

## Problem Set 4

### **Multiple choice questions:**

1. Which of the following is *not* included in GDP?
  - a. carrots grown in your garden and eaten by your family**
  - b. carrots purchased at a farmer's market and eaten by your family
  - c. carrots purchased at a grocery store and eaten by your family
  - d. None of the above are included in GDP.
  
2. Gasoline is considered a final good if it is sold by a
  - a. gasoline station to a bus company that operates a bus route between San Francisco and Los Angeles.
  - b. pipeline operator to a gasoline station in San Francisco.
  - c. gasoline station to a motorist in Los Angeles.**
  - d. All of the above are correct.
  
3. A U.S. grocery chain purchases olive oil from Tunisia and sells it to U.S. consumers. In which of the following is this transaction included?
  - a. U.S. consumption and U.S. imports**
  - b. U.S. consumption but not U.S. imports
  - c. U.S. imports but not U.S. consumption
  - d. neither U.S. consumption nor U.S. imports
  
4. Which of the following is correct?
  - a. The GDP deflator is better than the CPI at reflecting the goods and services bought by consumers.
  - b. The CPI is better than the GDP deflator at reflecting the goods and services bought by consumers.**
  - c. The GDP deflator and the CPI are equally good at reflecting the goods and services bought by consumers.
  - d. The GDP deflator is more commonly used as a gauge of inflation than the CPI is.
  
5. The price index was 150 in the first year, 160 in the second year, and 165 in the third year. Which of the following statements is correct?
  - a. The price level was higher in the second year than in the first year, and it was higher in the third year than in the second year.
  - b. The inflation rate was positive between the first and second years, and it was positive between the second and third years.
  - c. The inflation rate was lower between the second and third years than it was between the

first and second years.

d. **All of the above are correct.**

6. Which of the following is not a widely acknowledged problem with using the CPI as a measure of the cost of living?

a. substitution bias

**b. unmeasured price change**

c. introduction of new goods

d. unmeasured quality change

7. Which of the following is a good gauge of economic progress?

a. the level of real GDP per person, but not the growth rate of real GDP per person

b. the level of real GDP per person and the growth rate of real GDP per person

**c. the growth rate of real GDP per person, but not the level of real GDP per person**

d. neither the level nor the growth rate of real GDP per person

8. We would expect the interest rate on Bond A to be higher than the interest rate on Bond B if the two bonds have identical characteristics except that

a. Bond A was issued by a financially weak corporation and Bond B was issued by a financially strong corporation.

b. Bond A was issued by the Exxon Mobil Corporation and Bond B was issued by the state of New York.

c. Bond A has a term of 20 years and Bond B has a term of 1 year.

**d. All of the above are correct.**

9. Suppose that the adult population in the country of Atlantis is 115 million. If 80 million people are employed and 5 million are unemployed, then

**a. 30 million are not in the labor force.**

b. 35 million are in the labor force.

c. 75 million are in the labor force.

d. 35 million are not in the labor force.

10. Which list ranks assets from most to least liquid?

**a. money, bonds, cars, houses**

b. money, cars, houses, bonds

c. bonds, money, cars, houses

d. bonds, cars, money, houses

**True/False questions:**

1. In years of economic contraction, firms throughout the economy increase their production of goods and services, employment rises, and jobs are easy to find. (T)
2. For an economy as a whole, income must exceed the expenditure. (F)
3. The consumer price index is used to monitor changes in an economy's production of goods and services over time. (F)
4. When economists refer to investment, they mean the purchasing of stocks and bonds and other types of saving (F)
5. The amount of unemployment that a country typically experiences is a determinant of its standard of living. (T)
6. A firm might offer efficiency wages in order to reduce shirking. (T)
7. According to economists, "money" means the same thing as "wealth". (F)

**Answer the following questions:**

1) What is the difference between human capital and technology?

**ANSWER:** Technology is society's understanding of production techniques. Human capital is the labor 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.

2) In addition to investment in physical and human capital, what other public policies might a country adapt to increase productivity?

**ANSWER:** In addition to investment in physical and human capital, a country might increase productivity by (a) specifying and enforcing property rights, (b) encouraging free trade, (c) controlling population growth -- although the case has been made that a larger population creates more ideas and so more technology, and (d) promoting research and development.

3) Explain why the demand for loanable funds slopes downward and why the supply of loanable funds slopes upward.

**ANSWER:** When the interest rate rises investment spending becomes more expensive, so people invest less. As the interest rate rises saving becomes more rewarding, so people want to save more. The inverse relation between interest and borrowing is reflected in the downward slope of the demand for loanable funds curve. The positive relation between interest and saving is reflected in the upward slope of the supply of loanable funds curve.

4) What is the difference between commodity money and fiat money? Why do people accept fiat money in trade for goods and services?

**ANSWER:** Commodity money has "intrinsic value," or value in uses other than as money. Fiat money is established as money by the government. It has very little, if any, intrinsic value. Although fiat money has no intrinsic value, people accept it in trade when they are confident that others will also accept it. The government's decree that fiat currency serves as legal tender increases this confidence.

5) Following the recession of 2001, there was a month in which employment and the unemployment rate both rose. Assuming the computations were correct, how is it possible for both to have increased?

**ANSWER:** The rate of unemployment is measured as the number of people unemployed divided by the labor force. If the number of people in the labor force rises, but a significant portion of the rise in the labor force is people who are unemployed, then both employment and unemployment could rise. (This likely happened because as the economy was improving, more people began seeking employment, but not all immediately found employment.)

6) Explain why banks can influence the money supply if the required reserve ratio is less than 100 percent.

**ANSWER:** When the reserve requirement is less than 100 %, banks can lend out deposits. The money they lend out is redeposited. In this way, deposits can be greater than the reserves. Since deposits are greater under fractional-reserve banking and since deposits are part of the money supply, the money supply will be greater under fractional-reserve banking.

7) Describe the two things that limit the precision of the Fed's control of the money supply and explain how each limit that controls.

**ANSWER:** First, the Fed does not control the amount of currency that households choose to hold relative to deposits. If households decide to hold relatively more currency, banks have fewer reserves and the money supply decreases. Second, the Fed cannot control the amount banks choose to hold as excess reserves. If bankers decide to lend out less of their deposits, the money supply will decrease.