CHAPTER 17
Economic Growth

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Multiple Choice Questions

Ingredients and graphical analysis

Use the following to answer questions 1-5:

Use the following list to answer the following questions:

1. Improvements in technology
2. Increases in the supply (stock) of capital goods
3. Purchases of rising output.
4. Obtaining the optimal combination of goods, each at least-cost production
5. Increases in the quantity and quality of natural resources
6. Increases in the quantity and quality of human resources

Type: A    Topic: 1    E: 308-309    MA: 308-309
1. Refer to the above list. As distinct from the demand and efficiency factors of economic growth, the supply factors of economic growth are:
   A) 2, 5, and 6 only.  B) 2, 4, 5, and 6 only.  C) 1, 2, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: C

Type: A    Topic: 1    E: 308    MA: 308
2. Refer to the above list. As distinct from the supply factors and efficiency factor of economic growth, the demand factor of economic growth is:
   A) 1 only.  B) 4 only.  C) 1 and 3 only.  D) 3 only.
   Answer: D
3. Refer to the above list. As distinct from the supply factors and demand factor of economic growth, the efficiency factor of economic growth is:
   A) 1 only.  B) 4 only.  C) 1 and 3 only.  D) 3 only.
   Answer: B

4. Which set of items in the above list would shift an economy's production possibilities curve outward?
   A) 2, 5, and 6 only.  B) 2, 4, 5, and 6 only.  C) 1, 2, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: C

5. Which set of items in the above list would shift an economy's long-run aggregate supply curve to the right?
   A) 1, 2, 5, and 6 only.  B) 2, 5, and 6 only.  C) 2, 4, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: A

6. Which of the following is not a supply factor in economic growth?
   A) the stock of capital  C) the size and quality of the labor force
   B) technological advance  D) aggregate expenditures
   Answer: D

7. The achievement of full employment through time will:
   A) diminish labor productivity.  B) reduce the level of investment as a percentage of GDP.
   C) increase the realized rate of economic growth.  D) have no impact on the rate of economic growth.
   Answer: C

8. Economic growth can be portrayed as a:
   A) outward shift of the production possibilities curve.  B) inward shift of the production possibilities curve.
   C) movement from a point on to a point inside a production possibilities curve.
   D) movement from one point to another point on a fixed production possibilities curve.
   Answer: A

9. Suppose that an economy's labor productivity and total worker-hours each grew by 3 percent between year 1 and year 2. We could conclude that this economy's:
   A) real GDP remained constant.  B) capital stock increased by 3 percent.
   C) production possibilities curve shifted inward.  D) long-run aggregate supply curve shifted to the right.
   Answer: D
10. Suppose that an economy's labor productivity and total worker-hours each grew by 4 percent between year 1 and year 2. We could conclude that this economy's:
   A) long-run aggregate supply curve shifted to the left.
   B) real GDP remained constant.
   C) production possibilities curve shifted outward.
   D) capital stock increased by 4 percent.
   Answer: C

11. Suppose that an economy's labor productivity fell by 3 percent and its total worker-hours remained constant between year 1 and year 2. We could conclude that this economy's:
   A) real GDP declined
   B) capital stock increased.
   C) production possibilities curve shifted outward.
   D) long-run aggregate supply curve shifted to the right.
   Answer: A

12. Suppose that an economy's labor productivity rose by 3 percent and its total worker-hours remained constant between year 1 and year 2. We could conclude that this economy's:
   A) capital stock increased.
   B) real GDP increased.
   C) production possibilities curve shifted inward.
   D) long-run aggregate supply curve shifted to the left.
   Answer: B

Use the following to answer questions 13-16:

13. Curve AB is a:
   A) production possibilities curve and curve X is a long-run aggregate supply curve.
   B) consumer demand curve and curve X is a long-run aggregate supply curve.
   C) long-run aggregate supply curve and Y is potential real GDP curve.
   D) long-run aggregate supply curve and X is a production possibilities curve.
   Answer: A
14. Refer to the above graphs. Growth of production capacity is shown by:
   A) the shift from AB to CD only.
   B) the shift from X to Y only.
   C) both the shift from AB to CD and the shift from X to Y.
   D) both the shift from AB to CD and the shift from Y to X.
   Answer: C

15. Refer to the above graphs. An increase in an economy's labor productivity would shift curve:
   A) AB to CD and shift curve Y to X.
   B) CD to AB and shift curve X to Y.
   C) AB to CD and shift curve X to Y.
   D) X to Y while leaving curve AB in place.
   Answer: C

16. Refer to the above graphs. An increase in the economy's human capital would shift curve:
   A) AB to CD and curve Y to X.
   B) CD to AB and curve X to Y.
   C) X to Y while leaving curve AB in place.
   D) AB to CD and curve X to Y.
   Answer: D

Use the following to answer questions 17-18:

17. Refer to the above diagram. Realized economic growth is best represented by a:
   A) shift in the production possibilities curve from AB to CD.
   B) move from X on AB to Y on CD.
   C) shift in the production possibilities curve from CD to AB.
   D) move from X to Z along AB.
   Answer: B
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18. Refer to the above diagram. The most likely cause of a shift from AB to CD would be a(n):
   A) increase in productivity.       C) decrease in the size of the labor force.
   B) increase in the price level.     D) recession.
   Answer: A

19. An outward shift of a nation's production possibilities curve:
   A) ensures the nation of an increase in real GDP per capita.
   B) ensures the nation of an increase in real GDP, but not of real GDP per capita.
   C) neither ensures a nation of an increase in real GDP nor of an increase in real GDP per capita.
   D) corresponds to a leftward shift a nation's long-run aggregate supply curve.
   Answer: C

20. Labor productivity is measured by:
   A) the ratio of capital to labor.       C) real output per capita.
   B) real output per worker hour.        D) the ratio of worker hours to real GDP.
   Answer: B

21. Which of the following would not be expected to increase labor productivity?
   A) technological advance
   B) the acquisition of more education and training by the labor force
   C) an increase in the size of the labor force
   D) the realization of economies of scale
   Answer: C

22. Labor productivity is defined as:
   A) total output/worker-hours.
   B) nominal GDP minus real GDP.
   C) the ratio of real capital to worker-hours.
   D) the annual increase in nominal GDP per worker.
   Answer: A

23. Which of the following is correct?
   A) total output = labor productivity/worker-hours
   B) labor productivity = worker-hours/total output
   C) total output = worker-hours × labor productivity
   D) worker-hours = labor productivity × total output
   Answer: C

24. If the number of worker-hours in an economy is 100 and its labor productivity is 5 units of output per worker-hour, the economy's real GDP:
   A) is $20.  B) is $500.  C) is $5000.  D) cannot be calculated.
   Answer: B
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25. Suppose total output (real GDP) is $4000 and labor productivity is 8. We can conclude that:
A) real GDP per capita must be $500.  C) nominal GDP must be $500.
B) the price-level index must be greater than 100.  D) the number of worker-hours must be 500.
Answer: D

26. Suppose total output (real GDP) is $10,000 and worker-hours are 20,000. We can conclude that:
A) real GDP per capita must be $200,000.
B) the price-level index must be less than 100.
C) labor productivity must be 0.5.
D) nominal GDP must be between $10,000 and $20,000.
Answer: C

27. The percentage of the working-age population in the labor force (= employed + officially unemployed) is called the:
A) labor force participation rate.  C) work-activity rate.
B) employment-population ratio.  D) work-nonwork ratio.
Answer: A

28. Other things equal, which of the following would decrease the rate of economic growth, as measured by changes in real GDP?
A) An increase in the educational attainment of the labor force
B) A permanent decrease in frictional unemployment
C) An increase in the amount of capital per worker
D) A decrease in the labor force participation rate.
Answer: D

29. Other things equal, which of the following would increase the rate of economic growth, as measured by changes in real GDP?
A) A decline in the average length of the work week.
B) A decrease in the labor force participation rate.
C) An increase in the size of the working age population.
D) A decline in the amount of capital per worker.
Answer: C
Use the following to answer questions 30-31:

Type: G  Topic: 1  E: 313-314  MA: 313-314
30. Refer to the above diagram. The shifts in long-run and short-run aggregate supply curves from AS$_1$ and AS$'_1$ to AS$_2$ and AS$'_2$ would most likely result from:
   A) an increase in the price level.  
   B) a reduction in aggregate demand.  
   C) an improvement in technology.  
   D) deterioration of the infrastructure.
   Answer: C

Type: G  Topic: 1  E: 313-314  MA: 313-314
31. Refer to the above diagram. Suppose that in a specific year the long-run and short-run aggregate supply curves shift from AS$_1$ and AS$'_1$ to AS$_2$ and AS$'_2$. If the aggregate demand curve also shifts rightward from AD$_1$ to AD$_2$, the rates of economic growth and inflation for the year will be:
   A) 4 percent each.  
   B) 6 percent and 5 percent, respectively.  
   C) 8 percent and 3 percent, respectively.  
   D) 5 percent and 8 percent, respectively.
   Answer: D

Type: A  Topic: 1  E: 311  MA: 311
32. In the aggregate demand-aggregate supply model, economic growth is represented by a:
   A) leftward shift of the long-run aggregate supply curve.  
   B) leftward shift of the aggregate demand curve.  
   C) rightward shift of the long-run aggregate supply curve.  
   D) rightward shift of the short-run aggregate supply curve resulting from a decline in the price level.
   Answer: C

Type: C  Topic: 1  E: 311  MA: 311
33. A rightward shift of a nation's long-run aggregate supply curve is equivalent to:
   A) a rightward shift of the nation's aggregate demand curve.  
   B) a downward shift of the nation's aggregate expenditures curve.  
   C) a rightward shift of the nation's investment demand curve.  
   D) an outward shift of the nation's production possibilities curve.
   Answer: D
34. An outward shift of an nation's production possibilities curve is equivalent to a:
   A) rightward shift of the nation's aggregate demand curve.
   B) downward shift of the nation's aggregate expenditure curve.
   C) rightward shift of the nation's long-run aggregate supply curve.
   D) rightward shift of the nation's investment demand curve.
   Answer: C

35. Which of the following, other things equal, would shift a nation's long-run aggregate supply curve to the right?
   A) a decrease in the total hours of work
   B) a decline in productivity
   C) an increase in the labor force participation rate
   D) an increase in net exports
   Answer: C

Growth record; growth accounting

36. Which of the following statements is correct?
   A) Between 1950 and 2000, U.S. real GDP grew at about 2.3 percent per year and real GDP per capita grew at about 3.5 percent per year.
   B) Between 1950 and 2000, U.S. real GDP grew at about 3.5 percent per year and real GDP per capita grew at about 2.3 percent per year.
   C) Between 1950 and 2000, U.S. real GDP and real GDP per capita both grew at approximately 4 percent per year.
   D) Between 1950 and 2000, U.S. real GDP and real GDP per capita both grew at approximately 1 percent per year.
   Answer: B

37. Empirical studies suggest that:
   A) labor productivity has declined throughout U.S. history.
   B) real GDP per capita in the United States grew about 2.3 percent per year between 1950 and 2000.
   C) the achieving of economies of scale is the most important factor in U.S. economic growth.
   D) the U.S.'s real GDP has grown the slowest of all industrialized nations, particularly since 1995.
   Answer: B

38. Between 1950 and 2000, the long-run average annual rate of growth of real GDP in the United States was about:
   A) 8.2 percent.  B) 5.1 percent.  C) 3.5 percent.  D) 1.8 percent.
   Answer: C

39. In the United States real GDP:
   A) has grown faster than real GDP per capita.
   B) has grown faster in recent years than has nominal GDP.
   C) per capita has grown faster than real GDP.
   D) and real GDP per capita have grown at nearly identical rates.
   Answer: A
40. The largest contributor to increases in the productivity of American labor is:
   A) the reallocation of labor from agriculture to manufacturing.
   B) improvements in labor quality.
   C) increases in the quantity of capital.
   D) technological advance.
   Answer: D

41. Which of the following statements is correct?
   A) The U.S. population has increased more rapidly than real GDP in recent decades.
   B) Improved education and training of labor is the most important source of U.S. productivity growth.
   C) The average American factory worker has about 16 years of formal education.
   D) The amount of real capital used per worker has increased historically in the United States.
   Answer: D

42. The historical reallocation of labor from agriculture to manufacturing in the United States has:
   A) been inflationary.
   B) had no effect on the average productivity of labor.
   C) increased the average productivity of labor.
   D) reduced the average productivity of labor.
   Answer: C

43. More than half the growth of real GDP in the United States is caused by:
   A) a falling price level.
   B) the reallocation of labor from manufacturing to agriculture.
   C) increases in the productivity of labor.
   D) the use of fewer inputs of labor.
   Answer: C

44. Which of the following is the largest contribution to the growth of labor productivity in the United States?
   A) technological advance
   B) education and training of labor
   C) economies of scale
   D) improved resource allocation
   Answer: A

45. A nation's infrastructure refers to:
   A) its ability to realize economies of scale.
   B) its stock of technological knowledge.
   C) public capital goods such as highways and sanitation systems.
   D) the productivity of its labor force.
   Answer: C
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46. Economies of scale refer to:
   A) the idea that proprietorships are less bureaucratic and therefore more efficient than corporations.
   B) public investments in highways, schools, utilities, and such.
   C) the fact that large producers may be able to use more efficient technologies than smaller producers.
   D) the reallocation of labor from less-productive to more-productive uses.
   Answer: C

47. Other things equal, if a full-employment economy reallocated a substantial quantity of its resources to capital goods, we would expect:
   A) present consumption to rise.
   B) future consumption to fall.
   C) a lower rate of growth of real GDP.
   D) labor productivity to rise.
   Answer: D

48. Other things equal, in which of the following instances would the increase in labor productivity be the greatest?
   A) the stock of real capital and inputs of labor increase proportionately
   B) the increase in the stock of real capital exceeds the increase in inputs of labor
   C) the increase in inputs of labor exceeds the increase in the stock of real capital
   D) inputs of labor increase and the stock of real capital remains constant
   Answer: B

The New Economy

49. If the secular trend of labor productivity is 3 percent per year, the number of years that it will take for the standard of living to double will be about:
   A) 15 years.  B) 17 years.  C) 20 years.  D) 23 years.
   Answer: D

50. If the secular trend of labor productivity rises from 2 percent per year to 4 percent, the number of years that it will take for the standard of living to double will decline by about:
   A) 5 years.  B) 10 years.  C) 17 years.  D) 23 years.
   Answer: C

51. The annual growth of U.S. labor productivity:
   A) was greater between 1973 and 1995 than between 1995 and 2002.
   B) was greater between 1995 and 2002 than between 1973 and 1995.
   C) was negative in the late 1990s.
   D) averaged nearly 5 percent in the 1990s.
   Answer: B
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52. The New Economy is characterized by:
   A) a higher trend rate of saving.  C) a higher trend rate of productivity growth.
   B) a higher natural rate of unemployment.  D) the end of the business cycle.
   Answer: C

53. The view that the trend rate of U.S. productivity growth accelerated between 1995 and 2002 is closely associated with the:
   A) idea of the New Economy.
   B) distinction between short-run and long-run aggregate supply.
   C) idea of the invisible hand.
   D) theory of comparative advantage.
   Answer: A

54. Increases in the value of a product to each user, including existing users, as the total number of users rises are called:
   A) information cascades.  B) learning effects.  C) network effects.  D) scale economies.
   Answer: C

55. Network effects are:
   A) rises in the value of a product to each user, including existing users, as the total number of users rises.
   B) reductions in per unit production cost as firms learn by doing.
   C) increases in demand resulting from products being mentioned positively in a television program.
   D) the change in real GDP resulting from a change in investment or government spending.
   Answer: A

56. All of the following are sources of increasing returns and economies of scale except:
   A) network effects.  C) more specialized inputs.
   B) spreading of development costs.  D) coordination problems in large organizations.
   Answer: D

57. All of the following are sources of increasing returns and economies of scale except:
   A) network effects.  B) the multiplier effect.  C) learning-by-doing.  D) simultaneous consumption.
   Answer: B

58. The fundamental invention underpinning the New Economy is the:
   A) microchip.  B) fuel cell.  C) Internet  D) personal computer.
   Answer: A
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59. All of the following are economic implications of the New Economy except:
   A) a lower natural rate of unemployment.   C) an end to the business cycle.
   B) higher rates of productivity advance.   D) a greater rate of economic growth.
   Answer: C

60. Critics of the idea of the New Economy say that:
   A) it is too soon to judge whether the high productivity advances between 1995 and 2002 are permanent or transitory.
   B) the difficulties of the dot.com companies in 2001 disproves the idea of the New Economy.
   C) between 1995 and 2002 the economy moved below its natural rate of unemployment and paid the price in the form of accelerating inflation.
   D) the improved growth performance of the U.S. economy between 1995 and 2002 resulted from adroit monetary policy and not from increases in productivity.
   Answer: A

61. According to the adherents of the New Economy view, the above-normal economic growth in the United States between 1995 and 2002 was caused by:
   A) increases in the rate of personal saving.
   B) increased entrepreneurial activity, application of information technology, and global competition.
   C) rising Federal budget surpluses that reduced real interest rates.
   D) expansionary monetary policy.
   Answer: B

62. Proponents of the idea of a New Economy say that:
   A) the United States is entering an era of high structural unemployment due to rapid technological change.
   B) technological advance creates its own supply, which in turn creates its own demand.
   C) innovations in computers and communications, together with global capitalism, are greatly boosting U.S. productivity and the economy's potential economic growth rate.
   D) technological change will require more central planning and government regulation.
   Answer: C

63. Critics of the idea of a New Economy say that:
   A) it is too early to predict whether recent boosts in U.S. productivity are permanent or transitory.
   B) global capitalism is a media fiction, not an economic reality.
   C) the growth of service productivity is severely understated.
   D) many of the factors that slowed productivity in the 1973-1995 period have now reversed themselves.
   Answer: A
Between 1995 and 2002, the U.S. productivity rate:
A) was slightly negative, mainly because of record levels of employment growth.
B) picked up substantially compared to prior years, leading some economists to predict a long-lasting resurgence of productivity growth.
C) slowed considerably relative to the high rates between 1990 and 1995.
D) reached record low levels for the United States' economy, leading some economists to talk of "secular stagnation."
Answer: B

The claim that innovations in information technology, together with global capitalism, are leading to a long-term increase in U.S. productivity growth is known as the:
A) rational expectations theory.  C) new-Keynesian perspective.
B) theory of creative destruction.  D) New Economy view.
Answer: D

Growth debate

Which of the following is a true statement?
A) Economists who support economic growth say that it is the most practical route to the higher standards of living that the vast majority of people desire.
B) Adherents of the view that the United States has achieved a New Economy contend that the business cycle is dead.
C) Most economists believe that increases in real GDP actually produce decreases in overall economic well-being because of spillover costs.
D) Mainstream economists disagree as whether the rate or productivity growth was higher between 1995 and 2002 than between 1973 and 1995.
Answer: A

Proponents of economic growth say that pollution:
A) is an inevitable by-product of growth.
B) occurs, not because of growth, but because common properties are treated as free goods.
C) declines as a country moves from agriculture to industry.
D) is detrimental to economic growth.
Answer: B

Critics of economic growth:
A) contend that growth and industrialization reduce pollution.
B) argue that economic growth does not resolve socioeconomic problems such as income inequality.
C) point out that growth results in greater economic security for workers.
D) say that its benefits accrue nearly exclusively to white males.
Answer: B
Proponents of economic growth make all of the following arguments except:

A) Growth is the basic means of improving living standards.
B) It is easier to reduce poverty when the economy is growing than when it is not.
C) There is a direct relationship between a growing real GDP and rising pollution.
D) Growth provides an economic environment favorable to education and self-fulfillment.

Answer: C

Consider This Questions

Type: F   E: 313   MA: 313   Status: New
70. (Consider This) The main point of the Consider This box about hypothetical countries Alpha, Bravo, and Charlie is that over several decades differing:
A) inflation rates create large differences in real GDP per capita.
B) economic growth rates create large differences in real GDP per capita.
C) ratios of defense spending to GDP create large differences in real GDP per capita.
D) unemployment rates create large differences in real GDP per capita.

Answer: B

71. (Consider This) According to the Consider This box about hypothetical countries Alpha, Bravo, and Charlie, small differences in ________ make for large differences in ________ over several decades, assuming the same growth of population for each country.
A) inflation rates; unemployment rates
B) unemployment rates; economic growth rates
C) economic growth rates: real GDP per capita
D) tax rates; real GDP per capita

Answer: C

Last Word Questions

Type: A   E: 322   MA: 322   Status: New
72. (Last Word) The rapid rise in the number of women in the paid U.S. workforce over the past several decades has:
A) shifted the U.S. production possibilities curve inward (to the left).
B) moved the U.S. economy from a point inside its production possibilities curve to a point on the curve.
C) reduced income inequality in the United States.
D) shifted the U.S. production possibilities curve outward (to the right) and expanded real GDP.

Answer: D

73. (Last Word) Over the past several decades, the percentage of women in the paid U.S. workforce has:
A) increased in spite of declining wages for women.
B) decreased because relatively more women are staying home to raise their children.
C) increased due to higher wages, expanded job accessibility, changing preferences and attitudes, and other factors.
D) increased for unmarried women, but decreased for married women.

Answer: C
74. (Last Word) Rising wages for women in the United States have:
   A) increased the proportion of women working part time compared to working full time.
   B) increased labor costs and thus shifted the nation's production possibilities curve inward.
   C) increased average family size in the United States.
   D) increased the percentage of married women in the workforce.
   Answer: D

True/False Questions

75. In the United States, real GDP per capita has increased more rapidly than real GDP.
   Answer: False

76. A rightward shift of a nation's production possibilities curve is a necessary but not sufficient condition for economic growth.
   Answer: True

77. Economic growth can be shown as a movement from a point on one production possibility curve to a point on a curve located farther from the origin.
   Answer: True

78. A rightward shift of an economy's long-run aggregate supply curve is equivalent to a movement along an existing production possibilities curve.
   Answer: False

79. Growth of real GDP in the United States has averaged slightly more than 5 percent annually since 1950.
   Answer: False

80. Between 1929 and 2002, rising labor productivity contributed more to U.S. economic growth than did increases in inputs
   Answer: True

81. Real GDP = worker-hours x labor productivity.
   Answer: True

82. Labor productivity = worker-hours/real GDP.
   Answer: False
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83. Improvements in education and training explain about 80 percent of the historical growth of U.S. labor productivity.
   Answer: False

   Answer: False

   Answer: False

86. The New Economy of 1995-2002 was characterized by greater productivity growth and greater economic growth than in the immediately preceding two decades.
   Answer: True

87. According to proponents of the New Economy, the business cycle is dead.
   Answer: False

88. Critics of economic growth say studies show that people are not interested in achieving higher standards of living.
   Answer: False