speculative demand for money.
  - B) an increase in the total demand for money.
  - C) a decrease in transactions demand for money.
  - D) an increase in transactions demand for money.
  - E) an increase in precautionary demand for money.
- 16) "Excess reserves" for a commercial bank refer to
- A) any surplus in the bank's supply of gold.
  - B) any surplus of chequable deposits.
  - C) any reserves (cash or deposits with the Bank of Canada) that the bank holds over and above its desired reserves.
  - D) reserves (cash or deposits with the Bank of Canada) that the Bank of Canada requires the bank to hold.
  - E) excess demand for money from that bank.
- 17) Suppose during one fiscal year, government purchases are \$195 billion, debt-service payments are \$22 billion and net tax revenues are \$208 billion. What is the annual budget deficit/surplus?
- A) budget surplus of \$22 billion
  - B) budget deficit of \$13 billion
  - C) budget surplus of \$13 billion
  - D) budget deficit of \$9 billion
  - E) budget surplus of \$9 billion
- 18) Suppose that next year 300 000 existing jobs in the economy are eliminated through layoffs and plant closures, and 400 000 new jobs are created through expansions and the creation of new firms. The amount of unemployment will rise over that year if
- A) more than 300 000 people drop out of the labour force.
  - B) more than 100 000 people drop out of the labour force.
  - C) less than 100 000 people drop out of the labour force.
  - D) less than 100 000 people join the labour force.
  - E) more than 100 000 people join the labour force.

- 19) Suppose there is an exogenous increase in the domestic price level. Which of the individuals listed below would experience an *increase* in wealth?
- A) a person with a 25-year home mortgage
  - B) a person with cash under the mattress
  - C) a person with deposits in a bank savings account
  - D) a person with a government bond that promises to pay the holder \$1000, 5 years hence
  - E) a person with a corporate bond that promises to repay the face value of the bond in the future
- 20) Aggregate demand (AD) shocks have a smaller effect on real GDP and a larger effect on the price level,
- A) the steeper the *AS* curve.
  - B) on the downward-sloping portion of the *AS* curve.
  - C) the flatter the *AS* curve.
  - D) on the upward-sloping portion of the *AS* curve.
  - E) if the AD curve is flatter.
- 21) Suppose a Canadian grocery chain imports one million kilograms of cheese from a Swiss exporter. *Ceteris paribus*, the effect is to
- A) decrease the number of Canadian dollars needed to buy one Swiss franc.
  - B) increase the number of Swiss francs needed to buy one Canadian dollar.
  - C) increase the demand for Swiss francs in the foreign-exchange market.
  - D) increase the supply of Swiss francs in the foreign-exchange market.
  - E) increase the demand for Canadian dollars in the foreign-exchange market.
- 22) Consider the following news headline: "Business community gloomy about the economy—investment plans axed." Assuming that aggregate output is demand-determined, what effect will this have, all other things equal, on the AE function and on equilibrium national income?
- A) the AE function will shift down parallel to itself and equilibrium national income will fall.
  - B) the AE function will rotate upward (become steeper) and equilibrium national income will rise.
  - C) the AE function will rotate downward (become flatter) and national income will fall.
  - D) the AE function will shift up parallel to itself and equilibrium national income will rise.
  - E) there will be no change in the AE function or in equilibrium national income.

**FIGURE 28-2**

- 23) Refer to Figure 28-2. If the interest rate is  $i_1$ , the subsequent adjustment in the money market is as follows:
- excess demand for money leads to a sale of bonds, which in turn causes the interest rate to rise.
  - the  $M_S$  curve will shift to the left so as to maintain the interest rate at  $i_2$ .
  - the interest rate will remain at  $i_1$  because the money market is in equilibrium at this interest rate.
  - excess supply of money leads to the purchase of bonds, which in turn causes the interest rate to fall.
  - excess demand for money leads to a purchase of bonds, which in turn causes the interest rate to rise.
- 24) In the Neoclassical growth model, increases in the stock of physical capital, other things being equal, will lead to
- decreasing GDP and falling living standards.
  - decreasing GDP and increasing living standards.
  - increasing GDP and falling living standards.
  - increasing GDP and increasing living standards.
  - increasing GDP and decreased national wealth.
- 25) One motivation for having publicly subsidized retraining programs is to
- reduce structural unemployment.
  - reduce cyclical unemployment.
  - resist adjustment to technological change.
  - encourage employment in low-paying jobs.
  - encourage the use of efficiency wages.

The diagrams below illustrate two alternative approaches to implementing monetary policy. The economy begins in monetary equilibrium with the interest rate equal to 2% and the money supply equal to  $M^0$ .



**FIGURE 29-1**

- 26) Refer to Figure 29-1. If the Bank of Canada raises the target interest rate to 3%, as shown in part (i), then it must accommodate the resulting \_\_\_\_\_ in quantity of money demanded by \_\_\_\_\_ in financial markets.

- A) increase; selling government securities
- B) decrease; selling government securities
- C) increase; buying government securities
- D) decrease; buying government securities
- E) increase; selling government securities

- 27) If 27 million people are employed and 3 million people are unemployed, what is the unemployment rate?

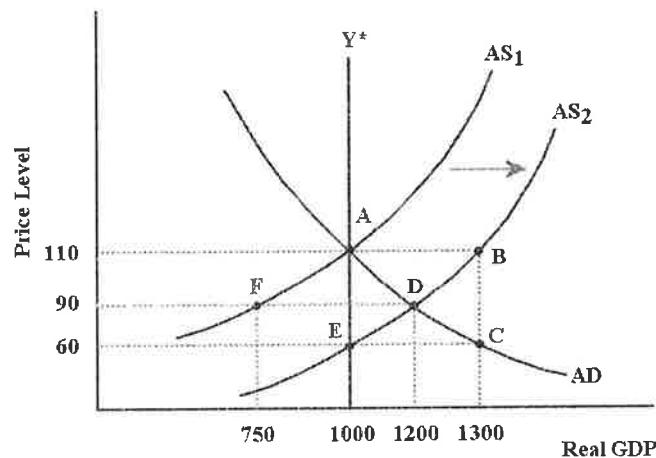
- A) 11%
- B) 89%
- C) 10%
- D) 90%
- E) indeterminable from the information provided.

- 28) Suppose actual output is less than potential output. If the output gap measures the output loss due to the failure to achieve full employment, it can generally be concluded that the larger this output gap, the
- A) greater is the employment rate.
  - B) greater is the unemployment rate.
  - C) lower is frictional unemployment.
  - D) lower the deadweight loss of unemployment.
  - E) more upward pressure there is on prices.

- 29) Doug is saving money in order to purchase a new snowboard next winter. This represents using money as

- A) a medium of exchange.
- B) a store of value.
- C) a unit of account.
- D) a medium of deferred payment.
- E) method of barter.

The diagram below shows an AD/AS model for a hypothetical economy. The economy begins in long-run equilibrium at point A.



**FIGURE 24-3**

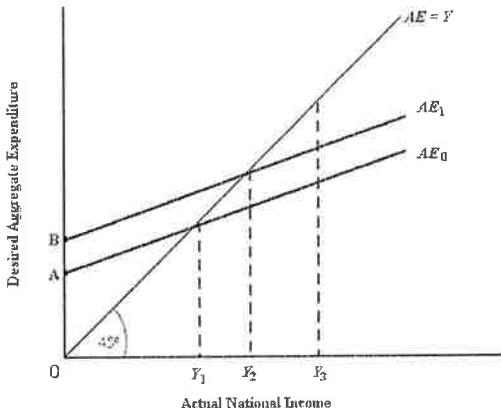
- 30) Refer to Figure 24-3. Following the positive AS shock shown in the diagram, the adjustment process will take the economy to a long-run equilibrium where the price level is \_\_\_\_\_ and real GDP is \_\_\_\_\_.  
 A) 60; 1000      B) 60; 1300      C) 90; 750      D) 90; 1200      E) 110; 1000

Disposable Income	Desired Consumption
0	10
50	30
150	70
300	130

**TABLE 21-1**

- 31) Refer to Table 21-1. The marginal propensity to consume is equal to  
 A) 0.8.      B) 0.67.      C) 0.6.      D) 0.4.      E) 0.2.

- 32) Suppose that a price index for a certain basket of goods and services has a value of 150 in 2020 and a value of 156 in 2021. This index suggests that the cost of the market basket of goods and services:  
 A) was four percent higher in 2021 than in 2020.  
 B) was six percent lower in 2021 than in 2020.  
 C) was six percent higher in 2021 than in 2020.  
 D) was 156 percent higher in 2021 than in 2020.  
 E) was approximately the same in 2021 than in 2020.

**FIGURE 21-3**

- 33) Refer to Figure 21-3. If national income is  $Y_3$  and the aggregate expenditure function is  $AE_1$ ,

- A) the economy is in equilibrium.
- B) there is unintended inventory accumulation and income will rise.
- C) there is unintended inventory accumulation and income will fall.
- D) there is unintended inventory decumulation and income will rise.
- E) there is unintended inventory decumulation and income will fall.

- 34) Suppose exports are \$200 and imports are given by  $IM = 0.2Y$ . At what level of national income will net exports equal zero?

- A) \$0
- B) \$200
- C) \$250
- D) \$1000
- E) \$1250

*The table below shows the total output and prices for an economy that produces only two goods, potatoes and oil.*

	Quantities Produced		Prices	
	Potatoes (kilograms)	Oil (barrels)	Potatoes (\$/kilogram)	Oil (\$/barrel)
Year 1	1000	50	4	55
Year 2	1100	65	6	60

**TABLE 20-5**

- 35) Refer to Table 20-5. What is the real GDP for Year 2 if Year 1 is the base year?

- A) \$6750
- B) \$7975
- C) \$9000
- D) \$10 500
- E) \$20 100

- 36) Consider a closed-economy AD/AS macro model. A policy-induced increase in the government's budget deficit is most likely to crowd-out private investment if

- A) interest rates decrease sharply as a result of the deficit.
- B) interest rates rise sharply as a result of the deficit.
- C) rising income increases the volume of saving and interest rates rise very little.
- D) there is a very large output gap.
- E) consumers reduce consumption as a result of the deficit.

- 37) Suppose Canada's economy is in a long-run equilibrium with real GDP equal to potential output. Now suppose there is an increase in world demand for Canada's goods. In the short run, \_\_\_\_\_. In the long run, \_\_\_\_\_.  
A) real GDP and the price level both fall; real GDP is below its original level with a lower price level  
B) real GDP and the price level both rise; real GDP is above its original level with a higher price level  
C) real GDP and the price level both rise; real GDP returns to its original level with a higher price level  
D) real GDP rises and the price level falls; real GDP returns to its original level with a lower price level  
E) real GDP falls and the price level rises; real GDP is below its original level with a higher price level
- 38) Suppose Appliance Mart buys a used refrigerator for \$100, repairs it, and resells it for \$250. The result of this transaction is to  
A) increase the value of national product by \$250.  
B) leave the value of national product unchanged.  
C) increase the value of national product by \$150.  
D) decrease the value of national product by \$100.  
E) insufficient information to know.
- 39) Which of the following would occur as part of the automatic adjustment process in an economy with a recessionary gap?  
A) rising prices  
B) decreasing investment  
C) increasing government purchases  
D) falling tax rates  
E) decreasing wages
- 40) Suppose economists were able to measure frictional unemployment as 3 percent, cyclical unemployment as 2 percent, and structural unemployment as 4 percent. Then we would know that  
A)  $Y$  is below  $Y^*$  and there is downward pressure on wages.  
B)  $Y$  is below  $Y^*$  and there is upward pressure on wages.  
C)  $Y$  is equal to  $Y^*$  and there is no pressure on wages.  
D)  $Y$  is above  $Y^*$  and there is downward pressure on wages.  
E)  $Y$  is above  $Y^*$  and there is upward pressure on wages.

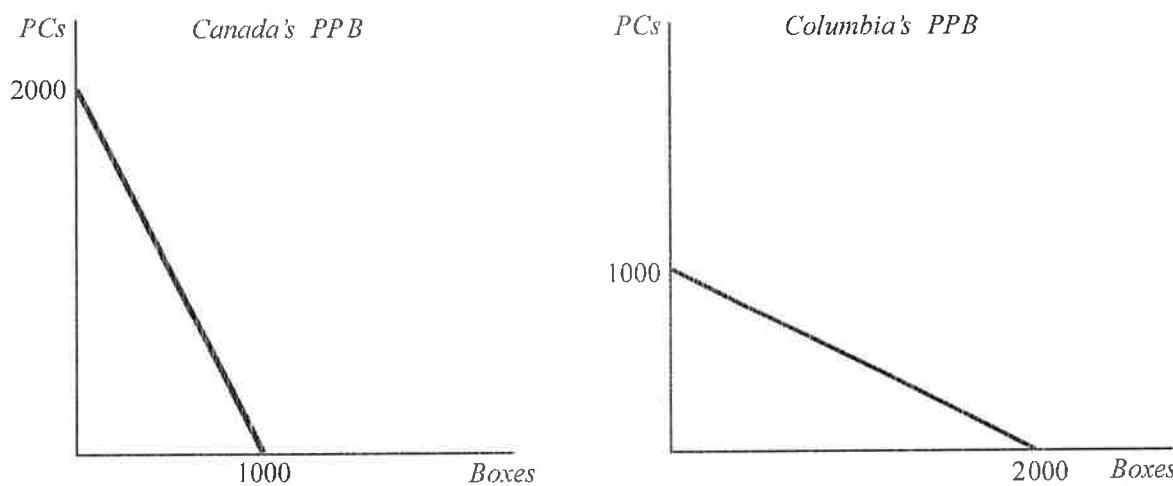
**Please Turn Over for Sections B-F**

**Part B** [8 marks]

The following 8 questions (41-48) relate to the information given below. Try to do the questions in order since the answers for some questions depend on the answers to previous questions in the series.

Each question is worth 1 mark.

The diagram below shows the production possibility boundaries for Canada and Columbia. Assume that both countries produce only personal computers (PCs) and boxes of roses (Boxes). Furthermore, assume that both countries have the same endowment of resources.



- 41) Canada has an absolute advantage in the production of \_\_\_\_\_ Columbia has an absolute advantage in the production of \_\_\_\_\_.  
A) Boxes; PCs  
B) both goods; neither good  
C) PCs; Boxes  
D) neither good; both goods  
E) neither good; neither good

42) The opportunity cost of Boxes of roses in terms of PCs is \_\_\_\_\_ in Canada and \_\_\_\_\_ in Colombia.  
A)  $\frac{1}{2}$ ; 2                    B) 1; 2                    C) 2; 1                    D) 2;  $\frac{1}{2}$                     E) 1; 1

- 43) Canada has a comparative advantage in the production of \_\_\_\_\_ Columbia has a comparative advantage in the production of \_\_\_\_\_.  
A) Boxes; PCs  
B) both goods; neither good  
C) PCs; Boxes  
D) neither good; both goods  
E) neither good; neither good
- 44) Trade will be beneficial for both countries as long as:  
A) 1 PC is traded for more than  $\frac{1}{2}$  box but fewer than 2 Boxes  
B) 1 PC is traded for 3 Boxes  
C) 1 PC is traded for 2.5 Boxes  
D) 1 PC is traded for  $\frac{1}{4}$  Box  
E) 1 PC is traded for less than  $\frac{1}{2}$  box or for fewer than 2 Boxes
- 45) Suppose trade takes place at a price of one, i.e. 1PC is traded for 1 Box. If Canada specializes completely in the production of the good for which it has a comparative advantage, it can consume the PC-Roses bundle:  
A) (2000, 250)    B) (1250, 750)    C) (500, 2000)    D) (750, 1500)    E) (1500, 750)
- 46) Suppose that trade takes place at a price of one, i.e. 1PC is traded for 1 Box. If Canada specializes incompletely in the production of PCs by producing 1500 PCs, it can consume the PC-Roses bundle:  
A) (1500, 500)    B) (1200, 550)    C) (500, 1500)    D) (1000, 1000)    E) (750, 1250)
- 47) Trade takes place at a price of one, i.e. 1PC is traded for 1 Box. If Colombia specializes incompletely in the production of PCs by producing 1500 Boxes of roses, it can consume the PC-Roses bundle:  
A) (500, 1500)    B) (1500, 500)    C) (1000, 1000)    D) (550, 1200)    E) (1250, 750)
- 48) If Canada and Colombia specialized completely in the products for which they have comparative advantage, they would produce a total of (\_\_\_\_\_, \_\_\_\_\_) PCs and Boxes of roses whereas, by incompletely specializing as described in questions 46 and 47, they would produce (\_\_\_\_\_, \_\_\_\_\_):  
A) (1000, 1000); (750, 750)  
B) (2000, 2000); (500, 500)  
C) (2000, 2000); (1500, 1500)  
D) (1500, 1000); (1000, 1500)  
E) (2000, 2000); (1750, 1750)

**Part C [8 marks]**

The following 8 questions (49-56) relate to the information given below. Try to do the questions in order since the answers for some questions depend on the answers to previous questions in the series.

Each question is worth 1 mark.

Consider the following aggregate expenditure model of an economy:

$$C = 25 + (4/5)Y_D$$

$$I = 75$$

$$G = 300$$

$$T = (1/4)Y$$

where  $C$  is consumption (the  $4/5$  term represents the marginal propensity to consume),  $Y_D$  disposable income,  $I$  is investment,  $G$  is government spending on goods and services,  $T$  is the total value of taxes net of all transfers (the  $1/4$  term represents the marginal net tax rate on national income), and  $Y$  is national income.

The space below is provided for you to keep track of your answers as you work through the series of questions.  
[Hint: You may want to sketch an *AE* diagram to help with this process.]

49) The equation for desired aggregate expenditures is given by:

- A)  $AE = 375 + (3/5)Y$
- B)  $AE = 375 + (4/5)Y$
- C)  $AE = 400 + (3/5)Y$
- D)  $AE = 400 + (4/5)Y$
- E)  $AE = 400 + (1/2)Y$

50) The equilibrium level of national income is:

- A) 1000
- B) 850
- C) 800
- D) 500
- E) 400

51) In equilibrium, the government has a:

- A) surplus of 50.
- B) surplus of 27.5
- C) a balanced budget
- D) a deficit of 27.5
- E) a deficit of 50

52) In this model, the multiplier is equal to:

- A) 5.00
- B) 4.00
- C) 2.50
- D) 2.00
- E) 1.00

53) Suppose the government brings an austerity budget that reduces government expenditure to 240. The new equilibrium level of national income is:

- A) 1000
- B) 850
- C) 800
- D) 500
- E) 400

54) In the new equilibrium, the government has a:

- A) surplus of 50.
- B) surplus of 27.5
- C) surplus of 10
- D) a balanced budget
- E) a deficit of 27.5

55) Suppose that, instead of reducing expenditure, the government increases the tax rate to  $3/8$ . The new equilibrium level of national income is:

- A) 1000
- B) 850
- C) 800
- D) 500
- E) 400

56) In this new equilibrium, the government has a:

- A) surplus of 50.
- B) surplus of 27.5
- C) surplus of 10
- D) a balanced budget
- E) a deficit of 27.5

**Part D [8 marks]**

The following 8 questions (57-64) relate to the information given below. Try to do the questions in order since the answers for some questions depend on the answers to previous questions in the series.

Each question is worth 1 mark.

Suppose that the balance sheet (T-account) for the Euro-area banking system is as shown below. The central bank in the Euro-area is the European Central Bank (the ECB).

Assume that the only money in Euro-area is in the form of deposits in the banking system (ie. the public holds all of its money in the form of deposits).

Furthermore, assume that the banks in the system have a desired or target reserve ratio equal to 10%. Subject to this constraint, banks in the system will maximize loans in order to maximize profits.

<b>Assets:</b>		<b>Liabilities:</b>	
Reserves	200	Deposits	2000
Loans to the Public	1600	Loans from the ECB	40
Government Bonds	400	Capital	160
<b>Total</b>	<b>2200</b>	<b>Total</b>	<b>2200</b>

57) By reviewing the balance sheet, we can say that:

- A) the system has insufficient reserves, so the banking system is not in equilibrium
- B) the system has insufficient reserves, but the banking system is in equilibrium
- C) reserves are equal to the target, so the banking system is in equilibrium
- D) the system has excess reserves, so the banking system is not in equilibrium
- E) the system has excess reserves, but the banking system is in equilibrium

58) Suppose the ECB purchases 100 worth of government bonds from the banking system in an open market operation. Immediately after this transaction, the reserve ratio will be:

- A) 0%      B) 5%      C) 10%      D) 15%      E) 20%

59) When the banking system has fully adjusted to the open market operation, there will have been an increase in loans to the public of \_\_\_\_\_ and an increase in the money supply of \_\_\_\_\_:

- A) 0; 0      B) 100; 100      C) 500; 500      D) 500; 1000      E) 1000; 1000

60) Now suppose that the banking system balance sheet is back to the original one and the ECB conducts a Long Term Refinancing Operation (LTRO). In particular, it increases its loans of reserves to the system by 100. Immediately after the LTRO, the reserve ratio will be:

- A) 0%      B) 5%      C) 10%      D) 15%      E) 20%

61) When the banking system has fully adjusted to the LTRO, there will have been an increase in loans to the public of \_\_\_\_\_ and an increase in the money supply of \_\_\_\_\_:

- A) 0; 0      B) 50; 50      C) 500; 500      D) 500; 1000      E) 1000; 1000

62) Given the transaction described in 58) above, the ECB's actions would be consistent with:

- A) an increase in policy interest rates and a contractionary monetary policy
- B) an increase in policy interest rates and an expansionary monetary policy
- C) a decrease in policy interest rates and a contractionary monetary policy
- D) a decrease in policy interest rates and an expansionary monetary policy
- E) the transaction is inconsistent with any change in policy interest rates.

63) Given the transaction described in 58) above, the ECB's actions would be consistent with:

- A) the ECB hoping for an increase in investment and an increase in net exports in the Euro area
- B) the ECB hoping for an increase in investment and a decrease in net exports in the Euro area
- C) the ECB hoping for a decrease in investment and an increase in net exports in the Euro area
- D) the ECB hoping for a decrease in investment and a decrease in net exports in the Euro area
- E) the ECB hoping that its action is unnoticed by markets

64) The ECB has a 2% inflation mandate (like the Bank of Canada). Given the transaction described in 58) above, the ECB's actions would be consistent with:

- A) Euro area inflation at 2%
- B) Euro area inflation above 2%
- C) Euro area inflation below 2%
- D) the Euro area economy operating with a recessionary gap
- E) the Euro area economy operating at its long run potential real GDP

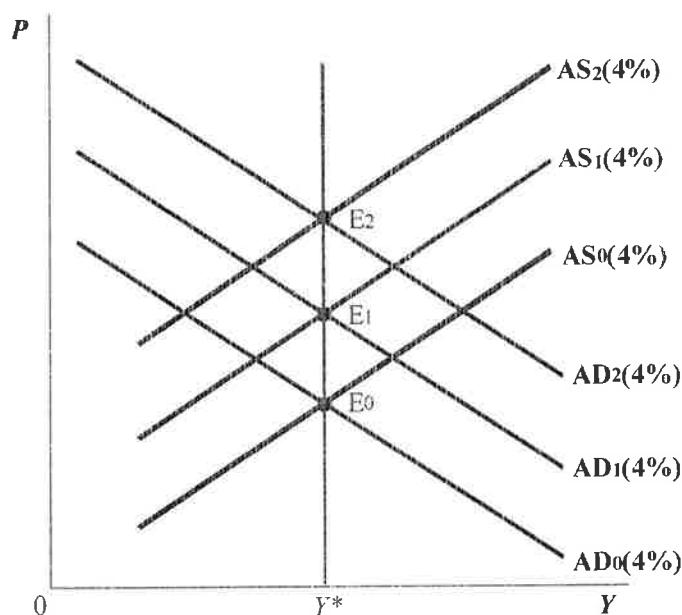
**Part E [8 marks]**

The following 8 questions (65-72) relate to the information given below. Try to do the questions in order since the answers for some questions depend on the answers to previous questions in the series.

Each question is worth 1 mark.

The following is an aggregate supply – aggregate demand diagram for an economy. In the diagram, income level  $Y^*$  is potential national income.

In addition, the numbers in parentheses refer to the expected inflation rate in the case of AS and to the rate of growth in the money supply in the case of AD.



65) Actual inflation in any period consists of:

1. output-gap inflation
  2. supply shock inflation
  3. expected inflation
- A) 1 only  
 B) 2 only  
 C) 3 only  
 D) 1 and 2 only  
 E) 1, 2 and 3

66) A constant inflation rate requires:

1. zero output-gap inflation
  2. zero supply shock inflation
  3. zero expected inflation
- A) 1 only  
B) 2 only  
C) 3 only  
D) 1 and 2 only  
E) 1, 2 and 3

67) A constant inflation of 4% occurs only if:

- A) inflationary expectations are constant at 0%  
B) supply shocks are positive and constant  
C) the Central Bank validates the 4% inflationary expectations  
D) the rate of monetary growth is 0%  
E) the rate of wage increase is 2%

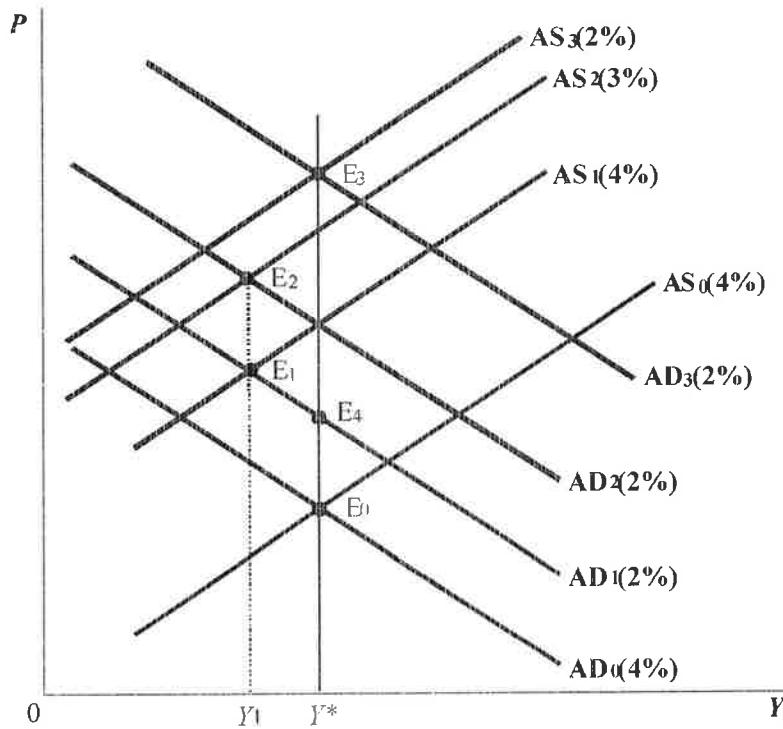
68) Anticipated (expected) inflation has:

- A) the effect of a redistribution from debtors to creditors  
B) the effect of a reduction in the real value of money holdings  
C) the effect of an increase in the real value of money holdings  
D) the effect of a redistribution from creditors to debtors  
E) no appreciable effect

69) To achieve a reduction in the inflation rate (disinflation), policy-makers will most likely have to:

- A) accept a higher rate of inflation  
B) increase the money supply  
C) increase employment  
D) decrease the price level  
E) induce a recession

For the following questions, refer to the diagram below where, at  $E_0$ , the economy has been experiencing a constant inflation of 4%. The Central Bank then announces a 2% rate of inflation as its new target and slows monetary growth from 4% to 2%.



- 70) If inflationary expectations are slow to adjust then:
- a recessionary gap opens
  - inflation will stay at 4%
  - inflation will immediately fall to 2%
  - an inflationary gap opens
  - the economy is certain to remain at potential output
- 71) The short-run equilibria  $E_1$  and  $E_2$  show:
- a falling price level
  - the Central Bank's resolve to use the inflationary gap to slow down the inflation
  - workers' observation of the Central Bank's disinflationary policy and the gradual lowering of their inflationary expectations
  - workers' observation of the Central Bank's disinflationary policy and the immediate lowering of their inflationary expectations
  - new long run equilibria
- 72) If inflationary expectations were forward-looking and the Central Bank's announcement of the new 2% target was judged to be credible, the new long-run equilibrium would be:
- $E_4$
  - $E_3$
  - $E_2$
  - $E_1$
  - $E_0$

**Please Turn Over for Section F**

**Part F [8 marks]**

The following 8 questions (73-80) relate to the information given below. Try to do the questions in order since the answers for some questions depend on the answers to previous questions in the series.

Each question is worth 1 mark.

Suppose the **Balance of Payments Accounts for Canada** for a given year are as below:

**Current Account:**

<b>Trade</b>	<b>Exports</b>	<b>+ 1000</b>
	<b>Imports</b>	<b>- 2000</b>
<b>Capital Services</b>	<b>Profits</b>	<b>+ 500</b>
	<b>Interest</b>	<b>- 500</b>

**Capital Account:**

<b>Net Direct Investments from Abroad</b>	<b>+ 2000</b>
<b>Net Portfolio Investment Abroad</b>	<b>- 1000</b>

**Official Financing Account:**

<b>Changes in Foreign Reserves</b>	<b>0</b>
<b>Statistical Discrepancy</b>	<b>0</b>

73) Canada has a:

- A) Balance of Trade surplus and a Capital Account surplus.
- B) Balance of Trade deficit and a Capital Account surplus.
- C) Balance of Trade surplus and a Capital Account deficit.
- D) Balance of Trade deficit and a Capital Account deficit.
- E) none of the above

74) Canada has a:

- A) Current Account surplus
- B) Current Account deficit
- C) Current plus Capital Account surplus
- D) Current plus Capital Account deficit
- E) none of the above

75) During the year, Canadian ownership of foreign stocks and bonds:

- A) increased by 2000
- B) decreased by 2000
- C) increased by 1000
- D) decreased by 1000
- E) increased by 500

- 76) Suppose that Microsoft (a US company) decides to buy a Canadian company for \$500. All of the Canadian shareholders in the company will receive shares in Microsoft as payment. In the Balance of Payments accounts for Canada, this transaction will:
- A) add \$500 to direct investment from abroad and subtract \$500 from portfolio investment abroad
  - B) subtract \$500 from direct investment from abroad and add \$500 to portfolio investment abroad
  - C) add \$500 to exports and add \$500 to portfolio investment abroad
  - D) add \$500 to exports and subtract \$500 from portfolio investment abroad
  - E) none of the above
- 77) Suppose that a Canadian business sells \$500 C worth of current output to an American living in the United States. The business accepts US dollars as payment, which is then used to buy a US bond. In the Balance of Payments Accounts for Canada, these transactions will:
- A) add \$500 to exports and subtract \$500 from imports
  - B) add \$500 to exports and subtract \$500 from the Capital Services Account
  - C) add \$500 to exports and subtract \$500 from net portfolio investment abroad
  - D) add \$500 to exports and add \$500 to net portfolio investment abroad
  - E) cause no change in any of the numbers.
- 78) Suppose that a recession begins in the United States. This is likely to cause:
- A) a fall in Canadian exports to the US and pressure on the Canadian dollar to appreciate.
  - B) a fall in Canadian imports from the US and pressure on the Canadian dollar to appreciate.
  - C) a fall in Canadian exports to the US and pressure on the Canadian dollar to depreciate.
  - D) a fall in Canadian imports from the US and pressure on the Canadian dollar to depreciate.
  - E) none of the above
- 79) Suppose that the inflation rate in the United States rises so that it is higher than the inflation rate in Canada. This is likely to cause:
- A) a balance of Trade deficit in Canada and an appreciation of the Canadian dollar relative to the US dollar.
  - B) a balance of Trade deficit in Canada and an depreciation of the Canadian dollar relative to the US dollar.
  - C) a balance of Trade surplus in Canada and an depreciation of the Canadian dollar relative to the US dollar.
  - D) a balance of Trade surplus in Canada and an appreciation of the Canadian dollar relative to the US dollar.
  - E) none of the above.
- 80) Suppose that the Bank of Canada wishes to support our export industries by maintaining a low value for the Canadian dollar. The bank will have to:
- 42) buy foreign exchange with Canadian Dollars and there will be an Official Financing Account surplus
  - 43) buy foreign exchange with Canadian Dollars and there will be a Capital plus Current Account deficit
  - 44) sell foreign exchange for Canadian Dollars and there will be a Capital plus Current Account surplus
  - 45) sell foreign exchange for Canadian Dollars and there will be a Capital plus Current Account deficit
  - 46) buy foreign exchange with Canadian Dollars and there will be an Official Financing Account deficit