1. The real interest rate is
   a. the interest rate paid or charged by a bank.
   b. the interest rate corrected for the rate of inflation.
   c. a high interest rate.
   d. all of the above.

2. At the beginning of the year, Arlene deposits $1000 in a saving account that pays an annual interest rate of 5%. Inflation for the year is 10%. At the end of the year, Arlene’s $1,000 deposit has earned
   a. $1050.
   b. $50.
   c. $100.
   d. –$50.

3. Which of the following is measured by real GDP?
   a. total real output
   b. productivity
   c. macroeconomic prices
   d. All of the above are correct.

4. Which of the following is a determinant of productivity?
   a. human capital
   b. physical capital
   c. natural resources
   d. All of the above are correct.

5. The equipment and structures that are available to produce goods and services are called
   a. the production function.
   b. technology.
   c. physical capital.
   d. human capital.

6. If your firm has constant returns to scale, then if you doubled all your inputs your firm’s output would
   a. not change.
   b. increase, but by less than double.
   c. double.
   d. more than double.
7. The constant returns production function given in the text is \( xY = A \cdot F(xL, xK, xH, xN) \). If we let \( x = 1/L \), then the equation becomes \( Y/L = A \cdot F(1, K/L, H/L, N/L) \) where \( Y \) is the quantity of output, \( A \) is the level of available production technology, \( L \) is the quantity of labor, \( H \) is the quantity of human capital, and \( N \) is the quantity of natural resources. The equation \( Y/L = A \cdot F(1, K/L, H/L, N/L) \) provides a
   a. measure of gross domestic product.
   b. summary for the four determinants of productivity.
   c. foundation for measuring inflation.
   d. measure of the availability of natural resources.

8. If there are diminishing returns to capital,
   a. increases in the capital stock eventually decrease output.
   b. increases in the capital stock increase output by ever smaller amounts.
   c. capital produces fewer goods as it ages.
   d. new ideas are not as useful as old ideas.

9. The catch-up effect refers to the idea that
   a. rich countries aid relatively poor countries so as to "catch them up."
   b. savings will always "catch-up" with investment spending.
   c. it is easier for a country to grow fast if it starts out relatively poor.
   d. if investment spending is low, increased saving will help investment to "catch-up."

10. A rapid increase in the number of workers is likely to
    a. raise both real GDP and real GDP per person.
    b. raise real GDP, but decrease real GDP per person.
    c. raise real GDP per person, but decrease real GDP.
    d. decrease both real GDP and real GDP per person.

11. When a country saves a larger portion of its GDP, it will have
    a. more investment, and so have more capital and higher productivity.
    b. more investment, and so have less capital and higher productivity.
    c. less investment, and so have more capital and higher productivity.
    d. less investment, and so have less capital and higher productivity.

12. Which of the following equations will always represent GDP in an open economy?
    a. \( Y = C + I + G + NX \)
    b. \( S = I - G \)
    c. \( I = Y - C + G \)
    d. \( Y = C + I + G \)

13. Which of the following equations represents national saving in a closed economy?
    a. \( Y - I - G - NX \)
    b. \( Y - I - C \)
    c. \( Y - C - G \)
    d. \( G + C - Y \)
14. In a closed economy, what does (T - G) represent?
   a. private saving
   b. public saving
   c. national saving
   d. investment

15. Suppose that in a closed economy GDP is equal to 8,000, Taxes are equal to 2,000, Consumption equals 5,000, and Government expenditures equal 1,000. What is national saving?
   a. 0
   b. 2000
   c. 3000
   d. None of the above are correct.

16. If the tax revenue of the federal government exceeds spending, then the government
   a. runs a national debt.
   b. will increase taxes.
   c. runs a budget deficit.
   d. runs a budget surplus.

17. The supply of loanable funds
   a. slopes upward because an increase in the interest rate induces people to save more.
   b. slopes upward because an increase in the interest rate induces people to invest more.
   c. slopes downward because an increase in the interest rate induces people to save less.
   d. slopes downward because an increase in the interest rate induces people to invest less.

18. If the current market interest rate for loanable funds is below the equilibrium level, then
   a. the quantity of loanable funds demanded will exceed the quantity of loanable funds supplied and the interest rate will rise.
   b. the quantity of loanable funds supplied will exceed the quantity of loanable funds demanded and the interest rate will rise.
   c. the quantity of loanable funds demanded will exceed the quantity of loanable funds supplied and the interest rate will fall.
   d. the quantity of loanable funds supplied will exceed the quantity of loanable funds demanded and the interest rate will fall.

19. What would happen in the market for loanable funds if the government were to increase the tax on interest income?
   a. interest rates would rise
   b. interest rates would be unaffected
   c. interest rates would fall
   d. the change in the interest rate would be ambiguous
20. What would happen in the market for loanable funds if the government were to decrease the tax on interest income?
   a. There would be an increase in the amount of loanable funds borrowed.
   b. There would be a reduction in the amount of loanable funds borrowed.
   c. There would be no change in the amount of loanable funds borrowed.
   d. The change in loanable funds borrowed would be ambiguous.

21. Cyclical unemployment is closely associated with
   a. short-run ups and downs of the economy.
   b. long-term economic growth.
   c. fluctuations in the natural rate of unemployment.
   d. None of the above are correct.

22. Which of the following would be counted as unemployed according to official statistics?
   a. Tim, who worked, but worked only 35 hours last week
   b. Mary, who is waiting for her new job to start
   c. Bev, who neither has a job nor is looking for one
   d. None of the above would be counted as unemployed.

23. Who would not be included in the labor force?
   a. Mike, who has retired and is not looking for work
   b. Jay, who is on temporary layoff
   c. Jane, who does not have a job, but has applied for several in the last week
   d. None of the above are included in the labor force.

24. Which of the following equations is correct?
   a. Labor force = number of employed.
   b. Labor force = population - number of unemployed.
   c. Unemployment Rate = (number of unemployed ÷ adult population) x 100.
   d. Unemployment Rate = (number of unemployed ÷ labor force) x 100.

25. A few years ago, based on concepts similar to those used to estimate U.S. employment figures, the Canadian adult noninstitutionalized population was 21.4 million, the labor force was 14 million, and the number of people employed was 12.4 million. According to these numbers, the Canadian labor-force participation rate and unemployment rate were about
   a. 81 percent and 7.5 percent.
   b. 65 percent and 7.5 percent.
   c. 65 percent and 11.4 percent.
   d. 58 percent and 13 percent.
26. Some people are counted as out of the labor force because they make no serious effort to look for work. However, some of these people may want to work even though they are too discouraged to make serious effort to look for work. If these persons were counted as unemployed instead of out of the labor force,
   a. both the unemployment rate and labor-force participation rate would be higher.
   b. the unemployment rate would be higher and the labor-force participation rate would be lower.
   c. the unemployment rate would be lower and the labor-force participation rate would be higher.
   d. None of the above are correct.

27. Most spells of unemployment are
   a. short, but most unemployment observed at any given time is long term.
   b. short, and most unemployment observed at any given time is short term.
   c. long, and most unemployment observed at any given time is long term.
   d. long, but most unemployment observed at any given time is short term.

28. Sectoral shifts in the economy
   a. create structural unemployment.
   b. immediately reduce unemployment.
   c. increase unemployment due to job search.
   d. on net leave unemployment unchanged.

29. When you put money in a cookie jar, which function of money are you using?
   a. store of value
   b. medium of exchange
   c. unit of account
   d. None of the above is correct.

30. Which list ranks assets from most to least liquid?
   a. currency, fine art, stocks
   b. currency, stocks, fine art
   c. fine art, currency, stocks
   d. fine art, stocks, currency

31. M2
   a. is smaller than M1.
   b. is more liquid than M1.
   c. excludes some assets included in M1.
   d. None of the above are correct.
32. Suppose a bank has a 10 percent reserve ratio, $5,000 in deposits, and it loans out all it can given the reserve ratio.
   a. It has $50 in reserves and $4,950 in loans.
   b. It has $500 in reserves and $4,500 in loans.
   c. It has $555 in reserves and $4,445 in loans.
   d. None of the above is correct.

33. If the reserve ratio is 20 percent, the money multiplier is
   a. 2.
   b. 4.
   c. 5.
   d. 8.