1. According to the sticky-price model:
   A) all firms announce their prices in advance.
   B) all firms set their prices in accord with observed prices and output.
   C) some firms set their prices according to the aggregate supply equation.
   D) some firms announce their prices in advance, and some firms set their prices in accord with observed prices and output.

2. *All* of the following are requirements for reducing inflation without causing a recession *except*:
   A) workers and firms must form expectations rationally.
   B) the plan must be announced before expectations are formed.
   C) the plan must be believed by workers and firms.
   D) the government's budget must be balanced.

3. Both 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

4. In the short run, if the price level is greater than the expected price level, then in the long run, the aggregate:
   A) demand curve will shift leftward.
   B) demand curve will shift rightward.
   C) supply curve will shift upward.
   D) supply curve will shift downward.

5. 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.
6. The assumption of adaptive expectations for inflation means that people will form their expectations of inflation by:
   A) taking all information into account using the best economic model available.
   B) asking the opinions of experts.
   C) basing their opinions on recently observed inflation.
   D) flipping a coin.

7. The Phillips curve depends on all of the following forces except:
   A) the current exchange rate.
   B) expected inflation.
   C) the deviation of unemployment from its natural rate.
   D) supply shocks.

8. A recession may alter an economy's natural rate of unemployment in all of the following ways except by:
   A) changing an unemployed individual's attitude toward work.
   B) reducing an unemployed worker's job skills.
   C) permanently reducing the money supply.
   D) altering the wage-setting process.

9. The NAIRU is the:
   A) North American institutional rate of unemployment.
   B) natural aggregate investment return on utilization.
   C) nonaccelerating inflation rate of unemployment.
   D) normal American inelastic rate of unemployment.

10. To illustrate inflation inertia in an aggregate demand–aggregate supply model, the short-run aggregate supply curve shifts upward because of increases in ______, and the aggregate demand curve shifts upward because of increases in ______.
    A) the expected price level; the money supply
    B) the money supply; the expected price level
    C) output; the price level
    D) the price level; output

11. After examining international data, the economist Robert Lucas found that aggregate demand has the biggest effect on output in countries where aggregate demand:
    A) and prices are most stable.
    B) and prices are most variable.
    C) is most stable but prices are most variable.
    D) is most variable but prices are most stable.
12. The Phillips curve shows a ______ relationship between inflation and unemployment, and the short-run aggregate supply curve shows a ______ relationship between the price level and output.
A) positive; positive
B) positive; negative
C) negative; negative
D) negative; positive

13. Inflation inertia is represented in the aggregate supply and aggregate demand model by continuing upward shifts in the:
A) aggregate demand curve.
B) short-run aggregate supply curve.
C) long-run aggregate supply curve.
D) aggregate demand and short-run aggregate supply curves.

14. Inflation inertia refers to the idea that inflation:
A) is always present in economies.
B) keeps on going unless something acts to stop it.
C) cannot be reduced unless unemployment is increased.
D) can be generated by either demand-pull or cost-push forces.

Use the following to answer question 15:

Exhibit: Short-run Phillips Curve

Exhibit: Short-run Phillips Curve

Inflation, π

Unemployment, u

Use the following to answer question 15:
15. (Exhibit: Short-run Phillips Curve) As the short-run Phillips curve shifts from A to B to C to D, policymakers face:
   A) the same tradeoff between inflation and unemployment.
   B) a lower rate of inflation for any level of unemployment.
   C) a higher rate of inflation for any level of unemployment.
   D) higher than expected inflation rates and lower unemployment rates.

16. In the sticky-price model, if no firms have flexible prices, the short-run aggregate supply schedule will:
   A) be vertical.
   B) be steeper than it would be if some firms had flexible prices.
   C) slope upward to the right.
   D) be horizontal.

17. The idea that the natural rate of unemployment is increased following extended periods of unemployment is called:
   A) Okun's law.
   B) the cold-turkey approach.
   C) the natural-rate hypothesis.
   D) hysteresis.

18. The estimate of the sacrifice ratio from the Volcker disinflation is approximately:
   A) 5–6.
   B) 2.5–3.
   C) 1–1.5.
   D) 0–0.5.

19. According to the sticky-price model, other things being equal, the greater the proportion, \( s \), of firms that follow the sticky-price rule, the ______ the ______ in output in response to an unexpected price increase.
   A) greater; increase
   B) smaller; increase
   C) greater; decrease
   D) smaller; decrease
20. According to the imperfect-information model, when the price level is greater than the expected price level, output will ______ the natural level of output.
   A) be greater than
   B) be less than
   C) equal
   D) shift the

21. Some firms do not instantly adjust the prices they charge in response to changes in demand for all of the following reasons except:
   A) it is costly to alter prices.
   B) they do not want to annoy their frequent customers.
   C) prices do not adjust when there is perfect competition.
   D) some prices are set by long-term contracts between firms and customers.

22. An economy is initially in equilibrium at the natural level. The central bank increases the money supply. Graphically illustrate and explain short-run monetary nonneutrality and long-run monetary neutrality using the AD–AS model.

Use the following to answer questions 23-24:

Exhibit: AD–AS Shifts

![Price level, P vs Income, output, Y graph with AD and AS shifts](image-url)
23. (Exhibit: AD–AS Shifts) Starting from long-run equilibrium at A with output equal to \( Y \) and the price level equal to \( P_1 \), if there is an unexpected monetary contraction that shifts aggregate demand from \( AD_1 \) to \( AD_3 \), then the long-run neutrality of money is represented by the movement from:
   
   A) A to B.
   
   B) A to G.
   
   C) A to C.
   
   D) A to D.

24. (Exhibit: AD–AS Shifts) Starting from long-run equilibrium at A with output equal to \( Y \) and the price level equal to \( P_1 \), a cost-push inflation would be represented by a shift from:
   
   A) \( AD_1 \) to \( AD_2 \).
   
   B) \( AD_1 \) to \( AD_3 \).
   
   C) \( AS_1 \) to \( AS_2 \).
   
   D) \( AS_1 \) to \( AS_3 \).

25. 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.
Monetary nonneutrality occurs when changes in money affect real variables. Graphically, this is shown in the short run as the economy moves from A to B. The increase in money increases output, a real variable. This occurs because firms and workers are expecting price level $P_1$, but the price level rises to $P_2$. Eventually, workers' expectations of the price level increase, shifting the $AS$ curve up.

Monetary neutrality occurs when changes in money affect only nominal variables, not real variables. Graphically, this is depicted in the long run as the economy eventually moves from A to C. The increase in money affects only prices.

23. A
24. C
25. D
Chapter 14

1. The dynamic aggregate demand curve is downward sloping because as inflation falls the central bank reduces the nominal interest rate by more than the fall in the inflation rate, which ______ the real interest rate and ______ the quantity of goods and services demanded.
   A) decreases; decreases
   B) decreases; increases
   C) increases; increases
   D) increases; decreases

2. Which of the following would be represented by a positive value of the random supply shock, \( \nu_t \)?
   A) an irrational wave of optimism among investors
   B) an increase in government spending
   C) widespread drought leading to large increases in food prices
   D) an increase in the central bank's inflation target

3. Of the five endogenous variables in the dynamic model of aggregate demand and aggregate supply, which are the nominal variables that will change in long-run equilibrium if the central bank changes its inflation target?
   A) \( Y_t, r_t, \) and \( i_t \)
   B) \( Y_t, i_t, \) and \( E\pi_{t+1} \)
   C) \( \pi_t, i_t, \) and \( E\pi_{t+1} \)
   D) \( r_t, \pi_t, \) and \( i_t \)

4. Beginning at long-run equilibrium in the dynamic model of aggregate demand and aggregate supply, if the central bank permanently reduces its inflation target, then in the initial period of the change, output ______ and inflation ______.
   A) increases; increases
   B) increases; decreases
   C) decreases; decreases
   D) decreases; increases

5. The dynamic aggregate demand curve is drawn for a given:
   A) money supply.
   B) real interest rate.
   C) monetary policy rule.
   D) inflation rate.
6. According to the Fisher equation, the real interest rate equals the nominal interest rate minus the:
   A) natural rate of interest.
   B) expected rate of inflation.
   C) *ex post* rate of inflation.
   D) *ex ante* rate of interest.

7. An increase in the central bank's target rate of inflation is represented by a:
   A) movement up the DAD curve.
   B) movement down the DAD curve.
   C) rightward shift in the DAD curve.
   D) leftward shift in the DAD curve.

8. That output, \( Y_t \), and the real interest rate, \( r_t \), do not depend on the central bank's inflation target in long-run equilibrium in the dynamic model of aggregate demand and aggregate supply demonstrates:
   A) monetary neutrality.
   B) an impulse response function.
   C) adaptive expectations.
   D) Taylor's principle.

9. The interest rate at which banks make loans to other banks is called the:
   A) federal funds rate.
   B) prime rate.
   C) Federal Reserve discount rate.
   D) Treasury bill rate.

10. The dynamic aggregate demand curve will shift if *any* of the following changes except the:
    A) current inflation rate.
    B) inflation target.
    C) natural level of output.
    D) demand shock.

11. Which of the following would be represented by a negative value of the random supply shock, \( \nu_t \)?
    A) an irrational wave of pessimism among investors
    B) a decrease in government spending
    C) oil price decreases resulting from a breakdown in the cartel
    D) a decrease in the central bank's inflation target
12. The dynamic aggregate supply curve is derived from which of the five equations of the model of aggregate demand and aggregate supply?
   A) the Fisher equation and adaptive expectations
   B) the Phillips curve and adaptive expectations
   C) the monetary policy rule and the Fisher equation
   D) the Phillips curve and the monetary policy rule

13. The dynamic aggregate demand curve illustrates the ______ relationship between the quantity of output demanded in the short run and ______.
   A) positive; inflation
   B) positive; the price level
   C) negative; inflation
   D) negative; the price level

14. Starting from long-run equilibrium in the dynamic model of aggregate demand and aggregate supply, a five-period positive demand shock causes output to ______ the natural level of output until returning to the natural level in the long run.
   A) remain continuously above
   B) move above and then below
   C) remain continuously below
   D) move below and then above

15. A higher real interest rate reduces the demand for goods and services by:
   A) shifting the dynamic aggregate supply curve.
   B) decreasing the natural level of output.
   C) increasing inflation expectations.
   D) reducing investment and consumption spending.

16. Beginning at long-run equilibrium in the dynamic model of aggregate demand and aggregate supply, in the first period of a four-period positive demand shock, output ______ and inflation ______.
   A) increases; increases
   B) increases; decreases
   C) decreases; decreases
   D) decreases; increases
17. Beginning at long-run equilibrium in the dynamic model of aggregate demand and aggregate supply, in the first period of a four-period positive demand shock, the $DAS$ curve ______ and the $DAD$ curve ______.

A) shifts upward; shifts rightward
B) does not shift; shifts rightward
C) does not shift; does not shift
D) shifts downward; shifts leftward

18. At long-run equilibrium in the dynamic model of aggregate demand and aggregate supply, the nominal interest rate, $i_t$, equals all of the following except:

A) $r_t + \pi^*_t$.
B) $r_t + \pi_t$.
C) $\rho + E_t \pi_{t+1}$.
D) $\rho + r_t$.

19. In the dynamic model of aggregate demand and aggregate supply, one period in time is connected to the next period through:

A) the monetary policy rule.
B) demand shocks.
C) inflation expectations.
D) the natural level of output.
Answer Key

1. B
2. C
3. C
4. C
5. C
6. B
7. C
8. A
9. A
10. A
11. C
12. B
13. C
14. B
15. D
16. A
17. B
18. D
19. C
Chapter 15

1. Economic science has provided convincing evidence in favor of the:
   A) rule favoring a constant rate of growth of the money supply.
   B) rule favoring use of the money supply to hit a nominal GDP target.
   C) rule requiring a constantly balanced budget for the federal government.
   D) fact that there is no simple and compelling case for any particular view of macroeconomic policy.

2. The political business cycle refers to the:
   A) pattern of holding primaries, conventions, and general elections every four years.
   B) cycle of electing U.S. representatives every two years, the U.S. president every four years, and U.S. senators every six years.
   C) manipulation of the economy to win elections.
   D) pattern of recession and expansion that follows every election.

3. Inflation targeting is a monetary policy rule that requires the central bank to adjust _____ in order to attain the desired inflation rate.
   A) a price index
   B) the velocity of money
   C) nominal GDP
   D) the money supply

4. The lags involved in implementing monetary and fiscal policy are:
   A) short and predictable.
   B) long and predictable.
   C) short and variable.
   D) long and variable.

5. 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.
6. Increasing government spending when the economy is in a recession is an example of:
   A) active monetary policy.
   B) active fiscal policy.
   C) passive monetary policy.
   D) passive fiscal policy.

7. According to the Lucas critique, when economists evaluate alternative policies they must take into consideration:
   A) how the policies will affect expectations and behavior.
   B) whether the policy will offset the impact of automatic stabilizers.
   C) the stage of the political business cycle in which the policy is to be implemented.
   D) the length of the inside lags associated with the policies.

8. 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.

9. 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.

10. The lag between the time that the money supply is increased and the time that investment expenditures increase is an example of a:
    A) fiscal inside lag.
    B) fiscal outside lag.
    C) monetary inside lag.
    D) monetary outside lag.
11. 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.

12. If past economic fluctuations resulted from inept economic policies, then the historical evidence would support 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.

13. The Lucas critique argues that because the way people form expectations is based on government policies, economists predict the effect of a change in policy without taking changing expectations into account.
   A) partly; cannot
   B) only partly; can
   C) in no way; can
   D) in no way; cannot

14. The Phillips curve describing an economy takes the form \( u = u^n - \alpha(\pi - E\pi) \). The central bank directly sets the inflation rate to minimize the following loss function, \( L(u, \pi) = u - \gamma \pi^2 \). The symbol \( u \) denotes the unemployment rate, \( u^n \) is the natural rate of unemployment, \( \pi \) is the inflation rate, \( E\pi \) is the expected inflation rate, and \( \alpha \) and \( \gamma \) are behavioral response parameters of the economy. Private agents form their expectations rationally before the central bank sets the inflation rate. In an economy in which the central bank dislikes inflation much more than unemployment:
   A) \( \alpha \) will be very large.
   B) \( \alpha \) will be very small.
   C) \( \gamma \) will be very large.
   D) \( \gamma \) will be very small.

15. If the velocity of money varies a great deal, steady growth of the money supply is a(n):
   A) ineffective way to stabilize aggregate demand.
   B) example of discretionary monetary policy.
   C) automatic stabilizer.
   D) active policy rule.
16. The time between a shock to the economy and the policy action responding to that shock is called the:
A) automatic stabilizer.
B) time-inconsistency of policy.
C) inside lag.
D) outside lag.

17. A central bank operating with discretion can achieve the same outcome as the central bank committed to a fixed rule of zero inflation if:
A) there are no inside lags.
B) there are no outside lags.
C) the central bank dislikes unemployment much more than inflation.
D) the central bank dislikes inflation much more than unemployment.

18. The long and variable lag before a policy influences the economy makes the job of economic forecasters:
A) impossible.
B) easier.
C) less important.
D) more important.

19. Economic forecasters did:
A) well in forecasting the Great Depression but did poorly in forecasting the recession of 1982.
B) poorly in forecasting both the Great Depression and the recession of 1982.
C) well in forecasting both the Great Depression and the recession of 1982.
D) poorly in forecasting the Great Depression but did well in forecasting the recession of 1982.
Answer Key

1. D
2. C
3. D
4. D
5. C
6. B
7. A
8. D
9. B
10. D
11. D
12. B
13. A
14. C
15. A
16. C
17. D
18. D
19. B
1. Hyperinflations typically occur when governments:
   A) attempt to keep the unemployment rate below the natural rate.
   B) finance spending with the inflation tax.
   C) set inflation targets too high.
   D) use discretionary monetary policy to stabilize output.

2. The amount by which government spending exceeds government revenues is called the ______, and the accumulation of past government borrowing is called the ______.
   A) deficit; debt
   B) debt; deficit
   C) devaluation; deflation
   D) deflation; devaluation

3. A deficit adjusted for inflation should include only government spending to pay _____ interest payments.
   A) real
   B) nominal
   C) foreign
   D) domestic

4. The possibility of capital flight is likely to be greater at higher levels of government debt because there is a greater:
   A) temptation to default on the debt.
   B) likelihood that the government will begin issuing indexed bonds.
   C) probability that a balanced budget will be adopted by the government.
   D) potential for tax-smoothing policies to be eliminated.

5. Monetary policy is linked to fiscal policy when government spending is financed by:
   A) taxes.
   B) borrowing from banks.
   C) borrowing from foreigners.
   D) printing money.
6. Proponents of Ricardian equivalence argue that, if taxes are cut without cutting government spending and taxes are not expected to increase in the future until after an individual expects to be dead, then the individual will:
   A) spend all of the increase in income.
   B) spend some of the increase in income and save the rest.
   C) use the increase in income to buy government bonds to help finance the deficit.
   D) save all of the increase in income and leave it as a bequest to his or her children.

7. Suppose a household considers only current income in making consumption decisions. This is an example of:
   A) Ricardian equivalence.
   B) the permanent-income hypothesis.
   C) myopia.
   D) the life-cycle model.

8. According to the theory of Ricardian equivalence, tax cuts that have no plans to reduce government spending ______ public saving and ______ private saving.
   A) reduce; reduce
   B) reduce; increase
   C) increase; increase
   D) increase; reduce

9. A strict balanced-budget rule would:
   A) permit the use of fiscal policy for stabilization.
   B) allow the use of tax smoothing to reduce tax distortions.
   C) redistribute tax burdens across generations.
   D) restrain political incompetence and opportunism.

10. Each of the following changes would allow the measured budget deficit to provide a truer picture of fiscal policy except:
    A) correcting for the effects of inflation.
    B) offsetting changes in government liabilities with changes in government assets.
    C) excluding some liabilities altogether.
    D) correcting for the effects of the business cycle.

11. Inflation-indexed government bonds have all of the following benefits except:
    A) eliminating inflation.
    B) reducing the government's incentive to produce surprise inflation.
    C) encouraging financial innovation.
    D) eliminating inflation risk.
12. An estimate of what government spending and tax revenue would be if the economy were operating at its natural level of output and employment is called the ______ budget.
   A) cyclically adjusted
   B) inflation adjusted
   C) capital asset
   D) generational accounting

13. One item that is considered part of the federal debt is:
   A) Treasury bills.
   B) future Social Security benefits.
   C) student loans, which may go into default.
   D) potential liabilities of savings and loan associations.

14. If the debt of the U.S. federal government in 2008 was divided equally among the people in the United States, then the debt per person would equal approximately:
   A) $1,900.
   B) $19,000.
   C) $91,000.
   D) $190,000.

15. Given a reduction in income tax withheld, but no change in income tax owed, households that act according to Ricardian equivalence would ______ the extra take-home pay, while those facing binding borrowing constraints would ______ the extra take-home pay.
   A) spend; spend
   B) spend; save
   C) save; save
   D) save; spend

16. To force politicians to judge whether government spending is worth the costs, some economists have argued for:
   A) a balanced-budget rule for fiscal policy.
   B) a constant money-growth rule for monetary policy.
   C) avoiding the assumption of any contingent liabilities.
   D) the application of Ricardian equivalence.
17. The international impacts of a debt-financed tax cut, according to the traditional view, are a(n) ______ in net exports and a domestic currency ______.
   A) increase; appreciation
   B) increase; depreciation
   C) decrease; depreciation
   D) decrease; appreciation

18. Measuring the size of government debt is complicated by all of the following factors except:
   A) inflation.
   B) uncounted liabilities.
   C) capital assets of the government.
   D) failure of the Office of Management and Budget to disclose figures on capital expenditures and credit programs.

19. Historically, the primary cause of increases in government debt is:
   A) printing too much money.
   B) cutting taxes.
   C) increasing interest rates.
   D) financing wars.

20. Using fiscal policy, including automatic stabilizers, to stabilize output over a business cycle is not consistent with:
   A) rational expectations.
   B) inflation targeting.
   C) the natural-rate hypothesis.
   D) a strict balanced-budget rule.

21. If capital budgeting procedures were employed, then a budget deficit would be measured as:
   A) the sum of government debt.
   B) the change in government debt.
   C) the change in government debt minus the change in government capital assets.
   D) the change in government capital assets.

22. Government debt equals the:
   A) difference between current government purchases and taxes.
   B) difference between saving and investment.
   C) sum of past budget deficits and surpluses.
   D) M1 money supply.
23. The debt of the U.S. government is underreported in the view of many economists because all of the following liabilities are excluded except:
   A) future pensions of government employees.
   B) debt owed to foreigners.
   C) future Social Security benefits.
   D) government guarantees of student loans.

24. According to the traditional view (as in the Mundell-Fleming model), if taxes are cut without cutting government spending, then the short-run effects are a(n) ______ of the dollar and a(n) ______ in net exports.
   A) appreciation; increase
   B) appreciation; decrease
   C) depreciation; increase
   D) depreciation; decrease

25. Indexed bonds produce all of the following benefits except:
   A) less inflation risk.
   B) more financial innovation.
   C) better government incentives.
   D) lower rates of inflation.

26. The large increase in U.S. government debt between 1980 and 1995 was unusual because it occurred:
   A) during peacetime.
   B) during an extended recessionary period.
   C) without increased government spending.
   D) without tax cuts.

27. The experience of the 1980s:
   A) clearly contradicted the Ricardian equivalence view because national saving was very low.
   B) clearly supported the Ricardian equivalence view, for people saved little only because they were optimistic, as confirmed by the stock market.
   C) will provide a clear answer on the validity of Ricardian equivalence as soon as economists are able to analyze it with their computers.
   D) may be used to argue both in favor of and against the Ricardian equivalence view of the tax cuts.
28. Assume that the nominal interest rate is 11 percent, the inflation rate is 8 percent, and
government debt at the beginning of the year equals $4 trillion. By how much is the
government budget deficit overstated as a result of inflation?
A) $0.12 trillion
B) $0.32 trillion
C) $0.44 trillion
D) $0.80 trillion

29. Under capital budgeting, all of the following transactions would affect the federal
budget deficit except the federal government's:
A) sending a check to a welfare recipient.
B) sending a check to the state of Massachusetts.
C) selling a highway to the state of New York and using the proceeds to retire federal
debt.
D) selling an office building.
Answer Key

1. B
2. A
3. A
4. A
5. D
6. D
7. C
8. B
9. D
10. C
11. A
12. A
13. A
14. B
15. D
16. A
17. D
18. D
19. D
20. D
21. C
22. C
23. B
24. B
25. D
26. A
27. D
28. B
29. C
Chapter 17

1. Examination of data from households shows that households with high current income ______ than do households with low current income.
   A) consume less
   B) save less
   C) save a smaller fraction of current income
   D) save a larger fraction of current income

2. Kuznets' data showed a short-run consumption function with a ______ APC and a long-run consumption function with a ______ APC.
   A) constant; constant
   B) constant; falling
   C) falling; constant
   D) falling; falling

3. The determination of consumption as a function of current disposable income is most strongly associated with:
   A) John Maynard Keynes.
   B) Irving Fisher.
   C) Franco Modigliani.
   D) Milton Friedman.

4. During World War II, economists using John Maynard Keynes's theory predicted that the rate of saving after the war would be very:
   A) high, and that is what happened.
   B) low, and that is what happened.
   C) low, but that did not happen.
   D) high, but that did not happen.

5. Empirical studies of Franco Modigliani's life-cycle hypothesis show that:
   A) most elderly individuals try to exhaust all their savings by the time they die.
   B) the elderly do not seem to run down their wealth in old age, as a simple version of the theory would predict.
   C) elderly individuals generally do not want to leave bequests for their children.
   D) precautionary saving is not an important saving motive for the elderly.
6. Economists based their prediction that secular stagnation would occur as economies prospered on the conjecture that:
   A) the marginal propensity to consume is greater than zero.
   B) the marginal propensity to consume is less than one.
   C) the average propensity to consume falls as income rises.
   D) income is the primary determinant of consumption.

7. In Irving Fisher's two-period model, if the consumer is initially saving in period one and the real interest rate rises, then:
   A) both the income and substitution effects will make the consumer want to consume less in period one.
   B) both the income and substitution effects will make the consumer want to consume more in period one.
   C) the substitution effect will make the consumer want to consume less in period one, but the income effect will make him or her want to consume more.
   D) the income effect will make the consumer want to consume less in period one, but the substitution effect will make him or her want to consume more.

8. In Irving Fisher's two-period model, if the consumer is initially borrowing in period one and the real interest rate rises, first-period consumption will:
   A) certainly rise.
   B) certainly fall.
   C) remain constant.
   D) either rise or fall.

9. In Irving Fisher's two-period consumption model, if \( Y_1 = 15,000 \), \( Y_2 = 20,000 \), the interest rate \( r \) is 0.50 (50 percent), and there is a constraint on borrowing that is binding, then \( C_1 \) equals:
   A) 15,000.
   B) 20,000.
   C) 28,333.
   D) 35,000.

10. The pull of instant gratification may lead consumers to save ______ they would like to save.
    A) more than
    B) less than
    C) approximately the amount
    D) precisely the amount
11. In Irving Fisher's two-period model, if the consumer is initially a saver and the interest rate increases, and first-period consumption decreases, then we can conclude that the income effect:
   A) was greater than the substitution effect.
   B) was less than the substitution effect.
   C) exactly offset the substitution effect.
   D) and the substitution effect both decreased consumption.

12. Recent research by Laibson and other economists recognizes the importance of incorporating _______ effects into the study of consumer behavior.
   A) technological
   B) meteorological
   C) environmental
   D) psychological

13. A consumption function based on the Fisher two-period model is consistent with the Keynesian consumption function for consumers who:
   A) would like to borrow, but cannot.
   B) are initially borrowers when future income increases.
   C) are initially savers when future income increases.
   D) are initially borrowers when the interest rate increases.

14. In Irving Fisher's two-period consumption model, if \( Y_1 = 20,000 \), \( Y_2 = 15,000 \), and the interest rate \( r \) is 0.50 (50 percent), then the maximum possible consumption in period one is:
   A) 20,000.
   B) 25,000.
   C) 30,000.
   D) 35,000.

15. Milton Friedman argued that, over long periods of time, the average propensity to consume is constant because, over these long periods of time:
   A) the variation in income is dominated by the transitory component.
   B) the variation in income is dominated by the permanent component.
   C) it is the behavior of the average consumer that dominates.
   D) income averages out to a constant.
16. According to Modigliani's life-cycle hypothesis, the consumption function shifts upward as ______ increases.
   A) income
   B) wealth
   C) the marginal propensity to consume out of income
   D) the number of years until retirement

17. Empirical evidence finds that the average propensity to consume is falling:
   A) for only the short-run consumption function.
   B) for only the long-run consumption function.
   C) for both the short-run and the long-run consumption functions.
   D) for neither the short-run nor the long-run consumption functions.

18. The consumer's budget constraint reflects the fact that because interest is earned on savings:
   A) future income is worth less than current income.
   B) future income is worth more than current income.
   C) future consumption costs more than current consumption.
   D) future consumption is worth more than future income.

19. In Irving Fisher's two-period model, if consumption in both periods is a normal good, then an increase in income in period two:
   A) increases consumption in period one only.
   B) increases consumption in period two only.
   C) increases consumption in both periods.
   D) does not increase consumption in either period.

20. Economic data suggest that when income is expected to fall by $1, consumption falls by:
   A) $1.
   B) $0.50.
   C) the marginal propensity to consume.
   D) the ratio of years until retirement to the years remaining of life.

21. Every indifference curve shows combinations of first-period and second-period consumption that:
   A) are tangent to the intertemporal budget constraint.
   B) have equal income and substitution effects.
   C) are available to the consumer.
   D) make the consumer equally happy.
22. Milton Friedman argued that, although household studies showed that high-income households generally have lower average propensities to consume, this phenomenon is due to the fact that these households have, on average:
   A) positive transitory income.
   B) negative transitory income.
   C) higher permanent income.
   D) lower permanent income.

23. According to Modigliani's life-cycle hypothesis, if a consumer wants equal consumption in every year, and the interest rate is zero, there are 40 years until retirement, and 60 years of life remaining, then the marginal propensity to consume out of income equals:
   A) 0.016.
   B) 0.40.
   C) 0.60.
   D) 0.67.

24. Simon Kuznets found that, over long periods of time in the United States, as income rose, the average propensity to consume:
   A) rose.
   B) fell.
   C) remained constant.
   D) rose and then fell.

25. According to the permanent-income hypothesis, if consumers receive a one-time income bonus, then they will:
   A) save most of it in the current year.
   B) spend most of it in the current year.
   C) spend one-half of it and save one-half of it in the current year.
   D) not alter their consumption or saving in the current year.

26. If consumers obey the permanent-income hypothesis and have rational expectations, then policy changes affect consumption when the policy changes:
   A) are proposed.
   B) go into effect.
   C) change expectations.
   D) do not surprise consumers.
Answer Key

1. D
2. C
3. A
4. D
5. B
6. C
7. C
8. B
9. A
10. B
11. B
12. D
13. A
14. C
15. B
16. B
17. A
18. A
19. C
20. B
21. D
22. A
23. D
24. C
25. A
26. C