Problem Set for Chapter 12 (Multiple choices)

1. In 2009, the imaginary nation of Florastan had a population of 8,300 and real GDP of 190,900. Florastan had 5% growth in real GDP per person. In 2010 it had a population of 8,400. What was real GDP in Florastan in 2010?
   a. 200,445
   b. 202,860
   c. 198,059
   d. None of the above is correct.
   ANS: B

2. For a given year, productivity in a particular country is most closely matched with that country's
   a. level of real GDP over that year.
   b. level of real GDP divided by hours worked over that year.
   c. growth rate of real GDP divided by hours worked over that year.
   d. growth rate of real GDP per person over that year.
   ANS: B

3. You and your friend work together for 4 hours to produce a total of 12 futons. What is productivity?
   a. 12 futons
   b. 24 futons
   c. 3 futons per hour of labor
   d. 1.5 futons per hour of labor
   ANS: D

4. In 2009 Buckeye Brewing produced 1,000 bottles of ginger ale each day. It employed 10 workers each working 8 hours a day. In 2010 it produced 960 bottles of ginger ale each day employing 8 workers who worked 8 hours each day. Productivity at Buckeye Brewing
   a. increased by 20%.
   b. increased by 16.67%.
   c. decreased by 1.67%.
   d. decreased by 40%.
   ANS: A

5. Upland has a population of 15,000, of whom 9,000 work 8 hours a day to produce real output of $342,000. Lowland has a population of 8,000, of whom 7,000 work 7 hours a day to produce real output of $171,500.
   a. Upland has higher productivity and higher real GDP per person than Lowland.
   b. Upland has higher productivity but lower real GDP per person than Lowland.
   c. Upland has lower productivity but higher real GDP per person than Lowland.
   d. Upland has lower productivity and lower real GDP per person than Lowland.
   ANS: A
6. Which of the following is human capital?
   a. a student loan
   b. understanding how to use a company's accounting software
   c. training videos for new corporate employees
   d. All of the above are correct.
   ANS: B

7. In a market economy, scarcity of resources is most clearly reflected in
   a. supply.
   b. demand.
   c. market prices.
   d. the stock of the resource.
   ANS: C

8. The notion that our ability to conserve natural resources is growing more rapidly than their
   supplies are dwindling is supported by the fact that
   a. most economists do not regard the availability of natural resources as a determinant of
      productivity.
   b. the quantity of natural resources does not enter into any production function.
   c. inflation-adjusted prices of most natural resources have been stable or fallen over time.
   d. inflation-adjusted prices of most natural resources have risen over time.
   ANS: C

9. Thomas Edison received patents on many of his inventions. While the patents existed, his
   ideas were
   a. public goods and proprietary knowledge.
   b. public goods but not proprietary knowledge.
   c. private goods and proprietary knowledge.
   d. private goods but not proprietary knowledge.
   ANS: C

10. In the equation for the production function $H/L$ represents
    a. natural resources per worker.
    b. human capital per worker.
    c. output per worker.
    d. physical capital per worker.
    ANS: B

11. If an economy with constant returns to scale were to double its physical capital stock, its
    available natural resources, and its human capital, but leave the size of the labor force the
    same,
    a. its output would stay the same and so would its productivity.
    b. its output and productivity would increase, but less than double.
    c. its output and productivity would increase by more than double.
    d. None of the above is correct.
    ANS: B
12. “When workers already have a large quantity of capital to use in producing goods and services, giving them an additional unit of capital increases their productivity only slightly.”
   This statement
a. represents the traditional view of the production process.
b. is an assertion that capital is subject to diminishing returns.
c. is made under the assumption that the quantities of human capital, natural resources, and technology are being held constant.
d. All of the above are correct.
ANS: D

13. On the horizontal axis, \( K/L \) represents capital (\( K \)) per worker (\( L \)). On the vertical axis, \( Y/L \) represents output (\( Y \)) per worker (\( L \)).

14. The shape of the curve is consistent with which of the following statements about the economy to which the curve applies?
a. In the long run, a higher saving rate leads to a higher level of productivity.
b. In the long run, a higher saving rate leads to a higher level of income.
c. In the long run, a higher saving rate leads to neither a higher growth rate of productivity nor a higher growth rate of income.
d. All of the above are correct.
ANS: D

15. If a country were to increase its saving rate, then in the long run it would also increase its
a. level of income.
b. growth rate of income.
c. growth rate of productivity.
d. All of the above are correct.
ANS: A
16. Suppose that there are diminishing returns to capital. Suppose also that two countries are the same except one has less capital and so less real GDP per person. Suppose that both increase their saving rate from 3 percent to 4 percent. In the long run
   a. both countries will have permanently higher growth rates of real GDP per person, and the growth rate will be higher in the country with more capital.
   b. both countries will have permanently higher growth rates of real GDP per person, and the growth rate will be higher in the country with less capital.
   c. both countries will have higher levels of real GDP per person, and the temporary increase in growth in the level of real GDP per person will have been greater in the country with more capital.
   d. both countries will have higher levels of real GDP per person, and the temporary increase in growth in the level of real GDP per person will have been greater in the country with less capital.
ANS: D

17. Evidence shows that other things the same, poor countries grow
   a. faster than rich countries. However, no country that was poor in 1870 is now rich.
   b. faster than rich countries. In fact, some countries that were poor in 1870 are now rich.
   c. slower than rich countries. In fact, no country that was poor in 1870 is now rich.
   d. slower than rich countries. However, some countries that were poor in 1870 are now rich.
ANS: B

18. Suppose U.S.-based Intel Corporation builds and operates a new computer chip factory in Ghana. Future production from such an investment would
   a. increase Ghanaian GDP more than it would increase Ghanaian GNP.
   b. increase Ghanaian GNP more than it would increase Ghanaian GDP.
   c. not affect Ghanaian GNP, but would increase Ghanaian GDP.
   d. have no affect on either Ghanaian GDP or GNP.
ANS: A

19. Educational attainment tends to be
   a. low in countries with high population growth.
   b. low in countries with low population growth.
   c. high in countries with high population growth.
   d. None of the above are true.
ANS: A

20. The dictator of Turan has recently begun to arbitrarily seize farms belonging to his political opponents, and he has given the farms to his friends. His friends don't know much about farming. The courts in Turan have ruled that the seizures are illegal, but the dictator has ignored the rulings. Other things equal, we would expect that the growth rate in Turan will
   a. fall temporarily, but will return to where it was when the new owners learn how to farm.
   b. increase because the total amount of human capital in the country will increase as the new owners learn how to farm.
   c. fall and remain lower for a long time.
   d. not be affected unless widespread civil disorder or civil war results.
ANS: C
21. The president of Suldinia, a developing country, proposes that his country needs to help domestic firms by reducing trade restrictions.
a. These are outward-oriented policies and most economists believe they would have beneficial effects on growth in Suldinia.
b. These are outward-oriented policies and most economists believe they would have adverse effects on growth in Suldinia.
c. These are inward-oriented policies and most economists believe they would have beneficial effects on growth in Suldinia.
d. These are inward-oriented policies and most economists believe they would have adverse effects on growth in Suldinia.
ANS: A

22. Because of its effect on the amount of capital per worker, in the short term an increase in the working population is likely to
a. raise productivity. Other things the same, this increase will be larger in a poor country.
b. raise productivity. Other things the same, this increase will be larger in a rich country.
c. reduce productivity. Other things the same, this decrease will be larger in a poor country.
d. reduce productivity. Other things the same, this decrease will be larger in a rich country.
ANS: C

23. Which of the following is true?
a. Kremer argued that with greater population, society would generate more ideas so that growth of real GDP per person could continue. Malthus argued that increasing population would outstrip agricultural production.
b. Kremer argued that increases in population would reduce the amount of human and physical capital per worker so that eventually the standard of living would decline. Malthus argued that increases in technology would allow increased output growth so that even with population growth, society would enjoy a higher standard of living.
c. Malthus argued that with greater population, society would generate more ideas so that growth of real GDP per person could continue. Kremer argued that increasing population would outstrip agricultural production.
d. Malthus argued that increases in population would reduce the amount of human and physical capital per worker so that eventually the standard of living would decline. Kremer argued that increases in technology would allow increased output growth so that even with population growth, society would enjoy a higher standard of living.
ANS: A

24. Senator Smith says that in order to help poor countries develop, the United States should: 1. Prevent U.S. corporations from investing in poor countries because they take profits that the poor countries should have; 2. reduce or eliminate subsidizes to U.S. producers when poor countries have a comparative advantage producing those goods the U.S. subsidizes; 3. Work to promote political stability in poor countries; and 4. Reduce poor countries reliance on market forces in their economies. How many of these ideas are likely to help poor countries grow?
a. 1  
b. 2  
c. 3  
d. 4  
ANS: B