THE ECONOMY AT FULL EMPLOYMENT: THE CLASSICAL MODEL*

Chapter 8

The Classical Model: A Preview

Topic: Real Variables
Skill: Recognition
1) Real variables
   A) are those that determine the cost of living.
   B) are those that determine the standard of living.
   C) include variables such as the price level and inflation rate.
   D) None of the above answers is correct.
   Answer: B

Topic: Nominal Variables
Skill: Recognition
2) An example of a nominal variable is
   A) the level of unemployment.
   B) the price level.
   C) aggregate working hours.
   D) the real wage rate.
   Answer: B

Topic: Nominal Variables
Skill: Recognition
3) Nominal variables are expressed in terms of
   A) deflated values.
   B) constant values.
   C) dollar values.
   D) base year values.
   Answer: C

Topic: Classical Dichotomy
Skill: Recognition
4) The classical dichotomy is a discovery that states
   A) real and nominal variables are actually the same thing.
   B) when the economy is at full employment, the forces that determine the real variables are independent of those that determine the nominal variables.
   C) throughout the business cycle, the forces that determine the real variables are independent of those that determine the nominal variables.
   D) only nominal variables cause business cycles.
   Answer: B

Topic: Classical Dichotomy
Skill: Recognition
5) The classical dichotomy holds true
   A) when there is full employment.
   B) only if there is inflation.
   C) when the economy is not at full employment.
   D) over all parts of the business cycle.
   Answer: A

Topic: Classical Dichotomy
Skill: Recognition
6) The classical dichotomy applies when the economy only when the economy
   A) is at full employment.
   B) has less than full employment.
   C) is in a recession.
   D) has more than full employment.
   Answer: A

* This is Chapter 24 in Economics.
### Real GDP and Employment

**Topic: PPF**
**Skill: Conceptual**

10) Which of the following correctly describe the PPF between leisure and real GDP?

I) The PPF shows the boundary between amounts of goods and services that can be produced versus those that cannot be produced.

II) The PPF displays decreasing opportunity costs.

A) I only.
B) II only.
C) Both I and II.
D) Neither I nor II.

**Answer: A**

**Topic: PPF**
**Skill: Conceptual**

11) Consider the nation’s production possibilities frontier between leisure and GDP. A decrease in leisure will cause

I) an increase in labor input.

II) a movement along the production possibility frontier.

A) I only.
B) II only.
C) Both I and II.
D) Neither I nor II.

**Answer: C**

**Topic: PPF**
**Skill: Conceptual**

12) Because the leisure-real GDP production possibilities frontier is bowed outward, then

A) each additional unit of real GDP costs a decreasing amount of forgone leisure.

B) as more real GDP is produced, increasingly more productive labor is being used.

C) the marginal product of labor is increasing as real GDP increases.

D) the slope of the economy’s production function decreases as real GDP increases.

**Answer: D**
**Topic: Production Function**  
**Skill: Recognition**

13) Moving along the production function shows the relationship between ____, holding all else constant.
   A) capital input and real GDP  
   B) labor input and real GDP  
   C) labor input, capital input and real GDP  
   D) technology and real GDP

*Answer: B*

**Topic: Production Function**  
**Skill: Conceptual**

14) The production function shows that an economy increases its real GDP in the short run by
   A) developing new technologies.  
   B) increasing its physical capital stock.  
   C) using more labor.  
   D) exploring for new deposits of natural resources.

*Answer: C*

**Topic: Production Function**  
**Skill: Conceptual**

15) An increase in labor hours will lead to
   A) a shift of the production function but no movement along it.  
   B) a movement along the production function but no shift in it.  
   C) both a movement along and a shift in the production function.  
   D) neither a movement along nor a shift in the production function.

*Answer: B*

**Topic: Production Function**  
**Skill: Conceptual**

16) Suppose that in a particular factory, holding other things equal, when employment increased from 100 to 110 workers, output increased from 100 to 200 units. If employment was increased from 110 to 120 workers holding other things equal, then output would
   A) increase by more than 100 because of higher labor force participation.  
   B) increase by less than 100 because of a rising price level.  
   C) increase by less than 100 because of diminishing returns.  
   D) increase by more than 100 because of increasing opportunity cost.

*Answer: C*
Labor Market and Potential GDP

Topic: Money Wage
Skill: Conceptual
19) The money wage rate measures the
   A) constant dollar level of real disposable income.
   B) 2000 dollar value of a unit of labor supplied by
      a worker.
   C) quantity of goods and services that can be
      bought with an hour of labor.
   D) number of dollars earned by an hour of labor.
   \textbf{Answer: D}

Topic: Real Wage
Skill: Conceptual
20) The real wage rate measures the
   A) quantity of goods and services that an hour of
      work will buy.
   B) average weekly earnings in dollars of a worker.
   C) dollar value of an hour of work.
   D) dollar value of what a worker could earn in an-
      other job.
   \textbf{Answer: A}

Topic: Real Wage
Skill: Recognition
21) The real wage rate equals
   A) \((100) \times \frac{\text{money wage rate}}{\text{price level}}\).
   B) \((100) \times \frac{\text{price level}}{\text{money wage rate}}\).
   C) \((\text{money wage rate}) \times \text{price level}\).
   D) \((\text{money wage}) + (\text{number of hours}
      \text{worked})/\text{price level}\).
   \textbf{Answer: A}

Topic: Real Wage
Skill: Analytical
22) If the money wage rate is $15.00 per hour and the
    price level is 120, the real wage rate is
    A) $8.50 per hour.
    B) $10.75 per hour.
    C) $12.50 per hour.
    D) $15.00 per hour.
    \textbf{Answer: C}

Topic: Real Wage
Skill: Analytical
23) If the money wage rate is $10.00 per hour and the
    price level is 60, the real wage rate is
    A) $16.67 per hour.
    B) $18.75 per hour.
    C) $10.00 per hour.
    D) $12.50 per hour.
    \textbf{Answer: A}

Topic: Real Wage
Skill: Analytical
24) If the real wage rate is $10.00 per hour and the
    price level is 60, the money wage rate is
    A) $16.75 per hour.
    B) $18.50 per hour.
    C) $10.00 per hour.
    D) $6.00 per hour.
    \textbf{Answer: D}

Topic: Real Wage
Skill: Analytical
25) If the real wage rate is $15.00 per hour and the
    price level is 180, the money wage rate is
    A) $16.67 per hour.
    B) $18.75 per hour.
    C) $27.00 per hour.
    D) $20.50 per hour.
    \textbf{Answer: C}

Topic: Real Wage
Skill: Analytical
26) If the real wage rate is $12.50 per hour and the
    price level is 90, the money wage rate is
    A) $11.25 per hour.
    B) $13.88 per hour.
    C) $23.75 per hour.
    D) $13.40 per hour.
    \textbf{Answer: A}

Topic: Real Wage
Skill: Analytical
27) If the real wage rate is $25.00 per hour and the
    price level is 115, the money wage rate is
    A) $26.15 per hour.
    B) $23.00 per hour.
    C) $21.75 per hour.
    D) $28.75 per hour.
    \textbf{Answer: D}
28) The real wage rate falls if the money wage rate ___.
   A) rises more rapidly than the price level
   B) rises more slowly than the price level
   C) is constant and the price level falls
   D) and the price level change by the same proportion
Answer: B

29) The real wage rate rises if the money wage rate ___.
   A) and the price level change by the same proportion
   B) rises and the price level rises by the same percentage
   C) rises more slowly than the price level
   D) rises more rapidly than the price level
Answer: D

30) Which pieces of information do you need to calculate the \( MPL \)?
   I) the change in real GDP.
   II) the change in the quantity of money.
   III) the change in the amount of labor input.
   A) I and III.
   B) I only.
   C) III only.
   D) II and III.
Answer: A

32) The marginal product of labor curve shows a ____ relationship between ____.
   A) positive; the marginal product of labor and capital
   B) positive; the marginal product of labor and the quantity of labor
   C) negative; the marginal product of labor and capital
   D) negative; the marginal product of labor and the quantity of labor
Answer: D

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<tr>
<th>Quantity of labor (hours of work)</th>
<th>Output (units per hour)</th>
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<td>5</td>
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33) Based on the previous table, the marginal product of the second hour is
   A) 9 units.
   B) 8 units.
   C) 16 units.
   D) 7 units.
Answer: D

34) The marginal product of labor is assumed to decrease as more labor is employed because
   A) each extra hour is less skilled than the previous hour.
   B) the more labor employed, the more productive the workers become.
   C) capital and technology are fixed at any particular point in time.
   D) labor is assumed to be not equally suited for all types of alternative productive activities.
Answer: C
35) Which of the following is (are) TRUE regarding the demand for labor?
I) The quantity of labor demanded depends on the real wage rate.
II) If the money wage rate increases and the price level remains the same, the quantity of labor demanded decreases.
III) If the money wage rate and the price level increase in the same proportion, the quantity of labor demanded decreases.
A) I.
B) I and II.
C) II and III.
D) I, II, and III.
Answer: B

36) The relationship between the labor employed by a firm and the real wage rate is shown by the
A) supply of labor curve.
B) supply of jobs curve.
C) demand for jobs curve.
D) demand for labor curve.
Answer: D

37) The quantity of labor demanded depends on
A) the money wage rate not the real wage rate.
B) the real wage rate not the money wage rate.
C) the price of output not the money wage rate nor the real wage rate.
D) the level of income.
Answer: B

38) Because the marginal product of labor decreases as the quantity of labor employed increases, the quantity of labor a firm demands
A) rises as the real wage rate falls.
B) rises as the money wage rate rises.
C) can either rise or fall as the real wage rate changes depending on what is happening to the money wage rate.
D) none of the above because the marginal product of labor is independent of the quantity of labor demanded.
Answer: A

39) If the price of a firm’s output falls by 5 percent and the money wages it pays remain constant, the firm’s
A) quantity of labor demanded will decrease.
B) quantity of labor demanded will increase.
C) quantity of labor demanded will not change.
D) supply of jobs will increase.
Answer: A

40) If the price level falls by 5 percent and workers’ money wage rates remain constant, firms’
A) quantity of labor demanded will decrease.
B) quantity of labor demanded will increase.
C) supply of jobs will increase.
D) None of the above answers are correct.
Answer: A

41) If the price level rises by 5 percent and workers’ money wage rates remain constant, firms’
A) quantity of labor demanded will decrease.
B) quantity of labor demanded will increase.
C) supply of jobs will decrease.
D) None of the above answers are correct.
Answer: B
Topic: Demand for Labor
Skill: Analytical
42) Suppose there is a rise in the price level, but no change in the money wage rate. As a result, the quantity of labor demanded
A) increases.
B) decreases.
C) does not change because there is no change in the real wage rate.
D) decreases only if the money wage rate also decreases.
Answer: A

Topic: Demand for Labor
Skill: Analytical
43) Suppose there is a rise in the real wage rate. As a result, the quantity of labor demanded
A) increases.
B) decreases.
C) does not change because there is no change in the money wage rate.
D) increases only if the price level also decreases.
Answer: B

Topic: Demand for Labor
Skill: Analytical
44) Suppose the money wage rate and the price level both fall by 5 percent. As a result,
A) the quantity of labor demanded increases.
B) the quantity of labor demanded decreases.
C) the quantity of labor demanded does not change because there is no change in the real wage.
D) people are worse off and there is more unemployment.
Answer: C

Topic: Demand for Labor Curve
Skill: Recognition
46) The demand for labor curve is plotted with the _____ on the vertical axis and is _____.
A) price level of goods and services; upward sloping
B) price level of goods and services; downward sloping
C) real wage rate; upward sloping
D) real wage rate; downward sloping
Answer: D

Topic: Demand for Labor Curve
Skill: Recognition
47) The demand for labor curve
A) slopes upward.
B) is horizontal.
C) slopes downward.
D) is vertical.
Answer: C

Topic: Demand for Labor Curve
Skill: Conceptual
48) The labor demand curve slopes downward because
A) the firm maximizes profits by hiring more labor when the real wage rate rises.
B) workers supply more hours of work when the real wage rate rises.
C) the firm maximizes profits by hiring more labor when the real wage rate falls.
D) workers supply fewer hours of work when the real wage rate falls.
Answer: C

Topic: Supply of Labor
Skill: Conceptual
49) The quantity of labor supplied depends on the
A) money wage rate not the real wage rate.
B) real wage rate not the money wage rate.
C) price of output not the money wage rate nor the real wage rate.
D) level of profits.
Answer: B
CHAPTER 8

**Topic: Supply of Labor**
**Skill: Recognition**

50) When the real wage rate rises,
A) people supply less labor and take more leisure.
B) people supply more labor because the opportunity cost of leisure increases.
C) some people are likely to enter the labor force.
D) Both answers B and C are correct.

**Answer: D**

**Topic: Supply of Labor**
**Skill: Recognition**

51) If the real wage increases, the
A) opportunity cost of not working increases and so people will want to work more.
B) opportunity cost of not working decreases so people will want to work less.
C) income effect causes people to want to work more.
D) income effect causes people to maintain their current level of work.

**Answer: A**

**Topic: Supply of Labor**
**Skill: Analytical**

52) If workers’ money wage rates increase by 5 percent and the price level remains constant, the workers’
A) quantity of labor supplied will decrease.
B) quantity of labor supplied will increase.
C) quantity of labor supplied will not change.
D) demand for jobs will decrease.

**Answer: B**

**Topic: Supply of Labor Curve**
**Skill: Recognition**

53) The relationship between the hours of labor supplied and the real wage rate is shown by the
A) supply of labor curve.
B) supply of jobs curve.
C) demand for jobs curve.
D) demand for labor curve.

**Answer: A**

**Topic: Supply of Labor Curve**
**Skill: Conceptual**

55) The supply of labor curve slopes upward, in part, because
A) the opportunity cost of taking leisure rises when the real wage rate increases.
B) households’ incomes increase when the real wage rate increases.
C) firms will demand more labor when the real wage rate falls.
D) workers are better off when the money wage rate falls and the price level rises.

**Answer: A**

**Topic: Supply of Labor Curve**
**Skill: Recognition**

56) Which of the following statements is correct?
A) When the real wage increases, the labor supply curve shifts rightward.
B) When the real wage increases, the labor supply curve shifts leftward.
C) When the real wage decreases, the labor supply curve shifts leftward.
D) None of the above statements are correct.

**Answer: D**

**Topic: Supply of Labor Curve**
**Skill: Conceptual**

57) Which statement concerning the labor supply curve is correct?
A) For most individuals, a higher real wage rate leads to a decrease in the quantity of labor supplied.
B) Labor force participation decreases when the real wage rate rises.
C) The quantity of labor supplied responds strongly to changes in the money wage rate.
D) A small percentage change in the real wage rate brings a small percentage change in the quantity of labor supplied.

**Answer: D**
58) Suppose there is an increase in the price level and no change in the money wage rate. As a result,
   A) there is an upward movement along the labor supply curve.
   B) there is a downward movement along the labor supply curve.
   C) the labor supply curve shifts leftward as people demand higher wages.
   D) the labor supply curve shifts rightward as people demand higher wages.
   Answer: B

59) If the quantity of labor supplied equals the quantity of labor demanded,
   A) a full-employment equilibrium occurs.
   B) real GDP is at potential GDP.
   C) the opportunity cost effect of not working equals the income effect.
   D) Both answers A and B are correct.
   Answer: D

60) If at the prevailing real wage rate, the quantity of labor supplied exceeds the quantity demanded,
   A) there is a shortage of labor.
   B) the real wage rate will rise to restore equilibrium.
   C) the real wage rate is greater than the equilibrium real wage rate.
   D) None of the above answers is correct.
   Answer: C

61) At the full-employment equilibrium in the labor market,
   A) there is no unemployment.
   B) there are no job vacancies.
   C) there is neither a shortage nor a surplus of labor.
   D) the money wage rate equals the real wage rate.
   Answer: C

62) When the quantity of labor demanded exceeds the quantity of labor supplied the real wage rate
   A) rises to eliminate the labor-market shortage.
   B) falls to eliminate the labor-market surplus.
   C) rises to eliminate the labor-market surplus.
   D) falls to eliminate the labor-market shortage.
   Answer: A
65) In the above figure, the equilibrium real wage rate is
A) $10 per hour.
B) $15 per hour.
C) $20 per hour.
D) None of the above.
Answer: B

66) In the above figure, the equilibrium level of labor is
A) 100 billion hours.
B) 150 billion hours.
C) 200 billion hours.
D) None of the above.
Answer: B

67) In the above figure, if the real wage is $20 per hour and there are no efficiency wages, a labor market
A) shortage will occur and the real wage will rise.
B) shortage will occur and the real wage will fall.
C) surplus will occur and the real wage will rise.
D) surplus will occur and the real wage will fall.
Answer: D

68) In the above figure, if the real wage is $10 per hour, a labor market
A) shortage will occur and the real wage will rise.
B) shortage will occur and the real wage will fall.
C) surplus will occur and the real wage will rise.
D) surplus will occur and the real wage will fall.
Answer: A

69) If the labor market is in equilibrium and then the labor supply curve shifts rightward,
A) there will be a shortage of labor at the original equilibrium wage rate.
B) there will be a surplus of labor at the original equilibrium wage rate.
C) the equilibrium wage rate will rise.
D) there will be a surplus of jobs at the new equilibrium.
Answer: B

70) In a dynamic, ever-changing economy, the full-employment level of economic activity will entail some unemployment because
A) some people are inherently lazy.
B) there is both job search and job rationing.
C) job search is lengthened by meager unemployment insurance benefits.
D) All of the above answers are correct.
Answer: B

71) Job search occurs
A) only when labor supply increases.
B) only when the quantity of labor demanded exceeds the quantity of labor supplied.
C) only when the quantity of labor supplied exceeds the quantity of labor demanded.
D) at all times in the labor market.
Answer: D
Topic: Job Search
Skill: Conceptual
72) Which of the following have an immediate effect on the amount of job search?
   I) real wage being paid.
   II) potential GDP.
   III) unemployment benefits.
A) I only.
B) I and II.
C) II and III.
D) I and III.
Answer: D  

Topic: Job Search
Skill: Conceptual
73) Which of the following would reduce the natural rate of unemployment?
   A) Legislation that provides more generous unemployment compensation benefits.
   B) An increase in the proportion of households with two wage-earners.
   C) Population changes that reduce the average age of the work-force and increases the proportion of job-market entrants.
   D) None of the above reduce the natural rate of unemployment because they would all raise it.
Answer: D  

Topic: Job Search, Demographic Change
Skill: Conceptual
74) Which demographic change was partly responsible for the decrease in the natural rate of unemployment during the 1980s?
   A) An increasing proportion of adult women entered the labor force.
   B) The baby boom generation left school to enter the labor force.
   C) There was an increase in the number of two-worker households.
   D) New entrants to the labor force declined in the 1980s.
Answer: D  

Topic: Job Search, Unemployment Compensation
Skill: Conceptual
75) If the maximum length of time an individual could collect unemployment compensation were sharply reduced, then
   A) job search unemployment would rise.
   B) the measured unemployment rate would rise.
   C) unemployment due to job rationing would fall.
   D) the natural rate of unemployment would fall.
Answer: D  

Topic: Job Search, Unemployment Compensation
Skill: Conceptual
76) If a person is unemployed and has no income, the opportunity cost of a job search is ____ and a worker is likely to search for a ____ period of time.
   A) high; long
   B) high; short
   C) low; long
   D) low; short
Answer: B  

Topic: Job Search, Unemployment Compensation
Skill: Conceptual
77) If unemployment compensation benefits are extended to more groups in an economy, the opportunity cost of job search will ____ and the natural rate of unemployment will ____.
   A) increase; increase
   B) increase; decrease
   C) decrease; increase
   D) decrease; decrease
Answer: C  

Topic: Job Search, Structural Change
Skill: Recognition
78) An important factor changing the U.S. natural rate of unemployment has been
   A) changes in the population’s work ethic.
   B) demographic change.
   C) changes in the money wage.
   D) changes in labor productivity.
Answer: B
79) Job rationing is the practice of paying workers a wage that is ____ the equilibrium wage, thus ____ the unemployment rate.
A) below; increasing
B) below; decreasing
C) above; increasing
D) above; decreasing
Answer: C

80) The practice of paying a real wage rate above the equilibrium level is known as
A) job search.
B) job rationing.
C) inefficiency wages.
D) learning-by-doing.
Answer: B

81) Suppose the equilibrium real wage is $35 per hour and the current real wage rises to $40 per hour while the equilibrium real wage remains $35 per hour. Which of the following will occur?
I) Job search will increase.
II) The unemployment rate will be greater than the natural rate of unemployment.
III) Labor productivity will increase.
A) I only.
B) I and II.
C) I and III.
D) I, II and III.
Answer: B

82) Which of the following would decrease the unemployment rate?
A) An increase in the efficiency wages firms pay.
B) A decrease in the efficiency wages firms pay.
C) An increase in the minimum wage.
D) An increase in unemployment compensation.
Answer: B

83) The efficiency wage paid by a firm is the profit-maximizing wage that balances the benefits of paying higher wages to attract higher quality workers against the costs of making higher payments to labor.
A) higher wages to attract higher quality workers against the costs of making higher payments to labor.
B) lower wages to attract higher quality workers against the costs of making lower payments to labor.
C) higher wages to attract lower quality workers against the costs of making higher payments to labor.
D) lower wages to attract lower quality workers against the costs of making lower payments to labor.
Answer: A

84) Which of the following is NOT a benefit from paying a high efficiency wage?
A) Attracting higher quality workers.
B) Increasing turnover rates of workers.
C) Motivating greater productivity from workers.
D) None of the above because all the answers are benefits from a high efficiency wage.
Answer: B

85) The benefits to a firm of paying efficiency wages include all of the following EXCEPT
A) the firm might attract more productive workers.
B) the firm’s workers will be motivated to work harder.
C) the firm’s workers will be less likely to quit.
D) the firm’s total wage bill will be lower.
Answer: D
 Topic: Efficiency Wage  
Skill: Conceptual  
86) An efficiency wage results in increased unemployment because it  
A) increases the quantity of labor supplied and decreases the quantity of labor demanded.  
B) increases the quantity of labor demanded and decreases the quantity of labor supplied.  
C) increases both the quantity of labor supplied and the quantity of labor demanded.  
D) decreases both the quantity of labor supplied and the quantity of labor demanded.  
Answer: A  

 Topic: Minimum Wage  
Skill: Conceptual  
87) If the minimum wage is set above the level of the equilibrium wage,  
A) unemployment will rise.  
B) unemployment will fall.  
C) a shortage of labor will be created.  
D) the government will lower the minimum wage back to equality with the equilibrium wage.  
Answer: A  

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<tr>
<th>Wage rate (dollars per hour)</th>
<th>Labor supply (hours)</th>
<th>Labor demand (hours)</th>
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 Topic: Minimum Wage  
Skill: Analytical  
89) Using the data in the above table, suppose that the minimum wage is $25 per hour. Then  
A) the minimum wage has no effect because it is below the equilibrium wage.  
B) the minimum wage has no effect because it is above the equilibrium wage.  
C) the wage is forced above the equilibrium level and there is more unemployment than there would be without the minimum wage.  
D) at the minimum wage, the quantity of labor demanded exceeds the quantity supplied.  
Answer: C

 Topic: Labor Market Equilibrium  
Skill: Analytical  
90) In the above figure, in the absence of efficiency wages, if the real wage is $20 per hour, money wages could  
A) fall or the price level could rise to eliminate unemployment given by ab.  
B) rise or the price level could rise to eliminate unemployment given by ab.  
C) fall or the price level could fall to eliminate unemployment given by ac.  
D) rise or the price level could fall to eliminate unemployment given by ac.  
Answer: A
91) In the above figure, if the efficiency wage is $20 per hour,
A) decreasing the efficiency wage would increase unemployment.
B) decreasing the efficiency wage would decrease unemployment.
C) increasing the efficiency wage would decrease unemployment.
D) reducing the efficiency wage would have no impact on unemployment.
Answer: B

92) In the above figure, if the minimum wage is $20 per hour,
A) decreasing the minimum wage would increase unemployment.
B) decreasing the minimum wage would decrease unemployment.
C) increasing the minimum wage would decrease unemployment.
D) reducing the minimum wage would have no impact on unemployment.
Answer: B

93) The capital stock in the economy is the
A) quantity of plant, equipment, and inventories.
B) total financial assets of the public.
C) financial assets held by firms.
D) quantity of plant and equipment owned by governments.
Answer: A

94) Social infrastructure capital is primarily created by
A) private investment.
B) business.
C) government investment.
D) household investment.
Answer: C

95) All of the following are examples of social infrastructure EXCEPT
A) publicly owned schools.
B) highways built by local governments.
C) dams built by the federal government.
D) equipment owned by firms.
Answer: D

96) The capital stock increases whenever
A) gross investment is exceeds net investment.
B) net investment exceeds gross investment.
C) gross investment is negative.
D) net investment is positive.
Answer: D

97) The increase in the capital stock equals the amount of
A) gross investment.
B) depreciation.
C) net investment.
D) private sector spending.
Answer: C

98) Net investment equals
A) capital stock minus depreciation.
B) gross investment minus depreciation.
C) the total quantity of plant, equipment and buildings.
D) gross investment/depreciation.
Answer: B

99) Which of the following is TRUE regarding the real interest rate?
I) The real interest rate is the return on capital.
II) The real interest rate equals the nominal interest rate adjusted for inflation.
A) I.
B) II.
C) Both I and II.
D) Neither I nor II.
Answer: C
100) If you lend a dollar for a year and at the end of the year the price level has risen by 10 percent,
A) the purchasing power of your loan has risen over the year regardless of the interest rate at which you lent it.
B) the purchasing power of your loan has remained constant over the year regardless of the interest rate at which you lent it.
C) you must have earned a nominal interest rate of 10 percent to maintain the purchasing power of your loan.
D) you must have earned a nominal interest rate of 5 percent to maintain the purchasing power of your loan.
Answer: C

101) If the nominal interest rate is 10 percent and inflation is 7 percent, the real interest rate is approximately
A) 17 percent.
B) 3 percent.
C) 1.4 percent.
D) –3 percent.
Answer: B

102) If the nominal interest rate is 7 percent and the inflation rate is 2 percent, the real interest rate is approximately
A) 9 percent.
B) 5 percent.
C) 3.5 percent.
D) –5 percent.
Answer: B

103) If the real interest rate is 3 percent and the inflation rate is 2 percent, the nominal interest rate is approximately
A) 1 percent.
B) –1 percent.
C) 1.5 percent.
D) 5 percent.
Answer: D

104) If the real interest rate is 4 percent and the inflation rate is 3 percent, the nominal interest rate is approximately
A) 7 percent.
B) 12 percent.
C) 1 percent.
D) 1.33 percent.
Answer: A

105) Other things remaining the same, the greater the expected profit rate from capital,
A) the less the amount of investment.
B) the greater the amount of investment.
C) the steeper is the investment demand curve.
D) the flatter is the investment demand curve.
Answer: B

106) Which of the following influence the expected profit rate?
I) Advances in technology.
II) Taxes.
III) Nominal interest rate.
A) I.
B) I and II.
C) I and III.
D) I, II, and III.
Answer: B

107) During a business cycle expansion, expected profit rates ____ and firms’ investment ____.
A) fall; increases
B) rise; decreases
C) fall; decreases
D) rise; increases
Answer: D
108) During a recession, expected profit rates ____ and firms’ investment ____.
A) fall; increases
B) rise; decreases
C) fall; decreases
D) rise; increases
Answer: C

109) The opportunity cost of investment is the
A) nominal interest rate on government bonds.
B) nominal interest rate on corporate bonds.
C) real interest rate.
D) nominal interest rate.
Answer: C

110) Suppose a firm borrows funds to finance investment. The opportunity cost of this investment
A) is greater than if the firm used its retained earnings.
B) is less than if the firm used its retained earnings.
C) is greater than the real interest rate.
D) is equal to the real interest rate.
Answer: D

111) If the expected profit rate on an investment project is 20 percent per year, a firm will undertake the project as long as the
A) real interest rate is less than 20 percent.
B) real interest rate is more than 20 percent.
C) nominal interest rate is more than 20 percent.
D) nominal interest rate is less than 20 percent.
Answer: A
Topic: Investment Demand Curve  
Skill: Conceptual 
118) A decrease in investment demand and a leftward shift of the investment demand curve results from  
A) an increase in the real interest rate.  
B) technological improvements.  
C) tax cuts.  
D) decreases in the expected profit rate during recessions.  
Answer: D 

Topic: Investment Demand Curve  
Skill: Conceptual 
119) Greater optimism about the expected profits from investment projects  
A) shifts the investment demand curve rightward.  
B) shifts the investment demand curve leftward.  
C) causes a movement upward along the investment demand curve.  
D) causes a movement downward along the investment demand curve.  
Answer: A 

Topic: Investment Demand Curve  
Skill: Conceptual 
120) Which of the following shifts the investment demand curve leftward?  
A) A fall in the real interest rate.  
B) The economy enters the expansion phase of a business cycle.  
C) A decrease in the taxes paid by the business.  
D) A decrease in the expected profit rate.  
Answer: D 

Topic: Investment Demand Curve  
Skill: Analytical 
121) In the above figure, a decrease in the real interest rate will result in a movement from point E to  
A) point F.  
B) point G.  
C) point H.  
D) point I.  
Answer: B 

Topic: Investment Demand Curve  
Skill: Analytical 
122) In the above figure, the start of an economic expansion will affect profit expectations and result in a movement from point E to  
A) point F.  
B) point G.  
C) point H.  
D) point I.  
Answer: A 

Topic: Investment Demand Curve  
Skill: Analytical 
123) In the above figure, an increase in taxes results in a movement from point E to  
A) point F.  
B) point G.  
C) point H.  
D) point I.  
Answer: C
124) In the above figure, if the real interest rate is 6 percent, investment is
A) $150 billion.
B) $300 billion.
C) $450 billion.
D) $600 billion.
Answer: C

125) In the above figure, the investment demand curve ID is drawn for the average expected profit rate. If the real interest rate is constant at 6 percent and firms come to believe that the economy is headed into a stronger expansion, investment will be
A) less than $450 billion.
B) $450 billion.
C) between $300 billion and $450 billion.
D) greater than $450 billion.
Answer: D

126) In the above figure, if the real interest rate rises from 4 to 6 percent, the quantity of investment
A) decreases from $600 billion to $450 billion.
B) increases from $450 billion to $600 billion.
C) increases above $450 billion.
D) cannot be determined.
Answer: A

127) In the above figure, if the real interest rate falls from 10 to 8 percent, the quantity of investment
A) decreases from $300 billion to $150 billion.
B) increases from $150 billion to $300 billion.
C) decreases below $150 billion.
D) cannot be determined.
Answer: B

128) In the above figure, new expectations of booming business conditions will shift the investment demand curve rightward.
A) shift the investment demand curve leftward.
B) shift the investment demand curve rightward.
C) have no effect on the investment demand curve.
D) make the investment demand curve become horizontal.
Answer: B
Topic: Investment Demand Curve  
Skill: Analytical  
130) In the above figure, the onset of a recession will  
A) shift the investment demand curve leftward.  
B) shift the investment demand curve rightward.  
C) have no effect on the investment demand curve.  
D) make the investment demand curve become horizontal.  
Answer: A

Topic: Investment Demand Curve  
Skill: Analytical  
131) In the above figure, technological progress that increases the expected profit rate will  
A) shift the investment demand curve leftward.  
B) shift the investment demand curve rightward.  
C) have no effect on the investment demand curve.  
D) make the investment demand curve become horizontal.  
Answer: B

Topic: Investment Demand Curve  
Skill: Analytical  
132) In the above figure, the economy is at point a on the initial investment demand curve ID₀. What happens if corporate taxes are reduced?  
A) There is a movement to a point such as b on investment demand curve ID₀.  
B) The investment demand curve shifts rightward to a curve such as ID₂.  
C) The investment demand curve shifts leftward to a curve such as ID₁.  
D) There is a movement to a point such as c on investment demand curve ID₀.  
Answer: B

Topic: Investment Demand Curve  
Skill: Analytical  
133) In the above figure, the economy is at point a on the initial investment demand curve ID₀. What happens if corporate taxes are increased?  
A) There is a movement to a point such as b on investment demand curve ID₀.  
B) The investment demand curve shifts rightward to a curve such as ID₂.  
C) The investment demand curve shifts leftward to a curve such as ID₁.  
D) There is a movement to a point such as c on investment demand curve ID₀.  
Answer: C
134) In the above figure, the economy is at point $a$ on the initial investment demand curve $ID_0$. What happens if firms expect their sales will increase?

A) There is a movement to a point such as $b$ on investment demand curve $ID_0$.
B) The investment demand curve shifts rightward to a curve such as $ID_2$.
C) The investment demand curve shifts leftward to a curve such as $ID_1$.
D) There is a movement to a point such as $c$ on investment demand curve $ID_0$.

**Answer: B**

135) In the above figure, the economy is at point $a$ on the initial investment demand curve $ID_0$. What happens if firms expect their sales will decrease?

A) There is a movement to a point such as $b$ on investment demand curve $ID_0$.
B) The investment demand curve shifts rightward to a curve such as $ID_2$.
C) The investment demand curve shifts leftward to a curve such as $ID_1$.
D) There is a movement to a point such as $c$ on investment demand curve $ID_0$.

**Answer: C**

136) In the above figure, the economy is at point $a$ on the initial investment demand curve $ID_0$. What happens if the real interest rate rises?

A) There is a movement to a point such as $b$ on investment demand curve $ID_0$.
B) The investment demand curve shifts rightward to a curve such as $ID_2$.
C) The investment demand curve shifts leftward to a curve such as $ID_1$.
D) There is a movement to a point such as $c$ on investment demand curve $ID_0$.

**Answer: A**

137) Which of the following influences household saving?

I) The real interest rate.
II) Disposable income.
III) Expected future income.

A) I.
B) I and II.
C) I and III.
D) I, II, and III.

**Answer: D**

138) Consumption expenditure by households

A) decreases when the real interest rate rises.
B) increases when the real interest rate rises.
C) decreases when the real interest rate falls.
D) is unaffected by the real interest rate.

**Answer: A**

139) Saving by households

A) decreases when the real interest rate rises.
B) increases when the real interest rate rises.
C) increases when the real interest rate falls.
D) is unaffected by the real interest rate.

**Answer: B**

140) An increase in the real interest rate increases the quantity of saving because the higher real interest rate

A) increases the opportunity cost of current consumption.
B) increases the cost of buying capital.
C) decreases the benefit of saving.
D) reduces taxes because interest payments are tax deductible.

**Answer: A**

141) Consumption expenditure increases if

A) future disposable income falls.
B) current and future disposable income fall.
C) current disposable income falls.
D) current and future disposable income rise.

**Answer: D**
Topic: Disposable Income and Saving
Skill: Conceptual
142) ____ increases households' saving.
A) A decrease in the real interest rate
B) A tax cut that increases disposable income
C) Higher expected future income
D) A stock market boom that increases the purchasing power of households' wealth

Answer: B

Topic: Disposable Income and Saving
Skill: Conceptual
143) Which of the following is true regarding disposable income and consumption expenditure?
I) As disposable income increases, consumption expenditure increases.
II) As expected future income increases, current consumption expenditure increases.
A) I.
B) II.
C) Both I and II.
D) Neither I nor II.

Answer: C

<table>
<thead>
<tr>
<th>Disposable income (dollars)</th>
<th>Consumption expenditure (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>300</td>
<td>290</td>
</tr>
<tr>
<td>450</td>
<td>380</td>
</tr>
<tr>
<td>600</td>
<td>470</td>
</tr>
<tr>
<td>750</td>
<td>560</td>
</tr>
</tbody>
</table>

Topic: Disposable Income and Saving
Skill: Analytical
144) In the above table, if disposable income is $450, saving is
A) –$50.
B) –$10.
C) $70.
D) Some amount that cannot be calculated without additional information.

Answer: C

Topic: Disposable Income and Saving
Skill: Analytical
145) In the above table, saving would be $130 if disposable income were
A) $300.
B) $450.
C) $600.
D) Some amount that cannot be calculated without additional information.

Answer: C

Topic: Wealth and Saving
Skill: Recognition
146) A household's wealth is
A) assets – debts.
B) assets + debts
C) debts – assets
D) None of the above answers is correct.

Answer: B

Topic: Wealth and Saving
Skill: Conceptual
147) Suppose Molly has an income of $35,000 annually and has inherited a savings account of $20,000. Wyatt has a job that pays $35,000 annually, but has debts totaling $6,000. Which of the following is true?
A) We can expect Wyatt and Molly to save the same proportion of their incomes this year.
B) We can expect Molly to save more than Wyatt this year.
C) We can expect Wyatt to save more than Molly this year.
D) We can expect Wyatt and Molly to have equal amounts of consumption this year.

Answer: C

Topic: Expected Future Income and Saving
Skill: Recognition
148) Savings definitely increases if
A) future disposable income falls.
B) current and future disposable income fall.
C) current disposable income falls.
D) current and future disposable income rise.

Answer: A
**Topic: Expected Future Income and Saving**

**Skill: Conceptual**

149) If two households have the same disposable income in the current year,

A) the household with the higher expected future income will consume a larger portion of its current income today.

B) the household with the lower expected future income will consume more today while it has the money.

C) the household with the lower expected future income will spend a larger portion of its current income on consumption today because it will increase its saving in the future.

D) None of the above.

**Answer: A**

**Topic: Saving Supply Curve**

**Skill: Recognition**

150) The saving supply curve

A) has a positive slope.

B) is vertical.

C) is horizontal.

D) has a negative slope.

**Answer: A**

**Topic: Saving Supply Curve**

**Skill: Recognition**

151) The saving supply curve has saving on one axis and

A) the real interest rate on the other axis.

B) wealth on the other axis.

C) consumption on the other axis.

D) disposable income on the other axis.

**Answer: A**

**Topic: Saving Supply Curve**

**Skill: Conceptual**

152) Which of the following will shift the saving supply curve leftward?

A) a decrease in the real interest rate.

B) a decrease in real wealth.

C) a decrease in disposable income.

D) a decrease in expected future income.

**Answer: C**

**Topic: Saving Supply Curve**

**Skill: Analytical**

153) In the above figure, the economy is at point a on the initial saving supply curve SS0. What happens if disposable income decreases?

A) Nothing; the economy would remain at point a.

B) There would be a movement to a point such as b on saving supply curve SS0.

C) The saving supply curve would shift rightward to a curve such as SS2.

D) The saving supply curve would shift leftward to a curve such as SS1.

**Answer: D**

**Topic: Saving Supply Curve**

**Skill: Analytical**

154) In the above figure, the economy is at point a on the initial saving supply curve SS0. What happens if the real interest rate rises?

A) Nothing; the economy would remain at point a.

B) There would be a movement to a point such as b on saving supply curve SS0.

C) The saving supply curve would shift rightward to a curve such as SS2.

D) The saving supply curve would shift leftward to a curve such as SS1.

**Answer: B**
Topic: Saving Supply Curve
Skill: Analytical
155) In the above figure, the economy is at point \( a \) on the initial saving supply curve \( SS_0 \). What happens if real wealth decreases?
A) Nothing; the economy would remain at point \( a \).
B) There would be a movement to a point such as \( b \) on saving supply curve \( SS_0 \).
C) The saving supply curve would shift rightward to a curve such as \( SS_2 \).
D) The saving supply curve would shift leftward to a curve such as \( SS_1 \).
Answer: C

Topic: Equilibrium in the Capital Market
Skill: Recognition
156) The equilibrium real interest rate is determined by the
A) investment demand curve and the saving supply curve.
B) investment demand curve and the consumption demand curve.
C) consumption demand curve and the saving supply curve.
D) government spending curve and the taxing curve.
Answer: A

Topic: Determining the Real Interest Rate
Skill: Conceptual
157) Suppose the current real interest rate is 4 percent and the equilibrium real interest rate is 3 percent. Then
A) prices rise and inflation occurs.
B) there is a surplus of saving.
C) there is a shortage of saving.
D) there is neither a shortage nor surplus of saving.
Answer: B

Topic: Determining the Real Interest Rate
Skill: Conceptual
158) If the real interest rate is above the equilibrium real interest rate,
A) lenders will be unable to find borrowers willing to borrow all of the available funds and the real interest rate will fall.
B) borrowers will be unable to borrow all of the funds they want to borrow and the real interest rate will rise.
C) lenders will be unable to find borrowers willing to borrow all of the available funds and the real interest rate will rise.
D) borrowers will be unable to borrow all of the funds they want to borrow and the real interest rate will fall.
Answer: A

Topic: Determining the Real Interest Rate
Skill: Conceptual
159) If the real interest rate is below the equilibrium real interest rate, then the quantity of saving supplied is
A) greater than the quantity of investment demanded, and the real interest rate will rise.
B) greater than the quantity of investment demanded, and the real interest rate will fall.
C) less than the quantity of investment demanded, and the real interest rate will rise.
D) less than the quantity of investment demanded, and the real interest rate will fall.
Answer: C

Topic: Determining the Real Interest Rate
Skill: Conceptual
160) If the real interest rate is below the equilibrium real interest rate,
A) lenders will be unable to find borrowers willing to borrow all of the available funds and the real interest rate will fall.
B) borrowers will be unable to borrow all of the funds they want to borrow and the real interest rate will rise.
C) lenders will be unable to find borrowers willing to borrow all of the available funds and the real interest rate will rise.
D) borrowers will be unable to borrow all of the funds they want to borrow and the real interest rate will fall.
Answer: B
**Topic: Determining the Real Interest Rate**  
**Skill: Conceptual**

161) If the real interest rate is below the equilibrium real interest rate,

A) lenders will be unable to find borrowers willing to borrow all of the available funds and the saving supply curve will shift leftward.

B) borrowers will be unable to borrow all of the funds they want to borrow and the investment demand curve will shift rightward.

C) a shortage of saving will cause the real interest rate to rise.

D) borrowers will be unable to borrow all of the funds they want to borrow and the investment demand curve will shift leftward.

**Answer: C**

**Topic: Determining the Real Interest Rate**  
**Skill: Conceptual**

162) In the capital market, if the interest rate is above the equilibrium level

A) there is a shortage of saving.

B) there is a surplus of saving.

C) expected profit rates fall.

D) government purchases decrease.

**Answer: B**

**Topic: Determining the Real Interest Rate**  
**Skill: Conceptual**

163) If the real interest rate is above the equilibrium real interest rate,

A) borrowers will be unable to borrow all of the funds they want to borrow and the investment demand curve will shift rightward.

B) borrowers will be unable to borrow all of the funds they want to borrow and the investment demand curve will shift leftward.

C) lenders will be unable to find borrowers willing to borrow all of the available funds and the real interest rate will rise.

D) a surplus of saving will cause the real interest rate to fall.

**Answer: D**

**Topic: Changes in the Real Interest Rate**  
**Skill: Analytical**

164) An increase in income shifts the saving supply curve

A) leftward and decreases the real interest rate.

B) leftward and increases the real interest rate.

C) rightward and decreases the real interest rate.

D) rightward and increases the real interest rate.

**Answer: C**

**Topic: Changes in the Real Interest Rate**  
**Skill: Analytical**

165) Technological progress that increases the expected profit rate shifts the investment curve

A) leftward and reduces the real interest rate.

B) rightward and increases the real interest rate.

C) rightward and reduces the real interest rate.

D) leftward and increases the real interest rate.

**Answer: B**
166) In the above figure, the initial saving curve is SS\(_0\) and the initial investment curve is ID\(_0\). An economic expansion that raises disposable income and the expected profit rate would
A) only shift the saving supply curve rightward to a curve such as SS\(_1\).
B) shift the saving supply curve rightward to a curve such as SS\(_1\), and shift the investment demand curve rightward to a curve such as ID\(_1\).
C) only shift the investment demand curve rightward to a curve such as ID\(_1\).
D) have no effect on either the investment demand curve or the saving supply curve.

Answer: B

167) In the above figure, the initial saving curve is SS\(_0\) and the initial investment curve is ID\(_0\). A decrease in the taxes that firms pay would
A) only shift the saving supply curve rightward to a curve such as SS\(_1\).
B) shift the saving supply curve rightward to a curve such as SS\(_1\), and shift the investment demand curve rightward to a curve such as ID\(_1\).
C) only shift the investment demand curve rightward to a curve such as ID\(_1\).
D) have no effect on either the investment demand curve or the saving supply curve.

Answer: C

168) In the above figure, the initial saving curve is SS\(_0\) and the initial investment curve is ID\(_0\). An increase in the real interest rate to 7 percent could be caused by
A) an increase in investment demand.
B) a decrease in the expected profit rate.
C) an increase in people’s disposable incomes.
D) an expansion that increased both saving and investment by the same amount.

Answer: A

The Dynamic Classical Model

169) An increase in the economy’s population
A) decreases the supply of labor.
B) shifts the long-run aggregate supply curve rightward.
C) lowers the real wage rate.
D) decreases the quantity of labor employed.

Answer: C
170) The real wage rate will fall if the labor supply curve shifts rightward and the labor demand curve does not shift.
A) labor supply curve shifts rightward and the labor demand curve does not shift.
B) labor supply curve shifts leftward and the labor demand curve does not shift.
C) labor demand curve shifts rightward and the labor supply curve does not shift.
D) labor demand curve shifts rightward more than the labor supply curve shifts rightward.
Answer: A

171) An increase in the population and hence the supply of labor causes a shortage of labor at the original real wage rate and the real wage rate will fall.
A) shortage of labor at the original real wage rate and the real wage rate will fall.
B) surplus of labor at the original real wage rate and the real wage rate will rise.
C) surplus of labor at the original real wage rate and the real wage rate will fall.
D) shortage of labor at the original real wage rate and the real wage rate will rise.
Answer: C

172) Employment and (total) potential GDP increase if the labor supply curve shifts rightward and the labor demand curve does not shift.
A) labor supply curve shifts rightward and the labor demand curve does not shift.
B) labor demand curve shifts leftward more than the labor supply curve shifts rightward.
C) labor demand curve shifts leftward and the labor supply curve does not shift.
D) None of the above answers are correct.
Answer: A

173) An increase in physical capital or a technological advance raises the real wage rate.
A) raises the real wage rate.
B) decreases the quantity of labor employed.
C) shifts the production function downward.
D) decreases demand for labor.
Answer: A

174) An advance in technology shifts the production function upward and shifts the labor demand curve leftward.
A) demand curve leftward.
B) supply curve leftward.
C) demand curve rightward.
D) supply curve rightward.
Answer: C

175) All of the following contribute to raising real wages over time EXCEPT technological progress.
A) technological progress.
B) rising labor force participation.
C) physical capital accumulation.
D) human capital accumulation.
Answer: B

176) Technological change lowers the real wage rate.
A) lowers the real wage rate.
B) decreases labor productivity.
C) has no effect on employment.
D) increases potential GDP.
Answer: D

177) If both the supply of labor and the demand for labor increase, then the real wage rate increases.
A) potential GDP decreases.
B) long-run aggregate supply increases.
C) full employment decreases.
D) the real wage rate increases.
Answer: B
Topic: Population and Productivity in the United States
Skill: Conceptual
178) In the United States, real wage rates have risen because the
A) labor demand curve has shifted rightward more than the labor supply curve has shifted rightward.
B) labor demand curve has shifted leftward more than the labor supply curve has shifted rightward.
C) labor demand curve has shifted leftward and the labor supply curve has not shifted.
D) labor supply curve has shifted rightward and the labor demand curve has not shifted.
Answer: A

Topic: Population and Productivity in the United States
Skill: Conceptual
179) In the United States, real wage rates and employment have both increased because the
A) labor supply curve has shifted rightward and the labor demand curve has not shifted.
B) labor demand curve has shifted leftward more than the labor supply curve has shifted rightward.
C) labor demand curve has shifted leftward and the labor supply curve has not shifted.
D) labor demand curve has shifted rightward more than the labor supply curve has shifted rightward.
Answer: D

Topic: Population and Productivity in the United States
Skill: Conceptual
180) In the United States, which of the following occurred between 1981 and 2001?
A) Total labor hours and working-age population increased.
B) Increases in labor productivity lead to increases in the real wage rate.
C) Higher real wage rates increased the labor-force participation rate.
D) All of the above answers are correct.
Answer: D

Topic: Population and Productivity in the United States
Skill: Conceptual
181) In the United States, which of the following occurred between 1981 and 2001?
A) Capital accumulation and technological change both increased the productivity of labor and the demand for labor increased.
B) The real wage rate decreased because the increase in the demand for labor was less than the increase in the supply of labor.
C) The effects on the supply of labor from the increased in population were greater than the effects on the demand for labor from capital accumulation and technological change.
D) Technological change decreased the demand for labor.
Answer: A

Topic: Population and Productivity in the United States
Skill: Conceptual
182) In the United States, over the last 15 years, labor has become ____, causing firms to ____.
A) more productive; demand more labor
B) more productive; demand less labor
C) less productive; demand more labor
D) less productive; pay higher wages to get more productive workers
Answer: A

Study Guide Questions

Topic: Study Guide Question, Real Wage
Skill: Analytical
183) The money wage rate is $10 per hour and the price level is 100. If the price level falls to 50 and the money wage rate does not change, what happens to the real wage rate?
A) The real wage rate doubles.
B) The real wage rate rises, but does not double.
C) The real wage rate does not change.
D) The real wage rate falls.
Answer: A
184) Suppose that the money wage rate is $22 per hour and that the price level is 100. If the money wage rate falls to $11 per hour and the price level does not change, what happens to the real wage rate?
A) The real wage rate doubles.
B) The real wage rate rises but does not double.
C) The real wage rate does not change.
D) The real wage rate falls.
Answer: D

185) Suppose that the money wage rate is $22 per hour and that the price level is 100. If the money wage rate falls to $11 per hour and the price level falls to 50, what happens to the real wage rate?
A) The real wage rate doubles.
B) The real wage rate rises but does not double.
C) The real wage rate does not change.
D) The real wage rate falls.
Answer: C

186) Five workers produce total output of $200; six workers produce total output of $222. The marginal product of the sixth worker equals
A) $40.
B) $37.
C) $22.
D) None of the above answers is correct.
Answer: C

187) A decrease in the real wage rate
A) shifts the labor demand curve rightward.
B) shifts the labor demand curve leftward.
C) shifts the labor supply curve leftward.
D) none of the above because a change in the real wage rate does not shift either the labor demand or labor supply curve.
Answer: D

188) The demand curve for labor is downward sloping because the
A) marginal product of labor diminishes as more workers are employed.
B) supply curve of labor is upward sloping.
C) demand curve shifts when capital increases.
D) None of the above answers are correct because the demand curve for labor is upward sloping.
Answer: A

189) The demand for labor curve
A) is downward sloping because marginal product of labor diminishes as more workers are employed.
B) is upward sloping and the supply curve of labor is downward sloping.
C) is upward sloping because marginal product of labor diminishes as more workers are employed.
D) shifts rightward when the real wage rate rises.
Answer: A

190) As the real wage rate increases, the quantity of labor supplied increases
A) only because people already working increase the quantity of labor they supply.
B) only because the higher wage rate increases labor force participation.
C) because people already working increase the quantity of labor they supply and because the higher wage rate increases labor force participation.
D) None of the above answers is correct because an increase in the real wage rate decreases the quantity of labor supplied.
Answer: C
Topic: Study Guide Question, Demand and Supply of Labor
Skill: Conceptual
191) A fall in the real wage rate
   A) shifts the labor demand curve rightward.
   B) shifts the labor demand curve leftward.
   C) shifts the labor supply curve rightward.
   D) does not shift the labor demand or labor supply curve.
Answer: D

Topic: Study Guide Question, Increase in Productivity
Skill: Conceptual
192) An increase in productivity
   A) labor demand curve rightward.
   B) labor demand curve leftward.
   C) labor supply curve rightward.
   D) labor supply curve leftward
Answer: A

Topic: Study Guide Question, Population
Skill: Conceptual
193) A decrease in population shifts the
   A) labor demand curve rightward.
   B) labor demand curve leftward.
   C) labor supply curve rightward.
   D) labor supply curve leftward
Answer: D

Topic: Study Guide Question, Job Rationing
Skill: Conceptual
194) One possible factor leading to unemployment is that
   A) both the minimum wage and efficiency wages are below the equilibrium wage rate.
   B) both the minimum wage and efficiency wages are above the equilibrium wage rate.
   C) the minimum wage is above the equilibrium wage rate and efficiency wages are below the equilibrium wage rate.
   D) the minimum wage is below the equilibrium wage rate and efficiency wages are above the equilibrium wage rate.
Answer: B

Topic: Study Guide Question, Full Employment
Skill: Conceptual
195) If the economy is at full employment, the
   A) entire population is employed.
   B) entire labor force is employed.
   C) long-run aggregate supply curve is upward sloping.
   D) quantity of labor supplied equals the quantity of labor demanded.
Answer: D

Topic: Study Guide Question, Investment Demand Curve
Skill: Recognition
196) A fall in the real interest rate
   A) results in a movement along the investment demand curve.
   B) shifts the investment demand curve rightward.
   C) shifts the investment demand curve leftward.
   D) has no effect on the investment demand curve
Answer: A

Topic: Study Guide Question, Saving Supply Curve
Skill: Recognition
197) A decrease in disposable income shifts the
   A) investment demand curve rightward.
   B) investment demand curve leftward.
   C) saving supply curve leftward.
   D) saving supply curve rightward.
Answer: A

MyEconLab Questions

Topic: Production Possibilities
Level 1: Definitions and Concepts
198) The production possibilities frontier shows the boundary between
   A) real GDP and the quantity of labor employed
   B) those combinations of goods and services that can be produced and those that cannot
   C) leisure and work
   D) those combinations of goods and services that can be consumed and those that cannot
Answer: B
CHAPTER 8

**Topic: Production Function**

**Level 1: Definitions and Concepts**

199) The ____ shows how real GDP varies as the quantity of labor employed varies, other things remaining the same.

A) labor supply curve  
B) production function  
C) short-run aggregate supply curve  
D) labor demand curve

**Answer:** B

**Topic: Productivity**

**Level 1: Definitions and Concepts**

200) Factors that influence labor productivity include ____.

A) the inflation rate, the real wage rate, and the exchange rate  
B) the labor demand curve  
C) physical capital, the real wage rate, and technology  
D) physical capital, human capital, and technology

**Answer:** D

**Topic: Demand for Labor**

**Level 1: Definitions and Concepts**

201) The demand for labor is the relationship between ____ when all other influences on firms’ hiring plans remain the same.

A) the quantity of labor demanded and the real wage rate  
B) real GDP and the quantity of labor demanded  
C) the quantity of labor demanded and the money wage rate  
D) the labor hours hired by all the firms in the economy and real GDP

**Answer:** A

**Topic: Real Wage**

**Level 1: Definitions and Concepts**

202) Which of the following statements is correct?

A) A real wage rate is equal to a money wage rate multiplied by the price of a good.  
B) A real wage rate is equal to a money wage rate minus the price of a good.  
C) The price of a good is equal to the real wage rate minus the money wage rate.  
D) A real wage rate is equal to a money wage rate divided by the price of a good.

**Answer:** D

**Topic: Marginal Product of Labor**

**Level 1: Definitions and Concepts**

203) The marginal product of labor is ____, when all other influences on production remain the same.

A) the additional real GDP produced when the quantity of labor supplied increases  
B) the additional real GDP produced by an additional hour of labor  
C) the real GDP produced by labor  
D) real GDP divided by the quantity of labor

**Answer:** B

**Topic: Supply of Labor**

**Level 1: Definitions and Concepts**

204) The number of labor hours that all the households in the economy plan to work is the ____.

A) long-run aggregate supply  
B) supply of labor  
C) quantity of labor supplied  
D) long-run aggregate labor supply

**Answer:** B

**Topic: The Labor Market and Full Employment**

**Level 1: Definitions and Concepts**

205) When the quantity of labor demanded equals the quantity of labor supplied, ____.

A) the short-run aggregate supply curve is vertical  
B) real GDP produced equals potential GDP  
C) the real wage rate is $25 an hour  
D) labor search is zero

**Answer:** B

**Topic: Unemployment at Full Employment**

**Level 1: Definitions and Concepts**

206) The unemployment rate at full employment is ____.

A) the natural rate of unemployment  
B) between 0 and 1 percent  
C) continually decreasing as the economy grows  
D) zero

**Answer:** A

**Topic: Investment Demand**

**Level 1: Definitions and Concepts**

207) Investment demand is the relationship between investment and the ____ other things remaining the same.

A) real interest rate  
B) nominal interest rate  
C) inflation rate  
D) price level

**Answer:** A
THE ECONOMY AT FULL EMPLOYMENT: THE CLASSICAL MODEL

**Topic: Saving Supply**
**Level 1: Definitions and Concepts**
208) The saving supply is the relationship between saving and ____ other things remaining the same.
A) real GDP
B) the price level
C) the real interest rate
D) the inflation rate
Answer: C

**Topic: Saving Supply**
**Level 1: Definitions and Concepts**
209) As the ____ rises, saving ____ other things remaining the same.
A) nominal interest rate; increases
B) real interest rate; increases
C) inflation rate; increases
D) real interest rate; decreases
Answer: B

**Topic: Production Function**
**Level 2: Using Definitions and Concepts**
210) When the quantity of labor hours increases with no change in labor productivity, ____.
A) the PPF between real GDP and leisure shifts outward
B) the PPF between real GDP and leisure shifts inward
C) a movement up along the production function occurs
D) a movement down along the production function occurs
Answer: C

**Topic: Human Capital**
**Level 2: Using Definitions and Concepts**
211) ____ is the knowledge and skill that people have obtained from education and on-the-job training.
A) Learning-by-doing
B) Human capital
C) Capital
D) Technology
Answer: B

**Topic: Demand for Labor**
**Level 2: Using Definitions and Concepts**
212) When the real wage rate falls, ____.
A) the labor demand curve shifts rightward
B) the labor demand curve shifts leftward
C) a shortage of labor decreases
D) the quantity of labor demanded increases
Answer: D

**Topic: Marginal Product of Labor**
**Level 2: Using Definitions and Concepts**
213) As the quantity of labor employed increases, the ____.
A) marginal product of labor diminishes
B) marginal product of labor does not change
C) real wage rate rises
D) money wage rate rises
Answer: A

**Topic: Supply of Labor**
**Level 2: Using Definitions and Concepts**
214) When the real wage rate rises, most households will have an ____.
A) income effect that is stronger than the opportunity cost effect
B) opportunity cost effect that is equal to the income effect
C) income effect but will not have an opportunity cost effect
D) opportunity cost effect but will not have an income effect
Answer: B

**Topic: Labor Market Equilibrium**
**Level 2: Using Definitions and Concepts**
215) When the population increases with no change in labor productivity, employment ____ and potential GDP ____.
A) decreases; decreases
B) increases; increases
C) decreases; increases
D) increases; decreases
Answer: B

**Topic: Job Search**
**Level 2: Using Definitions and Concepts**
216) The time spent on job search rises when ____.
A) unemployment compensation decreases
B) unemployment compensation increases
C) the efficiency wage rate is lowered
D) more young people enter the labor force.
Answer: B

**Topic: Job Rationing**
**Level 2: Using Definitions and Concepts**
217) Job rationing creates a ____.
A) shortage of labor
B) a wage rate below the equilibrium wage rate
C) a decrease in the natural rate of unemployment
D) surplus of labor
Answer: D
CHAPTER 8

**Topic: Efficiency Wage**
**Level 2: Using Definitions and Concepts**

218) An efficiency wage _____.
   A) results in a high labor turnover
   B) is equal to the minimum wage
   C) does not motivate employees
   D) maximizes the firm’s profit

**Answer: D**

**Topic: Minimum Wage**
**Level 2: Using Definitions and Concepts**

219) A minimum wage _____.
   A) set below the equilibrium wage leads to unemployment
   B) discourages job rationing
   C) set above the equilibrium wage leads to unemployment.
   D) must be set below $5.15 an hour to be effective

**Answer: C**

**Topic: Investment Demand Curve**
**Level 2: Using Definitions and Concepts**

220) A rise in the real interest rate ____ the investment demand curve, and a decrease in the expected profit rate ____ the investment demand curve.
   A) shifts; creates a movement along
   B) shifts; shifts
   C) creates a movement along; creates a movement along
   D) creates a movement along; shifts

**Answer: C**

**Topic: Saving Supply Curve**
**Level 2: Using Definitions and Concepts**

221) A decrease in disposable income ____.
   A) has no effect on the saving supply curve
   B) shifts the saving supply curve rightward
   C) shifts the saving supply curve leftward
   D) results in movement up the saving supply curve

**Answer: B**

**Topic: Determining the Real Interest Rate**
**Level 2: Using Definitions and Concepts**

222) If the quantity of saving supplied exceeds the quantity of investment demanded, then ____.
   A) the real interest rate will rise
   B) firms will decrease their investment demand
   C) people will save more
   D) the real interest rate will fall

**Answer: D**

**Topic: Production Possibilities**
**Level 3: Calculations and Predictions**

223) When the amount of time that people spend on leisure changes with no change in labor productivity ____.
   A) a movement along the PPF between real GDP and leisure as well as a movement along the production function occur
   B) the PPF between real GDP and leisure shifts outward and the production function shifts outward
   C) the PPF between real GDP and leisure shifts outward and a movement along the production function occurs
   D) a movement along the PPF between real GDP and leisure occurs and the production function shifts outward

**Answer: A**
Topic: Production Function  
Level 3: Calculations and Predictions  
225) The country of Kemper is on its production function at point W in the above figure. If the population increases with no change in capital or technology, the economy will  
A) move to point such as Y.  
B) remain at point W.  
C) move to point such as X.  
D) move to point such as Z.  
Answer: C

Topic: Production Function  
Level 3: Calculations and Predictions  
226) When the quantity of labor employed increases with no change in the nation’s production function, the marginal product of labor  
A) remains the same  
B) diminishes  
C) increases  
D) might change but more information is needed to determine if it increases or diminishes.  
Answer: B

Topic: Marginal Product of Labor  
Level 3: Calculations and Predictions  
227) The marginal product curve is the same as the  
A) supply of labor curve  
B) demand for labor curve  
C) production possibility frontier  
D) production function  
Answer: B

Topic: Marginal Product of Labor  
Level 3: Calculations and Predictions  
228) A firm has a marginal product that is less than the real wage rate. To maximize profit, the firm will  
A) hire less labor  
B) shift its labor demand curve rightward  
C) produce more output  
D) hire more labor  
Answer: A

Topic: Labor Market Equilibrium  
Level 3: Calculations and Predictions  
229) In the figure, when the real wage rate is $10 an hour,  
A) a shortage of labor exists and the real wage rate will rise  
B) the demand for labor will increase  
C) the demand for labor will decrease  
D) a surplus of labor exists and the real wage rate will fall  
Answer: A

Topic: Job Rationing  
Level 3: Calculations and Predictions  
230) In a market with job rationing,  
A) job search is less than it is at a full-employment equilibrium  
B) the quantity of labor demanded increases  
C) the quantity of labor supplied decreases  
D) job search is greater than it is at a full-employment equilibrium  
Answer: D
Topic: Production Possibilities
Level 4: Advanced Calculations and Predictions
231) The table above shows the relationship between leisure and real GDP in the country of Progress. The citizens of Progress have 400 billion hours each year to spend between leisure and labor. If the quantity of labor increases from 150 billion hours to 200 billion hours a year, real GDP ____.

A) decreases by $1.5 trillion
B) increases by $8.0 trillion
C) increases by $1.5 trillion
D) equals $9.0 trillion

Answer: C

Topic: Production Possibilities
Level 4: Advanced Calculations and Predictions
232) The table above shows the relationship between leisure and real GDP in the country of Progress. The citizens of Progress have 400 billion hours each year to spend between leisure and labor. When the citizens of Progress decide to decrease leisure, the marginal product of labor ____.

A) does not change
B) increases
C) might increase or decrease
D) decreases

Answer: D

Topic: Marginal Product
Level 4: Advanced Calculations and Predictions
233) The table above shows the relationship between leisure and real GDP in the country of Progress. The citizens of Progress have 400 billion hours each year to spend between leisure and labor. If the quantity of labor increases from 150 billion hours to 200 billion hours a year, the marginal product of labor is ____.

A) $1.5 trillion
B) $8.0 trillion
C) $15 an hour
D) $30 an hour

Answer: D

Topic: Labor Market Equilibrium
Level 4: Advanced Calculations and Predictions
234) The table above shows the labor market for the country of Pickett. When the labor market is in equilibrium, the real wage rate is ____ and ____ of labor a year are employed.

A) any value less than $25 an hour; any value greater than 40 billion hours
B) any value greater than $30 an hour; any value more than 40 billion hours
C) any value greater than or equal to $25 an hour; any value less than 40 billion hours
D) $30 an hour; 40 billion hours

Answer: D

Topic: Job Search
Level 4: Advanced Calculations and Predictions
235) The table shows the labor market for the country of Pickett. At a real wage rate that results in job rationing, job search ____ and ____.

A) decreases; a shortage of labor exists
B) increases; unemployment increases above the natural rate
C) decreases; unemployment increases above the natural rate
D) increases; a shortage of labor exists

Answer: B
<table>
<thead>
<tr>
<th>Real wage rate (2000 dollars per hour)</th>
<th>Quantity of labor demanded (billions of hours per year)</th>
<th>Quantity of labor supplied (billions of hours per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>70</td>
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<td>35</td>
<td>30</td>
<td>50</td>
</tr>
</tbody>
</table>

**Quality of labor (2000 dollars per hour)**

**Quantity of labor demanded (billions of hours per year)**

**Quantity of labor supplied (billions of hours per year)**

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**Topic: The Labor Market and Full Employment**

**Level 4: Advanced Calculations and Predictions**

236) The tables above show the labor market and the production function schedule for the country of Pickett. Potential GDP is ____.

A) $40 trillion  
B) $6 trillion  
C) $14 trillion  
D) $25 trillion  

**Answer: C**

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**Topic: Demand for Labor**

**Level 4: Advanced Calculations and Predictions**

238) When an increase in the capital stock occurs, ____.

A) the labor demand curve and the labor supply curve both shift rightward  
B) the labor demand curve shifts rightward and the labor supply curve does not shift  
C) a movement along the labor demand curve occurs  
D) the labor demand curve and the labor supply curve both shift leftward  

**Answer: B**

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**Topic: Job Search**

**Level 4: Advanced Calculations and Predictions**

239) When the real wage rate is greater than the equilibrium wage rate, job search ____ and unemployment ____ the natural rate.

A) increases; equals  
B) increases; is greater than  
C) decreases; is greater than  
D) decreases; is less than  

**Answer: B**

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**Answer: D**