1. John Maynard Keynes wrote that responsibility for low income and high unemployment in economic downturns should be placed on:
   A) low levels of capital.
   B) an untrained labor force.
   C) inadequate technology.
   D) low aggregate demand.

2. The IS-LM model takes ______ as exogenous.
   A) the price level and national income
   B) the price level
   C) national income
   D) the interest rate

3. The IS curve plots the relationship between the interest rate and ______ that arises in the market for ______.
   A) national income; goods and services
   B) the price level; goods and services
   C) national income; money
   D) the price level; money

4. For the purposes of the Keynesian cross, planned expenditure consists of:
   A) planned investment.
   B) planned government spending.
   C) planned investment and government spending.
   D) planned investment, government spending, and consumption expenditures.

5. In the Keynesian-cross model, actual expenditures equal:
   A) GDP.
   B) the money supply.
   C) the supply of real balances.
   D) unplanned inventory investment.

6. In the Keynesian cross model, actual expenditures differ from planned expenditures by the amount of:
   A) liquidity preference.
   B) the government-purchases multiplier.
   C) unplanned inventory investment.
   D) real money balances.
7. When drawn on a graph with $Y$ along the horizontal axis and $E$ along the vertical axis, the line showing planned expenditures rises to the:
   A) right with a slope less than one.
   B) right with a slope greater than one.
   C) left with a slope less than one.
   D) left with a slope greater than one.

8. The Keynesian cross shows:
   A) determination of equilibrium income and the interest rate in the short run.
   B) determination of equilibrium income and the interest rate in the long run.
   C) equality of planned expenditure and income in the short run.
   D) equality of planned expenditure and income in the long run.

9. According to the Keynesian-cross analysis, when there is a shift upward in the government-purchases schedule by an amount $\Delta G$ and the planned expenditure schedule by an equal amount, then equilibrium income rises by:
   A) one unit.
   B) $\Delta G$.
   C) $\Delta G$ divided by the quantity one minus the marginal propensity to consume.
   D) $\Delta G$ multiplied by the quantity one plus the marginal propensity to consume.

10. In the Keynesian-cross model, if government purchases increase by 250, then the equilibrium level of income:
    A) increases by 250.
    B) increases by more than 250.
    C) decreases by 250.
    D) increases, but by less than 250.

11. The Keynesian-cross analysis assumes planned investment:
    A) is fixed and so does the $IS$ analysis.
    B) depends on the interest rate and so does the $IS$ analysis.
    C) is fixed, whereas the $IS$ analysis assumes it depends on the interest rate.
    D) depends on the interest rate and so does the $IS$ analysis.

12. An increase in the interest rate:
    A) reduces planned investment, because the interest rate is the cost of borrowing to finance investment projects.
    B) increases planned investment because people who make money from interest have more money to invest.
    C) has no effect on investment.
    D) may be caused by a drop in investment demand.
13. Along any given IS curve:
   A) tax rates are fixed, but government spending varies.
   B) government spending is fixed, but tax rates vary.
   C) both government spending and tax rates vary.
   D) both government spending and tax rates are fixed.

14. The IS curve shifts when all of the following economic variables change except:
   A) the interest rate.
   B) government spending.
   C) tax rates.
   D) the marginal propensity to consume.

15. When the LM curve is drawn, the quantity that is held fixed is:
   A) the nominal money supply.
   B) the real money supply.
   C) government spending.
   D) the tax rate.

16. The theory of liquidity preference implies that:
   A) as the interest rate rises, the demand for real balances will fall.
   B) as the interest rate rises, the demand for real balances will rise.
   C) the interest rate will have no effect on the demand for real balances.
   D) as the interest rate rises, income will rise.

17. According to the theory of liquidity preference, if the supply of real money balances exceeds the demand for real money balances, individuals will:
   A) sell interest-earning assets in order to obtain non-interest-bearing money.
   B) purchase interest-earning assets in order to reduce holdings of non-interest-bearing money.
   C) purchase more goods and services.
   D) be content with their portfolios.

18. According to the theory of liquidity preference, holding the supply of real money balances constant, an increase in income will ______ the demand for real money balances and will ______ the interest rate.
   A) increase; increase
   B) increase; decrease
   C) decrease; decrease
   D) decrease; increase
19. If the quantity theory of money is valid, then the $LM$ curve:
   A) slopes upward and to the right.
   B) slopes downward and to the right.
   C) is vertical.
   D) is horizontal.

20. The $IS$ and $LM$ curves together generally determine:
   A) income only.
   B) the interest rate only.
   C) both income and the interest rate.
   D) income, the interest rate, and the price level.

21. Equilibrium levels of income and interest rates are ______ related in the goods and services market, and equilibrium levels of income and interest rates are ______ related in the market for real money balances.
   A) positively; positively
   B) positively; negatively
   C) negatively; negatively
   D) negatively; positively

22. According to the Keynesian-cross analysis, if the marginal propensity to consume is 0.6, and government expenditures and autonomous taxes are both increased by 100, equilibrium income will rise by:
   A) 0.
   B) 100.
   C) 150.
   D) 250.

23. In the Keynesian-cross analysis, if the consumption function is given by $C = 100 + 0.6(Y - T)$, and planned investment is 100, $G$ is 100, and $T$ is 100, then equilibrium $Y$ is:
   A) 350.
   B) 400.
   C) 600.
   D) 750.
24. Assume that the money demand function is \((M/P)^d = 2,200 - 200r\), where \(r\) is the interest rate in percent. The money supply \(M\) is 2,000 and the price level \(P\) is 2. The equilibrium interest rate is ______ percent.
A) 2  
B) 4  
C) 6  
D) 8

25. Assume that the equilibrium in the money market may be described as \(M/P = 0.5Y - 100r\), and \(M/P\) equals 800.
   a. Write the \(LM\) curve two ways, expressing \(Y\) as a function of \(r\) and \(r\) as a function of \(Y\).  
      (Hint: Write the \(LM\) curve only relating \(Y\) and \(r\); substitute out \(M/P\).)
   b. What is the slope of the \(LM\) curve?
   c. If \(r\) is 1 percent, what is \(Y\) along the \(LM\) curve? If \(r\) is 3 percent, what is \(Y\) along the \(LM\) curve? If \(r\) is 5 percent, what is \(Y\) along the \(LM\) curve?
   d. If \(M/P\) increases, does the \(LM\) curve shift upward and to the left or downward and to the right?
   e. If \(M\) increases and \(P\) is constant, does the \(LM\) curve shift upward and to the left or downward and to the right?
   f. If \(P\) increases and \(M\) is constant, does the \(LM\) curve shift upward and to the left or downward and to the right?
Answer Key

1. D
2. B
3. A
4. D
5. A
6. C
7. A
8. C
9. C
10. B
11. C
12. A
13. D
14. A
15. B
16. A
17. B
18. A
19. C
20. C
21. D
22. B
23. C
24. C
25. a. $Y = 1,600 + 200r$, or $r = -8 + 0.005Y$.
   b. The slope of the $LM$ curve is 0.005.
   c. If $r$ is 1 percent, $Y$ is 1,800. If $r$ is 3 percent, $Y$ is 2,200. If $r$ is 5 percent, $Y$ is 2,600.
   d. The $LM$ curve shifts downward and to the right.
   e. The $LM$ curve shifts downward and to the right.
   f. The $LM$ curve shifts upward and to the left.