**Business Cycles, Unemployment, and Inflation**

* **FILL-IN QUESTIONS**

1. The business cycle is a term that encompasses the recurrent ups, or (decreases, increases) **increases**, and downs, or **decreases** in the level of business activity in the economy.
2. A period of decline in total output, income, and employment that typically lasts six months or more is (an expansion, a recession) **a** **recession**, but a period in which real GDP, income, and employment rise is **an expansion**.
3. The reasons that the economy may not be able to adjust easily or quickly to negative demand shocks is that in the short run, prices are (flexible, sticky) **sticky**. In such situations, the economy responds with a decline in (prices, output) **output**, and if it is long-lasting, there can be calls for government intervention.
4. Several reasons are given by economists for why economic shocks create business cycles. Some economists point to the (regularity, irregularity) **irregularity** of major innovations in the economy. Other economists cite (expected, unexpected) **unexpected** changes in productivity. Still other economists attribute it to the (constancy, variability) **variability** in the supply of money from the nation’s central bank.
5. Whatever the underlying reason for business cycles, most economists agree that the (immediate, future) **immediate** cause of a majority of such cycles is unexpected changes in the level of total (employment, spending) **spending**.
6. If prices are fixed, an unexpected fall in total spending results in a (rise, fall) **fall** in sales, production, and employment, thus GDP for the economy will (increase, decrease) **decrease**.
7. Conversely, if prices are fixed, an unexpected rise in total spending results in a (rise, fall) **rise** in sales, production, and employment, thus GDP for the economy will (increase, decrease) **increase**.
8. Expansion and contraction of the economy affect to a greater extent the production and employment in the consumer (durables, nondurables) **durables** and (capital, consumer) **capital** goods industries than they do (durable, nondurable) **nondurable** goods and service industries.
9. The unemployment rate is found by dividing the number of (employed, unemployed) **unemployed** persons by the (population, labor force) **labor force** and (multiplying, dividing) **multiplying** by 100.
10. The fully employed unemployment rate is equal to the total of (frictional and structural, cyclical and frictional) **cyclical and frictional** unemployment in the economy. It is realized when the (frictional, cyclical) **cyclical** unemployment in the economy is equal to zero and when the actual output of the economy is (less than, equal to) **equal to** its potential output. When the economy achieves its fully employed unemployment rate, the number of job seekers is (greater than, equal to) **equal to** the number of job vacancies.
11. The GDP gap is equal to the actual GDP (minus, plus) **minus** the potential GDP.
12. Cost-push inflation (increases, decreases) **decreases** real output. The output effects of demand-pull inflation are (more, less) **less** certain. Some economists argue that mild demand-pull inflation (increases, decreases) **increases** real output while others argue that it **decreases** real output.
13. A decline in the general level of prices in the economy is (hyperinflation, deflation) **deflation** whereas an extraordinarily rapid inflation is called **hyperinflation**.

* **TRUE–FALSE QUESTIONS**

*Circle T if the statement is true, F if it is false.*

1. The business cycle is best defined as alternating periods of increases and decreases in the rate of inflation in the economy. **F**
2. Individual business cycles tend to be of roughly equal duration and intensity. **F**
3. Fluctuations in real output in the economy are caused by economic shocks and because prices are sticky, it is difficult for the economy to quickly adjust to such shocks. **T**
4. If the level of total spending unexpectedly falls, and prices are sticky, then output, employment, and incomes will rise. **F**
5. During a recession, industries that produce capital goods and consumer durables typically suffer smaller output and employment declines than do industries providing service and nondurable consumer goods. **F**
6. The unemployment rate is equal to the number of people in the labor force divided by the number of people who are unemployed. **F**
7. Frictional unemployment is not only inevitable but also partly desirable so that people can voluntarily move to better jobs. **T**
8. When the number of people seeking employment is less than the number of job vacancies in the economy, the actual rate of unemployment is less than full employment. **T**
9. If the economy is at full employment, the actual and potential outputs of the economy are equal.

**T**

* **MULTIPLE-CHOICE QUESTIONS**

*Circle the letter that corresponds to the best answer.*

1. Which is one of the two aspects of a business cycle?
   1. inflation
   2. recession
   3. unemployment
   4. hyperinflation
2. Most economists believe that the immediate determinant of the levels of domestic output and employment is
   1. the price level
   2. the level of total spending
   3. the size of the civilian labor force
   4. the nation’s stock of capital goods
3. Production and employment would be *least* affected by a severe recession in which type of industry?
   1. nondurable consumer goods
   2. durable consumer goods
   3. capital goods
   4. labor goods
4. The unemployment rate in an economy is 8%. The total population of the economy is 250 million, and the size of the civilian labor force is 150 million. The number of employed workers in this economy is
   1. 12 million
   2. 20 million
   3. 138 million
   4. 140 million
5. The labor force includes those who are
   1. less than 16 years of age
   2. in correctional institutions
   3. not seeking work
   4. employed
6. A worker who loses a job at a petroleum refinery because consumers and business firms switch from the use of oil to the burning of coal is an example of
   1. frictional unemployment
   2. structural unemployment
   3. cyclical unemployment
   4. disguised unemployment
7. A worker who has quit one job and is taking 2 weeks off before reporting to a new job is an example of
   1. frictional unemployment
   2. structural unemployment
   3. cyclical unemployment
   4. disguised unemployment
8. A decline in total spending in the economy results in
   1. frictional unemployment
   2. structural unemployment
   3. cyclical unemployment
   4. search unemployment
9. The full employment in the economy has been achieved when
   1. frictional unemployment is zero
   2. structural unemployment is zero
   3. cyclical unemployment is zero
   4. the unemployment rate is zero
10. The burden of unemployment is *least* felt by
    1. professionals
    2. laborers
    3. teenagers
    4. males
11. If the Consumer Price Index was 110 in one year and 117 in the next year, then the rate of inflation from one year to the next was
    1. 3.5%
    2. 4.7%
    3. 6.4%
    4. 7.1%
12. The price of a good has doubled in about 14 years. The approximate annual percentage rate of increase in the price level over this period has been
    1. 2%
    2. 3%
    3. 4%
    4. 5%
13. Which contributes to cost-push inflation?
    1. an increase in employment and output
    2. an increase in per-unit production costs
    3. a decrease in resource prices
    4. an increase in unemployment
14. If a person’s nominal income increases by 8% while the price level increases by 10%, the person’s real income
    1. increases by 2%
    2. increases by 18%
    3. decreases by 18%
    4. decreases by 2%
15. If the average level of nominal income in a nation is $21,000 and the price level index is 154, the average real income would be about
    1. $12,546
    2. $13,636
    3. $15,299
    4. $17,823
16. Who would be hurt by *unanticipated* inflation?
    1. those living on incomes with cost-of-living adjustments
    2. those who find prices rising less rapidly than their nominal incomes
    3. those who lent money at a fixed interest rate
    4. those who became debtors when prices were lower
17. With no inflation, a bank would be willing to lend a business firm $10 million at an annual interest rate of 8%. But if the rate of inflation was anticipated to be 6%, the bank would charge the firm an annual interest rate of
    1. 2%
    2. 6%
    3. 8%
    4. 14%
18. Cost-push inflation
    1. lowers interest rates
    2. lowers the price level
    3. increases real output
    4. decreases real output
19. What do economists think about the effects of mild demand-pull inflation on real output?
    1. They are positive because businesses must change prices.
    2. They are negative because economic growth depends on total spending.
    3. They are mixed, and could be positive or negative.
    4. They are zero and it indicates that there are no effects.
20. If an economy has experienced an inflation rate of over 1000% per year for several years, this economic condition would best be described as
    1. a GDP gap
    2. hyperinflation
    3. cost-push inflation
    4. a cost-of-living adjustment

* **PROBLEMS**

1. The following table gives statistics on the labor force and total employment during year 1 and year 5. Make the computations necessary to complete the table. (Numbers of persons are in thousands.)

|  |  |  |
| --- | --- | --- |
|  | **Year 1** | **Year 5** |
| Labor force | 84,889 | 95,453 |
| Employed | 80,796 | 87.524 |
| Unemployed | **4.093** | **7.929** |
| Unemployment rate | \_\_4.8 \_ | \_\_8.3\_\_ |

1. Suppose that in year 1 an economy is at full employment, has a potential and actual real GDP of $3000 billion, and has an unemployment rate of 5%.

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Actual GDP** | **Potential GDP** | **GDP gap** |
| 1 | $3000.0 | $3000 | $0 |
| 2 | 3724.0 | 3800 | 76 |
| 3 | 3712.5 | 4125 | \_\_\_412.5\_\_ |

* 1. Compute the GDP gaps for years 1, 2, and 3 and enter them into the table.
  2. In year 2, the actual real GDP is **98**% of the potential real GDP. (Hint: Divide the actual real GDP by the potential real GDP and multiply by 100.) The actual real GDP is **2**% less than the potential real GDP.
  3. In year 3 the actual real GDP is **90**% of the potential real GDP. The actual real GDP is **10**% less than the potential real GDP.

1. The following table shows the price index in the economy at the end of three different years.

|  |  |  |
| --- | --- | --- |
| **Year** | **Price index** | **Rate of inflation** |
| 1 | 100.00 | 12 |
| 2 | 112.00 | **10**% |
| 3 | 123.20 | \_\_\_\_\_ |

* 1. Compute and enter in the table the rates of inflation in years 2 and 3.
  2. Employing the rule of 70, how many years would it take for the price level to double at each of these two inflation rates? **5.8**; **7**
  3. If nominal income was $25,000 in year 2, what was real income that year? **25000 / 1.12 = 22.321**
  4. If the nominal interest rate was 14% to borrow money from year 1 to year 2, what was the approximate real rate of interest over that period? **14-12 =** **2%**

1. Indicate in the space below each of the following the most likely effect—beneficial (**B**) or detrimental (**D**)—of unanticipated inflation on these persons:
   1. A retired business executive who now lives each month by spending a part of the amount that was saved and deposited in a fixed-rate savings account for a long term. **D**
   2. A farmer who borrowed $500,000 from a bank at a fixed rate; the loan must be repaid in the next 10 years. **B**
   3. A retired couple whose sole source of income is the pension they receive from a former employer. **D**
   4. A widow whose income consists entirely of interest received from the corporate bonds she owns. **D**