

1. A publisher purchases 1000 reams of paper for \$.50 per ream and 20 gallons of ink for \$25 per gallon. The publisher uses the paper and ink to print 5000 copies of a novel. The following incomes resulted from the printing of the novel: wages to employees, \$3,000; rental of machinery, \$3,000; interest, \$1,000; profit, \$2,000. How much is the price of a novel?

(A) \$1 (D) \$10
 (B) \$2 (E) \$15
 (C) \$5

2. The following table shows the values of the components of national income (NI) and gross national product (GNP) for an economy.

Component	Nominal Value
Compensation of employees	\$10 billion
Proprietor's income	\$4 billion
Corporate profits	\$3 billion
Rental income of persons	\$4 billion
Net interest	\$2 billion
Indirect business taxes	\$2 billion
Depreciation	\$3 billion

What are the values of NI and GNP for this economy?

(A) NI is \$18 billion, and GNP is \$25 billion.
 (B) NI is \$21 billion, and GNP is \$26 billion.
 (C) NI is \$23 billion, and GNP is \$28 billion.
 (D) NI is \$25 billion, and GNP is \$28 billion.
 (E) NI is \$28 billion, and GNP is \$28 billion.

3. Which of the following explains why the CPI overestimates the rate of inflation?

I. The CPI measures the cost of a fixed market basket of goods and therefore does not account for consumers' substitution away from goods that have become relatively more expensive.
 II. The quality of goods has increased steadily over time; therefore, increases in the price level also reflect a rise in the quality of goods purchased by consumers.
 III. New goods have entered the marketplace, making consumers better off because they have a broader variety of goods from which to choose.

(A) I only (D) I and II only
 (B) II only (E) II and III only
 (C) III only

4. If the real interest rate for a given year is 5%, and the nominal interest rate is 5%, then it follows that

(A) unemployment is zero
 (B) there is no trade deficit
 (C) government spending equals tax revenue
 (D) there is no inflation for that year
 (E) total output equals total inflation

5. The following table shows the growth rate of real and nominal GDP for an economy.

Year	Growth rate of nominal GDP	Growth rate of real GDP
1991	5%	3.5%
1992	6%	4%
1993	8%	5%

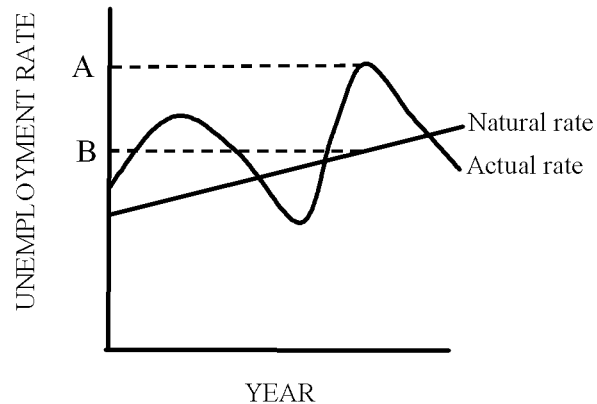
What is the rate of inflation in 1992?

(A) 1.5% (D) 4%
 (B) 2% (E) 6%
 (C) 3%

6. If a bank offers 0.0% financing on a loan, what is the only situation in which the bank will not take a loss over the period of the loan?

(A) The nominal interest rate is zero.
 (B) The real interest rate is zero.
 (C) The Fed lowers the reserve requirement to zero.
 (D) The discount rate equals the real interest rate.
 (E) The inflation rate is zero.

7. The following graph shows the natural and actual rate of unemployment for an economy over time.



Which of the following explains the difference between the rate of unemployment at point A and point B?

(A) The overall rate of job separation
 (B) The overall rate of job finding
 (C) Seasonal unemployment
 (D) Cyclical unemployment
 (E) Frictional unemployment

8. The relationship between net exports and income is

(A) negative (D) nonexistent
 (B) positive (E) indeterminate
 (C) one-to-one

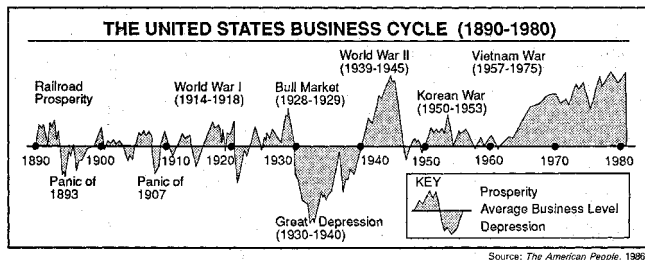
9.



The point of view expressed in this cartoon is that the 1997 increase in the minimum wage would

- (A) significantly reduce the gap between the rich and the poor
- (B) encourage the poor to appreciate the concern of politicians
- (C) help workers climb the ladder of success
- (D) be unlikely to provide any major benefit to the poor
- (E) save the United States economy forever

10.



An accurate description of the nation's business cycle between 1960 and 1980 is that it

- (A) experienced numerous periods of prosperity and depression
- (B) was most similar to the business cycle between 1930 and 1940
- (C) remained generally prosperous
- (D) stayed at the average business level
- (E) destroyed the United States economy forever

11. Who first introduced the consumption function?

- (A) Adam Smith
- (B) John Maynard Keynes
- (C) David Ricardo
- (D) Thomas Malthus
- (E) Vilfredo Pareto

12. According to Okun's Law, the growth rate of real GDP is given by $2.7\% - 2dU$, where dU is the change in the unemployment rate (expressed in percent per year). If the unemployment rate steadily increases from 5% to 7% from January to June, then

- (A) the economy shifts to a new point along its production possibilities frontier
- (B) the economy is rapidly recovering from a recession
- (C) the economy is displaying sustained economic growth
- (D) real and potential GDP are growing
- (E) the economy is in a recession

13. In a closed economy without government intervention, planned aggregate expenditure (AE) is

- (A) Consumption + Savings
- (B) Consumption + Investment
- (C) Savings + Investment
- (D) Aggregate output + Investment
- (E) Aggregate output - Investment

14. All of the following are investment EXCEPT

- (A) a restaurant owner buying tables
- (B) a department store adding to its inventories
- (C) purchasing a share of IBM
- (D) an automobile manufacturing purchasing a new plant
- (E) a software company purchasing a new computer

Base your answers to questions **15** through **19** on the following consumption and saving schedule (in billions of dollars)

Aggregate Income, Y	Aggregate Consumption, C	Aggregate Saving, S
0	J	-100
80	160	-80
100		-75
200	250	-50
K	400	0
600	550	50
800	L	
1000		150

15. Which is the correct consumption function for the displayed schedule?
- (A) $C = 100 + .25Y$ (D) $C = 1000 + .75Y$
 (B) $C = 100 + .75Y$ (E) $C = .25Y$
 (C) $C = 1000 + .25Y$
16. What is the marginal propensity to save (MPS)?
- (A) .8 (D) .75
 (B) .2 (E) .25
 (C) .5
17. What is the value of L?
- (A) 700 (D) 600
 (B) 800 (E) 500
 (C) 100
18. What is the value of K?
- (A) 0 (D) 400
 (B) 100 (E) 500
 (C) 300
19. When Aggregate Income (Y) is at K, the savings function intersects the
- (A) consumption function (D) y-axis
 (B) 45° line (E) investment function
 (C) x-axis
-
20. Which of the following is considered inventory for an automobile manufacturer?
- I. Tires
 II. Steel
 III. Engine blocks
 IV. Cars
- (A) I only (D) I, II, and III
 (B) IV only (E) I, II, III and IV
 (C) I, III and IV

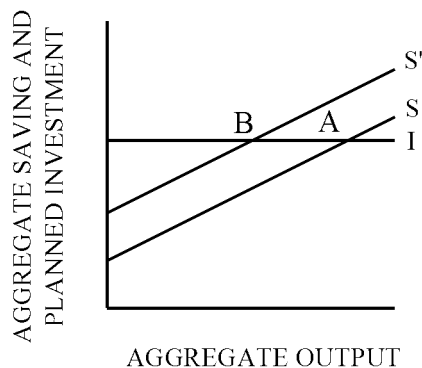
Base your answers to questions **21** through **24** on the following consumption schedule. This is a closed economy with 0 taxes. The MPC is .75.

Aggregate Income, Y (billions of dollars)	Consumption, C (billions of dollars)	Saving, S (billions of dollars)
0	50	
500		
1000		
1500		
2000		

21. What is the MPS?
- (A) .1 (D) .75
 (B) .25 (E) .9
 (C) .5
22. What is the consumption function?
- (A) $C = .75Y$ (D) $C = 50 + .75Y$
 (B) $C = 50 + .25Y$ (E) $C = -50 + .25Y$
 (C) $C = -50 + .75Y$
23. What is the saving function?
- (A) $S = 50 + .75Y$ (D) $S = .75Y$
 (B) $S = 50 + .25Y$ (E) $S = -50 + .75Y$
 (C) $S = -50 + .25Y$
24. What is saving when $Y=1500$?
- (A) 275 (D) 425
 (B) 325 (E) 1175
 (C) 375
-
25. How would rapidly falling stock prices affect the amount that firms invest in new capital?
- (A) Investment in new capital would increase, because the price of new capital falls relative to stock prices
 (B) Investment in new capital would increase, because firms expect higher profits.
 (C) Investment in new capital would decrease, because the price of new capital rises relative to stock prices.
 (D) Investment in new capital would decrease, because the marginal productivity of capital has increased.
 (E) Investment in new capital would remain unchanged, because firms' expected future profits are unaffected by stock prices.
26. Official government debt statistics include which of the following government liabilities?
- I. Privately held government debt
 II. Pensions for government employees
 III. Promised Social Security payments
- (A) I only (D) II and III
 (B) II only (E) I, II and III
 (C) I and II

27. Suppose that firms expect a reduction in corporate income tax rates starting in 2005. How would this affect stock prices and firms' investment in new capital in 2004?
- (A) Both stock prices and investment in new capital would be unaffected.
- (B) Both stock prices and investment in new capital would decrease.
- (C) Both stock prices and investment in new capital would increase.
- (D) Stock prices would increase, but investment in new capital would be unchanged.
- (E) Stock prices would be unchanged, but investment in new capital would increase.

28. Increased desire to save shifts S to S'



The displayed graph illustrates

- (A) the sticky price model (D) crowding out
- (B) the paradox of thrift (E) crowding in
- (C) the real wealth effect
29. Which of the following is an example of an automatic stabilizer?
- (A) An increase in defense spending during an expansion
- (B) A decrease in social security benefits during a recession
- (C) An increase in welfare benefits during an expansion
- (D) A decrease in unemployment benefits paid out during an expansion
- (E) An increase in taxes during a recession
30. Which of the following arguments for trade protection is frequently cited by developing countries?
- (A) The military-self-sufficiency argument
- (B) The infant-industry argument
- (C) The cheap-foreign-labor argument
- (D) The deadweight-loss argument
- (E) The autonomy argument

31. Which of the following are injections into the circular flow?

- I. Exports
II. Taxes
III. Saving
IV. Government spending
V. Investment

- (A) I only (D) I, IV and V
- (B) II and III (E) I, II, III and V
- (C) II, III and V

32. The two principal types of trade restrictions used by nations are

- (A) tariffs and quotas
- (B) research and development
- (C) corporate income taxes and personal income taxes
- (D) immigration limits and travel restrictions
- (E) police patrols and currency limitations

33. If income rises from \$100 to \$1100 and imports go from \$200 to \$220, what is the marginal propensity to import (MPM)?

- (A) .1 (D) .8
- (B) .2 (E) 1
- (C) .5

Base your answers to questions 34 through 36 on the table below. Also assume that $I=100$, $G=100$, and $T=100$.

Output (Income)	Consumption Spending
300	220
400	280
500	340
600	400
700	460
800	520
900	580

34. Which most closely represents the government purchases multiplier in this economy?

- (A) 1.43 (D) 2.5
- (B) 1.67 (E) 3.33
- (C) 2

35. What is the tax multiplier in this economy?

- (A) -1.67 (D) 1.5
- (B) -1.5 (E) 1.67
- (C) 1

36. What is the balanced budget multiplier for this economy?

- (A) -2.5 (D) 1.67
- (B) -1.5 (E) 2.5
- (C) 1

37. Most economists believe that the long-run aggregate supply curve is vertical because
- (A) actual output can never exceed, even temporarily, the natural rate of output
 - (B) a vertical long-run supply curve indicates the maximum level of output that an economy can ever achieve
 - (C) a vertical long-run supply curve indicates that an increase in aggregate demand will lead to a larger real output but not a larger nominal output
 - (D) in the long run, the level of output produced in the economy is determined by work ethic
 - (E) in the long run, the level of output produced in the economy is determined by resources and technology
38. What is the meaning of "sticky wages"?
- (A) The fact that wages tend to rise with an increase in labor demand.
 - (B) The fact that at w_0 , the quantity of labor demanded is greater than the quantity of labor supplied.
 - (C) The fact that the shift in labor demand does not move the market toward the equilibrium, causing an increase in unemployment.
 - (D) The fact that wages fall if the demand for labor falls.
 - (E) The fact that unemployment remains even.
39. A nation's central bank increases the monetary base, thereby lowering interest rates. If the currency-deposit ratio and the reserve-deposit ratio are sensitive only to changes in interest rates, then how would expansionary monetary policy affect the money multiplier and the money supply?
- (A) The money multiplier and the money supply would increase.
 - (B) The money multiplier and the money supply would decrease.
 - (C) The money multiplier would increase, and the money supply would decrease.
 - (D) The money multiplier would decrease, and the money supply would increase.
 - (E) The money multiplier would increase, but the effect on the money supply is uncertain.
40. Suppose that the monetary base initially equals \$200 billion, and the money supply initially equals \$800 billion. A change in the monetary base causes the money supply to increase to \$1,200 billion. Assuming that the money multiplier remains constant, the monetary base would now equal
- (A) \$100 billion
 - (B) \$200 billion
 - (C) \$300 billion
 - (D) \$800 billion
 - (E) \$1,200 billion
41. By lowering the discount rate, the Federal Reserve can
- (A) increase the money supply
 - (B) decrease the money supply
 - (C) raise interest rates
 - (D) lower reserve requirements
 - (E) cause a recession
42. Mr. Economicus discovered that his grandfather (who feared a banking crisis similar to that of the early 1930's) had stashed \$100,000 under his mattress. Mr. Economicus convinced his grandfather to deposit the \$100,000 in an FDIC-insured checking account. Suppose that the Fed bought \$100,000 in government securities on the open-market. Does a deposit of \$100,000 or an open-market purchase of \$100,000 result in a greater increase in the money supply?
- (A) Both result in an equal increase in the money supply.
 - (B) The deposit of \$100,000 results in a greater increase in the money supply.
 - (C) The open-market purchase of \$100,000 results in a greater increase in the money supply.
 - (D) The deposit of \$100,000 results in a greater increase in the money supply, if and only if the reserve-deposit ratio is less than 50%.
 - (E) The deposit of \$100,000 results in a greater increase in the money supply, if and only if the reserve requirement is less than 50%.
43. If the Federal Reserve Bank sells large amounts of government securities on the open market, then
- I. the monetary base will increase.
 - II. the money supply will contract.
 - III. the federal funds rate will rise.
 - IV. the supply of credit will increase.
- (A) I and III only
 - (B) II and III only
 - (C) III and IV only
 - (D) II, III, and IV only
 - (E) I, III, and IV only
44. During the winter holiday season, individuals typically make large withdrawals of cash from banks. How would this seasonal increase in currency affect bank reserves, and what actions would the Fed pursue to counteract the resulting change in reserves?
- (A) Bank reserves would increase, and the Fed would sell government securities on the open market.
 - (B) Bank reserves would increase, and the Fed would buy government securities on the open market.
 - (C) Bank reserves would decrease, and the Fed would buy government securities on the open market.
 - (D) Bank reserves would decrease, and the Fed would sell government securities on the open market.
 - (E) Bank reserves would decrease, and the Fed would substantially lower the reserve requirement.
45. If an economy is at full employment, how will an increase in the federal deficit affect unemployment?
- (A) It will increase aggregate demand and raise unemployment.
 - (B) It will decrease aggregate demand and raise unemployment.
 - (C) It will increase aggregate demand and lower unemployment.
 - (D) It will decrease aggregate demand and lower unemployment.
 - (E) It will increase aggregate demand and have no effect on unemployment.

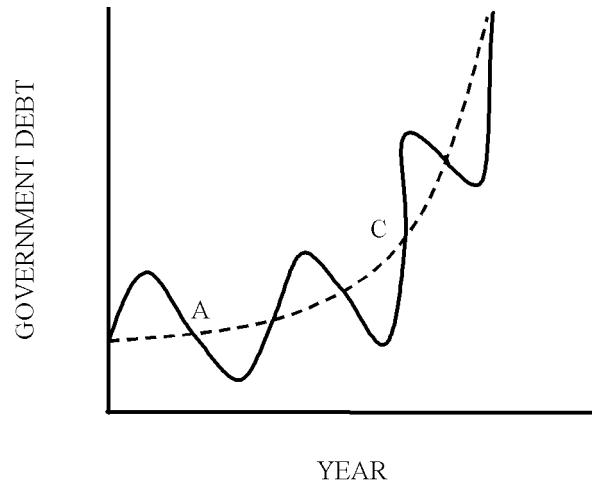
Base your answers to questions 46 and 47 on the charts below and on your knowledge of economics.

FARM POPULATION IN THE UNITED STATES		
Year	Farm Population (in millions)	Farm Population as a Percentage of Total U.S. Population
1880	22.0	44%
1900	28.9	39%
1920	32.0	30%
1970	9.7	4.7%
1980	6.0	2.7%

UNITED STATES PRODUCTION OF FOODSTUFFS				
Year	Corn (millions of bushels)	Wheat (millions of bushels)	Beef (millions of pounds)	Pork (millions of pounds)
1880	1,700	500	*	*
1900	2,600	600	5,600	6,300
1950	3,000	1,000	9,500	10,700
1970	4,100	1,400	21,700	14,700
1980	6,600	2,400	21,700	16,600

46. Which statement is most clearly supported by the information in the charts?
- (A) Most farms in the United States are owned by corporations.
 (B) The United States government is not doing enough to help farmers.
 (C) The nation will need more farmers in the near future.
 (D) The number of farmers declined while farm output increased.
 (E) The United States government owns too many farms.
47. The trends shown in the charts were most likely caused by
- (A) failure to use the latest farm technology
 (B) increases in productivity
 (C) changes in consumer tastes
 (D) competition from imported food products
 (E) a decline in the value of American currency
48. Expansionary monetary policy will have what effect on unemployment in the short-run and long-run respectively?
- (A) Increase in the short-run, decrease in the long-run.
 (B) Unaffected in the short-run, decrease in the long-run.
 (C) Increase in the short-run, increase in the long-run.
 (D) Increase in the short-run, unaffected in the long-run.
 (E) Decrease in the short-run, unaffected in the long-run.
49. If the short-run Phillips curve shifts inward, which of the following might have occurred?
- (A) The Federal Reserve cut taxes.
 (B) Government spending increased.
 (C) Inflationary expectations decreased.
 (D) Unemployment is rising.
 (E) The exchange rate is decreasing.

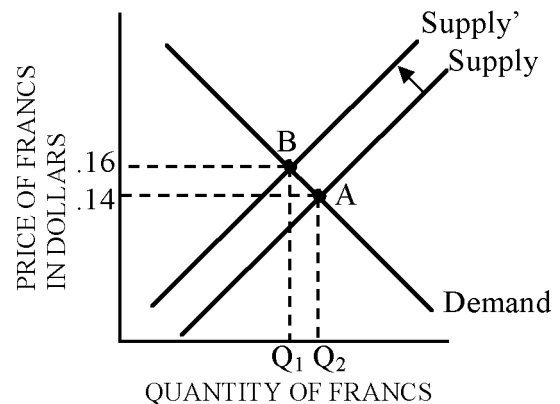
50. The following graph shows a nation's government debt over time. Assume that both the inflation rate and the level of government expenditures remain constant.



Which of the following might explain the difference in government debt between points C and A?

- (A) Consecutive budget surpluses
 (B) A rise in personal income tax rates
 (C) An increase in tax revenues
 (D) An inflation rate greater than zero
 (E) An inflation rate less than zero

51.



Based on the above diagram, which of the following could cause a shift from point A to point B?

- (A) Increase in demand for Francs
 (B) Decreased political stability in France
 (C) Expectations that the Franc will appreciate
 (D) A relative increase in interest rates in France
 (E) Increase in relative level of income in France
52. Suppose the government increases taxes in order to alleviate a budget deficit. In an open economy, what effect will this have?
- (A) It will increase the trade deficit.
 (B) It will increase the real interest rate.
 (C) It will decrease net foreign investment.
 (D) It will decrease net exports.
 (E) It will increase prices.

53. Which of the following measures would increase the federal budget deficit?

- I. Lowering taxes
- II. Increasing federal spending
- III. Raising interest rates

- (A) I only
- (B) II only
- (C) III only
- (D) I and III only
- (E) I, II, and III

54. Assume that the required reserve requirement is 30%.

If a bank initially has no excess reserves and \$30,000 cash is deposited in the bank, the bank can increase its loans by a maximum of

- (A) \$2,000
- (B) \$11,000
- (C) \$21,000
- (D) \$42,000
- (E) \$100,000

55. If a bank has reserves of \$20,000, outstanding loans of \$80,000 and deposits of \$80,000, what may be missing from the balance sheet?

- (A) borrowed reserves of \$20,000 on the assets side
- (B) borrowed reserves of \$20,000 on the liabilities side
- (C) excess reserves of \$20,000 on the assets side
- (D) excess reserves of \$20,000 on the liabilities side
- (E) the balance sheet is complete

56. The Federal Reserve decides to lower the discount rate, and as a result banks borrow an additional \$100 million. If the reserve requirement is 15%, the money supply will increase by approximately

- (A) \$15 million
- (B) \$670 million
- (C) \$1.5 billion
- (D) \$117 million
- (E) \$85 million

57. Suppose that the spread between the federal funds rate and the discount rate is positive. A large increase in the demand for reserves will cause

- I. a rise in the federal funds rate
- II. a wider spread between the federal funds rate and the discount rate
- III. an increase in the level of discount window borrowing

- (A) I only
- (B) I and II only
- (C) I and III only
- (D) II and III only
- (E) I, II, and III

58. Supply side economists believe that

- (A) a cut in high tax rates results in an increased deficit and thus increases aggregate supply
- (B) the aggregate supply of goods can only increase if the price level falls
- (C) increased government spending should be used to stimulate the economy
- (D) lower tax rates provide work incentives and shift the aggregate supply curve to the right
- (E) the government should regulate foreign trade

59. The volume of seasonal borrowing at the discount window

- (A) is highest in heavily industrialized Federal Reserve districts
- (B) has steadily increased during the 1990's as many regions have shifted toward a more agrarian economy
- (C) is greatest during spring and summer months because agricultural banks must fulfill farmers' demand for loans to finance planting and growing
- (D) rises during the fall as farmers harvest their crops and pay back their bank loans
- (E) does not fluctuate throughout the year

60. If the government increases the federal deficit, what will the effect be on unemployment in both the short-run and the long-run?

- (A) It will rise in the short-run and fall in the long-run.
- (B) It will fall in the short-run and rise in the long-run.
- (C) It will fall in the short-run and be unaffected in the long-run.
- (D) It will fall in the short-run and the long-run.
- (E) It will rise in the short-run and the long-run.

61. Suppose that statisticians observe the following values for the growth rate of the CPI and the unemployment rate between 2005 and 2009.

Year	Growth rate of the CPI	Unemployment Rate
2005	6.7%	6.3%
2006	8.4%	7.5%
2007	9.6%	8.3%
2008	7.5%	7.4%
2009	6.8%	6.6%

Which of the following might explain the changes in the inflation rate and the unemployment rate between 2005 and 2007?

- (A) an adverse supply shock
- (B) a decline in inflationary expectations
- (C) a fall in real interest rates
- (D) an increase in government expenditures
- (E) a decrease in real money balances

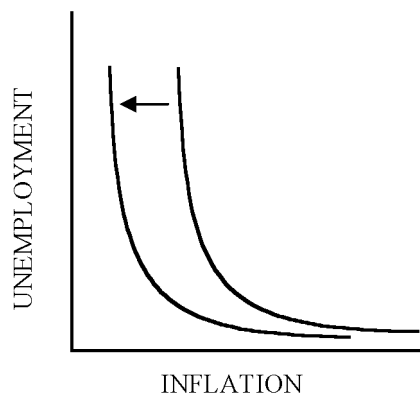
62. The shifting of the aggregate demand curve to the right relative to the aggregate supply curve best represents

- (A) cost-push inflation
- (B) stagflation
- (C) demand-pull inflation
- (D) hyperinflation
- (E) galloping inflation

63. An increase in price levels when aggregate supply remains the same could be caused by

- (A) increased government spending
- (B) increased taxes
- (C) increased imports
- (D) decreased investment
- (E) decreased oil prices

64.



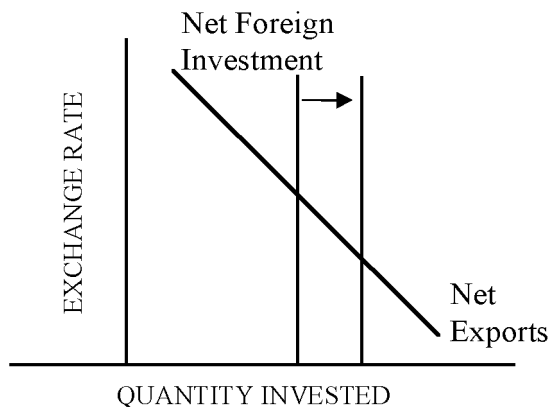
The shift in the above diagram represents which of the following?

- (A) Increased inflationary expectations.
- (B) Decreased inflationary expectations.
- (C) Increased inflation.
- (D) Increased unemployment.
- (E) Increased output.

65. Which of the following is true?

- (A) The slowest growing countries in the world, many of which are experiencing declines in per capita GDP, are high income industrial countries.
- (B) The fastest-growing economies in the world are mostly less developed countries.
- (C) The fastest-growing economies in the world (those with annual real growth rates of 3.5 percent or more) are mostly high-income industrial countries.
- (D) The fastest-growing economies in the world have well-educated populace.
- (E) The fastest-growing economies in the world are low-debt nations.

66.



If the United States is the home country in an open economy, the shift in the above diagram could be a result of

- (A) An increase in foreign investment into the US.
- (B) An increase in demand for the dollar.
- (C) An increase in government spending in the US.
- (D) An increase in taxes in the US.
- (E) A decrease in the reserve requirement for US banks.

67. Base your answer to the following question on the following economy.

$$C = 100 + .5Y_d$$

$$G = 500$$

$$I (\text{planned}) = 150$$

$$T = 500$$

If $Y = 1000$ and Taxes = $T + .1Y$, what is disposable income?

- (A) 400
- (B) 450
- (C) 500
- (D) 1000
- (E) 1100

68. The aggregate demand curve represents the relationship between

- (A) GDP and price level
- (B) GDP and interest rates
- (C) price level and employment
- (D) GDP and unemployment
- (E) price level and inflation

69. Imports depend on domestic income because

- (A) of their relationship to exports
- (B) they are part of consumption
- (C) they do not affect aggregate expenditure
- (D) they are not part of consumption
- (E) they are part of aggregate expenditure

70. If an economy is initially operating at its natural rate of output, which of the following would most likely increase the rate of inflation?

- (A) an increase in personal income taxes
- (B) a decline in the money supply
- (C) a sizable increase in government expenditures
- (D) a decline in energy prices
- (E) a fall in nominal wage rates

71. Why does equilibrium income rise by more than \$100 in response to a \$100 increase in government spending?

- (A) Incomes will rise, resulting in a decrease in taxes
- (B) The higher budget deficit reduces investment
- (C) The increased spending raises the aggregate price level
- (D) The increased spending increases the money supply, lowering interest rates
- (E) Incomes will rise, resulting in more consumption

72. Which of the following are functions of money?

- I. a store of value
- II. a unit of account
- III. a medium of exchange
- (A) II only
- (B) III only
- (C) I and II only
- (D) II and III only
- (E) I, II, and III

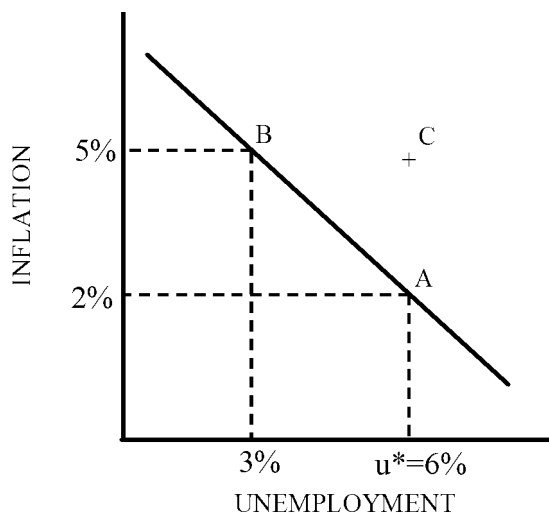
73. The following questions examine an international economy.

- (a) Why has there not been more global coordination on monetary and fiscal policies, given the interdependence among countries?
- (b) Why did the rising dollar of the early 1980's lead to a massive trade deficit in the United States?
- (c) How do exchange rate changes affect aggregate demand?

74. In an open economy, the government imposed import tariff on foreign goods.

- (a) Explain how this policy will affect both net exports and the trade deficit for this country.
- (b) Explain the effect of this quota on the following.
 - (i) Prices that consumers in the home country pay.
 - (ii) Prices that producers in the home country receive.
 - (iii) Prices that producers abroad receive.
 - (iv) Government tax revenue.
- (c) Suppose the government wants to get the same effect as (iv) without restricting trade. Give one example of a policy that would accomplish this result.

75.



The short-run Phillips curve for Macroland is shown below. Macroland is currently operating at point A, where the inflation rate is 2% and unemployment is at its natural rate of 6%.

- (a) Describe two events that may shift the short-run Phillips curve upward through point C.
 - (b) Suppose that policymakers decide that the economy should be operating at point B in the short run. If the desired inflation rate is 5%, what should be the target growth rate for the money supply? Assume that the growth rate of real GDP is fixed at 2% and that the quantity theory of money is accurate.
 - (c) List two actions that Macroland's central bank could take to expand the money supply.
 - (d) The central bank determines that the money supply must increase by \$200 billion in order to attain the target inflation rate. If the reserve requirement is 10%, what is the minimum amount of reserves that the central bank must inject into the banking system, in order to achieve the desired increase in the money supply?
 - (e) Explain why Macroland cannot be permanently operating at point B.
76. What is the difference between economic development and economic growth? Give examples of how each of these concepts, and how they can be measured. What are the determinants of economic growth?
77. Use aggregate supply and demand diagrams to explain what would happen to GDP and the price level in the following circumstances:
- (a) Consumers decide to cut back on savings and buy more domestic appliances.
 - (b) Tornadoes destroy many factories, while a drought ruins many crops.
 - (c) Miraculous new technological developments raise productivity.
 - (d) Because of worries over the deficit, the government cuts back on expenditures on social programs.

Answer Key

1. B
2. C
3. A
4. D
5. B
6. E
7. D
8. B
9. D
10. C
11. B
12. E
13. B
14. C
15. B
16. E
17. A
18. A
19. C
20. E
21. B
22. D
23. C
24. B
25. C
26. A
27. C
28. B
29. D
30. B

31. D
32. A
33. B
34. D
35. B
36. C
37. E
38. C
39. D
40. D
41. A
42. C
43. B
44. C
45. C
46. D
47. B
48. E
49. C
50. D
51. C
52. D
53. E
54. C
55. B
56. B
57. E
58. D
59. C
60. C

Answer Key

61. A
 62. C
 63. A
 64. B
 65. B
 66. D
 67. A
 68. A
 69. B
 70. C
 71. E
 72. E

73. (a) While it is true that in an open economy the effects of monetary and fiscal policies must consider secondary effects in the foreign exchange market, countries hesitate to surrender autonomy in their own economies.
 (b) A rising dollar makes our goods more expensive to foreigners, leading to lower U.S. exports. At the same time, we import more given our increased purchasing power. Both changes contribute to a rising trade deficit.
 (c) A currency appreciation will decrease aggregate demand. If currency appreciates, exports become more expensive. Net exports therefore fall, which lessens aggregate demand.
74. (a) Net exports = Exports – Imports, therefore net exports would increase. Trade deficit = Imports – exports, therefore the trade deficit would decrease.
 (b) i. Increase.
 ii. Remains the same.
 iii. Decrease.
 iv. Increase.
 (c) Any contractionary fiscal policy would increase government revenue, and would not affect the net exports of the home country.
75. (a) An upward shift in the short-run Phillips curve indicates an increase in the inflation rate at each level of unemployment. The three factors that determine the y-intercept of the Phillips curve are: the expected rate of inflation; the natural rate of unemployment; and supply shocks. An adverse supply shock, a rise in the expected rate of inflation, or an increase in the natural rate of unemployment would raise the y-intercept, thereby shifting the Phillips curve upward. Adverse supply shocks include: an increase in energy prices; a natural disaster; or a rise in corporate income tax rates. A widespread belief that the central bank is committed to a policy of monetary expansion would raise the expected rate of inflation. The natural rate of unemployment may be increased by: a rise in personal income tax rates; a rise in the minimum wage; a decrease in the efficiency of the

- job-finding process; or a decrease in the skill level of the workforce.
- (b) The equation of exchange is given by $MV = PY$. Taking the growth rates of both sides, we obtain $dM + dV = dP + dY$, where dX is the growth rate of the variable X . Since the quantity theory of money assumes that the velocity of money is constant, dV is equal to zero. If the growth rate of real GDP is 2% and the inflation rate is 5%, then the growth rate of the money supply should be $(5\% + 2\%)$ or 7%.
- (c) The three principle instruments of monetary policy are: the purchase and sale of government securities; reserve requirements; and the discount rate (known the bank rate outside the U.S.). If the central bank desired to expand the money supply, it could purchase government securities, lower the reserve requirement, or lower the discount rate.
- (d) The maximum rise in the money supply that would result from an injection of reserves into the banking system is (d/r) , where d is the amount of reserves added and r is the reserve requirement. We are looking for the minimum injection d that would increase the money supply by \$200 billion with $r = .10$. The minimum injection of reserves is $(\$200 \text{ billion})/.10$ or \$20 billion.
- (e) If the central bank systematically raised the inflation rate from 2% to 5%, the Phillips curve would shift upward because individuals would now expect an inflation rate of 5%. Thus, in the long-run the economy would be operating at the natural rate of unemployment (6%) but with an inflation rate of 5% instead of 2%. The short-run tradeoff between inflation and unemployment does not exist in the long run.
76. Economic growth is defined as an increase in per capita GDP. The most important determinants of economic growth include labor, capital, the marginal product of labor, the marginal of capital, and technology. In the 21st century human capital, education, and the ability to use information will probably be important determinants of economic growth.
 Economic development, on the other hand, is qualitative. Improvement in such indicators as malnutrition, literacy, life expectancy, and infant mortality are viewed as signs of economic development.
77. (a) This is the positive demand shock, which shifts the demand curve to the right. GDP is higher and the price level is higher in a new equilibrium.
 (b) This is the negative supply shock, which shifts the supply curve to the left. GDP is lower and the price level is higher in a new equilibrium.
 (c) This is the positive supply shock, which shifts the supply curve to the right. GDP is higher and the price level is lower in a new equilibrium.
 (d) This is the negative demand shock, which shifts the demand curve to the left. GDP is lower and the price level is lower in a new equilibrium.

Eduware Genealogy by Question

Displaying UNIT CHAPTER TOPIC SUBTOPIC QUESTION ID

1. III. Macroeconomics / 1. Measurement of Economic Performance / A. National Income Accounts / 2. Gross Domestic Product : 0000148
2. III. Macroeconomics / 1. Measurement of Economic Performance / A. National Income Accounts / 2. Gross Domestic Product : 0000181
3. III. Macroeconomics / 1. Measurement of Economic Performance / C. Inflation / 1. Price Indices : 0000170
4. III. Macroeconomics / 1. Measurement of Economic Performance / C. Inflation / 2. Nominal and real interest rates : 0001061
5. III. Macroeconomics / 1. Measurement of Economic Performance / C. Inflation / 1. Price Indices : 0000183
6. III. Macroeconomics / 1. Measurement of Economic Performance / C. Inflation / 2. Nominal and real interest rates : 0001062
7. III. Macroeconomics / 1. Measurement of Economic Performance / D. Unemployment / 4. Natural rate of unemployment : 0000198
8. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 5. Net Exports : 0000475
9. III. Macroeconomics / 1. Measurement of Economic Performance / D. Unemployment / 1. Definition : 0000838
10. III. Macroeconomics / 1. Measurement of Economic Performance / E. Business Cycle / 1. Peak : 0000863
11. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000381
12. III. Macroeconomics / 1. Measurement of Economic Performance / E. Business Cycle / 2. Recession : 0000197
13. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 3. Government : 0000380
14. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 3. Government : 0000371
15. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000372
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19. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000376
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21. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000442
22. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000443
23. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000444
24. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 2. Consumption : 0000445
25. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 3. Government : 0000264
26. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 4. Investment : 0000593
27. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 3. Government : 0000265
28. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 3. Government : 0000458
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30. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 5. Net Exports : 0000555
31. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 5. Net Exports : 0000540
32. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 5. Net Exports : 0000575
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35. III. Macroeconomics / 2. National Income and Price Determination / B. Multipliers / 2. Tax Multiplier : 0000533
36. III. Macroeconomics / 2. National Income and Price Determination / B. Multipliers / 1. Government Spending Multiplier : 0000534
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38. III. Macroeconomics / 2. National Income and Price Determination / C. Aggregate Supply / 4. Sticky Price/Wage Model : 0000663
39. III. Macroeconomics / 3. Financial Sector / B. Banks / 2. Creation of Money : 0000029
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41. III. Macroeconomics / 4. Macroeconomic Stabilization Policies / B. Monetary Policy / 1. Expansionary Monetary Policy : 0000982
42. III. Macroeconomics / 3. Financial Sector / D. Tools of the Central Bank / 1. Open Market Operations : 0000071
43. III. Macroeconomics / 3. Financial Sector / D. Tools of the Central Bank / 1. Open Market Operations : 0000077
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45. III. Macroeconomics / 4. Macroeconomic Stabilization Policies / A. Fiscal Policy / 3. Government Budget Surplus/Deficit : 0001108
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54. III. Macroeconomics / 3. Financial Sector / B. Banks / 2. Creation of Money : 0000326
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57. III. Macroeconomics / 3. Financial Sector / D. Tools of the Central Bank / 2. Discount Rate : 0000115

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- 58. III. Macroeconomics / 4. Macroeconomic Stabilization Policies / A. Fiscal Policy / 5. Supply Side Economics : 0000828
- 59. III. Macroeconomics / 3. Financial Sector / D. Tools of the Central Bank / 2. Discount Rate : 0000120
- 60. III. Macroeconomics / 4. Macroeconomic Stabilization Policies / A. Fiscal Policy / 3. Government Budget Surplus/Deficit : 0001118
- 61. III. Macroeconomics / 4. Macroeconomic Stabilization Policies / A. Fiscal Policy / 3. Government Budget Surplus/Deficit : 0000247
- 62. III. Macroeconomics / 5. Macroeconomic Indicators/Policy Solutions / A. Inflation / 1. Demand-pull : 0001236
- 63. III. Macroeconomics / 5. Macroeconomic Indicators/Policy Solutions / A. Inflation / 1. Demand-pull : 0001241
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- 65. III. Macroeconomics / 6. Growth and Productivity / D. Public Policy and Long Run Growth / 1. Public Policy and Long Run Growth : 0000757
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- 68. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 1. Definition : 0001297
- 69. III. Macroeconomics / 2. National Income and Price Determination / A. Aggregate Demand / 5. Net Exports : 0000474
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- 71. III. Macroeconomics / 2. National Income and Price Determination / B. Multipliers / 1. Government Spending Multiplier : 0000310
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- 73. III. Macroeconomics / 9. Part II Questions / G. International Economics / 1. Foreign Exchange Market : 0001170
- 74. III. Macroeconomics / 9. Part II Questions / G. International Economics / 2. Links to Domestic Markets : 0001149
- 75. III. Macroeconomics / 9. Part II Questions / E. Macroeconomic Indicators/Policy Solutions / 2. Phillip's Curve : 0001173
- 76. III. Macroeconomics / 9. Part II Questions / F. Growth and Productivity / 1. Public Policy and Long Run Growth : 0001159
- 77. III. Macroeconomics / 9. Part II Questions / B. National Income and Price Determination / 2. Equilibrium : 0001160

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- 2: III. Macroeconomics\1. Measurement of Economic Performance\A. National Income Accounts\2. Gross Domestic Product - (1, 2)
- 2: III. Macroeconomics\1. Measurement of Economic Performance\C. Inflation\1. Price Indices - (3, 5)
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- 10: III. Macroeconomics\2. National Income and Price Determination\A. Aggregate Demand\2. Consumption - (11, 15, 16, 17, 18, 19, 21, 22, 23, 24)
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- 6: III. Macroeconomics\2. National Income and Price Determination\A. Aggregate Demand\3. Government - (13, 14, 20, 25, 27, 28)
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- 1: III. Macroeconomics\9. Part II Questions\G. International Economics\2. Links to Domestic Markets - (74)

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AP Macroeconomics Sample Exam

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