南京审计大学

2020 - 2021 学年第 1 学期《 Macroeconomics 》期中试卷

Part I Multiple Choice (Answer each of the 16 questions. Each question has one and only one correct or best answer. Each multiple-choice question counts for 2 points, the total points are 32.)

1. For the economy as a whole,

A. income must be greater than expenditure.   B. unemployment must rise when GDP rises.

C. expenditure must equal income.   D. consumption must be greater than investment.

2. Consumption consists of spending by households on goods and services, except for

A. purchases of intangible services.   B. purchases of durable goods.

C. purchases of new houses.   D. spending on education.

3. Which of the following statements regarding GDP is correct?

A. GDP includes factory production, but not any harm that may be inflicted on the environment.

B. GDP accounts for all activities taking place outside markets.

C. GDP provides detailed information about the distribution of income.

D. GDP is a good measure of economic well-being for all purposes.

4. One bag of flour is sold for $1.00 to a bakery, which uses the flour to bake bread that is sold for $3.00 to consumers. A second bag of flour is sold for $1 to a grocery store who sells it to a consumer for $2.00. Taking these four transactions into account, what is the effect on GDP?

A. GDP increases by $3.00.   **B. GDP increases by $5.00.**

C. GDP increases by $6.00.   D. GDP increases by $7.00.

5. When the consumer price index falls, the typical family

A. has to spend more dollars to maintain the same standard of living.

B. can spend fewer dollars to maintain the same standard of living.

C. finds that its standard of living is not affected.

D. can save less because they do not need to offset the effects of rising prices.

6. You know that a candy bar cost five cents in 1962. You also know the CPI for 1962 and the CPI for today. Which of the following would you use to compute the price of the candy bar in today's prices?

A. five cents × (1962 CPI / today's CPI)

B. five cents × ((today's CPI - 1962 CPI)/1962 CPI)

C. five cents × (today's CPI / 1962 CPI)

D. five cents × today's CPI - five cents × 1962 CPI.

7. In an imaginary economy, consumers buy only sandwiches and magazines. The fixed basket consists of 20 sandwiches and 30 magazines. In 2006, a sandwich cost $4 and a magazine cost $2. In 2007, a sandwich cost $5. The base year is 2006. If the consumer price index in 2007 was 125, then how much did a magazine cost in 2007?

A. $0.83   B. $2.25   **C. $2.50**   D. $3.00

8. When a society decides to increase its quantity of physical capital, the society

A. can avoid the usual need to face trade-offs.

B. is apparently not very concerned about its rate of economic growth in the future.

C. is in effect deciding to consume fewer goods and services in the present.

D. is in effect deciding to save less of its current income in the present.

9. In 2011, the imaginary nation of Maconia had a population of 8,200 and real GDP of 210,500. Maconia had 5% growth in real GDP per person. In 2012 it had a population of 8,400. To the nearest dollar what was real GDP in Maconia in 2012?

A. 216,815   B. 221,025   **C. 226,416**   D. None of the above is correct.

10. Which of the following statements is correct?

A. The total income in the economy that remains after paying for consumption and government purchases is called private saving.

B. The sum of private saving and national saving is called public saving.

C. For a closed economy, the sum of private saving and public saving must equal investment.

D. For a closed economy, the sum of consumption, national saving, and taxes must equal GDP.

11. Two bonds have the same term to maturity. The first was issued by a state government and the probability of default is believed to be low. The other was issued by a corporation and the probability of default is believed to be high. Which of the following is correct?

A. Because they have the same term to maturity the interest rates should be the same.

B. Because of the differences in tax treatment and credit risk, the state bond should have the higher interest rate.

C. Because of the differences in tax treatment and credit risk, the corporate bond should have the higher interest rate.

D. It is not possible to say if one bond has a higher interest rate than the other.

12. An economy's natural rate of unemployment is the

A. economy's long run target level of unemployment.

B. amount of unemployment that the economy normally experiences.

C. lowest rate of unemployment the economy can achieve.

D. All the above are correct.

13. Who of the following is not included in the Bureau of Labor Statistics' "employed" category?

A. those who worked in their own business

B. those who worked as unpaid workers in a family member's business

C. those waiting to be recalled to a job from which they had been laid off

D. those who were temporarily absent from work because of vacation.

14. If the minimum wage were currently above the equilibrium wage, then a decrease in the minimum wage that kept it above the equilibrium wage would

A. increase the surplus of labor.　　　**B. reduce the surplus of labor.**

C. increase the shortage of labor.　　　D. reduce the shortage of labor,

15. Suppose that efficiency wages become more common in the economy. Imposing efficiency wages

A. increases the quantity demanded and decreases the quantity supplied of labor.

B. decreases the quantity demanded and increases the quantity supplied of labor.

C. increases the quantity demanded and decreases the quantity supplied of labor.

D. decreases the quantity demanded and increases the quantity supplied of labor.

16. President Bigego is running for re-election against Senator Pander. Bigego proclaims that more people are working now than when he took office. Pander says that the unemployment rate is higher now than when Bigego took office. You conclude that

A. one of them must be lying.

B. both could be telling the truth if the labor force, and employment grew at the exact same rate.

C. both could be telling the truth if the labor force grew slower than employment.

D. both could be telling the truth if the labor force grew faster than employment.

Part II True/False Questions (Five questions in this part, each question counts for 2 points. The point total is 10)

1. GDP is the market value of all final goods and services produced by a country's citizens in a given period of time. **False**

2. The content of the basket of goods and services used to compute the CPI changes every month. **False**

3. The catch-up effect refers to the idea that poor countries, despite their best efforts, are not

likely ever to experience the economic growth rates of wealthier countries. **False**

4. If, for an imaginary closed economy, investment amounts to $10,000 and the government is running a $2,500 deficit, then private saving must amount to $12,500. **True**

5. Every adult who was not employed during the previous four weeks is included in the Bureau of Labor Statistics' "unemployed" category. **False**

Part III Short- answer Questions (Two questions in this part, each question counts for 8 points. The point total is 16)

1. 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?

   The expected real interest rate was 4 percent (6-2).

B. What was the actual real interest rate?

   The actual real interest rate was 1 percent (6-5).

C. Who benefited and who lost because of the unexpected inflation?

   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.

2. In the national income accounting identity showing the equality between national saving and investment, what are the algebraic expressions for private saving and public saving?

   Private saving is Y - C - T, Public Saving is T - G

Part IV Diagram Questions (One questions in this part; each question counts for 10 points. The point total is 10)

1. Using a graph representing the market for loanable funds, show and explain what happens to interest rates and investment if the government budget goes from a deficit to a surplus.

   As shown in the graph below, the economy starts in equilibrium at point E0 with interest rate r0 and equilibrium quantity of saving and investment at q0. If the government succeeds in obtaining a surplus, there will be more public saving in the economy and so more national saving at each interest rate, and the supply of loanable funds curve will shift from S0 to S1. The new equilibrium will be at E1, with a lower interest rate, r1 and a higher quantity of saving and investment, q1. Hence, if the federal government succeeds in having a surplus, interest rates will fall, and investment will increase.
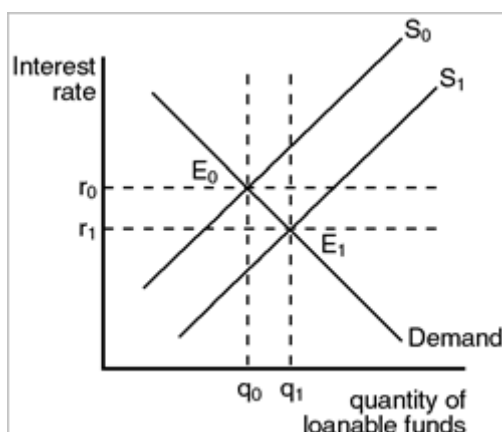
Part V Calculation Questions (Four questions in this part, each question counts for 8 points. The point total is 32)

1. The country of Batavia produces only chocolates and watches. Below is a table with recent information on Batavia production and prices. The base year is 2009.

Year	Price of A Box of Chocolates	Boxes of Chocolates	Price of Watches	Quantity of Watches
2008	$4	100	$50	10
2009	$5	90	$50	15
2010	$5	100	$60	15
2011	$6	80	$65	12

  a. What was nominal GDP, real GDP, and the GDP deflator for 2008?

Nominal GDP was $4x100 + $50X10 = $900. Real GDP was $5x100 + $50x10 =$1,000. The GDP deflator = Nominal GDP/Real GDP = $900/$1,000 = 90.

  b. What was nominal GDP, real GDP, and the GDP deflator for 2009? Show your work.

Nominal GDP was $5x90 + $50x15 = $1,200. Real GDP was $5x90 + $50x15 =$1,200 The GDP Deflator = 100 x Nominal GDP/Real GDP = 100.

  c. What was nominal GDP, real GDP, and the GDP deflator for 2010? Show your work.

Nominal GDP was $5x100 + $60x15 = $1,400. Real GDP was $5x100 + $50x15 = $1,250. The GDP deflator = 100 x nominal GDP/real GDP = 100 x $1,400/$1,250 = 112

  d. What was nominal GDP, real GDP, and the GDP deflator for 2011? Show your work.

Nominal GDP was $6x80 + $65x12 = $1,260. Real GDP was $5x80 + $50x12 = $1000 The GDP deflator = 100 x $1260/$1000 = 126.

  e. What was the inflation rate for 2009, 2010, 2011? Show your work.

The inflation rate for 2009 = (2009 GDP Deflator - 2008 GDP Deflator)/2008 GDP Deflator = (100 - 90)/90 = 10/90 = 11.1%

The inflation rate for 2010 = (2010 GDP Deflator - 2009 GDP Deflator)/2009 GDP

Deflator = (112 - 100)/100 = 12/100 = 12%

The inflation rate for 2011 = (2011 GDP Deflator - 2010 GDP Deflator)/2010 GDP Deflator = (126 - 112)/112 = 12/100 = 12.5%

2. Suppose the residents of Mediaville spend all their income on books, CDs, and DVDs. In 2009, they buy 400 books for $3,200, 200 CDs for $1,400, and 100 DVDs for $900. In 2010, they buy 360 books for $3,240, 250 CDs for $1,500, and 125 DVDs for $1,250. Assume that the market basket for the CPI is defined in the base year.

a. What are the prices of books, CDs, and DVDs in 2009 and 2010?

In 2009, books are $8, CDs are $7, and DVDs are $9.

In 2010, books are $9, CDs are $6, and DVDs are $10.

b. Using 2009 as the base year, what is the CPI in each year?

In 2009 the CPI is 100.00, and in 2010 the CPI is 105.45.

c. Using 2009 as the base year, what is the inflation rate in 2010?

In 2010 the inflation rate is 5.45%.

d. Using 2010 as the base year, what is the CPI in each year?

In 2009 the CPI is 96.08, and in 2010 the CPI is 100.00.

e. Using 2010 as the base year, what is the inflation rate in 2010?

The inflation rate is 4.08%.

3. Assume the following information for an imaginary, closed economy.

GDP = $5 trillion; consumption = $3.1 trillion; government purchases = $0.7 trillion; and taxes = $0.9 trillion.

a. For this economy, what's the amount of investment, public saving, private saving, national saving?

The amount of investment, public saving, private saving, national saving is $1.2 trillion, $0.2 trillion, $1.0 trillion, $1.2 trillion, respectively.

b. Suppose, for this economy, the relationship between the real interest rate, r, and investment, I, is given by the equation I = 10.78 – 3.03r. (If, for example, r = 10, this means that the real interest rate is 10 percent.) The equilibrium real interest rate for this economy is?

3.16 percent.

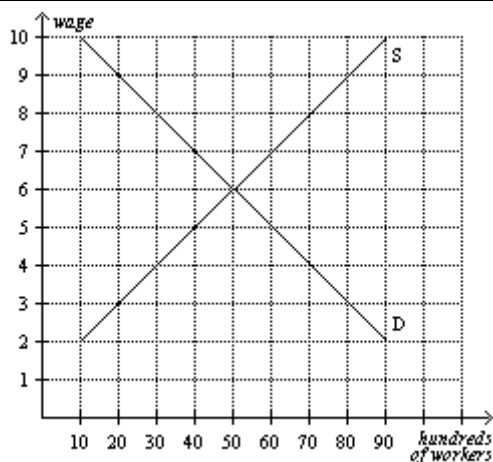4. Given the figure below, answer the questions.

a. At the equilibrium wage, how many workers are unemployed and employed?

Unemployed and employed is 0 and 5000, respectively.

b. If the government imposes a minimum wage of \$4, how many workers will be unemployed and employed?

Unemployed and employed is 0 and 5000, respectively.

c. If the government imposes a minimum wage of \$7, then unemployment will increase by and the employment will decrease by?

Unemployment will increase by 2000 and employment will decrease by 1000.