Short Exercise 3 (Growth)

<Multiple Choice>

1. Which of the following is correct?
a. Although levels of real GDP per person vary substantially from country to country, the growth rate of real
GDP per person is similar across countries.
b. Productivity is not closely linked to government policies.
c. The level of real GDP per person is a good gauge of economic prosperity, and the growth rate of real GDP
per person is a good gauge of economic progress.
d. Productivity may be measured by the growth rate of real GDP per person.

2. Which of the following does the level of real GDP measure?
a. total real income
b. productivity
c. the standard of living
d. All of the above are correct.

3. A nation's standard of living is determined by
a. its productivity.
b. its gross domestic product.
c. its national income.
d. how much it has relative to others.

4. Which of the following is correct?
a. Countries with the highest growth rates over the last 100 years are the ones that had the highest level of real
GDP 100 years ago.
b. Most countries have had little fluctuation around their average growth rates during the past 100 years.
c. The ranking of countries by income changes substantially over time.
d. Over the last 100 years, Japan had the highest real GDP growth rate, and now has the highest real GDP per
person.

5. Which of the following is a correct way to measure productivity?
a. divide the number of hours worked by output
b. divide output by the number of hours worked
c. compute output growth
d. divide the change in output by the change in number of hours worked

6. Consider two countries. Country A has a population of 1,000, of whom 800 work 8 hours a day to make
128,000 final goods. Country B has a population of 2,000 of whom 1,800 work 6 hours a day to make
270,000 final goods
a. Country A has higher productivity and higher real GDP per person than country B.
b. Country A has lower productivity and lower real GDP per person than country B.
c. Country A has higher productivity, but lower real GDP per person than country B.
d. Country B has lower productivity, but higher real GDP per person than country B.

7. Real Foods produced 300,000 boxes of organic spiral noodles in 2004 and produced 360,000 boxes in 2005.
They used the same total hours of work in each year. In 2005 their productivity
a. fell.
b. was the same as in 2004.
c. rose 20%.
d. rose 30%.
8. Which of the following is a determinant of productivity?
   a. human capital per worker
   b. physical capital per worker
   c. natural resources per worker
   d. All of the above are correct.

9. The equipment and structures available to produce goods and services are called
   a. physical capital.
   b. human capital.
   c. the production function.
   d. technology.

10. Which of the following is a part of your Economics professor's human capital?
    a. the things she learned at some prestigious university
    b. her copy of Mankiw's text
    c. her chalk holder
    d. All of the above are correct.

11. 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.

12. You bake cookies. One day you double the time you spend, double the number of chocolate chips, flour, eggs, and all your other inputs, and bake twice as many cookies. Your cookie production function has
    a. decreasing returns to scale.
    b. zero returns to scale.
    c. constant returns to scale.
    d. increasing returns to scale.

13. An increase in the saving rate would, other things the same,
    a. increase growth more for a poor country than a rich country, and raise growth permanently.
    b. increase growth more for a poor country than a rich country, but raise growth temporarily.
    c. increase growth more for a rich country than a poor country, and raise growth permanently.
    d. increase growth more for a rich country than a poor country, but raise growth temporarily.

<Short Answer>

1. At first patents might seem like a deterrent to growth because in effect they restrict the use of new technology. Yet many economists believe that patents generate growth. Explain why.

2. Why is productivity related to the standard of living? In your answer be sure to explain what productivity and standard of living mean. Make a list of things that determine labor productivity.