

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. In the long run, the level of national income in an economy is determined by its:
  - A) factors of production and production function.
  - B) real and nominal interest rate.
  - C) government budget surplus or deficit.
  - D) rate of economic and accounting profit.
  
2. The two most important factors of production are:
  - A) goods and services.
  - B) labor and energy.
  - C) capital and labor.
  - D) saving and investment.
  
3. The production function feature called “constant returns to scale” means that if we:
  - A) multiply capital by  $z_1$  and labor by  $z_2$ , we multiply output by  $z_3$ .
  - B) increase capital and labor by 10 percent each, we increase output by 10 percent.
  - C) increase capital and labor by 5 percent each, we increase output by 10 percent.
  - D) increase capital by 10 percent and increase labor by 5 percent, we increase output by 7.5 percent.
  
4. If bread is produced by using a constant returns to scale production function, then if the:
  - A) number of workers is doubled, twice as much bread will be produced.
  - B) amount of equipment is doubled, twice as much bread will be produced.
  - C) amounts of equipment and workers are both doubled, twice as much bread will be produced.
  - D) amounts of equipment and workers are both doubled, four times as much bread will be produced.
  
5. When factor supply is fixed and quantity of the factor is graphed on the horizontal axis while factor price is graphed on the vertical axis, the factor:
  - A) supply curve is horizontal.
  - B) supply curve is vertical.
  - C) supply curve slopes up to the right.
  - D) demand curve slopes up to the right.

6. A competitive, profit-maximizing firm hires labor until the:
- A) marginal product of labor equals the wage.
  - B) price of output multiplied by the marginal product of labor equals the wage.
  - C) real wage equals the real rental price of capital.
  - D) wage equals the rental price of capital.
7. The real wage will increase if:
- A) the supply of labor increases.
  - B) the productivity of labor increases.
  - C) the price of output decreases.
  - D) the supply of capital decreases.
8. An increase in the supply of capital will:
- A) increase the real rental price of capital.
  - B) decrease the real rental price of capital.
  - C) increase the productivity of capital.
  - D) decrease the real interest rate.
9. Economic profit is zero if:
- A) all factors are paid their marginal products and the law of diminishing returns is valid.
  - B) all factors are paid their marginal products and there are constant returns to scale.
  - C) all firms maximize profits and none are competitive.
  - D) all firms maximize profits and all factors are paid their marginal products.
10. Accounting profit is:
- A) economic profit minus the return to capital.
  - B) equal to economic profit.
  - C) economic profit plus the return to capital.
  - D) equal to the economic return to capital.
11. In fourteenth-century Europe, the bubonic plague:
- A) reduced the population of Europe by about one-half.
  - B) substantially increased economic output in Europe.
  - C) substantially increased real rentals on land in Europe.
  - D) substantially increased real wages in Europe.

12. If output is described by the production function  $Y = AK^{0.2}L^{0.8}$ , then the production function has:
- A) constant returns to scale.
  - B) diminishing returns to scale.
  - C) increasing returns to scale.
  - D) a degree of returns to scale that cannot be determined from the information given.
13. If  $Y = AK^{0.5}L^{0.5}$  and  $A$ ,  $K$ , and  $L$  are all 100, the marginal product of capital is:
- A) 50.
  - B) 100.
  - C) 200.
  - D) 1,000.
14. In a Cobb-Douglas production function the marginal product of labor will increase if:
- A) the quantity of labor increases.
  - B) the quantity of capital increases.
  - C) capital's share of output increases.
  - D) average labor productivity decreases.
15. In a closed economy, the components of GDP are:
- A) consumption, investment, government purchases, and exports.
  - B) consumption, investment, government purchases, and net exports.
  - C) consumption, investment, and government purchases.
  - D) consumption and investment.
16. Consumption depends \_\_\_\_\_ on disposable income, and investment depends \_\_\_\_\_ on the real interest rate.
- A) positively; positively
  - B) positively; negatively
  - C) negatively; negatively
  - D) negatively; positively
17. If the consumption function is given by  $C = 500 + 0.5(Y - T)$ , and  $Y$  is 6,000 and  $T$  is given by  $T = 200 + 0.2Y$ , then  $C$  equals:
- A) 2,500.
  - B) 2,800.
  - C) 3,500.
  - D) 4,200.

18. If the consumption function is given by the equation  $C = 500 + 0.5Y$ , the production function is  $Y = 50K^{0.5}L^{0.5}$ , where  $K = 100$  and  $L = 100$ , then  $C$  equals:
- A) 1,000.
  - B) 2,500.
  - C) 3,000.
  - D) 5,000.
19. Assume that the consumption function is given by  $C = 150 + 0.85(Y - T)$ , the tax function is given by  $T = t_0 + t_1Y$ , and  $Y$  is 5,000. If  $t_1$  decreases from 0.3 to 0.2, then consumption increases by:
- A) 85.
  - B) 425.
  - C) 500.
  - D) 525.
20. Total investment in the United States averages about \_\_\_\_\_ percent of GDP.
- A) 10
  - B) 15
  - C) 20
  - D) 25
21. Other things equal, an increase in the interest rate leads to:
- A) a decrease in the quantity of investment goods demanded.
  - B) no change in the quantity of investment goods demanded.
  - C) an increase in the quantity of investment goods demanded.
  - D) sometimes an increase and sometimes a decrease in the quantity of investment goods demanded.
22. When economists speak of “the” interest rate, they mean:
- A) the rate on 90-day Treasury bills.
  - B) the rate on 30-year government bonds.
  - C) the “prime” rate on loans.
  - D) no particular interest rate, since it is assumed that various interest rates tend to move up and down together.
23. The home that would have the highest mortgage payment on a 30-year fixed-rate mortgage would be a home with a mortgage of:
- A) \$200,000 at 8 percent.
  - B) \$100,000 at 12 percent.
  - C) \$100,000 at 8 percent.
  - D) \$200,000 at 12 percent.

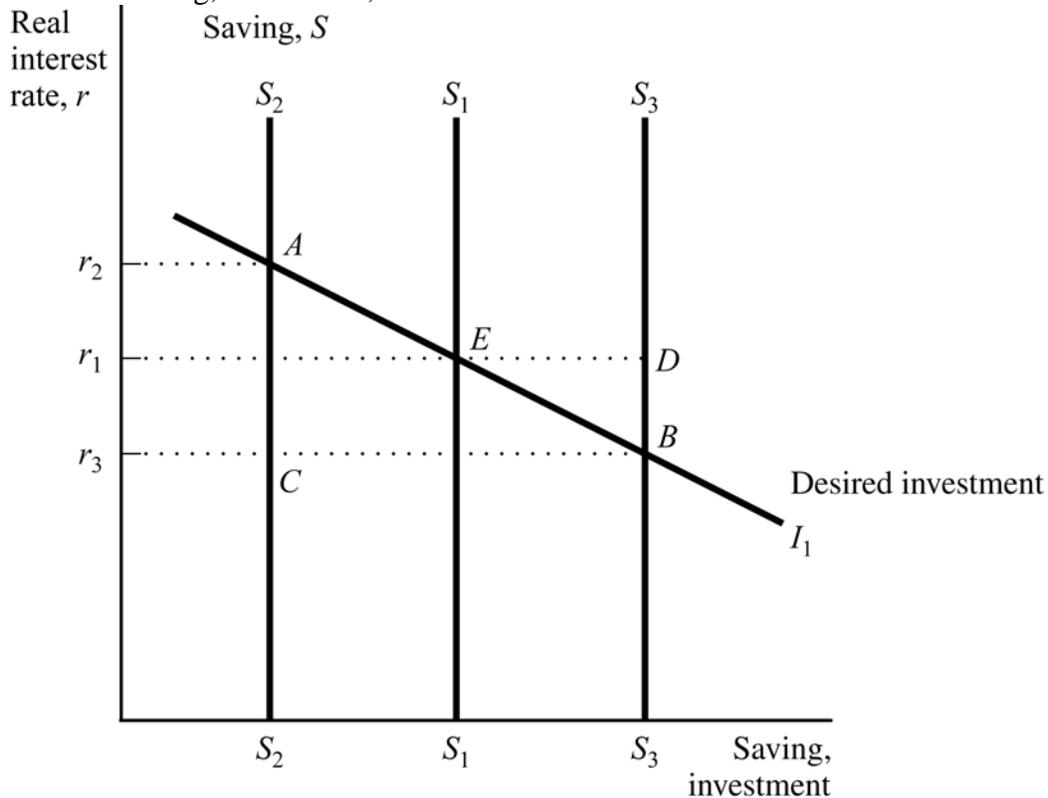
24. The *nominal* interest rate is the:
- A) rate of interest that investors pay to borrow money.
  - B) same as the real interest rate.
  - C) rate of inflation minus the real rate of interest.
  - D) real rate of interest minus the rate of inflation.
25. The *real* interest rate is the:
- A) rate of interest actually paid by consumers.
  - B) rate of interest actually paid by banks.
  - C) rate of inflation minus the nominal interest rate.
  - D) nominal interest rate minus the rate of inflation.
26. Assume that the investment function is given by  $I = 1,000 - 30r$ , where  $r$  is the real rate of interest (in percent). Assume further that the nominal rate of interest is 10 percent and the inflation rate is 2 percent. According to the investment function, investment will be:
- A) 240.
  - B) 700.
  - C) 760.
  - D) 970.
27. All of the following actions increase government purchases of goods and services *except* the:
- A) federal government's sending a Social Security check to Betty Jones.
  - B) federal government's sending a paycheck to the president of the United States.
  - C) federal government's buying a Patriot missile.
  - D) city of Boston's buying a library book.
28. The equation  $Y = C(Y - T) + I(r) + G$  may be solved for the equilibrium level of:
- A) income.
  - B) consumption.
  - C) government purchases.
  - D) the interest rate.
29. In the classical model with fixed income, if the interest rate is too low, then investment is too \_\_\_\_\_ and the demand for output \_\_\_\_\_ the supply.
- A) high; exceeds
  - B) high; falls short of
  - C) low; exceeds
  - D) low; falls short of

30. In a closed economy, private saving equals:
- A)  $Y - C - G$ .
  - B)  $Y - T - C$ .
  - C)  $Y - I - C$ .
  - D)  $Y - T$ .
31. Public saving is:
- A) income minus consumption minus government spending.
  - B) disposable income minus consumption.
  - C) disposable income minus government spending.
  - D) government revenue minus government spending.
32. National saving is:
- A) private saving.
  - B) public saving.
  - C) private saving plus public saving.
  - D) private saving minus public saving.
33. If income is 4,800, consumption is 3,500, government spending is 1,000, and tax revenues are 800, private saving is:
- A) 300.
  - B) 500.
  - C) 1,000.
  - D) 1,300.
34. Issuing bonds is called \_\_\_\_\_ financing, while issuing stocks is called \_\_\_\_\_ financing.
- A) debt; equity
  - B) real; nominal
  - C) capital; investment
  - D) private; public
35. Assume that equilibrium GDP ( $Y$ ) is 5,000. Consumption is given by the equation  $C = 500 + 0.6(Y - T)$ . Taxes ( $T$ ) are equal to 600. Government spending is equal to 1,000. Investment is given by the equation  $I = 2,160 - 100r$ , where  $r$  is the real interest rate in percent. In this case, the equilibrium real interest rate is:
- A) 5 percent.
  - B) 8 percent.
  - C) 10 percent.
  - D) 13 percent.

36. According to the model developed in Chapter 3, when taxes decrease without a change in government spending:
- A) consumption and investment both increase.
  - B) consumption and investment both decrease.
  - C) consumption increases and investment decreases.
  - D) consumption decreases and investment increases.
37. In the neoclassical model with fixed income, if there is a decrease in government spending with no change in taxes, then public saving \_\_\_\_\_ and private saving \_\_\_\_\_.
- A) increases; increases
  - B) increases; does not change
  - C) decreases; increases
  - D) decreases; does not change

Use the following to answer questions 38-39:

Exhibit: Saving, Investment, and the Interest Rate 1



38. (Exhibit: Saving, Investment, and the Interest Rate 1) The economy begins in equilibrium at Point E, representing the real interest rate,  $r_1$ , at which saving,  $S_1$ , equals desired investment,  $I_1$ . What will be the new equilibrium combination of real interest rate, saving, and investment if the government cuts spending, holding other factors constant?
- A) Point A
  - B) Point B
  - C) Point C
  - D) Point D
39. (Exhibit: Saving, Investment, and the Interest Rate 1) The economy begins in equilibrium at Point E, representing the real interest rate,  $r_1$ , at which saving,  $S_1$ , equals desired investment,  $I_1$ . What will be the new equilibrium combination of real interest rate, saving, and investment if the government cuts taxes, holding other factors constant?
- A) Point A
  - B) Point B
  - C) Point C
  - D) Point D
40. If an earthquake destroys some of the capital stock, the neoclassical theory of distribution predicts:
- A) the real wage will rise and the real rental price of capital will fall.
  - B) both the real wage and the real rental price of capital will fall.
  - C) both the real wage and the real rental price of capital will rise.
  - D) the real wage will fall and the real rental price of capital will rise.
41. If a neutral technological advance improves the production function, the neoclassical theory of distribution predicts:
- A) the real wage will rise and the real rental price of capital will fall.
  - B) both the real wage and the real rental price of capital will fall.
  - C) both the real wage and the real rental price of capital will rise.
  - D) the real wage will fall and the real rental price of capital will rise.
42. The government raises lump-sum taxes on income by \$100 billion, and the neoclassical economy adjusts so that output does not change. If the marginal propensity to consume is 0.6, private saving:
- A) rises by \$40 billion.
  - B) rises by \$60 billion.
  - C) falls by \$60 billion.
  - D) falls by \$40 billion.

43. Assume that an increase in consumer confidence raises consumers' expectations of future income and thus the amount they want to consume today for any given income. This shift, in a neoclassical economy, will:
- A) lower investment and raise the interest rate.
  - B) raise investment and lower the interest rate.
  - C) lower both investment and the interest rate.
  - D) raise both investment and the interest rate.

## Answer Key

1. A
2. C
3. B
4. C
5. B
6. B
7. B
8. B
9. B
10. C
11. D
12. A
13. A
14. B
15. C
16. B
17. B
18. C
19. B
20. B
21. A
22. D
23. D
24. A
25. D
26. C
27. A
28. D
29. A
30. B
31. D
32. C
33. B
34. A
35. D
36. C
37. B
38. B
39. A
40. D
41. C
42. D
43. A