ANSWERS

Ch25.1 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 labour productivity.

ANS:

The standard of living is a measure of how well people live. Income per person is an important dimension of the standard of living and is positively correlated with other things such as nutrition and life expectancy that make people better off. Productivity measures how much people can produce in an hour. As productivity increases, people can produce more (and use less to produce the same amount) and so their standard of living increases.

The factors that determine labour productivity include the amounts of physical capital (equipment and structures), human capital (knowledge and skills), and natural resources available to workers, as well as the state of technological knowledge in society.

Ch25.2 What is the difference between human capital and technology?

ANS:

Technology is society's understanding of production techniques. Human capital is the labour force's understanding of these ideas. A society may have lots of information available about how to produce goods, but still have lots of people who know little of this information. For example, in the United States there exists information about how best to use a butter churn and how to make lye soap, but most people know nothing about it.

Ch25.3 Some data that at first might seem puzzling: The share of GDP devoted to investment was similar for the United States and South Korea from 1960-1991. However, during these same years South Korea had a 6 percent growth rate of average annual income per person, while the United States had only a 2 percent growth rate. If the saving rates were the same, why were the growth rates so different?

ANS:

The explanation is based on the concept of diminishing returns to capital. A country that has a lot of income, and so a lot of capital, gains less by adding more capital than does a country that currently has little capital. It is easy to envision how a poor country without much capital could increase its output considerably with even a little more capital.
Suppose that the UK Government decided to reduce consumption and increase investment.

a. How would this change affect economic growth?
b. What groups in society would benefit from this change? What groups might be hurt?

ANS:

a. More investment would lead to faster economic growth in the short to medium run. (Of course, economists debate whether in the immediate aftermath of the policy change the fall in investment will be fully offset by the rise in investment. Thereafter, the respective multipliers on consumption and investment matter; and will determine whether the policy change is expansionary and to what degree. But, as the simple answer indicates, the increased capital stock, due to the switch from consumption to investment, will enable faster economic growth until the diminishing returns from capital set in and GDP growth slows down. But it is essentially an empirical issue to determine how long it will take before growth slows down; the UK, as an advanced economy, may not have that high a return on capital, at least relative to developing countries. So the boost to GDP growth may not be as strong as in developing countries.)

b. The change would benefit many people in society who would have higher incomes as the result of faster economic growth. However, there might be a transition period in which workers and owners in consumption-good industries would get lower incomes, and workers and owners in investment-good industries would get higher incomes. In addition, some group would have to reduce their spending for some time so that investment could rise.

Investment can be increased both by reducing taxes on private saving and by reducing the government budget deficit.

a. Why is it difficult to implement both of these policies at the same time?
b. What would you need to know about private saving in order to judge which of these two policies would be a more effective way to raise investment?

ANS:

a. Investment can be increased by reducing taxes on private saving or by reducing the government budget deficit. But reducing taxes on private saving has the effect of increasing the government budget deficit, unless some other taxes are increased or government spending is reduced. So it is difficult to engage in both policies at the same time.

b. To know which of these policies would be a more effective way to raise investment, you would need to know: (1) what the elasticity of private saving is with respect to the after-tax real interest rate, because that would determine how much private saving would increase if you reduced taxes on saving; (2) how private saving responds to changes in the government budget deficit, because, for example, if Ricardian equivalence holds, the decline in the government budget deficit would be matched by an equal decline in private saving, so national saving would not increase at all; and (3) how elastic investment is with respect to the interest rate, because if investment is quite inelastic, neither policy will have much of an impact on investment.
Ch26.2. What are the basic differences between bonds and stocks?

ANS:

A bond is a certificate of indebtedness that specifies the obligations of the borrower to the holder of the bond, while stock represents a share of ownership in a firm and is, therefore, a claim on the profits that the firm makes. The sale of bonds to raise money is called debt finance, while the sale of stock is called equity finance. Whereas the owner of shares of stock in a company share in the profits of a company, the owner of bonds receives a fixed interest rate. Compared to bonds, stocks offer the holder both higher risk and a potentially higher return.

Ch23.1. GDP is defined as the market value of all final goods and services produced within a country in a given period of time. In spite of this definition, some production is left out of GDP. Explain why some final goods and services are not included.

ANS:

GDP excludes some products because they are so difficult to measure. These products include services performed by individuals for themselves and their families, and most goods that are produced and consumed at home and, therefore, never enter the marketplace. In addition, illegal products are not included in GDP.

Ch23 2. If prices rise, people’s income from selling goods increases. The growth of real GDP ignores this gain, however. Why, then, do economists prefer real GDP as a measure of economic wellbeing?

ANS:

Economists ignore the rise in people's incomes that is caused by higher prices because although incomes are higher, the prices of the goods and services that people buy are also higher. Therefore, they will not necessarily be able to purchase more goods and services. For this reason, economists prefer to look at real GDP instead of nominal GDP.

Ch23.3 If GDP is a good measure of well-being, why is Switzerland’s GDP so much lower than India’s GDP or China’s GDP?

ANS:

GDP itself tells very little; Switzerland’s GDP is much lower than that of India or China, yet Swiss citizens have one of the highest standards of living in the world. The difference, of course, is population. Switzerland is a small country, so its GDP is relatively small, despite its wealth. The appropriate comparison is per capita GDP. A more interesting question is “Is
per capita GDP a good measure of well-being?” Or worded another way: “What constitutes well-being?”

Ch23 4. What components of GDP (if any) would each of the following transactions affect? Explain.

   a) A family buys a new refrigerator.
   b) Aunt Jane buys a new house.
   c) BMW sells a Mini from its inventory.
   d) You buy fish and chips.
   e) Leicester City Council resurfaces University Road.
   f) Your parents buy a bottle of French wine.

ANS:

a. Consumption increases because a refrigerator is a good purchased by a household.

b. Investment increases because a house is an investment good.

c. Consumption increases because a car is a good purchased by a household, but investment decreases because the car in BMW’s inventory had been counted as an investment good until it was sold.

d. Consumption increases because fish and chips are a good purchased by a household.

e. Government purchases increase because the government spent money to provide a good to the public.

f. Consumption increases because the bottle is a good purchased by a household, but net exports decrease because the bottle was imported.

Ch23. 5 U.S. real GDP is substantially higher today than it was 60 years ago. What does this tell us, and what does it not tell us, about the well-being of U.S. residents?

ANS:

Since this is in real terms, it tells us that the U.S. is able to make a lot more stuff than in the past. Some of the increase in real GDP is probably due to an increase in population, so we could say more if we knew what had happened to real GDP per person. Supposing that there was also an increase in real GDP per person, we can say that the standard of living has risen. Material things are an important part of well-being. Having sufficient amounts of things such as food, shelter, and clothing are fundamental to well-being. Other things such as security, a safe environment, access to safe water, access to medical care, justice, and freedom also matter. However, many of these things are more easily obtained by being able to produce
more using fewer resources. Countries with higher real GDP per person tend to have longer 
life spans, less discrimination towards women, less child labor, and a higher rate of literacy.

Ch 24. 1. In a simple economy, people consume only 2 goods, food and clothing. The 
market basket of goods used to compute the CPI consists of 50 units of food and 10 units of 
clothing.

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<tr>
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<th>Food</th>
<th>Clothing</th>
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<tbody>
<tr>
<td>2002 price per unit</td>
<td>$4</td>
<td>$10</td>
</tr>
<tr>
<td>2003 price per unit</td>
<td>$6</td>
<td>$20</td>
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a. What are the percentage increases in the price of food and in the price of clothing?
b. What is the percentage increase in the CPI?
c. Do these price changes affect all consumers to the same extent? Explain.

ANS:
a. The price of food increased by 50 percent ([6-4]/4 x 100). The price of clothing 
increased by 100 percent ([20-10]/10 x 100).
b. In 2002, the market basket cost $300 (4x50 + 10x10); in 2003, it cost $500 (6x50 + 
20x10). The percentage increase in the CPI is 66.7 percent ([500-300]/300 x 100).
c. Because the price of clothing increased relatively more than the price of food, people 
who purchase a lot of clothing and little food became worse off relative to people who 
purchase a lot of food and little clothing.

Ch 24.2 Which of the problems in the construction of the CPI index might be illustrated by 
each of the following situations? Explain.

a. the invention of MP3 players  
b. the introduction of air bags in cars  
c. increased personal computer purchases in response to a decline in their price  
d. increased use of digital cameras  
e. greater use of fuel-efficient cars after petrol prices increase.

ANS:
a. introduction of new goods; b. unmeasured quality change; c. substitution bias; d. 
unmeasured quality change; e. substitution bias

Ch 24.3. Why does the GDP deflator give a different rate of inflation than the CPI?

ANS:
The GDP deflator and the CPI differ in two important ways. The GDP deflator uses as a basket all final goods and services produced in the domestic economy, while the CPI basket includes goods and services purchased by typical consumers. Therefore, changes in the price of imported goods affect the CPI, but not the GDP deflator. Also, changes in the price of domestically produced capital goods affect the GDP deflator, but not the CPI. Changes in the price of domestically produced consumer goods are likely to affect the CPI more than the GDP deflator because it is likely that those goods make up a larger part of consumer budgets than of GDP.

Ch24. 4. Jay and Joyce meet George, the banker, to work out the details of a mortgage. They all expect that inflation will be 2 percent over the term of the loan, and they agree on a nominal interest rate of 6 percent. As it turns out, the inflation rate is 5 percent over the term of the loan.
   a. What was the expected real interest rate?
   b. What was the actual real interest rate?
   c. Who benefited and who lost because of the unexpected inflation?

ANS:
   a. The expected real interest rate was 4 percent (6-2).
   b. The actual real interest rate was 1 percent (6-5).
   c. George, the banker, lost because he received less real interest income than he expected. Jay and Joyce gained because they paid less real interest income than they expected.