Chapter 2: Standards of Living and American Economic Growth

1. Sustained, long-run economic growth started in the United States and several other countries, including England, by the year
   A. 1500
   B. 1600
   C. 1700
   *D. 1800
   E. 1900

2. If all of human history is represented by one 24-hour day, the period of economic growth is represented by
   A. the last hour of the day.
   *B. the last 2 minutes of the day.
   C. the last 2 seconds of the day.
   D. the last 2 hours of the day.

3. Between 1870 and 2010, _____ and _____ experienced faster growth than the United States in real GDP per capita while _____ and _____ experienced slower growth than the United States.
   *A. Canada; South Korea; Australia; Cuba
   B. Netherlands; Norway; Ghana; Japan
   C. Australia; Japan; Cuba; Netherlands
   D. South Korea; Netherlands; Canada; Japan

4. Which of the following could cause nominal GDP to decrease, but real GDP to increase?
   A. The price level rises and the quantity of final goods and services produced rises.
   *B. The price level falls and the quantity of final goods and services produced rises.
   C. The price level rises and the quantity of final goods and services produced falls.
   D. The price level falls and the quantity of final goods and services produced falls.

5. Suppose that a Chinese citizen purchases a new car produced in Mexico by an American automobile producer. As a result,
   A. U.S. GDP increases.
   B. U.S. GDP decreases.
   *C. U.S. GDP is unaffected.
   D. U.S. GDP could increase or decrease depending on whether the Chinese citizen buys the car in China or in the United States.

6. A woman marries her personal chef. Before they were married, she paid him $80,000 per year. He continues to cook for her as before (but as a husband rather than as a wage earner). She earns $1,000,000 per year both before and after her marriage. The marriage
   A. does not change GDP.
   *B. decreases GDP by $80,000.
   C. increases GDP by $80,000.
   D. increases GDP by more than $80,000.

7. The fact that estimates of real GDP per capita largely ignore quality improvements causes us to _____ standards of living.
   *A. underestimate
   B. overestimate
   C. sometimes overestimate and sometimes underestimate
   D. None of the above.

8. If Americans still worked 60 hours a week on average, as they did in 1850, then
   A. real GDP per capita today and the well-being of the typical person would be much higher than they are.
   B. real GDP per capita today would be lower than it is, but the well-being of the typical person would be higher.
   *C. real GDP per capita today would be much higher than it is, but the well-being of the typical person would not necessarily be higher.
   D. both real GDP per capita today and the well-being of the typical person would be lower than they are.

9. Economic growth in the United States, as measured by the growth rate of real GDP per capita, was the fastest during the _____ century and the slowest during the _____ century.
   A. nineteenth; eighteenth
   B. eighteenth; nineteenth
   *C. twentieth; eighteenth
   D. twentieth; nineteenth

10. Between 1850 and 2015, the growth rate of real GDP per capita in the United States has averaged almost _____ per year.
   A. 1 percent
   *B. 2 percent
   C. 3 percent
   D. 3.5 percent

11. Approximately how many years will it take a $100 deposit to increase to $400 if the rate of interest is 2 percent per year?
A. 25 years.
B. 35 years.
*C. 70 years.
D. 105 years.

12. Suppose you have $10,000 in an investment account today and it grows at a 5 percent annual rate for 20 years and then at a 4 percent annual rate for another 20 years after that. Approximately how much money will be in the account in 40 years, assuming you make no additional deposits?
A. $52,167
B. $62,567
*C. $58,137
D. $49,834

13. Measured in 2009 dollars, U.S. real GDP per capita was $20,462 in 1965 and $50,808 in 2015. What was the average annual growth rate of real GDP per capita during the 50-year period from 1965 to 2015?
A. 1.71 percent
B. 1.26 percent
C. 2.01 percent
*D. 1.84 percent

14. In 1877, suppose that real GDP per capita in Country A was $800 and it was $3,200 in Country B. The average annual growth rate in Country A is 2 percent per year while it is 1 percent per year in Country B. In the year 2017, the levels of real GDP per capita
A. will still be substantially higher in Country B than in Country A.
B. will be approximately double the level in Country B as compared to Country A.
*C. will be approximately equal in both countries.
D. will be approximately one-half the level in Country B as compared to Country A.

15. Suppose that four variables are related in the following manner:

$$W_t = \frac{X_t Y_t^{1/4}}{Z_t^{1/2}}$$

If X grows at 3 percent per year, Y grows at 4 percent per year, and Z grows at 4 percent per year, what is the approximate annual percentage growth rate of W?
A. -2 percent
B. -1 percent
C. 0 percent
D. 1 percent
*E. 2 percent

16. Which of the following terms refers to the accumulated knowledge and skills that workers acquire from education, training, or from their life experiences?
    A. Technology
    B. Physical capital
    *C. Human capital
    D. Total factor productivity

17. Y/L represents
    *A. labor productivity.
    B. real GDP per capita.
    C. output per capita.
    D. income per capita.
    E. All of the above

18. Suppose that labor productivity increases while the number of hours worked per worker remains constant and the number of workers relative to the population decreases. If this is the case, then the level of real GDP per capita:
    A. must increase.
    B. must decrease.
    *C. may increase, decrease, or remain constant.
    D. must remain constant.

19. If all of the factors of production each increase by the same percentage, and this results in an increase in output of an equal percentage, then the production function has the property called
    A. constant marginal product of labor.
    B. increasing marginal product of labor.
    *C. constant returns to scale.
    D. constant opportunity costs.

20. Consider the following production function: $Y_t = K_t + H_t + N_t + L_t$ This production function has _____ returns to scale and _____ marginal product in each factor.
    A. increasing; constant
    *B. constant; constant
    C. constant; decreasing
    D. decreasing; increasing

21. Consider the following aggregate production function:

$Y_t = K_t H_t L_t N_t$

This production function exhibits
*A. constant marginal product in each factor
B. constant returns to scale
C. decreasing returns to scale
D. diminishing marginal product in each factor
E. increasing marginal product in each factor

22. Consider an economy with the following Cobb-Douglas production function:

$Y_t = A_t K_t^{1/3} H_t^{1/12} N_t^{1/12} L_t^{1/2}$

If the capital stock and real GDP each grows at 3 percent per year, while labor hours grow at 4 percent per year, and the quantity of human capital and natural capital are constant, what is the average annual growth rate of efficiency (or total factor productivity)?
*A. 0 percent
B. 1 percent
C. 2 percent
D. 3 percent
E. 4 percent

23. Consider an economy with the following Cobb-Douglas production function:

$Y_t = A_t K_t^{1/3} H_t^{1/12} N_t^{1/12} L_t^{1/2}$

If the capital stock and real GDP each grows at 3 percent per year, while labor hours grow at 4 percent per year, and the quantity of human capital and natural capital are constant, and markets are perfectly competitive, then owners of capital are paid _____ of GDP.
A. 3 percent
*B. one-third
C. one-half
D. 1 percent
E. two-thirds

24. Consider an economy with the following Cobb-Douglas production function:

$$Y_t = A_t K_t^{1/4} H_t^{1/8} N_t^{1/8} L_t^{1/2}$$

If the physical capital stock grows at 3 percent per year, real GDP grows at 3 percent per year, human capital grows at 2 percent per year, labor hours grow at 1 percent per year, and the quantity of natural capital is constant, what proportion of labor productivity growth is due to total factor productivity growth?

A. 0 percent
B. 25 percent
C. 50 percent
*D. 75 percent
E. 100 percent

25. Based on U.S. data from 1800 to 2011, rank the following contributions of labor productivity growth from the most important source to the least important source:

A. total factor productivity growth, human capital growth per hour of work, physical capital growth per hour of work, and natural capital growth per hour of work.
*B. total factor productivity growth, physical capital growth per hour of work, human capital growth per hour of work, and natural capital growth per hour of work.
C. human capital growth per hour of work, total factor productivity growth, physical capital growth per hour of work, and natural capital growth per hour of work.
D. physical capital growth per hour of work, total factor productivity growth, natural capital growth per hour of work, and human capital growth per hour of work.

26. Since long-run economic growth started in the United States, which of the following measures of living standards was the last to improve?

A. labor productivity
B. real GDP per capita
*C. human heights
D. work hours

27. Compared to 1800, life expectancies at birth in the United States today have

A. increased about 20 years.
B. increased about 50 percent.
*C. roughly doubled.
D. increased about 20 percent.

28. Institutions refer to
    A. the behaviors, attitudes, and beliefs that are pervasive in a particular society.
    *B. the political, social, and legal rules ground rules that establish the basis for production, exchange, and distribution.
    C. large buildings that include banks, courthouses, and universities.
    D. All of the above

29. All of the following are fundamental sources of economic growth EXCEPT
    *A. human capital.
    B. culture and science.
    C. geography.
    D. institutions.
    E. All of the above

30. Growth of physical capital per hour of work is a(n) _____ source of economic growth.
    *A. proximate
    B. fundamental
    C. intensive
    D. extensive