1. 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.

2. 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

3. In the sticky-price model, the relationship between output and the price level depends on:
   A) the proportion of firms with flexible prices.
   B) the target real wage rate.
   C) the target nominal wage rate.
   D) the implicit agreements between workers and firms.

4. According to the sticky-price model, deviations of output from the natural level are _____ deviations of the price level from the expected price level.
   A) positively associated with
   B) negatively associated with
   C) not related to
   D) equal to

5. The imperfect-information model assumes that producers find it difficult to distinguish between changes in:
   A) real wages and nominal wages.
   B) the overall level of prices and relative prices.
   C) the overall level of prices and the expected level of prices.
   D) cost-push inflation and demand-pull inflation.
6. According to the imperfect-information model, when the price level falls but the producer did not expect it to fall, the producer:
   A) increases production.
   B) does not change production.
   C) decreases production.
   D) hires more workers.

7. The higher the average rate of inflation, the more frequently firms must adjust their prices, which implies that a high rate of inflation:
   A) has no effect on the slope of the short-run aggregate supply curve.
   B) should make the short-run aggregate supply curve flatter.
   C) makes the short-run aggregate supply curve steeper.
   D) causes prices to be sticky.

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

9. The model of aggregate demand and aggregate supply is consistent with short-run monetary ______ and long-run monetary ______.
   A) neutrality; neutrality
   B) nonneutrality; nonneutrality
   C) neutrality; nonneutrality
   D) nonneutrality; neutrality

10. 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.

11. 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.
12. The classical dichotomy breaks down for a Phillips curve, which shows the relationship between a nominal variable, ______, and a real variable, ______.
   A) output; prices  
   B) money; output  
   C) inflation; unemployment  
   D) unemployment; inflation

13. 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 (0.04)?
   A) above 2 percent (0.02)  
   B) below 2 percent (0.02)  
   C) 2 percent (0.02)  
   D) –2 percent (–0.02)

14. 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.

15. Demand-pull inflation is the result of:
   A) high aggregate demand.  
   B) low aggregate demand.  
   C) favorable supply shocks.  
   D) adverse supply shocks.

16. In the case of cost-push inflation, other things being equal:
   A) both the inflation rate and the unemployment rate rise at the same time.  
   B) the unemployment rate rises but the inflation rate falls.  
   C) the inflation rate rises but the unemployment rate falls.  
   D) both the inflation rate and the unemployment rate fall.

17. 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.
18. The most prominent feature of the U.S. economy in the 1980s was:
   A) cost-push inflation.
   B) cost-push deflation.
   C) demand-pull inflation.
   D) demand-pull deflation.

19. 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.

Use the following to answer question 20:

Exhibit: Short-run Phillips Curve

20. (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.

21. Economists are able to estimate the natural rate of unemployment in the United States:
   A) very precisely.
   B) in a 95 percent confidence interval of 2 to 3 percentage points.
   C) in a 95 percent confidence interval of 10 to 20 percentage points.
   D) only in years when there are no supply shocks.
22. The percentage of a year's real GDP that must be foregone to reduce inflation by 1 percentage point is called the:
   A) NAIRU.
   B) short-run Phillips curve.
   C) sacrifice ratio.
   D) Okun's law.

23. An economy must sacrifice 12 percent of GDP to reduce inflation. Which of the following plans represents the “cold turkey” solution to inflation?
   A) Reduce output by 1 percent for 12 years.
   B) Reduce output by 2 percent for 6 years.
   C) Reduce output by 4 percent for 3 years.
   D) Reduce output by 12 percent for 1 year.

24. 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.

25. 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.

26. The hypothesis that hysteresis may play an important role in macroeconomics implies, among other things, that:
   A) the history of economic thought is important to macroeconomics.
   B) workers get hysterical during long depressions.
   C) hysteresis lowers the sacrifice ratio.
   D) the natural rate of unemployment may increase if unemployment is high for a long period of time.

27. 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.
28. If the hypothesis of hysteresis is correct and output is lost even after a period of disinflation, the sacrifice ratio for an economy will:
   A) increase.
   B) decrease.
   C) remain unchanged.
   D) be zero.