



CollegeBoard

Advanced Placement
Program

AP[®] Macroeconomics

Practice Exam

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AP[®] Macroeconomics

Directions for Administration

The AP Macroeconomics Exam is 2 hours and 10 minutes in length and consists of a multiple-choice section and a free-response section.

- The multiple-choice section is 1 hour and 10 minutes, contains 60 questions, and accounts for two-thirds of the final grade.
- The free-response section is 60 minutes, contains 3 questions, and accounts for one-third of the final grade. Ten minutes of the Section II time are reserved for reading the questions and planning answers.

A 10-minute break should be provided after Section I is completed.

The actual AP Exam is administered in one session. Students will have the most realistic experience if a complete morning or afternoon is available to administer this practice exam. If a schedule does not permit one time period for the administration of the entire practice exam, it would be acceptable to administer Section I one day and Section II on a subsequent day.

Total scores on the multiple-choice section are based only on the number of questions answered correctly. No points are deducted for incorrect answers and no points are awarded for unanswered questions.

- The use of calculators, or any other electronic devices, is not permitted during the exam.
- It is suggested that the practice exam be completed using a pencil for Section I and a pen with black or dark blue ink for Section II to simulate an actual administration.
- Teachers will need to provide paper for the students to write their free-response answers. Teachers should give the students directions indicating how they wish the responses to be labeled so that the teacher will be able to associate the student's response with the question the student intended to answer.
- Remember that students are not allowed to remove any materials, including scratch work, from the testing site.

Section I
Multiple-Choice Questions

The inclusion of source material in this exam is not intended as an endorsement by the College Board or ETS of the content, ideas, or values expressed in them. The material printed here reflects various aspects of the course of study on which this exam is based and is therefore appropriate to use to measure the skills and knowledge of this course.

MACROECONOMICS

Section I

Time—70 minutes

60 Questions

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case and place the letter of your choice in the corresponding box on the student answer sheet.

1. If a certain combination of goods or services lies outside the production possibilities curve of an economy, which of the following is true?

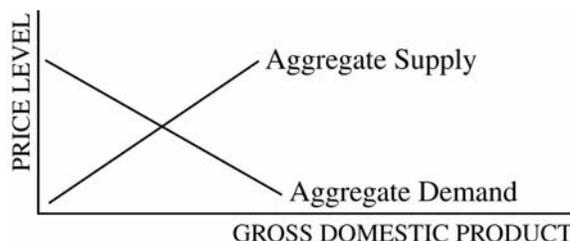
- (A) Effective trade barriers have reduced foreign imports into the economy.
- (B) New technology is being used in production.
- (C) Resources are not available to achieve that combination of goods or services.
- (D) Resources are not being used efficiently to achieve that combination of goods or services.
- (E) Resources are being used at a more rapid rate than they were in the past.

2. Which of the following groups would most likely gain from unanticipated inflation?

- (A) Landlords who own apartments in cities with rent controls
- (B) Individuals who have fixed retirement incomes
- (C) Individuals who earn high incomes
- (D) Individuals who have borrowed money at fixed interest rates
- (E) Banks that have loaned all excess reserves at a fixed interest rate

3. With a constant money supply, if the demand for money decreases, the equilibrium interest rate and quantity of money will change in which of the following ways?

<u>Interest Rate</u>	<u>Quantity of Money</u>
(A) Increase	Decrease
(B) Increase	Not change
(C) Decrease	Decrease
(D) Decrease	Increase
(E) Decrease	Not change



4. According to the graph above, an increase in aggregate supply will most likely cause income and employment to change in which of the following ways?

<u>Income</u>	<u>Employment</u>
(A) Decrease	Decrease
(B) Decrease	Increase
(C) No change	Increase
(D) Increase	Decrease
(E) Increase	Increase

5. If the exchange rate between the United States dollar (\$) and the British pound (£) changed from \$2 per £1 to \$3 per £1, and domestic prices in both countries stayed the same, then the United States dollar would

- (A) depreciate, making United States imports from Britain more expensive
- (B) depreciate, making United States imports from Britain cheaper
- (C) appreciate, making United States imports from Britain more expensive
- (D) appreciate, making United States imports from Britain cheaper
- (E) purchase 3 times more British goods than before the change occurred

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6. If an economy is operating with significant unemployment, an increase in which of the following will most likely cause employment to increase and the interest rate to decrease?
- (A) Purchases of government bonds by the central bank
 - (B) Transfer payments
 - (C) Reserve requirements
 - (D) Government expenditures
 - (E) Investment in basic infrastructure
7. An increase in which of the following is most likely to promote economic growth?
- (A) Consumption spending
 - (B) Investment tax credits
 - (C) The natural rate of unemployment
 - (D) The trade deficit
 - (E) Real interest rates
8. An appropriate fiscal policy to combat a recession would be to increase which of the following?
- (A) Interest rates
 - (B) The money supply
 - (C) Taxes
 - (D) Government spending
 - (E) The sales of government bonds
9. The concept of opportunity cost would no longer be relevant if
- (A) poverty in an economy no longer existed
 - (B) the supply of all resources were unlimited
 - (C) resources were allocated efficiently
 - (D) real wages were flexible
 - (E) all current incomes were invested in technological research
10. An appreciation of the United States dollar on the foreign exchange market could be caused by a decrease in which of the following?
- (A) United States interest rates
 - (B) The United States consumer price index
 - (C) Demand for the dollar by United States residents
 - (D) Exports from the United States
 - (E) The tariff on goods imported into the United States
11. Which of the following would indicate that economic growth has occurred?
- (A) The production possibilities curve shifts to the left.
 - (B) The long-run aggregate supply curve shifts to the right.
 - (C) The aggregate demand curve shifts to the right.
 - (D) The Phillips curve becomes flatter.
 - (E) Business cycles no longer exist.
12. Which of the following is most likely to occur if the Federal Reserve engages in open market operations to reduce inflation?
- (A) A decrease in interest rates
 - (B) A decrease in reserves in the banking system
 - (C) A decrease in the government deficit
 - (D) An increase in the money supply
 - (E) An increase in exports
13. Which Federal Reserve action can shift the aggregate demand curve to the left?
- (A) Lowering the federal funds rate
 - (B) Lowering income taxes
 - (C) Lowering reserve requirements
 - (D) Raising the discount rate
 - (E) Raising government spending on national defense
14. Crowding out refers to the decrease in
- (A) national output caused by higher taxes
 - (B) domestic production caused by increased imports
 - (C) private investment due to increased borrowing by the government
 - (D) employment caused by higher inflation
 - (E) exports caused by an appreciating currency of a country
15. If the real interest rate in the United States increases relative to that of the rest of the world, capital should flow
- (A) into the United States and the dollar will depreciate
 - (B) into the United States and the dollar will appreciate
 - (C) out of the United States and the dollar will depreciate
 - (D) out of the United States and the dollar will appreciate
 - (E) out of the United States and the value of the dollar will not change

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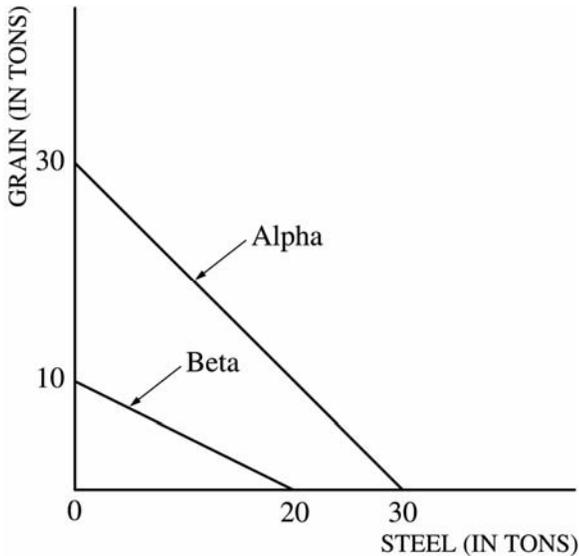
16. Which of the following policy choices represents a combination of fiscal and monetary policies designed to bring the economy out of a recession?
- (A) Decreasing both taxes and the money supply
 (B) Increasing both taxes and the money supply
 (C) Increasing government spending and decreasing the federal funds rate
 (D) Increasing both taxes and the discount rate
 (E) Engaging in deficit spending and government bond sales
17. Which of the following will be counted as unemployed by the United States Bureau of Labor Statistics?
- (A) Persons who quit their previous jobs to stay at home to care for sick parents
 (B) Persons who were laid off from their previous jobs and have not applied for a job in two years
 (C) Persons who were fired from their previous jobs and are actively applying for work
 (D) Persons who have given up looking for jobs after long searches
 (E) Persons who quit their previous jobs to start their own businesses
18. Which of the following sequences of events would occur if the Federal Reserve implemented contractionary monetary policy?
- (A) Interest rates increase, investment and consumption spending decrease, aggregate demand decreases, and output and prices decrease.
 (B) Interest rates increase, investment and consumption spending decrease, aggregate demand increases, and output and prices decrease.
 (C) Interest rates increase, investment and consumption spending increase, aggregate demand decreases, and output and prices decrease.
 (D) Interest rates decrease, investment and consumption spending decrease, aggregate demand decreases, and output and prices decrease.
 (E) Interest rates decrease, investment and consumption spending decrease, aggregate demand decreases, and output and prices increase.
19. Suppose that autonomous consumption is \$400 and that the marginal propensity to consume is 0.8. If disposable income increases by \$1,200, consumption spending will increase by
- (A) \$1,600
 (B) \$1,360
 (C) \$1,200
 (D) \$ 960
 (E) \$ 400
20. In an economy in which all prices, including wages, are completely flexible, an increase in labor productivity will result in which of the following changes in output and real wages?
- | | <u>Output</u> | <u>Real Wages</u> |
|-----|---------------|-------------------|
| (A) | Increase | Increase |
| (B) | Increase | Decrease |
| (C) | Decrease | No change |
| (D) | Decrease | Increase |
| (E) | Decrease | Decrease |
21. When the average price level increases by 10 percent in a given year, which of the following must increase by 10 percent for real output to remain constant?
- (A) Real national income
 (B) Nominal national income
 (C) The international value of the currency
 (D) Real interest rates
 (E) Nominal interest rates
22. Which of the following will occur in a competitive market when the price of a good is less than the equilibrium price?
- (A) Price will decrease to eliminate the surplus and restore equilibrium.
 (B) Price will decrease to eliminate the shortage and restore equilibrium.
 (C) Price will increase to eliminate the surplus and restore equilibrium.
 (D) Price will increase to eliminate the shortage and restore equilibrium.
 (E) Price will remain constant, because supply will increase to eliminate the shortage.

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23. A short-run Phillips curve shows an inverse relationship between
- (A) interest rates and borrowing
 - (B) inflation and unemployment
 - (C) income and consumption
 - (D) prices and quantity demanded
 - (E) inputs and outputs
24. Which of the following can be expected to cause an increase in gross domestic product in the short run?
- (A) An increase in the tax rate
 - (B) An increase in the interest rate
 - (C) Equal increases in both imports and exports
 - (D) Equal increases in both taxes and government expenditures
 - (E) Equal decreases in both investment and government expenditures
25. If the federal government reduces its budget deficit when the economy is close to full employment, which of the following will most likely result?
- (A) Inflation will increase.
 - (B) Tax revenues will increase.
 - (C) Interest rates will decrease.
 - (D) Unemployment will decrease.
 - (E) The international value of the dollar will increase.
26. Which of the following will cause the United States dollar to depreciate relative to the euro?
- (A) An increase in household income in the United States
 - (B) An increase in interest rates in the United States
 - (C) An increase in household income in Europe
 - (D) A decrease in interest rates in Europe
 - (E) A decrease in price level in the United States
27. Stagflation is most likely to be caused by
- (A) an increase in aggregate demand
 - (B) a decrease in aggregate demand
 - (C) an increase in aggregate supply
 - (D) a decrease in aggregate supply
 - (E) a large increase in the money supply
28. Assume that the nominal interest rate is 10 percent. If the expected inflation rate is 5 percent, the real interest rate is
- (A) 0.5%
 - (B) 2%
 - (C) 5%
 - (D) 10%
 - (E) 15%
29. Which of the following will lead to an increase in the United States gross domestic product?
- (A) More individuals prepare their own personal income tax forms.
 - (B) Some citizens begin working abroad as computer programmers.
 - (C) The government prohibits the sale of alcoholic beverages.
 - (D) Foreign companies build new assembly plants in the United States.
 - (E) A million United States households sell their used cars to their children.
30. An advance in technology will cause the
- (A) aggregate demand curve to shift to the right
 - (B) aggregate demand curve to shift to the left
 - (C) short-run aggregate supply curve to shift to the left
 - (D) long-run aggregate supply curve to shift to the left
 - (E) long-run aggregate supply curve to shift to the right
31. Suppose that the Federal Reserve buys \$400 billion worth of government securities from the public. If the required reserve ratio is 20 percent, the maximum increase in the money supply is
- (A) \$1,600 billion
 - (B) \$1,800 billion
 - (C) \$2,000 billion
 - (D) \$2,200 billion
 - (E) \$2,400 billion

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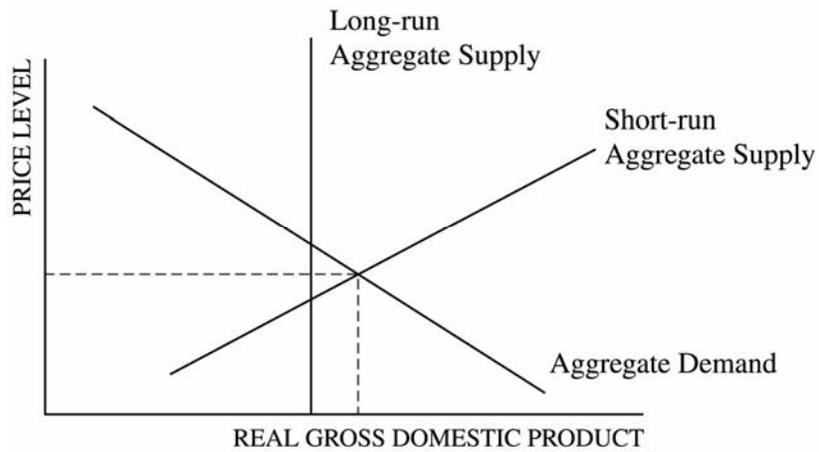
Questions 32-34 are based on the diagram below, which shows the production alternatives of two countries, Alpha and Beta, producing two goods, grain and steel, using all of their available resources.



32. Before specialization and trade, the domestic opportunity cost of producing 1 ton of grain in Alpha and in Beta is which of the following?

<u>Alpha</u>	<u>Beta</u>
(A) 1 ton of steel	1 ton of steel
(B) 1 ton of steel	2 tons of steel
(C) 2 tons of steel	1 ton of steel
(D) 1 ton of steel	0.5 ton of steel
(E) 0.33 ton of steel	1.5 tons of steel

33. The theory of comparative advantage implies that Alpha would find it advantageous to
- (A) export grain and import steel
 - (B) export steel and import grain
 - (C) export both grain and steel and import nothing
 - (D) import both grain and steel and export nothing
 - (E) trade 1 ton of grain for 0.5 ton of steel
34. At what real exchange ratio, also referred to as the terms of trade, between grain (G) and steel (S) would both Alpha and Beta find it mutually advantageous to specialize and trade?
- (A) $1G = 3.0S$
 - (B) $1G = 1.5S$
 - (C) $1G = 1.0S$
 - (D) $1G = 0.5S$
 - (E) There is no real exchange ratio that would enable both countries to benefit, since Alpha has an absolute advantage in both goods.



35. According to the graph above, which of the following is true about the long-run equilibrium of the economy depicted?
- (A) The economy is in long-run equilibrium.
 - (B) The aggregate demand curve will shift to the left to restore long-run equilibrium.
 - (C) The long-run aggregate supply curve will shift to the right to restore long-run equilibrium.
 - (D) Without a fiscal policy stimulus, the economy will remain in a recession.
 - (E) As wages increase, the short-run aggregate supply curve will shift to the left to restore long-run equilibrium.

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36. An increase in personal income taxes will most likely cause aggregate demand and aggregate supply to change in which of the following ways in the short run?

<u>Aggregate Demand</u>	<u>Aggregate Supply</u>
-------------------------	-------------------------

- | | |
|----------------|------------|
| (A) Not change | Decrease |
| (B) Not change | Increase |
| (C) Decrease | Not change |
| (D) Decrease | Increase |
| (E) Increase | Not change |

37. Which type of unemployment would increase if workers lost their jobs because of a recession?

- (A) Cyclical
- (B) Frictional
- (C) Seasonal
- (D) Search
- (E) Structural

38. Which of the following is true about the marginal propensity to consume?

- (A) It is the percentage of total income that is spent on consumption.
- (B) It determines the size of the simple spending multiplier.
- (C) It increases as incomes increase because increases in income cause people to spend more.
- (D) It is the same as the money multiplier.
- (E) It is equal to the average propensity to consume for people with low incomes.

39. When an economy is operating below the full-employment level of output, an appropriate monetary policy would be to increase which of the following?

- (A) The discount rate
- (B) The required reserve ratio
- (C) The international value of the dollar
- (D) Open market purchases of government bonds
- (E) Government expenditure on goods and services

40. Assume that the economy is at full employment. Policymakers wish to maintain the price level but want to encourage greater investment. Which of the following combinations of monetary and fiscal policies would best achieve this goal?

<u>Monetary Policy</u>	<u>Fiscal Policy</u>
------------------------	----------------------

- | | |
|--------------------|----------------|
| (A) No change | Contractionary |
| (B) Expansionary | No change |
| (C) Expansionary | Contractionary |
| (D) Expansionary | Expansionary |
| (E) Contractionary | Expansionary |

41. In one year, spending on consumption, investment, and government purchases was equal to 103 percent of a country's gross domestic product. This would be possible only if

- (A) the money supply increased
- (B) net exports were positive
- (C) net exports were negative
- (D) the government ran a budget surplus
- (E) the government had a balanced budget

42. When firms restructure their operations to decrease production costs, the aggregate supply curve, the price level, and real output will change in which of the following ways?

<u>Aggregate Supply Curve</u>	<u>Price Level</u>	<u>Real Output</u>
-------------------------------	--------------------	--------------------

- | | | |
|------------------------|----------|-----------|
| (A) Shift to the left | Increase | Increase |
| (B) Shift to the left | Increase | No change |
| (C) Shift to the right | Increase | Increase |
| (D) Shift to the right | Decrease | Increase |
| (E) Shift to the right | Decrease | Decrease |

43. An economy is in a short-run equilibrium at a level of output that is less than full-employment output. If there were no fiscal or monetary policy interventions, which of the following changes in output and the price level would occur in the long run?

<u>Output</u>	<u>Price Level</u>
---------------	--------------------

- | | |
|---------------|-----------|
| (A) Increase | Decrease |
| (B) Increase | Increase |
| (C) Decrease | Decrease |
| (D) Decrease | Increase |
| (E) No change | No change |

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44. Assume that the world operates under a flexible exchange rate system. If the central bank of Mexico increases its money supply but other countries do not change theirs, Mexico's inflation rate and the international value of the Mexican peso will most likely change in which of the following ways?

<u>Inflation Rate</u>	<u>International Value of the Peso</u>
(A) Increase	Appreciate
(B) Increase	Depreciate
(C) Increase	No change
(D) Decrease	Appreciate
(E) Decrease	Depreciate

45. The Federal Reserve decreases the federal funds rate by

(A) decreasing the reserve requirement
 (B) decreasing the discount rate
 (C) increasing the discount rate
 (D) selling government bonds on the open market
 (E) buying government bonds on the open market

Labor Market Data for Country X
(in millions of persons)

Population	180
Employed	94
Unemployed	6
Not in labor force	80

46. Based on the information in the table above, what is the unemployment rate for Country X?

(A) 3.3%
 (B) 4.0%
 (C) 6.0%
 (D) 6.38%
 (E) 7.5%

47. Suppose that the government decreases taxes and at the same time the central bank decreases the discount rate. The combined actions will result in

(A) an increase in unemployment and a decrease in the interest rate
 (B) an increase in unemployment and an increase in the interest rate
 (C) an increase in the real gross domestic product and a decrease in the interest rate
 (D) an increase in the real gross domestic product and an increase in the interest rate
 (E) an increase in the real gross domestic product and an indeterminate change in the interest rate

48. In a closed economy with only lump-sum taxation, if the marginal propensity to consume is equal to 0.75, a \$70 billion increase in government spending could cause a maximum increase in output of

(A) \$52.5 billion
 (B) \$70 billion
 (C) \$122.5 billion
 (D) \$210 billion
 (E) \$280 billion

49. Which of the following is NOT a function of fiat money?

(A) A standard of deferred payment
 (B) A unit of account
 (C) A source of intrinsic value
 (D) A store of value
 (E) A medium of exchange

50. When an economy is at full employment, which of the following will most likely create demand-pull inflation in the short run?

(A) An increase in the discount rate
 (B) An increase in personal income taxes
 (C) A decrease in the real rate of interest
 (D) A decrease in government spending
 (E) A decrease in the money supply

51. Under rational expectations, an announced expansion in the money supply will change nominal and real gross domestic products (GDP) in which of the following ways?

<u>Nominal GDP</u>	<u>Real GDP</u>
(A) Increase	Increase
(B) Increase	Decrease
(C) Increase	No change
(D) No change	Decrease
(E) No change	No change

52. A decrease in labor productivity will shift the

- (A) aggregate demand curve to the right
- (B) aggregate demand curve to the left
- (C) long-run aggregate supply curve to the right
- (D) short-run aggregate supply curve to the right
- (E) short-run aggregate supply curve to the left

53. In the long run, if aggregate demand decreases, real gross domestic product (GDP) and the price level will change in which of the following ways?

<u>Real GDP</u>	<u>Price Level</u>
(A) Decrease	Decrease
(B) Decrease	Increase
(C) No change	Decrease
(D) Increase	Decrease
(E) No change	Increase

54. Suppose that all banks keep only the minimum reserves required by law and that there are no currency drains. The legal reserve requirement is 10 percent. If Maggie deposits the \$100 bill she received as a graduation gift from her grandmother into her checking account, the maximum increase in the total money supply will be

- (A) \$10
- (B) \$100
- (C) \$900
- (D) \$1,000
- (E) \$1,100

55. Assuming fixed exchange rates, if country Z's rate of inflation increases relative to its trading partners, Country Z's imports and exports will most likely change in which of the following ways?

<u>Imports</u>	<u>Exports</u>
(A) Decrease	Decrease
(B) Decrease	Increase
(C) Increase	Decrease
(D) Increase	Increase
(E) No change	No change

56. Which of the following household purchases will be counted as part of gross private investment in a country's gross domestic product?

- (A) Government bonds
- (B) Shares of a company stock
- (C) Corporate bonds
- (D) A new car for personal use
- (E) A newly constructed home

57. An increase in aggregate demand will cause which of the following?

- (A) A movement along a given short-run Phillips curve
- (B) The long-run Phillips curve to become horizontal
- (C) The short-run Phillips curve to shift to the left
- (D) The long-run Phillips curve to shift to the right
- (E) The long-run Phillips curve to shift to the left

58. Which of the following would cause the short-run aggregate supply curve to shift to the right?

- (A) An increase in the wage rate
- (B) An increase in the interest rate
- (C) An increase in the natural rate of unemployment
- (D) A decrease in the capital stock
- (E) A decrease in the expected price level

59. A decrease in business taxes would lead to an increase in national income by increasing which of the following?
- (A) The money supply
 - (B) Unemployment
 - (C) Aggregate demand only
 - (D) Aggregate supply only
 - (E) Both aggregate demand and aggregate supply

60. In an open economy, an increase in government budget deficit tends to cause the international value of a country's currency and its trade deficit to change in which of the following ways?

<u>Value of Currency</u>	<u>Trade Deficit</u>
(A) Appreciate	Become smaller
(B) Appreciate	Become larger
(C) Depreciate	Become smaller
(D) Depreciate	Become larger
(E) Not change	Not change

END OF SECTION I

**IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY
CHECK YOUR WORK ON THIS SECTION.**

DO NOT GO ON TO SECTION II UNTIL YOU ARE TOLD TO DO SO.

Section II

Free-Response Questions

MACROECONOMICS

Section II

Planning Time—10 minutes

Writing Time—50 minutes

Directions: You have 50 minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. Use a pen with black or dark blue ink.

1. The country of Freedonia introduces an attractive tax concession for foreign investors. As a result, effective real returns in Freedonia rise compared with those in other countries.
 - (a) Attracted by the tax concession, many United States investors decide to invest in Freedonia. Using a correctly labeled graph of the foreign exchange market for Freedonia's currency (the nia), show the impact on the demand for nias and the United States dollar price of the nia.
 - (b) Given your answer in part (a), what would happen to Freedonia's exports and imports to and from the United States? Explain.
 - (c) Draw a correctly labeled graph of aggregate demand and aggregate supply, and show the impact of your answer to part (b) on Freedonia's real output and price level.
 - (d) Given your answer in part (c), what would happen to employment in Freedonia? Explain.
 - (e) Draw a correctly labeled graph of the money market and show how your answer to part (c) would affect nominal interest rates in Freedonia?

2. Assume that the loanable funds market in Country X is currently in equilibrium.
 - (a) Draw a correctly labeled graph of the loanable funds market for Country X, and label the equilibrium interest rate as r^* and the quantity of funds as QF^* .
 - (b) Assume that the government of Country X, which had a balanced budget, now increases its spending while holding taxes constant. Assume that the government funds the increase in spending with increased borrowing.
 - (i) What will be the impact of this policy action on the government's budget balance?
 - (ii) On your graph in part (a), show the impact of this policy action on the interest rate and quantity of funds.
 - (c) Given your answer in part (b) (ii), how will private-sector interest-sensitive expenditures be affected?
 - (d) Given your answer in part (c), what will be the impact on the long-run growth rate of the economy? Explain.

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3. Assume that the economy of Hopeton is currently in long-run equilibrium, with a natural rate of unemployment equal to 5 percent and an inflation rate of 2 percent.
- (a) Draw a correctly labeled graph of the short-run Phillips curve, and label the curve as “SRPC.” Indicate the point on the SRPC corresponding to the current unemployment and inflation rates, labeled as “R.”
 - (b) On your graph in part (a), draw the long-run Phillips curve, and label it as “LRPC.”
 - (c) Assume that the government of Hopeton increases spending to finance repairs and maintenance of the country’s infrastructure. How will such an increase in spending affect unemployment and inflation in the short run? Explain.
 - (d) Show on your graph in part (a) the new point on the SRPC corresponding to the results you stated in part (c), labeled as “S.”
 - (e) Following the increase in government spending, workers demand and receive a higher wage. What happens to the SRPC as a result of the higher wage? Explain.

STOP

END OF EXAM

Name: _____

AP[®] Macroeconomics
Student Answer Sheet for Multiple-Choice Section

No.	Answer
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No.	Answer
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Multiple-Choice Answer Key

No.	Correct Answer
1	C
2	D
3	E
4	E
5	A
6	A
7	B
8	D
9	B
10	B
11	B
12	B
13	D
14	C
15	B
16	C
17	C
18	A
19	D
20	A
21	B
22	D
23	B
24	D
25	C
26	A
27	D
28	C
29	D
30	E

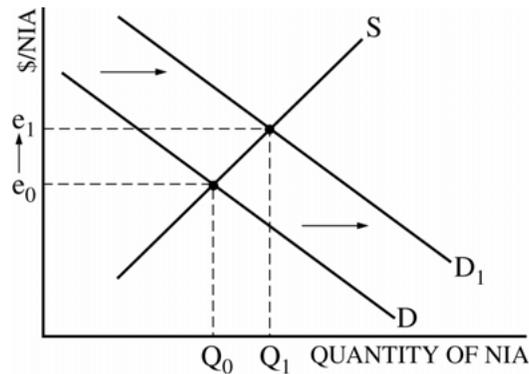
No.	Correct Answer
31	C
32	B
33	A
34	B
35	E
36	C
37	A
38	B
39	D
40	C
41	C
42	D
43	A
44	B
45	E
46	C
47	E
48	E
49	C
50	C
51	C
52	E
53	C
54	C
55	C
56	E
57	A
58	E
59	E
60	B

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Free-Response Scoring Guidelines

Question 1

12 points (3+2+3+1+3)

(a) 3 points:



- One point is earned for a correctly labeled graph of the foreign exchange market for the nia (quantity on the horizontal axis and the dollar price of nia on the vertical axis).
- One point is earned for showing a rightward shift of the demand curve for nia.
- One point is earned for concluding that the nia has appreciated.

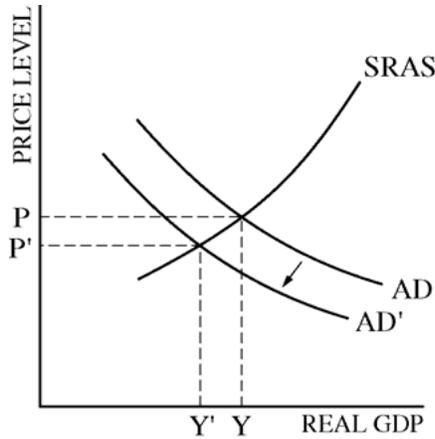
(b) 2 points:

- One point is earned for stating that Fredonia's exports to the United States will decrease and its imports will increase.
- One point is earned for explaining that Fredonia's exports will become more expensive for consumers in the United States and/or imports from the United States will now be cheaper.

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Free-Response Scoring Guidelines**

Question 1 (continued)

(c) 3 points:

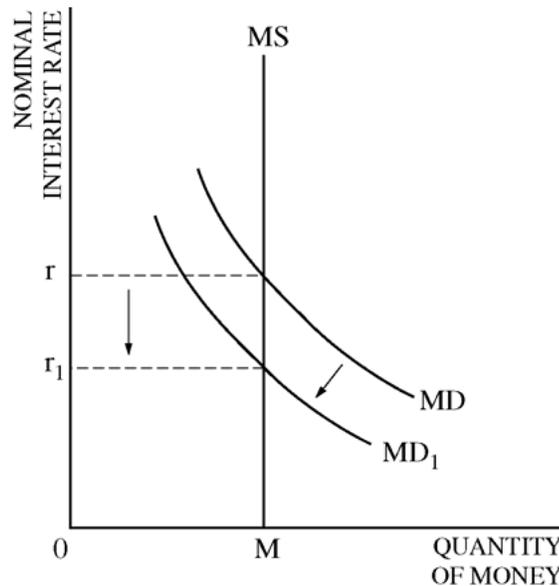


- One point is earned for a correctly labeled graph of AD and AS.
- One point is earned for showing a leftward shift of the AD curve.
- One point is earned for concluding that Fredonia's output and price levels will both decrease.

(d) 1 point:

- One point is earned for stating that employment will decrease because of the decrease in real gross domestic product (output).

(e) 3 points:



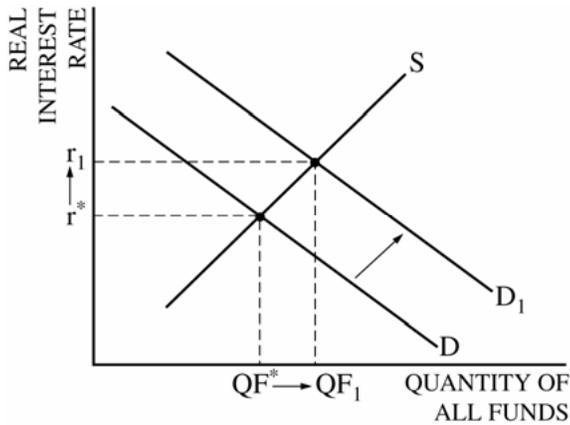
- One point is earned for a correctly labeled graph of the money market.
- One point is earned for showing a decrease in demand for money by a leftward shift of the money demand curve.
- One point is earned for showing and concluding that the nominal interest rate falls.

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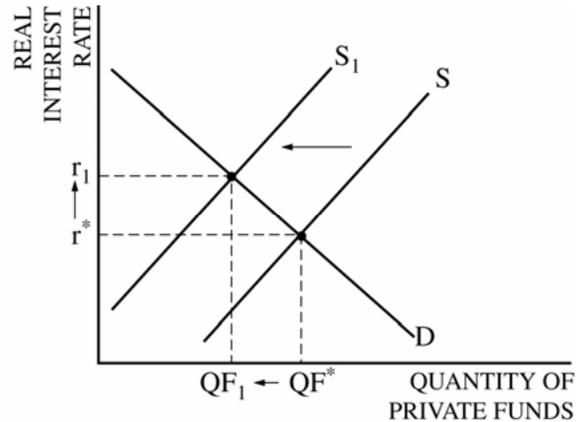
Question 2

6 points (1+2+1+2)

(a) 1 point:



or



- One point is earned for a correctly labeled graph of the loanable funds market with equilibrium interest rate and quantity identified. (This graph can have EITHER, on the horizontal axis, all borrowed funds [government and private] OR just private sector borrowing. Either one is acceptable, but answers to the following parts of the question should be consistent with how the student begins. The student must show the equilibrium real interest rate to get the point.)

(b) 2 points:

- One point is earned for stating that there will be a budget deficit.
- One point is earned for showing a rightward shift of the demand curve OR a leftward shift of the supply curve resulting in a higher interest rate. (The student may show the higher interest rate as a result of an increase in the demand for all funds OR as a result of fewer funds going to the private sector.)

(c) 1 point:

- One point is earned for stating that the higher real interest rate will reduce consumption and investment spending (crowds out private spending).

(d) 2 points:

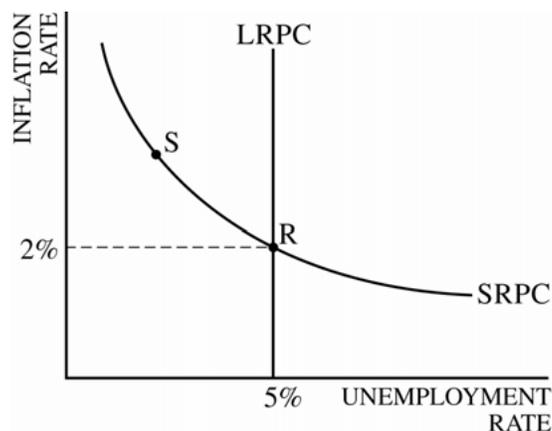
- One point is earned for stating that the growth rate will decrease or the economy will grow at a reduced growth rate.
- One point is earned for explaining that there will be less capital formation or less investment will slow down the growth of the capital stock.

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Question 3

8 points (1+1+3+1+2)

(a) 1 point:



- One point is earned for a correctly labeled graph of the short-run Phillips curve (SRPC) with the inflation rate at 2 percent and the unemployment rate at 5 percent.

(b) 1 point:

- One point is earned for showing a vertical LRPC at 5 percent unemployment rate.

(c) 3 points:

- One point is earned for stating that AD will increase (OR the AD curve will shift to the right).
- One point is earned for stating that the increase in AD causes output to increase, lowering the unemployment rate.
- One point is earned for stating that the increase in AD causes the price level to increase, resulting in higher inflation.

(d) 1 point:

- One point is earned for showing point S on the graph in part (a) with higher inflation but lower unemployment compared to point R on the same short-run Phillips curve.

(e) 2 points:

- One point is earned for concluding that the short-run Phillips curve shifts out (or up).
- One point is earned for the explanation that with higher wages every level of unemployment is accompanied by a higher rate of inflation. (Inflationary expectations adjust upward to the higher price level in the long run.)