

The University of Alberta
Economics 102 – B1
Introduction to Macroeconomics
Second Term Examination
SPECIAL CODE: 5

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90 Minutes

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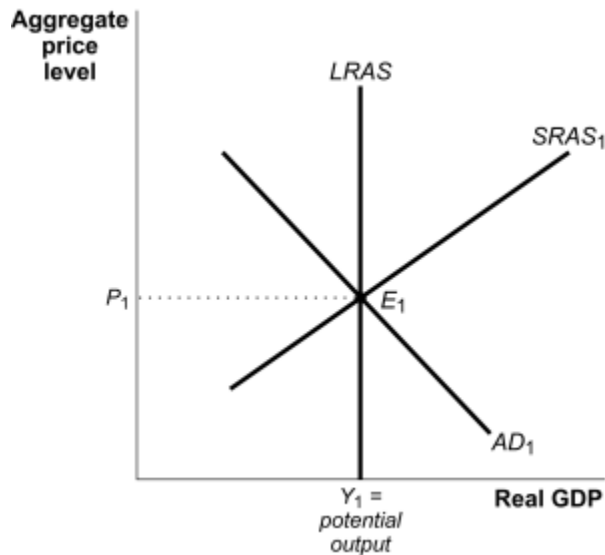
Section I: Multiple Choice. Do all 40 questions for 80 marks on the NCS sheet provided in pencil. Each question is worth 2 marks. For each questions, choose the BEST possible answer.

1. An example of an automatic stabilizer that works when the economy contracts is:
 - A) a rise in tax receipts.
 - B) a fall in government purchases.
 - C) a discretionary decrease in government purchases.
 - D) a rise in government transfers, as more people receive unemployment insurance benefits.

2. Banks are financial intermediaries that:
 - A) have customer deposits as their primary asset and loans to borrowers as their primary liability.
 - B) provide liquid assets to lenders and long-term financing to borrowers.
 - C) have customer deposits as their primary asset and loans to borrowers as their primary liability AND provide liquid assets to lenders and long-term financing to borrowers.
 - D) All of the answer choices are incorrect.

Use the following to answer questions 3-4:

Figure: AD-AS Model 2



3. (Figure: AD-AS Model 2) If the value of household wealth increases, which of the following will take place?
 - A) the *SRAS* curve will shift to the left.
 - B) the *SRAS* curve will shift to the right.
 - C) the *AD* curve will shift to the right.
 - D) the *AD* curve will shift to the left.

4. (Figure: AD-AS Model 2) If nominal wages decrease, which of the following will take place in the short run?
 - A) the *SRAS* curve will shift to the left.
 - B) the *SRAS* curve will shift to the right.
 - C) the *LRAS* will shift to the right.
 - D) the *AD* curve will shift to the right.

5. If in an open economy, the government's budget deficit increases at the same time as the trade deficit grows, this will lead to a(n) _____ in the demand and a(n) _____ in the supply of loanable funds in domestic markets.
 - A) increase; decrease
 - B) decrease; decrease
 - C) increase; increase
 - D) decrease; increase

Use the following to answer question 6:

Scenario: Open economy $S = I$

In an open economy suppose that GDP is \$1.2 trillion. Consumption is \$800 billion and government spending is \$200 billion. Taxes are \$150 billion and government transfers are \$100 billion. Exports are \$100 billion and imports are \$300 billion.

6. (Scenario: Open Economy $S = I$) How much is national saving?
 - A) \$400 billion
 - B) \$350 billion
 - C) \$200 billion
 - D) \$550 billion

7. If the Bank of Canada conducts a \$10-million open-market sale and the desired reserve ratio is 5%, the maximum change in the money supply is:
 - A) an increase of \$10 million.
 - B) a decrease of \$10 million.
 - C) a decrease of \$50 million.
 - D) a decrease of \$200 million.

8. According to the efficient markets hypothesis, if you are trying to find out what a stock is really worth, you should:
 - A) look up the current stock price.
 - B) study the fundamentals of the firm.
 - C) study the underlying determinants of the company's future profits.
 - D) examine its recent price changes.

9. Which of the following is NOT true about bank runs?
 - A) They may start as a result of a rumour that a bank is in financial trouble.
 - B) Many banks' depositors try to withdraw their funds due to fears of a bank failure.
 - C) Bank runs typically only happen to small banks with few financial assets.
 - D) Banks runs often lead to a loss of faith in other banks, causing additional bank runs.

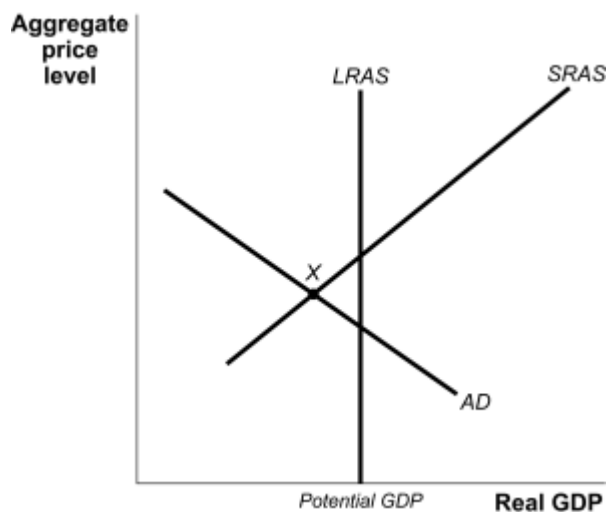
10. If government spending increases and taxes decrease:
 - A) implicit liabilities will increase.
 - B) implicit liabilities will decrease.
 - C) the public debt will increase.
 - D) the public debt will decrease.

11. If in an open economy, a country imports more than it exports and the government budget deficit increases:
- A) interest rates will increase, and the amount of borrowing will increase.
 - B) interest rates will decrease, and the amount of borrowing will increase.
 - C) interest rates will increase, but the change in borrowing is ambiguous.
 - D) the change in interest rates is ambiguous, but the amount of borrowing will increase.
12. If the interest rate in the market for loanable funds is above the equilibrium interest rate, we know that:
- A) there is a shortage of loanable funds.
 - B) savings exceed investment spending.
 - C) the quantity demanded of loanable funds exceeds the quantity supplied of loanable funds.
 - D) consumption is smaller than savings.
13. If the Bank of Canada intervenes in foreign currency markets to prevent the dollar from falling:
- A) there will be less demand on the money supply.
 - B) bank reserves will decrease.
 - C) bank reserves will increase.
 - D) the bank rate will fall.
14. A natural disaster that destroys part of a country's infrastructure is a type of _____ and therefore shifts the _____ to the _____.
- A) negative demand shock; aggregate demand curve; right
 - B) negative supply shock; aggregate demand curve; left
 - C) negative supply shock; short-run aggregate supply curve; left
 - D) negative demand shock; long-run aggregate supply curve; left
15. If the economy is at equilibrium above potential output:
- A) there is a recessionary gap, and expansionary fiscal policy is appropriate.
 - B) there is an inflationary gap, and contractionary fiscal policy is appropriate.
 - C) there is a recessionary gap, and contractionary fiscal policy is appropriate.
 - D) there is an inflationary gap, and contractionary fiscal policy is appropriate.

16. If the marginal propensity to save is 0.25, investment spending is \$700 million, and the government increases its purchases of goods and services by \$100 million, then real GDP increases by:
- A) \$25 million.
 - B) \$175 million.
 - C) \$400 million.
 - D) \$2,800 million.
17. According to the long-run aggregate supply curve, when _____, the quantity of aggregate output supplied _____.
- A) nominal wages rise; falls
 - B) the aggregate price level; rises; does not change
 - C) the aggregate price level falls; rises
 - D) the price of commodities falls; rises
18. The three main monetary policy tools are:
- A) interest rates, taxes, government purchases and transfers.
 - B) currency, near-moneys, and the reserve ratio.
 - C) deposit insurance, discount rate, and the money multiplier.
 - D) the bank rate, open-market operations, and government deposit switching

Use the following to answer questions 19-20:

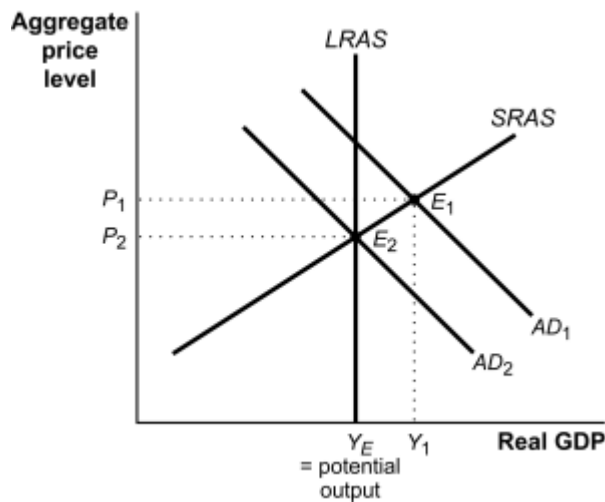
Figure: AD-AS Model 1



19. (Figure: *AD–AS Model 1*) If the economy is at point *X*, which of the following describes the likely adjustment to long-run equilibrium?
- A) Nominal wages decrease, and the aggregate demand curve shifts left until the economy reaches long-run equilibrium.
 - B) Nominal wages increase, and the aggregate demand curve shifts right until the economy reaches long-run equilibrium.
 - C) Nominal wages decrease, and the short-run aggregate supply curve shifts right until the economy reaches long-run equilibrium.
 - D) Nominal wages decrease, and the short-run aggregate supply curve shifts left until the economy reaches long-run equilibrium.
20. (Figure: *AD–AS Model 1*) If the economy is at point *X*, there is an:
- A) inflationary gap with low unemployment.
 - B) inflationary gap with high unemployment.
 - C) recessionary gap with low unemployment.
 - D) recessionary gap with high unemployment.

Use the following to answer question 21:

Figure: Fiscal Policy 2



21. (Figure: Fiscal Policy 2) Suppose that this economy is in equilibrium at E_1 . If there is a decrease in government transfers, then:
- A) AD_2 will shift to the left, causing an increase in the price level and a decrease in real GDP.
 - B) AD_2 will shift to the left, causing a decrease in the price level and a decrease in real GDP.
 - C) AD_1 will shift to the right, causing an increase in the price level and an increase in real GDP.
 - D) AD_1 will shift to the left, causing a decrease in the price level and an decrease in real GDP.

Use the following to answer question 22:

Table: Investment Spending, Private Spending, and Capital Inflows

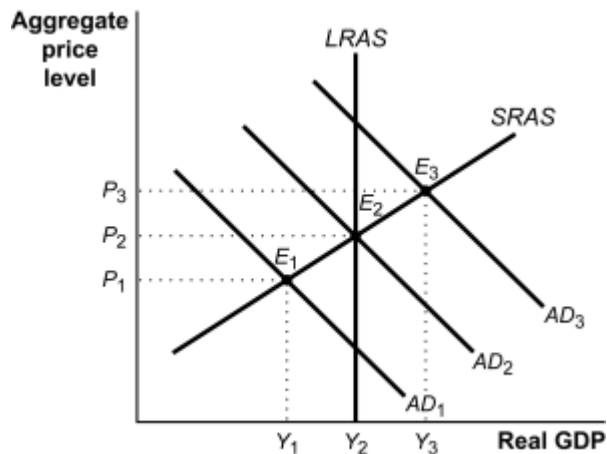
	Northlandia	Southlandia
Investment spending as a percentage of GDP	25%	30%
Private savings as a percentage of GDP	10%	35%
Capital inflow as a percentage of GDP	5%	-5%

22. (Table: Investment Spending, Private Spending, and Capital Inflows) What is the budget balance as a percentage of GDP in Northlandia?
- A) -10%
 - B) 0%
 - C) 10%
 - D) 20%
23. An increase in the aggregate price level will increase:
- A) short-run aggregate supply.
 - B) the quantity of aggregate output supplied in the short run.
 - C) aggregate demand.
 - D) the quantity of aggregate output demanded.
24. The primary difference between $M1$ and $M2$ is that:
- A) the dollar amount of $M1$ is much larger than the dollar amount of $M2$.
 - B) $M1$ includes chequable deposits, but $M2$ does not.
 - C) $M2$ includes chequable deposits, but $M1$ does not.
 - D) $M2$ includes savings deposits and time deposits, but $M1$ does not.

25. When countries replaced gold and silver coins with paper money exchangeable for certain amounts of precious metals, the monetary system evolved from:
- using commodity money to using fiat money.
 - using commodity-backed money to using fiat money.
 - using commodity money to using commodity-backed money.
 - using fiat money to using commodity-backed money.
26. A shift away from taxing asset income toward taxing consumption would lead to:
- a larger demand for loanable funds, a higher interest rate, and slower economic growth.
 - a larger supply of loanable funds, a lower interest rate, and faster economic growth.
 - a larger government budget deficit and slower economic growth.
 - a smaller supply of loanable funds, a higher interest rate, and faster economic growth.

Use the following to answer question 27:

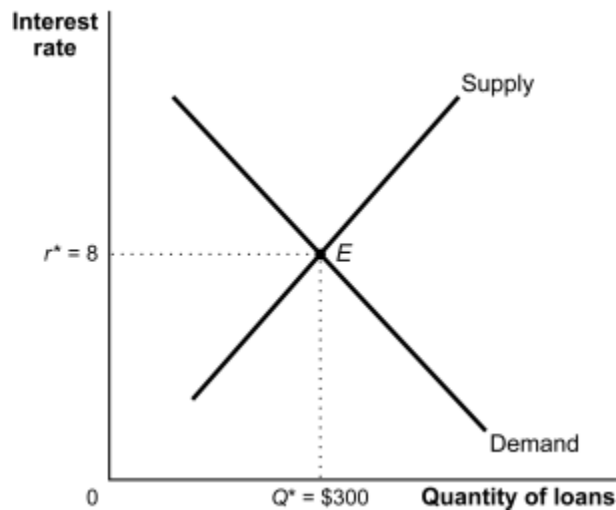
Figure: Inflationary and Recessionary Gaps



27. (Figure: Inflationary and Recessionary Gaps) An inflationary gap would be:
- $Y_3 - Y_1$.
 - $Y_3 - Y_2$.
 - $Y_2 - Y_1$.
 - $Y_3 - Y_0$.

Use the following to answer question 28:

Figure: Market for Loanable Funds 2



28. (Figure: Market for Loanable Funds 2) Other things being equal, an increase in taxes on savings and investment income will:
- A) shift demand to the right and increase the interest rate.
 - B) shift demand to the left and decrease the interest rate.
 - C) shift supply to the right and decrease the interest rate.
 - D) shift supply to the left and increase the interest rate.
29. A negative short-run supply shock:
- A) reduces aggregate output and increases the aggregate price level.
 - B) increases aggregate output and reduces the aggregate price level.
 - C) reduces aggregate output and the aggregate price level.
 - D) increases aggregate output and the aggregate price level.
30. If the MPC is 0.9, then the government spending multiplier is:
- A) 0.1.
 - B) 1.11.
 - C) 9.
 - D) 10.

31. The bank rate is the interest rate the Bank of Canada charges on loans to:
- A) consumers.
 - B) the federal government.
 - C) provincial governments.
 - D) banks.
32. The interest rate effect of an aggregate price level change causes:
- A) the long-run aggregate supply curve to be vertical.
 - B) the aggregate demand curve to be negatively sloped.
 - C) the short-run aggregate supply curve to be positively sloped.
 - D) the aggregate demand curve to be positively sloped.
33. In the open economy of Sildavia, government spending during 2005 was \$30 billion, government transfers were \$15 billion, consumption was \$70 billion, taxes were \$35 billion, and GDP was \$100 billion. If investment spending in Sildavia during 2005 was \$10 billion, we can conclude that Sildavia registered:
- A) a net capital inflow of \$10 billion.
 - B) capital inflows of \$10 billion and capital outflows of \$20 billion.
 - C) a trade surplus of \$20 billion and a financial deficit of \$20 billion.
 - D) a net capital outflow of \$10 billion.

Use the following to answer question 34:

Table: Assets and Liabilities of the Banking System

Assets		Liabilities	
Loans	\$900,000	Deposits	\$1,000,000
Reserves	\$100,000		

34. (Table: Assets and Liabilities of the Banking System) If the desired reserve ratio is 5% and the banking system does NOT want to hold excess reserves, then _____ will be added to the money supply.
- A) \$666,667
 - B) \$111,111
 - C) \$250,000
 - D) \$1,000,000

35. To _____ the money supply, the Bank of Canada could _____.
- A) increase; lower the reserve requirements
 - B) decrease; lower the bank rate
 - C) increase; transfer government balances to accounts at the chartered banks.
 - D) decrease; conduct open-market purchases
36. The money multiplier is equal to:
- A) the ratio of the money supply to the monetary base.
 - B) the ratio of the monetary base to the money supply.
 - C) the money supply divided by the desired reserve ratio.
 - D) All answer choices are incorrect.

Use the following to answer question 37:

Exhibit: Multiplier

The marginal propensity to consume is 0.8, and potential output is \$800 billion.

37. (Exhibit: Multiplier) If current real GDP is \$700 billion:
- A) there is an inflationary gap.
 - B) there is a recessionary gap.
 - C) the economy is in long-run equilibrium.
 - D) government transfers should be decreased.
38. The budget balance is calculated as:
- A) $T - G - TR$.
 - B) $T + G - TR$.
 - C) $T - G + TR$.
 - D) $T + G + TR$.
39. A positive demand shock leads to:
- A) higher prices and higher employment.
 - B) higher prices and higher unemployment.
 - C) higher prices and lower output.
 - D) lower prices and lower output.

40. The long-run aggregate supply curve is vertical because in the long run:
- A) technological progress outpaces raises in nominal wages.
 - B) all factors of production increase.
 - C) the price of labour is flexible, while the price of physical capital is fixed.
 - D) all prices are flexible.

Section II: Short Answer Question. Do two (2) of the following for 20 marks. Each question is worth 10 marks. Please show your work and put your response on the booklet provided.

1. The banking system has \$20 million in reserves and has a reserve ratio of 10%. Bankers did not hold any excess reserves, but difficult times make them decide that it is prudent to hold 25% of deposits as reserves. Other things equal, by how much must the Bank of Canada increase bank reserves so as to keep the money supply ($M1$) the same?
2. Consider an open economy with the following information: $X = \$120$ billion, $IM = \$80$ billion, $T = \$125$ billion, $G = \$200$ billion, $I = \$100$ billion.
 - a. Calculate private savings.
 - b. Calculate capital inflow assuming private savings is \$205 billion.
3. Briefly explain why the short run aggregate supply curve slopes upward.
4. Assume a closed economy along with a horizontal aggregate supply curve. Potential real GDP is 800, while the actual real GDP is 750. The MPC is 0.9. Calculate ΔG needed to close the recessionary gap.

Answer Key

1. D
2. B
3. C
4. B
5. C
6. C
7. D
8. A
9. C
10. C
11. D
12. B
13. B
14. C
15. B
16. C
17. B
18. D
19. C
20. D
21. D
22. C
23. B
24. D
25. C
26. B
27. B
28. D
29. A
30. D
31. D
32. B
33. A
34. D
35. C
36. A
37. B
38. A
39. A
40. D