1. When firms experience unplanned inventory accumulation, they typically:
   A) build new plants.
   B) lay off workers and reduce production.
   C) hire more workers and increase production.
   D) call for more government spending.

2. After the Kennedy tax cut in 1964, real GDP:
   A) fell and unemployment rose.
   B) rose and unemployment fell.
   C) and unemployment both rose.
   D) and unemployment both fell.

3. 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.

4. 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.

5. An increase in taxes shifts the \( IS \) curve, drawn with income along the horizontal axis and the interest rate along the vertical axis:
   A) downward and to the left.
   B) upward and to the right.
   C) upward and to the left.
   D) downward and to the right.

6. The theory of liquidity preference implies that the quantity of real money balances demanded is:
   A) negatively related to both the interest rate and income.
   B) positively related to both the interest rate and income.
   C) positively related to the interest rate and negatively related to income.
   D) negatively related to the interest rate and positively related to income.

7. When Paul Volcker tightened the money supply:
   A) the inflation rate immediately fell.
   B) nominal interest rates fell in the short run.
   C) nominal interest rates fell in the long run.
   D) real balances rose in the short run.

8. When planned expenditure is drawn on a graph as a function of income, the slope of the line is:
   A) zero.
   B) between zero and one.
   C) one.
   D) greater than one.
9. An increase in government spending generally shifts the IS curve, drawn with income along the horizontal axis and the interest rate along the vertical axis:
   A) downward and to the left.
   B) upward and to the right.
   C) upward and to the left.
   D) downward and to the right.

10. According to the analysis underlying the Keynesian cross, when planned expenditure exceeds income:
    A) income falls.
    B) planned expenditure falls.
    C) unplanned inventory investment is negative.
    D) prices rise.

11. In the Keynesian-cross model, as the interest rate increases, the equilibrium level of income ______, whereas in the loanable funds model, as the level of income increases, the equilibrium level of the interest rate ______.
    A) increases; increases
    B) increases; decreases
    C) decreases; decreases
    D) decreases; increases

12. Along an IS curve all of the following are always true except:
    A) planned expenditures equal actual expenditures.
    B) planned expenditures equal income.
    C) the demand for real balances equals the supply of real balances.
    D) demand and supply of loanable funds are equal.

13. According to the theory of liquidity preference, a decrease in income will ______ interest rates, and according to the quantity equation (assuming velocity is not constant), a decrease in interest rates will ______ income.
    A) increase; increase
    B) increase; decrease
    C) decrease; decrease
    D) decrease; increase

14. a. Graphically illustrate the impact of an open-market purchase by the Federal Reserve on the equilibrium interest rate using the theory of liquidity preference and the market for real money balances. Be sure to label: i. the axes; ii. the curves; iii. the initial equilibrium values; iv. the direction the curve shifts; and v. the terminal equilibrium values.
   b. Explain in words what happens to equilibrium interest rate as a result of the open-market purchase.

15. When drawn on a graph with income along the horizontal axis and the interest rate along the vertical axis, the IS curve generally:
    A) is vertical.
    B) is horizontal.
    C) slopes upward and to the right.
    D) slopes downward and to the right.

16. In the IS-LM model, a decrease in expected inflation (an increase in expected deflation), leads to a(n):
    A) increase in both output and the nominal interest rate.
    B) decrease in both output and the nominal interest rate.
    C) increase in output and a decrease in the nominal interest rate.
    D) decrease in output and an increase in the nominal interest rate.
17. If neither investment nor consumption depends on the interest rate, then the IS curve is ______ and ______ policy has no effect on output.
   A) vertical; monetary
   B) horizontal; monetary
   C) vertical; fiscal
   D) horizontal; fiscal

18. An increase in investment demand for any given level of income and interest rates—due, for example, to more optimistic “animal spirits”—will, within the IS-LM framework, ______ output and ______ interest rates.
   A) increase; lower
   B) increase; raise
   C) lower; lower
   D) lower; raise

19. An economic change that does not shift the aggregate demand curve is a change in:
   A) the money supply.
   B) the investment function.
   C) the price level.
   D) taxes.

20. The spending hypothesis suggests that the Great Depression was caused by a:
   A) leftward shift in the IS curve.
   B) rightward shift in the IS curve.
   C) leftward shift in the LM curve.
   D) rightward shift in the LM curve.

21. Assume that an economy is described by the IS curve \( Y = 3,600 + 3G - 2T - 150r \) and the LM curve \( Y = 2 \frac{M}{P} + 100r \) [or \( r = 0.01Y - 0.02(M/P) \)]. The investment function for this economy is \( I = 1,000 - 50r \).
   \( C = 200 + \frac{2}{3}(Y - T) \). Long-run equilibrium output for this economy is 4,000. The price level is 1.0 and \( M = 1,200 \).

   a. Assume that government spending is fixed at 1,200. The government wants to achieve a level of investment equal to 900 and also achieve \( Y = 4,000 \). What level of \( r \) is needed for \( I = 900 \)? What levels of \( T \) and \( M \) must be set to achieve the two goals? What will be the levels of private saving, public saving, and national saving? (Hint: Check \( C + I + G = Y \)).

   b. Now assume that the government wants to cut taxes to 1,000. With \( G \) set at 1,200, what will the interest rate be at \( Y = 4,000 \)? What must be the value of \( M \)? What will \( I \) be? What will be the levels of private, public, and national saving? (Hint: Check \( C + I + G = Y \)).

   c. Which set of policies may be referred to as tight fiscal, loose money? Which set of policies may be referred to as loose fiscal, tight money? Which “policy mix” most encourages investment?

22. If consumption is given by \( C = 200 + 0.75(Y - T) \) and investment is given by \( I = 200 - 25r \), then the formula for the IS curve in a closed economy is:
   A) \( Y = 400 - 0.75T - 25r + G \).
   B) \( Y = 1,600 - 3T - 100r + 4G \).
   C) \( Y = 400 + 0.75T - 25r - G \).
   D) \( Y = 1,600 + 3T - 100r - 4G \).

23. Other things equal, a given change in money supply has a larger effect on demand the:
   A) flatter the IS curve.
   B) steeper the IS curve.
   C) smaller the interest sensitivity of expenditure demand.
   D) smaller the income sensitivity of expenditure demand.
24. Suppose Congress wishes to reduce the budget deficit by reducing government spending. Use the IS-LM model to illustrate graphically the impact of the reduction in government spending on output and interest rates. Be sure to label: i. the axes; ii. the curves; iii. the initial equilibrium values; iv. the direction the curves shift; and v. the terminal equilibrium values.

25. The monetary transmission mechanism in the IS-LM model is a process whereby an increase in the money supply increases the demand for goods and services:
   A) directly.
   B) by lowering the interest rate so that investment spending increases.
   C) by raising the interest rate so that investment spending increases.
   D) by increasing government spending on goods and services.

26. One policy response to the U.S. economic slowdown of 2001 was a tax cut. This policy response can be represented in the IS-LM model by shifting the ______ curve to the ______.
   A) LM; right
   B) LM; left
   C) IS; right
   D) IS; left

27. A given increase in taxes shifts the IS curve more to the left the:
   A) larger the marginal propensity to consume.
   B) smaller the marginal propensity to consume.
   C) larger the government spending.
   D) smaller the government spending.

28. If the short-run IS-LM equilibrium occurs at a level of income above the natural rate of output, in the long run the ______ will ______ in order to return output to the natural rate.
   A) price level; increase
   B) interest rate; decrease
   C) money supply; increase
   D) consumption function; decrease

29. If \( MPC = 0.75 \) (and there are no income taxes but only lump-sum taxes) when \( T \) decreases by 100, then the IS curve for any given interest rate shifts to the right by:
   A) 100.
   B) 200.
   C) 300.
   D) 400.

30. If the government wants to raise investment but keep output constant, it should:
   A) adopt a loose monetary policy but keep fiscal policy unchanged.
   B) adopt a loose monetary policy and a loose fiscal policy.
   C) adopt a loose monetary policy and a tight fiscal policy.
   D) keep monetary policy unchanged but adopt a tight fiscal policy.

31. According to the imperfect-information model, when the price level rises and the producer expects the price level to rise, the producer:
   A) increases production.
   B) does not change production.
   C) decreases production.
   D) hires more workers.
32. If the equation for a country’s Phillips curve is \( \pi = 0.02 - 0.8(u - 0.05) \), where \( \pi \) is the rate of inflation and \( u \) is the unemployment rate, what is the short-run inflation rate when unemployment is 4 percent (.04)?
   A) above 2 percent (.02)
   B) below 2 percent (.02)
   C) 2 percent (.02)
   D) -2 percent (-.02)

33. All of the following are exogenous variables in the big, comprehensive model except the:
   A) world interest rate.
   B) labor force.
   C) world real interest rate.
   D) price level.

34. According to the natural-rate hypothesis, fluctuations in aggregate demand affect output in:
   A) both the short run and the long run.
   B) only in the short run.
   C) only in the long run.
   D) in neither the short run nor the long run.

35. Assume that an economy is initially at the natural rate of unemployment.
   a. Use a Phillips curve diagram to illustrate graphically how the inflation rate and unemployment rate change both in the short run and in the long run to an unexpected expansionary monetary policy.
   b. Use a Phillips curve diagram to illustrate graphically how the inflation rate and unemployment rate change both in the short run and in the long run to the announcement of a credible plan of expansionary monetary policy when people have rational expectations.

36. Assume that the sacrifice ratio for an economy is 4. If the central bank wishes to reduce inflation from 10 percent to 5 percent, this will cost the economy ______ percent of one year’s GDP.
   A) 4
   B) 5
   C) 20
   D) 40

37. All three models of aggregate supply discussed in Chapter 13 imply that if the price level is lower than expected, then output ______ natural rate of output.
   A) exceeds the
   B) falls below the
   C) equals the
   D) moves to a different

38. Assume that an economy has the Phillips curve \( \pi = \pi_1 - 0.5(u - 0.06) \). Then the natural rate of unemployment is:
   A) 0.5.
   B) 0.12.
   C) 0.06.
   D) 0.03.

39. The Phillips curve analysis described in Chapter 13 implies that there is a negative tradeoff between inflation and unemployment in:
   A) both the short run and long run.
   B) in the short run only.
   C) in the long run only.
   D) in neither the short run nor the long run.
40. The assumption of rational expectations for inflation means that people will form their expectations of inflation by:
   A) optimally using all available information, including information about current policies, to forecast the future.
   B) asking the opinions of the best experts.
   C) subscribing to the forecasting service that uses the best econometric model.
   D) basing their opinions on recently observed inflation.

41. Assume that an economy is initially operating at the natural rate of output. Use the model of aggregate demand and aggregate supply (using the upward-sloping short-run aggregate supply curve) to illustrate graphically the short-run and long-run effects on price and output of a reduction in government spending that produces a budget surplus.

42. The endogenous variables of the big, comprehensive model include the level of output, the natural rate of output, the price level, and:
   A) the real and nominal interest rates.
   B) the money supply.
   C) the world price level.
   D) government purchases.

43. In the 1960s, in the United States:
   A) both the inflation rate and the unemployment rate rose at the same time.
   B) the unemployment rate rose but the inflation rate fell.
   C) the inflation rate rose but the unemployment rate fell.
   D) both the inflation rate and the unemployment rate fell.

44. If the short-run aggregate supply curve is steep, the Phillips curve will be:
   A) flat.
   B) steep.
   C) backward-bending.
   D) unrelated to the slope of the short-run aggregate supply curve.

45. The tradeoff between inflation and unemployment does not exist in the long run because people will adjust their expectations so that expected inflation:
   A) exceeds the inflation rate.
   B) equals the inflation rate.
   C) is below the inflation rate.
   D) equals the inflation rate of the previous year.

46. Unlike a monetarist policy rule, an inflation target has the advantage of:
   A) eliminating the need to announce the policy target.
   B) providing a real target rather than a nominal one.
   C) allowing the central bank unlimited discretion.
   D) insulating the economy from changes in money velocity.

47. Arguments in favor of active economic policy include all of the following except:
   A) failing to use monetary and fiscal policy leads to inefficient fluctuations in output and employment.
   B) the Great Depression could have been avoided if the Federal Reserve had pursued a policy of steady money growth.
   C) fluctuations in real GDP have been less severe following World War II than prior to World War I.
   D) failure of policymakers to respond to large contractionary shocks to private spending caused the Great Depression.
48. If the Fed has discretion to choose its own policy and announces a policy of low inflation, then:
   A) the policymaker is required to make the money supply grow at a low rate.
   B) private economic agents are sure to believe the announcement because it is credible.
   C) private economic actors are likely to discount the policy because the Fed has an incentive to renge on its policy once expectations are formed.
   D) the Fed is certain to renge on its policy once expectations are formed because then it can lower unemployment with minimum inflation.

49. If policymakers announce in advance how policy will respond to various situations and commit themselves to following through on this announcement, this is:
   A) policy by rule.
   B) policy by discretion.
   C) time inconsistent policy.
   D) monetary policy.

50. The differing interpretations of the historical record of the Great Depression provide support for using:
   A) active macroeconomic policy only.
   B) passive macroeconomic policy only.
   C) either active or passive macroeconomic policy.
   D) neither active nor passive macroeconomic policy.

51. Passive economic policy seeks to:
   A) offset fluctuations in real GDP.
   B) use monetary and fiscal policy to shift aggregate demand.
   C) respond to changing economic conditions.
   D) take a hands-off approach to macroeconomic policy.

52. The outside lag is the time:
   A) before automatic stabilizers respond to economic activity.
   B) when automatic stabilizers are not effective.
   C) between a shock to the economy and the policy action responding to the shock.
   D) between a policy action and its influence on the economy.

53. The lawmakers who wrote the Employment Act of 1946 believed that:
   A) the economy was naturally stable.
   B) the Great Depression could not happen again.
   C) without active government policy the Great Depression could occur again.
   D) monetary policy should be conducted according to rules.

54. Arguments in favor of passive economic policy include all of the following except:
   A) monetary and fiscal policies work with long and variable lags, which can produce destabilizing results.
   B) economic forecasts have too large a margin of error to be useful in formulating stabilization policy.
   C) recessions do not reduce economic well-being, so using monetary and fiscal policy for stabilization is unnecessary.
   D) the Great Depression could have been avoided if the Federal Reserve had pursued a policy of steady money growth.

55. All of the following U.S. federal agencies are directly concerned with macroeconomic policy except the:
   A) Council of Economic Advisers.
   B) Congressional Budget Office.
   C) Federal Reserve.
   D) Department of Health and Human Services.
56. The time-inconsistency problem in discretionary policymaking about unemployment and inflation can be effectively avoided when the:
   A) policymaker has and is known to have an extremely strong preference for very low inflation.
   B) policymaker does not care about the rate of inflation and simply sets policy to avoid unemployment.
   C) private agents in the economy are not “rational.”
   D) policymaker has more information than do the private agents in the economy.

57. An argument in favor of allowing discretionary macroeconomic policy is that:
   A) policymakers may make erratic shifts in policy in response to changing political situations.
   B) uninformed policymakers may choose incorrect policies.
   C) the objectives of policymakers may be in conflict with the well-being of the public.
   D) giving policymakers flexibility will allow them to respond to changing conditions.

58. Conducting fiscal policy so that \( G = T + \beta (u - u_n) \), where \( G \) is government expenditures, \( T \) is tax revenue, \( u \) is the unemployment rate, \( u_n \) is the natural rate of unemployment, and \( \beta \) is a positive number, is an example of a(n):
   A) active rule.
   B) passive rule.
   C) discretionary policy.
   D) automatic stabilizer.

59. All of the following could be considered automatic stabilizers except:
   A) a profit-sharing system for workers.
   B) discretionary changes in taxes.
   C) a system of unemployment insurance.
   D) the federal income tax.

60. Monetarists believe all of the following except:
   A) fluctuations in the money supply are responsible for most large fluctuations in the economy.
   B) the Fed should keep the money supply growing at a steady rate.
   C) slow and steady growth of the money supply would yield stable output, employment, and prices.
   D) the Fed should adjust the money supply to adjust to various shocks to the economy.
Answer Key

1. B
2. B
3. A
4. A
5. A
6. D
7. C
8. B
9. B
10. C
11. C
12. C
13. C
14. a. The money supply curve shifts to the right.
   b. The equilibrium interest rate falls.
15. D
16. B
17. A
18. B
19. C
20. A
21. a. $r = 2$; $T = 1,450$; $M = 1,900$. Private saving = 650; public saving = 250; national saving = 900.
   b. $r = 8$; $M = 1,600$; $I = 600$; private saving = 800; public saving = -200; national saving = 600.
   c. The policy under part a is tight fiscal, easy money. The policy under part b is loose fiscal, tight money.
   The policy under part a most encourages investment.
22. B
23. A
24. The IS-curve shifts to the left, resulting in a lower level of GDP and lower interest rates.
25. B
26. C
27. A
28. A
29. C
30. C
31. B
32. A
33. D
34. B
35. a. In the short run the inflation rate increases to $\pi_2$ and the unemployment falls to $u_2$, moving along the initial Phillips curve. However, in the long run, the Phillips curve shifts upward to the right. The unemployment rate returns to the natural rate, but with a higher rate of inflation than what it was initially. There is a short run tradeoff between inflation and unemployment.
   b. Since expectations are formed rationally and the policy is credible, the Phillips curve will immediately shift upward to the right. In both the short run and the long run, the inflation rate increases to $\pi_2$, but the unemployment rate remains at $u_n$. There is no short-run tradeoff between inflation and unemployment in the short run or in the long run.
36. C
37. B
38. C
39. B
40. A
41. In the short run output and prices decrease. In the long run output increases to restore full employment, but at a lower price level.
42. A
43. C
44. B
45. B
46. D
47. B
48. C
49. A
50. C
51. D
52. D
53. C
54. C
55. D
56. A
57. D
58. A
59. B
60. D