Department of Economics
Iowa State University
Principles of Macroeconomics

Spring 2013, Final Exam

- Fill in your name, birth date, and ID on the bubble sheet and write exam version 1 along the top of the sheet.

- There are 80 points total on the exam.

- You may use your copy of the exam as scratch paper, but you must record your answers on the bubble sheet to get credit.

- You have two hours to complete the exam, but may leave early if you finish.

1. Last month Brent lost his job at the auto parts factory because his factory, like many others, relocated to Asia. Brent has been looking for similar factory jobs in his town but has found no openings. Brent is best classified as:
   A) structurally unemployed.
   B) frictionally unemployed.
   C) a discouraged worker.
   D) out of the labor force.

2. An advantage to floating exchange rates is that they help:
   A) insulate countries from currency fluctuations.
   B) insulate countries from recessions starting in other countries.
   C) keep exports from replacing domestic jobs.
   D) keep export prices down.

3. Unanticipated inflation:
   A) reduces the value of money.
   B) increases the value of future obligations.
   C) increases certainty about the future.
   D) helps lenders.

4. All of the following are major drawbacks of adopting a fixed exchange rate EXCEPT that:
   A) exchange controls must be imposed at the cost of more administrative red tape and corruption.
   B) resources must be diverted to the accumulation of large foreign exchange reserves.
   C) monetary policy cannot be used to stabilize output and the inflation rate.
   D) commerce among countries is more uncertain and riskier.

5. The Bretton Woods agreement called for:
   A) each currency's value to be flexible relative to other currencies.
   B) maintaining fixed exchange rates by government intervention.
   C) most nations to adopt the euro as their official currency.
   D) what amounted to a floating exchange rate.

6. Money is:
   A) any form of wealth.
   B) an asset that can be easily used to purchase goods and services.
   C) only currency which is designated by law.
   D) only currency in circulation.

7. With inflation:
   A) overall prices are increasing, although some prices may be increasing and some may be decreasing.
   B) all prices must be increasing.
   C) the economy must be contracting.
   D) the economy must be producing at full employment.

8. The aggregate production function does NOT depend on which of the following?
   A) the quantity of physical capital per worker
   B) human capital per worker
   C) the state of technology
   D) the amount of natural resources

9. With a fixed exchange rate regime, monetary policy is:
   A) fully flexible.
   B) limited in its ability to shift aggregate demand to the right.
   C) limited in its ability to shift aggregate supply to the right.
   D) independent of exchange rate issues.

10. If the U.S. dollar depreciates, other things being equal, then:
    A) the U.S. financial account is in surplus.
    B) exports from the United States to other countries will decrease.
    C) it falls in value against some other currency.
    D) the U.S. current account is in deficit.

11. What can the federal government do to finance a deficit?
    A) cut taxes
    B) increase spending
    C) reduce interest rates
    D) borrow funds

12. If the government increases its spending when the economy is in an expansion, then the presence of automatic stabilizers:
    A) may or may not affect the government spending multiplier.
    B) will increase the government spending multiplier.
    C) will not have any effect on the size of the government spending multiplier.
    D) will decrease the government spending multiplier.

13. If assets owners in Japan and the United States consider Japanese and U.S. assets as good substitutes for each other and if the U.S. interest rate is 5% and the Japanese interest rate is 2%, then all of the following will occur EXCEPT that:
    A) financial inflows will reduce the U.S. interest rate.
    B) financial outflows will increase the Japanese interest rate.
    C) the interest rate gap between the United States and Japan will be eliminated.
    D) loanable funds will be exported from the United States to Japan.

14. Suppose that the economy is operating at potential output and there is an increase in the money supply. Which of the following best describes the adjustment process that will follow?
    A) Aggregate output will rise above potential output, nominal wages will rise, and the *SRAS* will shift leftward.
    B) Aggregate output will fall below potential output, nominal wages will rise, and the *SRAS* will shift leftward.
    C) Aggregate output will rise above potential output, nominal wages will fall, and the *SRAS* will shift leftward.
    D) Aggregate output will rise above potential output, nominal wages will rise, and the *SRAS* will shift rightward.

Use the following to answer questions 15-19:

Scenario: Money Supply Changes II
Charlotte withdraws $8,000 from her checkable bank deposit to pay tuition this semester. Assume that the reserve requirement is 20% and that banks do not hold excess reserves.

15. (Scenario: Money Supply Changes II) As a result of the withdrawal, loans ______ by ________.
    A) increase; $8,000
    B) decrease; $8,000
    C) decrease; $6,400
    D) decrease; $1,600

16. (Scenario: Money Supply Changes II) As a result of the withdrawal, required reserves:
    A) decrease by $1,600.
    B) decrease by $6,400.
    C) decrease by $8,000.
    D) don't change.

17. (Scenario: Money Supply Changes II) How will the bank's balance sheet be affected by the withdrawal?
   A) Reserves increase by $8,000, and checkable deposits increase by $8,000.
   B) Reserves increase by $1,600, and checkable deposits decrease by $1,600.
   C) Reserves decrease by $8,000, and checkable deposits decrease by $8,000.
   D) Reserves decrease by $1,600, and checkable deposits decrease by $1,600.

18. (Scenario: Money Supply Changes II) By how much will the money supply contract as a result of the withdrawal?
   A) $40,000
   B) $0
   C) $8,000
   D) $32,000

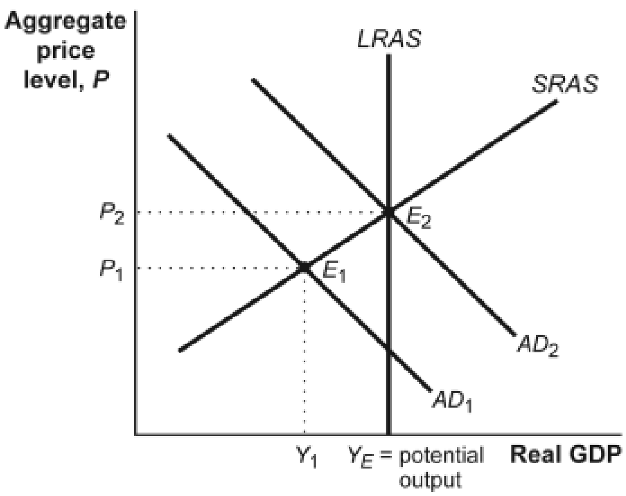
19. (Scenario: Money Supply Changes II) As a result of the withdrawal, excess reserves ______ by ________.
   A) increase; $8,000
   B) decrease; $8,000
   C) decrease; $6,400
   D) decrease; $1,600

20. American retailers import toys from China. In the U.S. balance of payments account, this transaction is entered as:
   A) a payment to foreigners in the financial account.
   B) a payment from foreigners in the financial account.
   C) a payment to foreigners in the current account.
   D) a payment from foreigners in the current account.

21. Suppose a country has adopted a floating exchange rate regime and the central bank decides to engage in expansionary monetary policy. Which of the following is LIKELY to occur?
    A) Interest rates will fall and there will be a capital inflow.
    B) Interest rates will rise and there will be a capital outflow.
    C) Interest rates will fall and there will be a capital outflow.
    D) Its exchange rate will appreciate.

Use the following to answer question 22:

Figure: Monetary Policy I

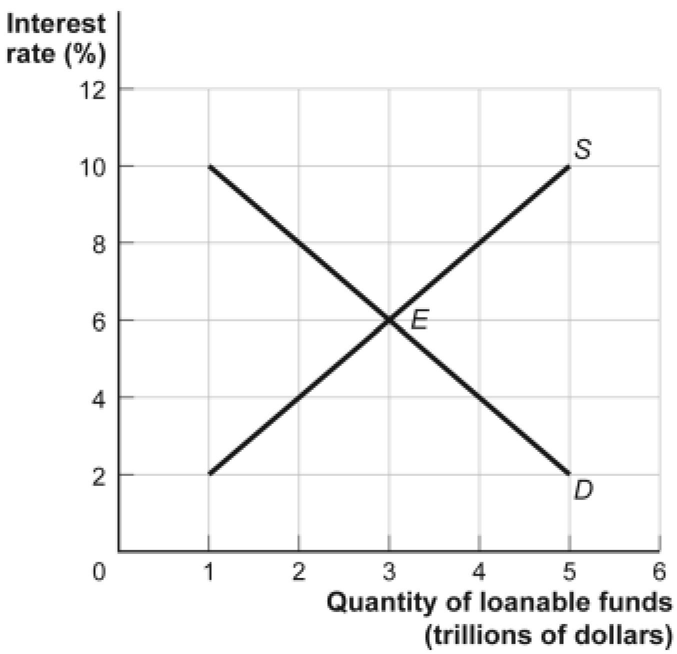


22. (Figure: Monetary Policy I) Refer to the information in the figure Monetary Policy I. If the money market is initially at E_1 and the central bank chooses to sell bonds, then:
    A) AD_2 will shift to the right, creating an inflationary gap.
    B) AD_2 may shift to AD_1, creating a recessionary gap.
    C) AD_1 may shift to AD_2, closing an existing recessionary gap.
    D) AD_1 will shift to the left, increasing an existing recessionary gap.

23. If the public holds $300 billion in monetary purchasing power and the inflation rate is 5%, then the inflation tax that year is:
    A) $5 billion.
    B) $15 billion.
    C) $60 billion.
    D) $1500 billion.

Use the following to answer questions 24-25:

Figure: Loanable Funds Market



24. (Figure: Loanable Funds Market) If the interest rate is 8% in the loanable funds market, businesses will want to borrow approximately:
    A) $3 trillion.
    B) $2 trillion.
    C) $4 trillion.
    D) $1 trillion.

25. (Figure: Loanable Funds Market) If the interest rate is 8% in the loanable funds market, people will want to save approximately:
A) $3 trillion.
B) $2 trillion.
C) $4 trillion.
D) $1 trillion.

Use the following to answer questions 26-29:

Table: Real and Nominal Output

Year	Units of Output	Price per Unit
1	40	$1
2	30	2
3	50	2
4	70	4
5	60	6
6	60	8

26. (Table: Real and Nominal Output) The price index in year 1, using year 3 as the base period, is equal to:
A) 25.
B) 50.
C) 100.
D) 150.

27. (Table: Real and Nominal Output) Nominal GDP in year 2 is equal to:
A) $40.
B) $60.
C) $100.
D) $280.

28. (Table: Real and Nominal Output) Assuming year 3 is the base year, real output in year 3 is:
A) $100.
B) $120.
C) $140.
D) $200.

29. (Table: Real and Nominal Output) In which year is all of the increase in nominal output due to an increase in real output?
A) 2
B) 3
C) 5
D) 6

30. Which of the following is the BEST explanation for an upward-sloping short-run aggregate supply curve?
A) Prices are perfectly flexible.
B) Wages are perfectly flexible.
C) Wages and prices of some goods are sticky in the short run.
D) Wages and prices of some goods are flexible in the short run but sticky in the long run.

31. If a country has a population of 1,000, an area of 100 square miles, and a GDP of $5 million, then its GDP per capita is:
A) $500.
B) $5,000.
C) $50,000.
D) $5 million.

32. In general, the growth in real GDP per capita:
   A) was smaller than the growth of per capita oil consumption before 1973.
   B) fluctuated above and below the growth of per capita oil consumption before 1973.
   C) was greater than the growth of per capita oil consumption after 1973.
   D) was smaller than the growth of per capita oil consumption after oil prices began to increase in 2004.

33. A firm uses financial leverage when it:
   A) replaces labor with capital.
   B) borrows money from a bank to enlarge a factory.
   C) raises the price of a product when demand is inelastic.
   D) gets a volume discount from a supplier.

34. Monetary policy attempts to affect the overall level of spending in the economy through:
   A) changes in the inflation rate.
   B) changes in the quantity of money or the interest rate.
   C) changes in tax policy or government spending.
   D) discretionary regulation of profits and wages.

35. An example of a factor that causes the natural rate of unemployment to fall is:
   A) a binding minimum wage.
   B) the recent proliferation of temporary employment agencies.
   C) a slowdown in productivity growth.
   D) the unintended by-product of government policies referred to as Eurosclerosis.

36. To acquire human capital a person would:
   A) save to buy a printing press.
   B) purchase a printing press rather than use his or her money on consumption.
   C) learn to use a printing press.
   D) sell the books that the printing press produces.

Use the following to answer questions 37-41:

Scenario: Exchange Rates
The value of a euro goes from US$1.25 to US$1.50.

37. (Scenario: Exchange Rates) Refer to the information provided in the scenario. The euro has:
   A) depreciated.
   B) appreciated.
   C) been devalued.
   D) not been affected for use in international trade.

38. (Scenario: Exchange Rates) Refer to the information provided in the scenario. In the United States, exports:
   A) will increase and imports will decrease.
   B) and imports will increase.
   C) will decrease and imports will increase.
   D) and imports will decrease.

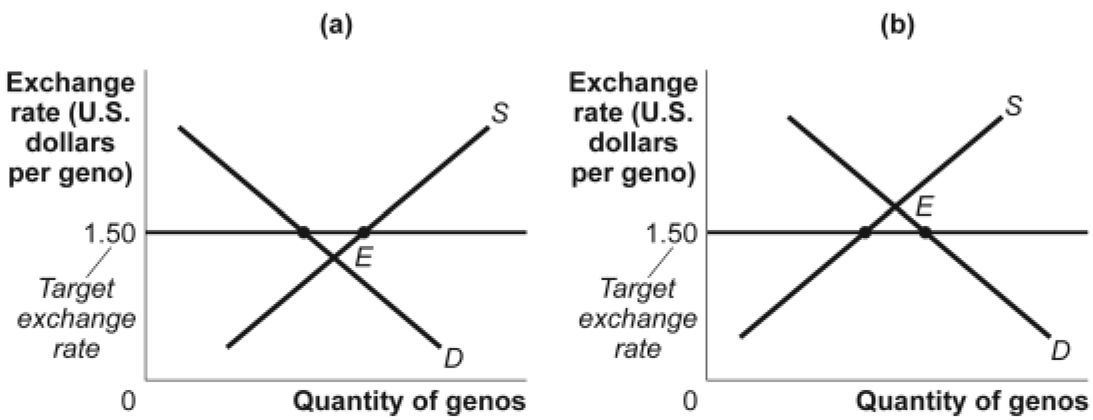
39. (Scenario: Exchange Rates) Refer to the information provided in the scenario. French exports to the United States will:
   A) be cheaper.
   B) be more expensive.
   C) be unaffected.
   D) increase.

40. (Scenario: Exchange Rates) Refer to the information provided in the scenario. The exchange rate for the dollar has changed from:
A) €0.25 to €0.50.
B) €1.25 to €1.50.
C) €0.80 to €0.67.
D) €0.67 to €0.80.

41. (Scenario: Exchange Rates) Refer to the information provided in the scenario. In Germany, exports:
A) will increase, and imports will decrease.
B) and imports will increase.
C) will decrease, and imports will increase.
D) and imports will decrease.

Use the following to answer questions 42-43:

Figure: Exchange Market Intervention



42. (Figure: Exchange Market Intervention) Refer to panel (a) in the figure. Which of the following approaches could the Genovian government use to raise the value of the geno above its present equilibrium exchange rate and into the target range?
A) use its own currency to buy U.S. dollars
B) shift the demand for genos to the right by raising interest rates in Genovia
C) eliminate the exchange controls that limit the right of Genovian citizens to buy U.S. dollars
D) tighten the exchange controls that limit purchases of U.S. dollars by Genovian citizens

43. (Figure: Exchange Market Intervention) Refer to panel (b) in the figure. Which of the following approaches could the Genovian government use to decrease the value of the geno below its present equilibrium exchange rate and into the target range?
A) use its own currency to buy U.S. dollars
B) shift the demand for genos to the right by increasing interest rates in Genovia
C) eliminate exchange controls that limit the right of Genovian citizens to sell foreign currency
D) tighten the exchange controls that limit purchases of U.S. dollars by Genovian citizens

44. If the money supply decreases by 5%, in the long run:
A) interest rates rise by 5%.
B) the unemployment rate rises by 10%.
C) the price level drops by 5%.
D) real GDP drops by 5%.

45. Suppose the Federal Reserve has set a target for the federal funds rate. If initially the equilibrium interest rate happens to be higher than the target interest rate, then the Federal Reserve should:
   A) sell Treasury bills in the open market, decrease money supply, shift the supply of money curve to the left, and raise the interest rate to the target rate.
   B) purchase Treasury bills in the open market, decrease money supply, shift the supply of money curve to the left, and lower the interest rate to the target rate.
   C) purchase Treasury bills in the open market, increase money supply, shift the supply of money curve to the right, and lower the interest rate to the target rate.
   D) sell Treasury bills in the open market, increase money supply, shift the supply of money curve to the left, and raise the interest rate to the target rate.

46. If output is growing at 5% annually, how many years will it take for output to quadruple?
   A) 14 years
   B) 10 years
   C) 20 years
   D) 28 years

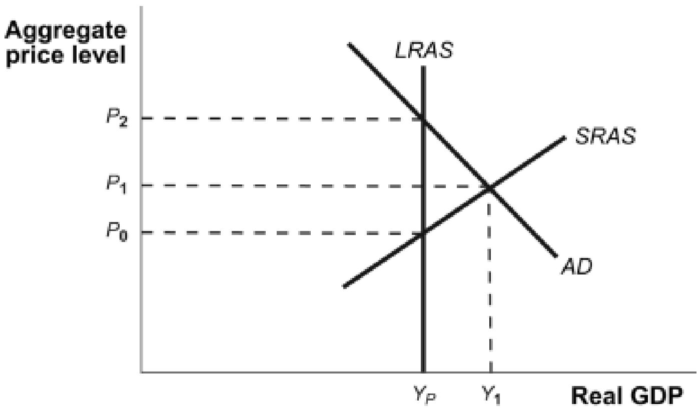
47. Suppose an economy's aggregate price level increases and its aggregate level of real GDP decreases. This could arise from:
   A) a positive demand shock.
   B) a negative supply shock.
   C) a positive supply shock.
   D) a negative demand shock.

48. An inflationary gap causes:
   A) short-run aggregate supply to gradually increase.
   B) short-run aggregate supply to gradually decrease.
   C) aggregate demand to gradually increase.
   D) aggregate demand to gradually decrease.

49. A Japanese banker buys some newly issued U.S. Treasury bonds. In the U.S. balance of payments account, this transaction is entered as:
A) a payment from foreigners in the current account.
B) a payment to foreigners in the current account.
C) a payment to foreigners in the financial account.
D) a payment from foreigners in the financial account.

Use the following to answer question 50:

Figure: Short-Run Equilibrium



50. (Figure: Short-Run Equilibrium) If the economy is at equilibrium at Y_1 and P_1, it is in a(n):
A) recessionary gap.
B) inflationary gap.
C) high level of unemployment.
D) liquidity trap.

51. When the actual unemployment rate is equal to the natural rate of unemployment:
A) the unemployment rate is zero.
B) potential output exceeds actual output.
C) the output gap is zero.
D) actual output exceeds potential output.

52. The most painful effect of a recession is:
  A) inflation.
  B) unemployment.
  C) money neutrality.
  D) liquidity trap.

53. Investment spending:
  A) must be paid for by the consumption of domestic households.
  B) comes from either the savings from domestic households or the savings of foreign households.
  C) is paid for by capital outflows.
  D) must be paid for by government spending.

54. An increase in the demand for money with no change in the supply of money will lead to _______ in the equilibrium quantity of money and _______ in the equilibrium interest rate.
  A) no change; a rise
  B) no change; a fall
  C) a decrease; a rise
  D) an increase; a fall

55. Of the countries listed, the one with the fastest growth rate of real GDP per capita between 1980 and 2010 was:
  A) the United States.
  B) Ireland.
  C) China.
  D) France.

Use the following to answer questions 56-59:

Scenario: Growth Rates
Suppose that the current real GDP per capita of the United States is $32,000 and its growth rate is 2% per year. The real GDP per capita of China is $4,000, and its annual growth rate is 7%.

56. (Scenario: Growth Rates) How long will it take China's real GDP per capita to double?
  A) 14 years
  B) 10 years
  C) 35 years
  D) 50 years

57. (Scenario: Growth Rates) How long will it take the real GDP per capita of the United States to double?
  A) 35 years
  B) 50 years
  C) 2.25 years
  D) 14 years

58. (Scenario: Growth Rates) How many years will it take for China's real GDP per capita to be larger than real GDP per capita in the United States?
  A) between 70 and 75 years
  B) between 40 and 45 years
  C) between 15 and 20 years
  D) China's real GDP per capita will never be larger than that of the United States because the United States has superior technology and the best educated labor force in the world.

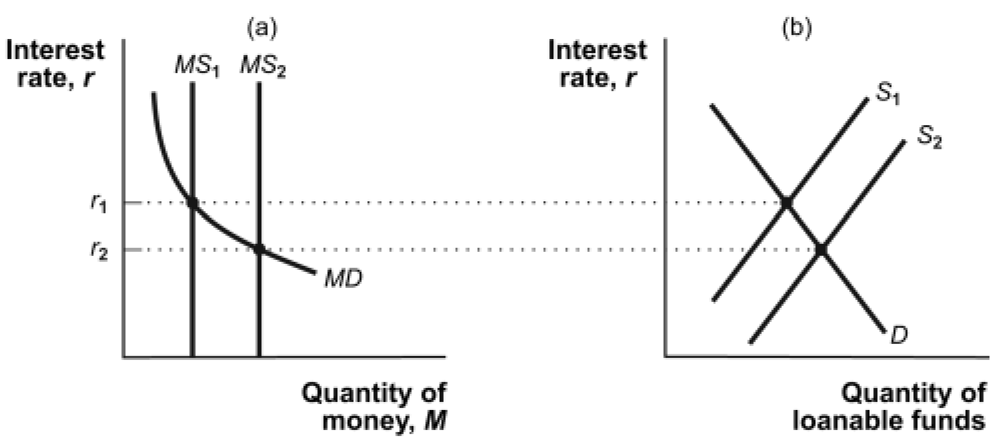
59. (Scenario: Growth Rates) Using the rule of 70, how large will China's real GDP per capita be in 20 years?
  A) $5,600
  B) $8,000
  C) $16,000
  D) $28,000

60. Which of the following would be included in the U.S. current account?
  A) factory in Japan purchased by a firm in the United States
  B) share of stock of a company in the United States sold to someone in Japan
  C) dividend on a share of stock of a company in the United States paid to someone in Japan
  D) bond issued by a firm in Japan sold to someone in the United States

61. Economists usually use GDP rather than GNP because:
  A) they are usually interested only in transactions on the current account.
  B) they are usually interested only in transactions on the capital account.
  C) the primary purpose of the national accounts is to track production rather than income.
  D) the primary purpose of the national accounts is to track income rather than production.

Use the following to answer question 62:

Figure: Short-Run Determination of the Interest Rate



62. (Figure: Short-Run Determination of the Interest Rate) Refer to the information in the figure. If the money supply is at MS_2 and the central bank sells bonds, then the resulting short-run shift in the supply of savings (loanable funds) may be represented by a shift of the:
A) money supply curve to MS_1, which lowers the interest rate.
B) supply of loanable funds from S_1 to S_2, which lowers the interest rate.
C) supply of loanable funds from S_2 to S_1, which raises the interest rate.
D) interest rate from r_1 to r_2.

63. Growth accounting enables us to:
A) calculate how long it takes the economy to grow.
B) calculate the effects of technological progress on economic growth.
C) compare growth rates across countries.
D) better calculate real GDP per capita.

64. Under fixed exchange rates, a revaluation decreases aggregate demand by:
A) increasing exports.
B) reducing imports.
C) causing a financial account deficit.
D) decreasing exports.

Use the following to answer questions 65-68:

Scenario: Aggregate Consumption Equation
Suppose that the aggregate consumption function is given by the equation: $C = 200 + 0.8YD$, where C represents consumption and YD represents disposable income.

65. (Scenario: Aggregate Consumption Equation) If disposable income is $500, aggregate consumption is:
   A) $0.
   B) $200.
   C) $400.
   D) $600.

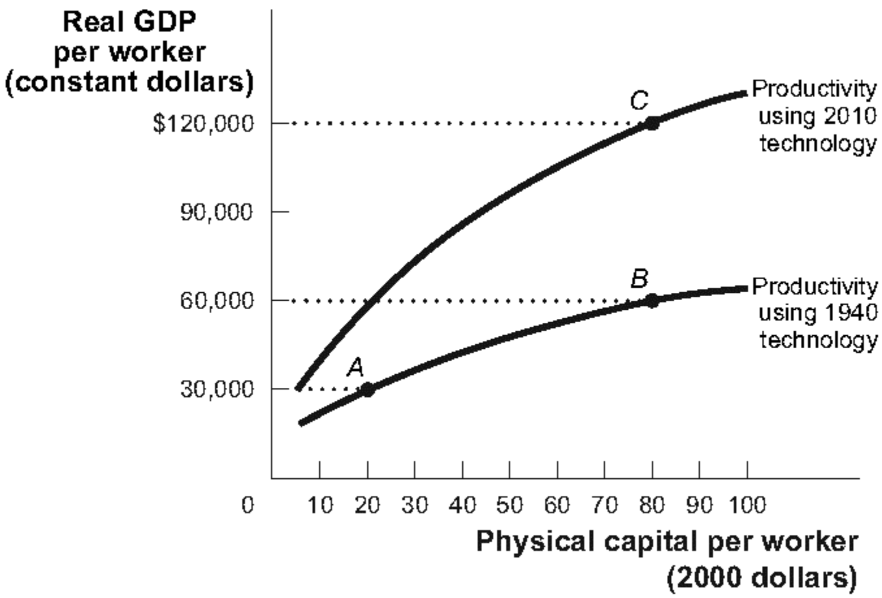
66. (Scenario: Aggregate Consumption Equation) If disposable income increases from $500 to $800, aggregate consumption will increase by:
   A) $0.
   B) $200.
   C) $240.
   D) $440.

67. (Scenario: Aggregate Consumption Equation) If disposable income increases from $500 to $800, aggregate consumption is:
   A) $840.
   B) $440.
   C) $240.
   D) $200.

68. (Scenario: Aggregate Consumption Equation) If disposable income is $500, autonomous consumption is:
   A) $0.
   B) $200.
   C) $400.
   D) $600.

Use the following to answer questions 69-74:

Figure: Technological Progress and Productivity Growth



69. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP would be most likely to result from an increase in the quality (as well as quantity) of government spending on education?
    A) *A* to *B*
    B) *B* to *A*
    C) *B* to *C*
    D) *C* to *B*

70. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP would be most likely to result from an increase in the quality (as well as quantity) of public health measures?
    A) *A* to *B*
    B) *B* to *C*
    C) *B* to *A*
    D) *C* to *B*

71. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP would be most likely to result over time from the deterioration of the nation's infrastructure?
A) *A* to *B*
B) *B* to *C*
C) *C* to *B*
D) *B to A*

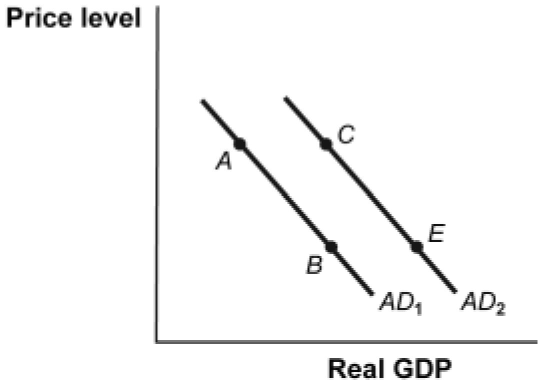
72. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP would be most likely to result over time from excessive government intervention that results in a decline in property rights?
A) *A* to *B*
B) *B* to *C*
C) *C* to *B*
D) *C* to *A*

73. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP could have resulted from an increase in foreign investment spending?
A) *A* to *B*
B) *B* to *C*
C) *B* to *A*
D) both *A* to *B* and *B* to *C*

74. (Figure: Technological Progress and Productivity Growth) Which of the following changes in real GDP would have been most likely to result from an increase in domestic savings?
A) *A* to *B*
B) *B* to *A*
C) *C* to *B*
D) *C* to A

Use the following to answer questions 75-76:

Figure: Shift of the Aggregate Demand Curve



75. (Figure: Shift of the Aggregate Demand Curve) An increase in aggregate demand is illustrated by a movement from:
 A) AD_1 to AD_2.
 B) point *C* to point *A*.
 C) point *B* to point *A*.
 D) point *C* to point *E*.

76. (Figure: Shift of the Aggregate Demand Curve) A movement from point *A* on AD_1 to point *C* on AD_2 could have resulted from a(n):
 A) lower price level.
 B) higher price level.
 C) increase in the total quantity of consumer goods and services demanded at every price level.
 D) significant decrease in the income level of consumers.

77. Technological progress allows workers to produce more:
 A) because it increases the amount of physical capital available.
 B) because it increases the amount of human capital available.
 C) even when the amount of physical capital and human capital do not change.
 D) only if the amount of physical capital grows at the same rate.

78. The skills, training, and education possessed by workers that contribute to economic growth are known as:
A) saving.
B) human capital.
C) natural resources.
D) output of labor.

79. If the marginal propensity to consume is 0.75 and the federal government increases spending by $100 billion, the income expenditure model would predict that real GDP will increase by:
A) $100 billion.
B) $750 billion.
C) $400 billion.
D) $300 billion.

80. Expansionary monetary policy in the United States causes U.S. interest rates to _____ and the dollar to ______.
A) rise; appreciate
B) rise; depreciate
C) fall; appreciate
D) fall; depreciate

Answer Key

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

45. C
46. D
47. B
48. B
49. D
50. B
51. C
52. B
53. B
54. A
55. C
56. B
57. A
58. B
59. C
60. C
61. C
62. C
63. B
64. D
65. D
66. C
67. A
68. B
69. C
70. B
71. D
72. C
73. D
74. A
75. A
76. C
77. C
78. B
79. C
80. D