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AP® Macroeconomics Exam

SECTION I: Multiple Choice

2015

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At a Glance

Total Time
1 hour, 10 minutes
Number of Questions
60
Percent of Total Score
66.67%
Writing Instrument
Pencil required

Instructions

Section I of this exam contains 60 multiple-choice questions. Fill in only the circles for numbers 1 through 60 on your answer sheet.

Indicate all of your answers to the multiple-choice questions on the answer sheet. No credit will be given for anything written in this exam booklet, but you may use the booklet for notes or scratch work. After you have decided which of the suggested answers is best, completely fill in the corresponding circle on the answer sheet. Give only one answer to each question. If you change an answer, be sure that the previous mark is erased completely. Here is a sample question and answer.

Sample Question	Sample Answer
Chicago is a (A) state (B) city (C) country (D) continent (E) village	Ⓐ ● Ⓒ Ⓓ Ⓔ

Use your time effectively, working as quickly as you can without losing accuracy. Do not spend too much time on any one question. Go on to other questions and come back to the ones you have not answered if you have time. It is not expected that everyone will know the answers to all of the multiple-choice questions.

Your total score on the multiple-choice section is based only on the number of questions answered correctly. Points are not deducted for incorrect answers or unanswered questions.

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Form I
Form Code 4KBP6-S

35

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DO NOT seal answer sheet inside

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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 then fill in the corresponding circle on the answer sheet.

1. Which of the following is always true of an economy operating on its production possibilities frontier?

   (A) Its resources are fully employed.
   (B) It is allocatively efficient.
   (C) It cannot trade with other nations because it is the most efficient producer of tradeable goods.
   (D) It will necessarily operate on the same frontier the following year.
   (E) It must be a command economy.

2. Open market operations take place when the

   (A) central bank buys or sells stocks
   (B) central bank buys or sells government bonds
   (C) central bank increases or decreases the discount rate to monitor the money supply
   (D) central bank increases or decreases reserve requirements for depository institutions
   (E) commercial banks borrow reserves from the central bank

3. A rightward shift in the short-run aggregate supply curve will occur when

   (A) exports exceed imports
   (B) the money supply increases
   (C) the prices of imported raw materials increase
   (D) the stock of physical capital increases
   (E) unions have negotiated a wage increase for their members

4. An increase in which of the following is most likely to increase long-run economic growth?

   (A) Interest rate
   (B) Income tax rate
   (C) Marginal propensity to consume
   (D) Investment in human capital
   (E) Money demand

5. Suppose that personal income is $3,500 billion, personal taxes are $1,000 billion, and depreciation is $500 billion. Disposable income is equal to which of the following?

   (A) $1,500 billion
   (B) $2,000 billion
   (C) $2,500 billion
   (D) $3,000 billion
   (E) There is not enough information to answer the question.

6. The money demand curve is downward sloping because

   (A) the transaction demand for money decreases as interest rates fall
   (B) people hold less money as the opportunity cost of holding money rises
   (C) money is less liquid as interest rates rise, so people are able to hold less of it
   (D) banks are more willing to create money when interest rates fall
   (E) with higher incomes, people are willing to hold smaller percentages of their money

7. According to the quantity theory of money, the quantity of money is related

   (A) negatively to the nominal interest rate
   (B) negatively to the price level
   (C) positively to the velocity of money
   (D) positively to the unemployment rate
   (E) positively to the nominal gross domestic product

8. Which of the following would generate cost-push inflation?

   (A) An increase in the price of labor
   (B) A decrease in the price of energy
   (C) An increase in household consumption
   (D) A decrease in government spending
   (E) An increase in the money supply

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9. Assuming no change in the nominal wage and a significant increase in human capital, the output per worker will

   (A) increase and the real wage will decrease
   (B) increase and the real wage will increase
   (C) decrease and the real wage will decrease
   (D) decrease and the real wage will increase
   (E) increase and the real wage will remain unchanged

10. Scarcity exists because

   (A) human wants exceed the productive capacity of the economy
   (B) supplies of land and other natural resources are unlimited
   (C) physical capital does not depreciate
   (D) population and labor force growth are slowing
   (E) innovation causes unemployment

11. To counter a recession, the central bank might pursue which of the following actions?

   (A) Increasing reserve requirements and selling securities on the open market
   (B) Increasing capital gains tax and selling securities on the open market
   (C) Decreasing reserve requirements and increasing the discount rate
   (D) Decreasing the discount rate and buying securities on the open market
   (E) Decreasing the capital gains tax and selling securities on the open market

12. An increase in the price of a key input will cause the aggregate demand curve and the short-run aggregate supply curve to change in which of the following ways?

	Aggregate Demand Curve	Aggregate Supply Curve
(A)	Shift to the right	Shift to the right
(B)	Shift to the left	Shift to the left
(C)	Shift to the left	No change
(D)	No change	Shift to the left
(E)	No change	Shift to the right

13. Suppose that the central bank buys $100 worth of bonds on the open market. Assume that the required reserve ratio is 10 percent, banks keep no excess reserves, and there are no cash leakages. After banks have made all adjustments, reserves, demand deposits, and loans will increase by which of the following?

	Reserves	Demand Deposits	Loans
(A)	$1,000	$1,000	$1,000
(B)	$1,000	$900	$1,000
(C)	$900	$1,000	$900
(D)	$100	$1,000	$1,000
(E)	$100	$1,000	$900

14. A simultaneous increase in both the demand for and the supply of a good in a market will lead to which of the following changes in the equilibrium price and quantity of the good?

	Price	Quantity
(A)	Increase	Increase
(B)	Indeterminate	Decrease
(C)	Indeterminate	Increase
(D)	Increase	Indeterminate
(E)	Decrease	Increase

15. Country A both imports and produces tea. If Country A imposes a tariff on imported tea, which of the following will occur?

   (A) Tea consumption will increase.
   (B) Domestic tea production will decrease.
   (C) Employment in the domestic tea industry will increase.
   (D) The domestic price of tea will decrease.
   (E) Country A's currency will depreciate.

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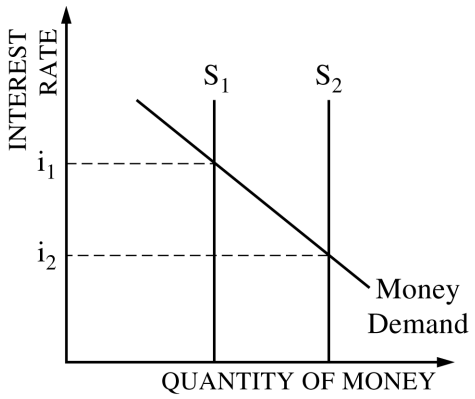

16. In the United States, which event would have caused the shift of the money supply curve from S_1 to S_2 in the money market shown above?

(A) The purchase of government bonds on the open market by the Federal Reserve
(B) An increase in the required reserve ratio
(C) A short-run increase in output, employment, and income
(D) An increase in general price level in the United States
(E) An increase in the supply of dollars in foreign exchange markets

17. The short-run Phillips curve shows that

(A) there is a trade-off between inflation and unemployment
(B) high rates of unemployment are linked to high rates of interest
(C) high rates of inflation are linked to high rates of interest
(D) high rates of interest are consistent with increases in the money supply
(E) the natural rate of unemployment is unattainable

Real Disposable Income	Consumption
$18,000	$19,000
$22,000	$22,000
$26,000	$25,000

18. According to the income and consumption schedules shown above, the marginal propensity to consume is

(A) 1.33
(B) 0.90
(C) 0.80
(D) 0.75
(E) decreasing as real disposable income increases

19. Which of the following is an example of frictional unemployment?

(A) A person quits a job to search for another job.
(B) A person lacks the skills to fill any of the available jobs.
(C) A person loses a job because of a recession.
(D) A person retires from the workforce.
(E) An unemployed person stops looking for a job.

20. In the long run, a decrease in the money supply will affect the price level and the level of output in which of the following ways?

	Price Level	Output
(A)	Increase	Increase
(B)	Increase	No change
(C)	Decrease	Increase
(D)	Decrease	Decrease
(E)	Decrease	No change

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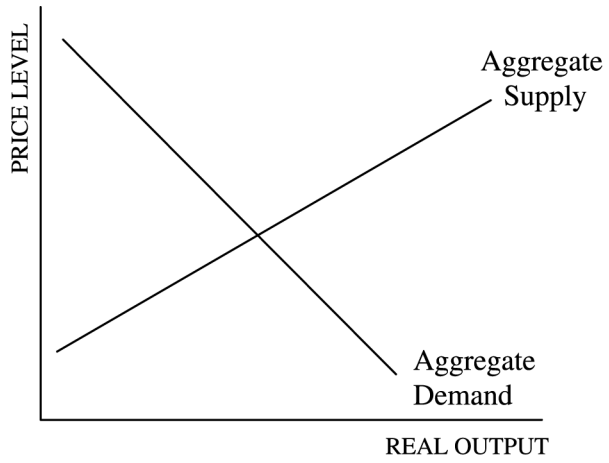
21. If fiscal policy is used to correct a recessionary gap, which of the following would most likely occur in the absence of crowding out in the short run?

	Real Output	Unemployment
(A)	Increase	Decrease
(B)	Increase	Increase
(C)	Decrease	Decrease
(D)	Decrease	Increase
(E)	Decrease	No change

Item 22 was not scored.



23. Given the aggregate demand and aggregate supply curves shown above, if policy makers want to increase real output without causing inflation, they can pursue a policy that will

(A) increase aggregate demand and decrease aggregate supply by equal amounts
(B) decrease aggregate demand only
(C) decrease aggregate supply only
(D) increase aggregate demand only
(E) increase aggregate supply only

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24. Which of the following is most likely to increase the real interest rate in Country *Z* ?

(A) Country *Z*'s central bank purchases government securities from banks and citizens.
(B) Country *Z* reduces government expenditures.
(C) Country *Z* is viewed as having increased political and economic risk.
(D) Country *Z*'s citizens increase their savings in anticipation of needed retirement income.
(E) Country *Z* introduces a tax on consumption goods.

25. Assume that Canada imports more goods and services than it exports. Which of the following is true of the Canadian balance of payments accounts?

(A) The current account balance must be negative.
(B) The current account balance must be positive.
(C) The trade balance must be negative.
(D) The financial account (formerly called capital account) balance must be negative.
(E) The financial account (formerly called capital account) balance must be positive.

26. An economy's full-employment real output will decrease when

(A) price level increases
(B) price level decreases
(C) technological change increases labor productivity
(D) workers choose shorter weeks to enjoy more leisure time
(E) the stock of physical capital is growing at a constant rate

27. Which of the following is true if exchange rates are freely floating?

(A) The free market forces of demand and supply determine the equilibrium exchange rates.
(B) The demand curve for the currency is upward sloping.
(C) Only nominal values of currency can be determined.
(D) The market determines the equilibrium value of the currency, but governments buy and sell currency at a fixed rate.
(E) Governments are unable to affect the international value of their currency.

28. Which of the following combinations of policies is designed to decrease inflation?

(A) An increase in taxes and a decrease in the reserve requirement
(B) An increase in taxes and an open-market purchase of government securities
(C) A decrease in taxes and an open-market purchase of government securities
(D) An increase in government spending and a decrease in the discount rate
(E) A decrease in government spending and an open-market sale of government securities

29. When Country X's central bank engages in monetary policy actions that lead to a decrease in interest rates, the international value of Country X's currency and Country X's exports and imports will most likely change in which of the following ways?

	Value of the Currency	Exports	Imports
(A)	Increase	Increase	Increase
(B)	Increase	Increase	Decrease
(C)	Increase	Decrease	Decrease
(D)	Decrease	Increase	Decrease
(E)	Decrease	Increase	Increase

30. A country's real gross domestic product is the annual value of all final goods and services that are

(A) purchased in that country, adjusted for changes in the price level
(B) produced in that country, expressed in current prices
(C) produced in that country, less exports
(D) produced in that country, less depreciation
(E) produced in that country, adjusted for changes in the price level

31. If a change in aggregate demand results in a recession, the price level and real output will change in which of the following ways in the short run?

	Price Level	Real Output
(A)	No change	Increase
(B)	Increase	No change
(C)	Increase	Decrease
(D)	Decrease	No change
(E)	Decrease	Decrease

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32. In the aggregate demand-aggregate supply model, economic growth can best be represented by a

(A) leftward shift of the long-run aggregate supply curve
(B) rightward shift of the long-run aggregate supply curve
(C) rightward shift of the short-run aggregate supply curve
(D) rightward shift of the aggregate demand curve
(E) leftward shift of the aggregate demand curve

33. An increase in which of the following leads to an increase in output per worker?

(A) Income tax rates
(B) Real interest rate
(C) The labor-force participation rate
(D) The stock of physical capital per worker
(E) The number of workers per unit of capital

34. The United States national debt is

(A) the amount of money owed by the federal government to United States citizens
(B) the amount of money owed by the federal government to other United States government agencies
(C) the amount of currency in the hands of foreigners
(D) the amount of money owed by state and local governments to United States citizens
(E) the amount of money owed to holders of United States government securities

35. Classical economists believe that the economy moves toward full employment because

(A) government spending supplements private investment to keep aggregate demand in balance with aggregate supply
(B) households spend all of their disposable income to purchase the full-employment output
(C) wages and prices are flexible
(D) private investment is constant and independent of national income
(E) the money supply grows at a constant rate to generate sufficient demand to purchase the full-employment output

36. Which of the following would shift a country's production possibilities curve inward?

(A) A reduction in the country's inflation rate
(B) A reduction in the country's real interest rate
(C) A reduction in the size of the country's labor force
(D) An increase in the typical retirement age in the country
(E) An increase in the country's cyclical unemployment rate

37. If the central bank conducts an open-market purchase of bonds, which of the following will occur?

(A) The price of bonds will increase.
(B) The money supply will decrease.
(C) Total bank reserves will decrease.
(D) Consumption will decrease.
(E) The government will balance its budget.

38. According to the short-run Phillips curve, a contractionary fiscal policy will result in

(A) a decrease in both unemployment and prices
(B) a decrease in inflation and an increase in unemployment
(C) a decrease in both wage rates and unemployment
(D) an increase in both wage rates and unemployment
(E) an increase in unemployment due to crowding out

39. A short-run increase in national income could be caused by a decrease in which of the following?

(A) Consumption
(B) Investment
(C) Imports
(D) Government spending
(E) Exports

40. The loanable funds market is best described as bringing together

(A) savers and borrowers
(B) investors and borrowers
(C) financial institutions and investors
(D) savers and lenders
(E) banks and savers

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41. An unanticipated decrease in aggregate demand will most likely cause the unemployment rate and the inflation rate to change in which of the following ways?

	Unemployment Rate	Inflation Rate
(A)	Increase	Increase
(B)	Increase	Decrease
(C)	Increase	No change
(D)	Decrease	Increase
(E)	Decrease	Decrease

42. Assume that Atlantic National Bank has demand deposits of $100,000 and no excess reserves, and that the reserve requirement is 10 percent. A customer withdraws $5,000 from the bank. To meet the reserve requirement, the bank must increase its reserves by

(A) $500
(B) $1,000
(C) $2,000
(D) $4,000
(E) $4,500

Item 43 was not scored.

44. Suppose that the economy is in the midst of a recession and government policy makers want to increase aggregate demand by $600 billion. If the economy's marginal propensity to consume is 0.75 and there is no crowding out, the government should do which of the following?

(A) Increase spending by $2,400 billion.
(B) Increase spending by $600 billion.
(C) Increase spending by $150 billion.
(D) Decrease taxes by $150 billion.
(E) Decrease taxes by $600 billion.

45. Assume that Linda deposits in her checking account the $1,000 cash she was keeping at home for an emergency. If the required reserve ratio is 0.20, what is the maximum change in the money supply from her deposit?

(A) $1,000
(B) $1,250
(C) $2,000
(D) $4,000
(E) $5,000

Price	Quantity Demanded (Bushels)	Quantity Supplied (Bushels)
$2.00	10,000	40,000
$1.75	15,000	35,000
$1.50	20,000	20,000
$1.25	25,000	15,000
$1.00	30,000	10,000
$0.75	35,000	5,000

46. The table above shows the quantity demanded and quantity supplied for bushels of wheat at various prices. Which of the following combinations is the equilibrium price and quantity for wheat?

	Price	Bushels of Wheat
(A)	$2.00	10,000
(B)	$1.75	15,000
(C)	$1.50	20,000
(D)	$1.25	30,000
(E)	$0.75	5,000

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ANNUAL CONSUMER PRICE INDEX (CPI)

Year	CPI
1929	20
1984	100
1995	120

47. The table above shows the consumer price index for selected years. On the basis of these data, how much did it cost in 1995 to buy the same goods and services that cost $50 in 1929 ?

(A) $25
(B) $100
(C) $125
(D) $250
(E) $300

48. The aggregate demand curve assumes that

(A) as the price of a good or service increases, nominal wages decrease
(B) as the domestic price level increases, consumers substitute domestic goods for foreign goods
(C) all prices and total consumer incomes are constant
(D) changes in the price level affect real wealth
(E) nominal interest rates increase as the price level decreases

49. Which of the following best describes the present value of one dollar received one year from today?

(A) It is worth more than a dollar received today.
(B) It is worth less than a dollar received today.
(C) It has the same value as a dollar received today.
(D) It decreases as interest rates decrease.
(E) It is not affected by changes in interest rates.

50. If an increase in government spending, financed by borrowing, crowded out an equal amount of private spending, which of the following would result?

(A) Interest rates would decrease.
(B) Aggregate demand would remain unchanged.
(C) The price level would increase.
(D) Unemployment would increase.
(E) Unemployment would decrease.

51. An increase in which of the following will cause an increase in the demand for money?

(A) The interest rate
(B) The supply of money
(C) The price level
(D) The velocity of money
(E) The trade deficit

52. Suppose that in a particular country, nominal gross domestic product (GDP) grew by 8 percent, and the GDP deflator increased by 10 percent. The country's growth rate of real GDP would be approximately equal to

(A) −2%
(B) −0.8%
(C) 0.8%
(D) 2%
(E) 18%

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53. Assume that the marginal propensity to consume is 0.90. As a result of an increase in the tax rates, the government collects an additional $20 million. What will be the impact on gross domestic product (GDP) ?

(A) GDP will increase by a maximum of $200 million.
(B) GDP will increase by a maximum of $180 million.
(C) GDP will decrease by a maximum of $200 million.
(D) GDP will decrease by a maximum of $180 million.
(E) GDP will decrease by a maximum of $20 million.

54. Which of the following best describes an economy at full employment?

(A) The rate of unemployment is zero.
(B) There is only structural and cyclical unemployment.
(C) There is only cyclical unemployment.
(D) There is cyclical, but not structural, unemployment.
(E) There is frictional, but not cyclical, unemployment.

55. Wally can make 40 units of good X or 30 units of good Y in a day, and Sam can make 20 units of good X or 10 units of good Y in a day. Assuming constant trade-offs between good X and good Y, which of the following is true?

(A) Sam has a comparative advantage in making good X.
(B) Sam has a comparative advantage in making good Y.
(C) Wally has a comparative advantage in making both goods.
(D) Sam has an absolute advantage in making good X.
(E) Sam has an absolute advantage in making good Y.

56. Automatic stabilizers can do which of the following?

(A) Offset the destabilizing influence of changes in tax revenues
(B) Aid the economy to move away from the full-employment output level
(C) Allow policymakers to formulate a set of rules flexible and comprehensive enough to eliminate discretionary actions
(D) Cause tax revenues to decrease when gross domestic product (GDP) decreases and to increase when GDP increases
(E) Allow policymakers to prescribe public works programs during inflationary periods because expenditures for unemployment and welfare have correspondingly decreased

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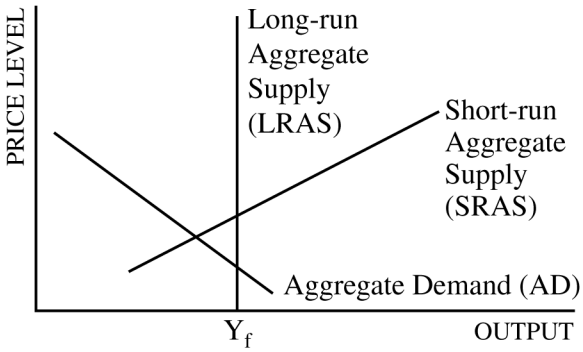

57. According to the graph above, which of the following statements about the economy is true?

(A) The economy is in long-run equilibrium.
(B) The LRAS curve will automatically shift to the right, restoring long-run equilibrium.
(C) In the short run, if wages are sticky the SRAS will shift to the right, lowering prices.
(D) The economy is in a recession, requiring decreases in spending to restore full employment.
(E) Wages will eventually decrease, restoring full employment in the long run.

58. An increase in Canada's real interest rates relative to real interest rates in the rest of the world will lead to which of the following in Canada?

(A) An increase in exports
(B) A decrease in imports
(C) A reduced government budget deficit
(D) Financial capital inflow
(E) Depreciation of the Canadian dollar

59. The real interest rate earned is the

(A) same as the nominal interest rate when inflation is moderate
(B) cost of borrowing in current consumer prices
(C) cost of borrowing in current producer prices
(D) cost of borrowing adjusted for the rate of change in the price level
(E) nominal interest rate adjusted for the growth rate of the economy

60. When purchasing her house, Ms. Jones took out a 15-year mortgage loan from a local bank at a fixed interest rate of 7 percent. The rate of expected inflation at the time was 3 percent. If the actual rate of inflation was 4.5 percent, which of the following is true?

(A) The bank gained because the real rate of interest increased by 1.5%.
(B) The bank gained because the real rate of interest became 3.5%.
(C) The bank lost because the real rate of interest decreased by 1.5%.
(D) Ms. Jones gained because the nominal rate of interest increased by 1.5%.
(E) Ms. Jones lost because the nominal rate of interest became 3.5%.

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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.

MAKE SURE YOU HAVE DONE THE FOLLOWING.

- **PLACED YOUR AP NUMBER LABEL ON YOUR ANSWER SHEET**
- **WRITTEN AND GRIDDED YOUR AP NUMBER CORRECTLY ON YOUR ANSWER SHEET**
- **TAKEN THE AP EXAM LABEL FROM THE FRONT OF THIS BOOKLET AND PLACED IT ON YOUR ANSWER SHEET**

AP® Macroeconomics Exam

SECTION II: Free Response

2015

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

At a Glance

Total Time
1 hour
Number of Questions
3
Percent of Total Score
33.33%
Writing Instrument
Pen with black or dark blue ink

Reading Period

Time
10 minutes. Use this time to read the questions and plan your answers.

Writing Period

Time
50 minutes

Question 1
Suggested Time
25 minutes
Percent of Section II Score
50%

Question 2
Suggested Time
12.5 minutes
Percent of Section II Score
25%

Question 3
Suggested Time
12.5 minutes
Percent of Section II Score
25%

IMPORTANT Identification Information

PLEASE PRINT WITH PEN:

1. First two letters of your last name ☐☐
   First letter of your first name ☐
2. Date of birth
   ☐☐ Month ☐☐ Day ☐☐☐☐ Year
3. Six-digit school code
   ☐☐☐☐☐☐
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   No, I do not grant the College Board these rights. ☐

Instructions

The questions for Section II are printed in this booklet. You may use page 3 and the pages the questions are printed on to organize your answers and for scratch work, but you must write your answers on the lined pages provided for each question.

The proctor will announce the beginning and end of the reading period. You are advised to spend the 10-minute period reading all the questions and planning your answers.

Write clearly and legibly. Do not skip lines. Cross out any errors you make; crossed-out work will not be scored.

Manage your time carefully. You may proceed freely from one question to the next. You may review your responses if you finish before the end of the exam is announced.

Form I
Form Code 4KBP6-S

MACROECONOMICS
Section II
Planning Time—10 minutes
Writing Time—50 minutes

Directions: You have 10 minutes to read all of the questions in this booklet, to sketch graphs, to make notes, and to plan your answers. You will then 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. 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.

Question 1 begins on page 4.

Question 2 begins on page 10.

Question 3 begins on page 14.

THIS PAGE MAY BE USED FOR TAKING NOTES AND PLANNING YOUR ANSWERS.
NOTES WRITTEN ON THIS PAGE WILL NOT BE SCORED.
WRITE ALL YOUR RESPONSES ON THE LINED PAGES.

1. Assume that a country's economy is in long-run equilibrium.

   (a) Using a correctly labeled graph of aggregate demand, short-run aggregate supply, and long-run aggregate supply, show the short-run equilibrium price level, labeled PL_1, and output level, labeled Y_1.

   (b) Assume that increased uncertainty has reduced business orders for equipment. What is the impact of the change in business orders on each of the following in the short run?

      (i) Aggregate demand. Explain.

      (ii) Employment

   (c) Based on the change in business orders, what will happen to the long-run economic growth rate? Explain.

   (d) Using a correctly labeled graph of the loanable funds market, show the effect of the change in business orders on the real interest rate in the country in the short run.

   (e) Given the effect on the real interest rate identified in part (d), what will happen to each of the following?

      (i) The supply of the country's currency on the foreign exchange market. Explain.

      (ii) The international value of the country's currency

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ANSWER PAGE FOR QUESTION 1

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Question 1 is reprinted for your convenience.

1. Assume that a country's economy is in long-run equilibrium.
   (a) Using a correctly labeled graph of aggregate demand, short-run aggregate supply, and long-run aggregate supply, show the short-run equilibrium price level, labeled PL_1, and output level, labeled Y_1.
   (b) Assume that increased uncertainty has reduced business orders for equipment. What is the impact of the change in business orders on each of the following in the short run?
      (i) Aggregate demand. Explain.
      (ii) Employment
   (c) Based on the change in business orders, what will happen to the long-run economic growth rate? Explain.
   (d) Using a correctly labeled graph of the loanable funds market, show the effect of the change in business orders on the real interest rate in the country in the short run.
   (e) Given the effect on the real interest rate identified in part (d), what will happen to each of the following?
      (i) The supply of the country's currency on the foreign exchange market. Explain.
      (ii) The international value of the country's currency

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ADDITIONAL PAGE FOR ANSWERING QUESTION 1

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2. Kathy deposits $10,000 cash into her checking account at First Federal Bank. The required reserve ratio is 20 percent.

   (a) Calculate the maximum possible change in First Federal's loans as a result of Kathy's deposit.

   (b) After all adjustments in the banking system have occurred, calculate the maximum possible change in each of the following as a result of Kathy's deposit.

      (i) Demand deposits in the banking system

      (ii) The money supply

   (c) Draw a correctly labeled graph of the money market and show the effect of Kathy's deposit on the nominal interest rate.

   (d) Identify ONE reason that the change in the money supply could differ from the value calculated in part (b)(ii).

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ANSWER PAGE FOR QUESTION 2

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ADDITIONAL PAGE FOR ANSWERING QUESTION 2

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3. The economy in Country X is in a recession, with real gross domestic product (GDP) $100 billion below full-employment output.

   (a) Draw one correctly labeled graph of the short-run and long-run Phillips curves, labeling the current equilibrium point A.

   (b) Assume that the government increases spending by $20 billion to stimulate economic activity. Assume that the marginal propensity to save is 0.25. Calculate the maximum total change in real GDP that could occur following the $20 billion increase in government spending.

   (c) On your graph in part (a), label the new equilibrium point B as a result of the increase in government spending.

   (d) Had the government lowered personal income taxes by $20 billion instead of increasing spending by $20 billion, would the maximum total change in real GDP be greater than, smaller than, or the same as the one calculated in part (b) ? Explain.

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ANSWER PAGE FOR QUESTION 3

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ADDITIONAL PAGE FOR ANSWERING QUESTION 3

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STOP

END OF EXAM

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