

# Lakehead

UNIVERSITY

EXAMINATION

**ECONOMICS      1100      YB**

SUBJECT | COURSE NO. | SECTION DEPARTMENT

**PRINCIPLES OF ECONOMICS**

COURSE TITLE INSTRUCTOR

**APRIL 22, 2009      1:00 PM      3 HOURS**

EXAM DATE EXAM TIME & DURATION

TYPE OF EXAMINATION ☒ FINAL ☐ MID TERM ☐ SPECIAL ☐ DEFERRED

1. ONLY NON-PROGRAMMABLE CALCULATORS ARE ALLOWED
2. THIS IS A CLOSED-BOOK EXAM
3. THIS EXAM PAPER MAY NOT BE TAKEN FROM THE EXAMINATION ROOM
4. PLEASE ANSWER PART A & PART C QUESTIONS ON THIS EXAM PAPER.

**STUDENT PLEASE NOTE:**

**YOU MUST** count the number of pages in this examination question paper **BEFORE** beginning to write, and report any discrepancy immediately to a proctor.

**There are 14 pages to this exam, including this cover page**

This Exam has 2 parts

Part A: True & False 8 marks

Part B: Multiple Choice 48 marks

Part C: Short Answer, Calculations & Graphing 44 marks

BONUS QUESTIONS + 4 marks

**PART A: Circle the correct answer and briefly explain your choice (2 marks each)**

- T F If you write a cheque to Professor Rizzo, who then deposits it into her savings account, M1 will decrease while M2 remains unchanged
- T F If the demand for money increases, we can predict that this will lead to an increase in the supply of bonds in the bond market, which leads to an increase in the interest rate
- T F GDP is the value of all goods and services produced in the economy
- T F The Paradox of Thrift occurs when attempts by people to save more lead to a decline in aggregate output and an increase in aggregate savings.

**Part B: Please mark your Answers on the Scantron**

1. Assume that the desired reserve ratio is 0.20 and the Bank of Canada buys \$10M of government bonds in the open market. The potential increase in the money supply will be \_\_\_\_\_ and the potential increase in loans will be \_\_\_\_\_
  - a. \$50M; \$50M
  - b. \$40M; \$40M
  - c. \$50M; \$40M
  - d. none of the above are correct
2. The overnight rate is the interest rate
  - a. the Bank of Canada pays on commercial bank deposits
  - b. commercial banks charge on loans to their best customers
  - c. commercial banks charge each other for 1-day loans
  - d. the Bank of Canada charges on loans to commercial banks
3. When the interest rate rises, the
  - a. demand curve for money will shift left
  - b. public will shift some of its wealth out of bonds and into money.
  - c. opportunity cost of holding money declines
  - d. opportunity cost of holding money increases
4. Which of the following will shift the money demand curve to the RIGHT?
  - a. the widespread availability of ATMS (bank machines)
  - b. Increasing acceptance of credit cards by merchants
  - c. an increase in real GDP
  - d. a fall in the aggregate price level
5. What action might the Bank of Canada take if the actual overnight rate was below the target overnight rate?
  - a. sell government securities on the open market
  - b. buy government securities on the open market
  - c. transfer government deposits from itself to the commercial banks
  - d. reduce the Bank Rate
6. The Bank of Canada would pursue contractionary monetary policy if
  - a. the actual interest rate is above the target rate
  - b. it believes that actual real GDP is below potential real GDP
  - c. it believes that unemployment is too high
  - d. it believes that the inflation rate is too high
7. When economists say that money is neutral in the long run, they mean that
  - a. changes in the money supply do not affect the rate of inflation
  - b. In the long run, changes in the money supply do not affect any real variables such as aggregate output or employment
  - c. changes in the money supply have the same effect in the short run as they do in the long run
  - d. an increase in the money supply will reduce the aggregate price level by the same percentage
8. If the dollar appreciates against the euro, then
  - a. it will require more dollars to purchase each euro
  - b. It will require more euros to purchase each dollar
  - c. European goods will become more expensive for Canadians
  - d. Canadian goods will become cheaper for Europeans

9. Since the early 1990's, the Bank of Canada has focused MAINLY on:
- preventing large fluctuations in the value of the Canadian dollar
  - maintaining price stability
  - increasing the rate of economic growth
  - preventing large fluctuations in employment
10. Which of the following is NOT a function of money?
- unit of account
  - measure of liquidity
  - medium of exchange
  - store of value
11. Suppose that Bank A's total demand deposits are \$150 000 and that it currently holds \$25 000 in reserves. The remaining deposits (\$125,000) have been loaned out, and the desired reserve ratio is 0.10. Now suppose that you deposit \$50,000 into Bank A. Bank A will now
- have \$65 000 in excess reserves
  - have \$55 000 in excess reserves
  - want to increase its reserves by \$5 000
  - have just the right amount of desired reserves
12. The Canadian dollar is defined as
- flat money, because it was created by an act of law
  - faith money, because we trust our central bank to defend its value
  - commodity-backed money, because it is convertible into gold
  - flat money, because it was designed by an Italian auto maker
13. Which of the following statements is TRUE?
- The presence of a deficit budget is proof that the government is trying to stimulate aggregate demand
  - Because transfer payments typically rise during an economic recovery, they help to stabilize the economy
  - An increase in government spending will have a greater effect on real GDP if the marginal propensity to import is smaller
  - An increase in transfer payments will have a greater effect on real GDP than an equal increase in government spending on goods and services
14. According to the monetary transmission mechanism, an increase in the money supply will cause which of the following?
- lower interest rate, lower exchange rate, higher net exports
  - lower interest rate, higher exchange rate, lower net exports
  - lower interest rate, higher exchange rate, less investment spending
  - lower interest rate, lower exchange rate, lower net exports
15. Expansionary monetary policy when the economy is at full employment will cause a \_\_\_\_\_ in interest rates in the short run, and \_\_\_\_\_ in interest rates in the long run
- a fall; a fall
  - a fall; no change
  - no change; no change
  - no change; a fall

16. Which of the following would lead to an appreciation of the Japanese yen against the US dollar?
- The US aggregate price level rises relative to Japan's aggregate price level
  - US interest rates rise relative to Japan's interest rates
  - Both of the above
  - Neither of the above
17. Money is created when commercial banks
- sell securities to the public
  - Increase their desired reserve ratio
  - print cheques
  - lend out their excess reserves
18. M1 includes those assets which are
- good as a store of value, but not useful as a medium of exchange
  - not liquid enough to be included in M2
  - directly useable as a medium of exchange
  - referred to as "near-monies"
19. The bank rate refers to the interest rate
- the Bank of Canada charges when it lends reserves to commercial banks
  - commercial banks charge each other for one-day loans
  - the Bank of Canada pays on commercial bank deposits
  - commercial banks charge their best (most creditworthy) customers
20. Which of the following is an example of expansionary monetary policy?
- Bank of Canada sells government securities in the open market
  - An increase in transfer payments
  - Bank of Canada transfers government deposits from itself to commercial banks
  - Both (b) and (c)
21. If the desired reserve ratio falls from 10% to 5%, the money multiplier would
- increase from 10 to 20
  - Increase from 0.1 to 0.2
  - fall from 20 to 10
  - not change
22. If the Canadian dollar exchange rate (price of the Canadian dollar) rises from 0.82 US to 0.86 US, then
- US exports to Canada will rise
  - Canadian exports to the US will rise
  - the US dollar exchange rate rises to \$1.16 Cdn
  - Both (a) and (c) are true
23. If the economy's GDP = \$600B, consumption spending = \$350B, investment spending = \$60B, exports = \$90B, and G = \$110 then the economy's imports should be
- equal to the value of exports
  - \$10B
  - \$80B
  - None of the above

24. Suppose that real GDP per capita grows at a constant rate of 4% per year. How many years will it take for real GDP to double?
- 70 years
  - approximately 17½ years
  - approximately 7 years
  - none of the above
25. If the price index was 180 at the end of 2007 and 216 at the end of 2008, then the rate of inflation for 2008 was
- 16.67%
  - 20%
  - 36%
  - 18%
26. Consider the demand and supply curve of the Canadian dollar in the foreign exchange market. Which of the following statements is FALSE?
- As we move up the supply curve, it implies that we buy more foreign goods due to the appreciated value of the Canadian dollar
  - As we move down along the demand curve, it implies that foreigners buy more Canadian goods due to the appreciated value of foreign currency
  - If there is an excess demand for Canadian dollars at the current exchange rate, this increases the value of the Canadian dollar, which reduces our exports and increases our imports
  - If there is an excess supply of Canadian dollars at the current exchange rate, this will reduce our exports and increase our imports

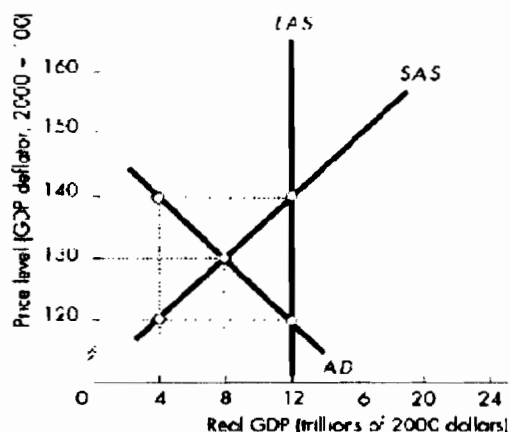
Use the following information to answer the next question

Suppose that the labour force consists of 10 million people. Of these 10 million people, 1.5 million do not have a job but are looking for work. Of these 1.5 million people, 0.5 million are not working due to insufficient aggregate demand (a downturn in the economy).

27. Which of the following statements is TRUE?
- the natural rate of unemployment is 10%
  - the cyclical rate of unemployment is equal to 5%
  - the unemployment rate when the economy is producing at its potential level of output is 10%
  - all of the above are true
28. Suppose consumption is \$10M when disposable income is \$10.5M, and consumption is \$10.5M when disposable income is \$11.5M. The marginal propensity to consume is
- 0.75
  - 0.50
  - 0.80
  - 0.90
29. Aaron just graduated from university and is looking for a job in his field. Aaron is
- cyclically unemployed
  - seasonally unemployed
  - structurally unemployed
  - frictionally unemployed

30. Time lags limit the effectiveness of fiscal policy because in the real world it takes time
- to recognize and measure macroeconomic problems
  - to develop an appropriate corrective policy
  - for the multiplier process to work
  - all of the above are true
31. If  $MPC=0.75$ ,  $MPM=0$  and  $t=0$ , an increase of \$1B in autonomous investment spending will cause:
- \$750 million spending in the first round
  - \$1B in induced consumption spending via the multiplier process
  - a total of \$3B in autonomous investment spending plus multiplier effects
  - a total change in aggregate spending of \$4B
32. The short-run effects of a negative supply shock are a \_\_\_\_\_ in the aggregate price level and a \_\_\_\_\_ in employment
- fall; fall
  - rise; fall
  - rise; rise
  - fall; rise
33. Deliberate attempts by policymakers to reduce unemployment when the economy is experiencing stagflation will
- lower the aggregate price level
  - increase the aggregate price level
  - not change the aggregate price level
  - shift the SRAS curve to the right
34. Automatic stabilizers tend to stabilize the level of economic activity because they
- are changed very quickly by Parliament
  - increase the size of the multiplier
  - automatically increase spending during recessions and reduce spending during inflationary periods
  - ensure that the economy always returns to full employment in the long run
35. Much of each year's government budget is considered "uncontrollable" because
- it must be spent for purchases, as opposed to transfer payments
  - government spending and revenue in the current year are mainly determined by decisions made in prior years
  - it is determined by irresponsible decision-makers who are out of control
  - macroeconomic conditions and the effects of automatic stabilizers on the budget are unpredictable
36. Which of the following ALWAYS occurs during a recession?
- real GDP falls for at least 3 consecutive quarters
  - real GDP falls by at least 2% per quarter
  - the economy experiences deflation
  - aggregate output, employment, and incomes fall
37. GDP is equal to the
- sum of total factor incomes earned in an economy
  - sum of all financial transactions in an economy
  - total value of what has been consumed
  - sum of total factor incomes plus transfers minus taxes

38. GDP measured in current-year prices is called
- potential GDP
  - nominal GDP
  - real GDP
  - GDP per capita



39. **Refer to the above diagram.** If the current aggregate price level is 130, then
- the economy will be in short-run macroeconomic equilibrium
  - the quantity of aggregate output demanded will equal the quantity of aggregate output supplied
  - output prices are 30% higher, on average, than they were in 2000
  - All of the above are true
40. **Refer to the above diagram.** Which of the following statements is FALSE?
- the full-employment level of aggregate output equals \$12 trillion
  - the recessionary gap is equal to \$4 trillion
  - after the economy self-corrects in the long run, the aggregate price level will be 140
  - expansionary stabilization policies would be appropriate to close the output gap

Use the following information to answer the next 2 questions:

Suppose that the working-age population of Yourtown is 100 000 people. Of these 100 000 people, 20 000 are not participating in the labour force. Of the remaining 80 000 people, 16 000 are not working and have given up looking for work; 4 000 are without a job but looking for work; 14 000 work part time; and the remainder are happily employed

41. What is the unemployment rate in Yourtown?
- 10%
  - 6.25%
  - 5%
  - 8.5%
42. What would happen to the unemployment rate in Yourtown if the 16 000 people who have given up looking for work are counted as unemployed workers?
- nothing
  - it would decrease
  - it would increase
  - it could increase, decrease or remain the same



43. Long-run economic growth depends *primarily* on
- how we take care of our environment
  - labour productivity
  - discoveries of new oil reserves
  - the economy's healthcare system
44. Which of the following statements is TRUE?
- Employment insurance benefits to unemployed workers are included in the calculation of GDP
  - Purchases of photocopier paper by law firms are included in the calculation of GDP
  - Canada has consistently been ranked at, or near the top, of the Human Development Index during the past 7 years
  - Comparing GDP per capita figures over time allows us to see what is happening to the distribution of income
45. To increase its stock of physical capital, an economy must
- have a high level of consumption spending
  - have a high level of government spending
  - engage in investment spending
  - have a generous endowment of natural resources
46. A healthy banking system can contribute to long-run economic growth by
- providing a way for savings to be channeled into investment spending
  - redistributing income from rich to poor citizens
  - providing a safe place for people to keep their savings
  - guaranteeing that all banknotes will be fully convertible into gold
47. If nominal GDP increases from \$5 billion to \$6 billion when the GDP deflator goes from 100 to 120, then real GDP
- rises
  - falls
  - stays the same
  - could either be rising or falling
48. The official unemployment rate reported by Statistics Canada tends to UNDERSTATE the actual amount of unemployment by
- including discouraged workers in the calculations
  - excluding discouraged workers who are not actively seeking employment
  - including part-timers who would like to work full time in the calculations
  - excluding part-timers in the calculations

**PART B: Answer all questions in the spaces provided.** 🌸(If you need more space, use back of pages please) 🌸

1. In the 1990's in the former U.S.S.R., a lot of property was seized and controlled by those in power. How and why might this have affected the U.S.S.R.'s long-run growth rate? (assuming the property was put to its former use by the state) **(2 marks)**

2. Canadian Steel Inc. sells steel to Canadian Motors Inc. for \$7,600. Canadian Motors uses the steel to make an auto, which it sells for \$27,400. What is the total contribution of these transactions to GDP? That is, how much does GDP change as a result of these transactions? **(1 mark)**
3. Consider the following transactions which occur in Canada during the year 2008. For each transaction state whether it is included in the calculation of Canada's GDP for 2008. IF you circled yes, state which component(s) - C, I, G, X or IM - the transaction affects. **(6 marks)**
- a. A new home is constructed in Thunder Bay, Ontario during 2008.
- YES NO      Component(s) of GDP \_\_\_\_\_
- b. Michael tutors Katie's children in exchange for Katie driving the children's carpool three times a week throughout 2008.
- YES NO      Component(s) of GDP \_\_\_\_\_
- c. The Ontario government purchases new flags from China.
- YES NO      Component(s) of GDP \_\_\_\_\_
- d. Brad sells his 10-year old house in Nipigon, Ontario to Thomas without the help of a real estate agent.
- YES NO      Component(s) of GDP \_\_\_\_\_
- e. An automaker in Oshawa, Ontario produces 200 autos during 2008. It sells 80 of them to Canadian households and 20 of them to foreigners during 2008. It adds the unsold autos to inventories.
- YES NO      Component(s) of GDP \_\_\_\_\_
4. Why doesn't the Bank of Canada just print enough money to pay off the national debt and to finance government spending? **(2 marks)**

5. What is meant by a "bank run"? Give two reasons why the likelihood of bank failures in Canada is small? **(3 marks)**

Bonus mark: Since 1923, how many Canadian banks have failed? \_\_\_\_\_

6. Suppose that the Bank of Canada sells \$15 million worth of government bonds in the open market when the desired reserve ratio is 3%. **(5 marks)**

a. Will the money supply increase or decrease? \_\_\_\_\_. How large is the *potential* change in the money supply? \_\_\_\_\_

b. Give 2 reasons why the Bank of Canada can't perfectly control the money supply.

7. The overnight rate is a market-determined interest rate which depends on the supply and demand for overnight funds. If the Bank of Canada purchased government bonds from commercial banks, what would happen to the overnight rate and why? What are the ripple effects of the open market purchase on the components of aggregate demand i.e. on C, I, X, IM and net exports? **(5 marks)**

8. Suppose the Bank of Canada lowers its target for the overnight rate. Indicate whether the following will rise, fall or remain unchanged. **(4 marks)**

- a. Bank reserves \_\_\_\_\_
- b. Money supply \_\_\_\_\_
- c. Demand for bonds \_\_\_\_\_
- d. Market interest rates \_\_\_\_\_
- e. Investment spending \_\_\_\_\_
- f. Supply of Canadian dollars in the foreign exchange market \_\_\_\_\_
- g. Net Exports \_\_\_\_\_
- h. Aggregate Demand \_\_\_\_\_

9. Suppose Canadian interest rates decline relative to US interest rates. Draw a diagram of the foreign exchange market to illustrate what will happen to the exchange rate (the price of the Canadian dollar in US dollars). Explain why the demand and/or supply of Canadian dollars will shift when Canadian interest rates fall. **(5 marks)**

Exchange Rate  
(US dollars per  
Canadian dollar)



Quantity of Canadian dollars

10. Suppose the Canadian economy is currently producing at its potential level of output. **(7 marks)**

- a. Illustrate the current state of the Canadian economy using the aggregate output model (AS-AD diagram). Include both the short-run and long-run aggregate supply curves, and the aggregate demand curve in your diagram. *(2 marks)*



- b. Now suppose the Bank of Canada expands the money supply. Illustrate the effects of this policy in the money market. *(2 marks)*

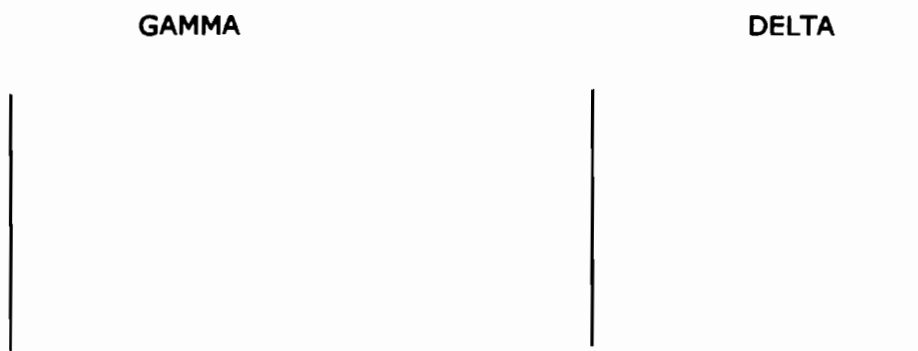


- c. Go back to your AD-AS diagram and illustrate the effects of the Bank of Canada's actions on real GDP and the aggregate price level in the *short run*. *(1 mark)*
- d. In the same AD-AS diagram, show how the Canadian economy will self-correct in the *long run* *(1 mark)*
- e. The changes in real GDP and price level in the aggregate output market will have an additional feed-back effect in the money market and on the interest rate. Go back to your money market diagram to illustrate this feed-back effect. *(1 mark)*

***Make sure you clearly identify the changes in your diagrams by labeling the shifts in your curves with the letters c, d or e – to correspond with the questions above.***

11. The economies of Gamma and Delta are identical in every way except that they have very different money demand curves. In Gamma, people respond to higher interest rates by significantly reducing the quantity of money demanded and to falling interest rates by significantly increasing the quantity of money demanded. In Delta, the quantity of money demanded does NOT respond very much to changes in the interest rate. **(4 marks)**

(a) Draw the money demand curves for both economies (label your axis and curves for full marks).



- (b) In which of these 2 economies – Gamma or Delta - would monetary policy be more effective as a tool of stabilization policy? Explain and illustrate your answer by including a money supply curve in your diagrams.

**Bonus Marks: (4 marks, Including 1 from page 10)**

1. Who is the current Governor of the Bank of Canada? \_\_\_\_\_
2. On March 3, 2009 the Bank of Canada announced that it was lowering its target for the overnight rate to 1/2 per cent. The bank rate was correspondingly set at \_\_\_\_\_%.
3. The Bank of Canada was established in the year \_\_\_\_\_.