

QUIZ 2

26.03.2017

PART I: Multiple Choice Questions [10 points]

1. 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? **[1 point]**
 - a. 216,815
 - b. 221,025
 - c. 226,416
 - d. None of the above is correct.

2. In 2010, the imaginary nation of Bovina had a population of 5,000 and real GDP of 500,000. In 2011 it had a population of 5,100 and real GDP of 520,200. During 2011 real GDP per person in Bovina grew **[1 point]**
 - a. 2 percent, which is high compared to average U.S. growth over the last one-hundred years.
 - b. 2 percent, which is about the same as average U.S. growth over the last one-hundred years.
 - c. 4 percent, which is high compared to average U.S. growth over the last one-hundred years.
 - d. 4 percent, which is about the same as average U.S. growth over the last one-hundred years.

3. Last year the imaginary nation of Panglossia had real GDP of 400 billion. This year it had real GDP of 472.5 billion. Which of the following changes in population is consistent with a 5 percent growth rate of real GDP per person over the last year? **[1 point]**
 - a. The population decreased from 75 million to 72 million.
 - b. The population decreased from 60 million to 50 million.
 - c. The population increased from 70 million to 80 million.
 - d. The population increased from 80 million to 90 million.

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4. Workland has a population of 10,000, of whom 7,000 work 8 hours a day to produce a total of 224,000 final goods. Laborland has a population of 5,000, of whom 3,000 work 7 hours a day to produce a total of 105,000 final goods. **[2 points]**
- a. Workland has higher productivity and higher real GDP per person than Laborland.
 - b. Workland has higher productivity but lower real GDP per person than Laborland.
 - c. Workland has lower productivity but higher real GDP per person than Laborland.
 - d. Workland has lower productivity and lower real GDP per person than Laborland.
5. An economy's production function has the constant-returns-to-scale property. If the economy's labor force doubled and all other inputs stayed the same, then real GDP would **[1 point]**
- a. stay the same.
 - b. increase by exactly 50 percent.
 - c. increase by exactly 100 percent.
 - d. increase, but not necessarily by either 50 percent or 100 percent.
6. 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. **[2 points]**
- 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.

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7. All else equal, which of the following would increase the unemployment rate? **[2 points]**
- (i) an increase in the number of women who return to work after being stay-at-home mothers
 - (ii) a preference among older men to retire early
 - (iii) an increase in the maximum number of weeks for which someone can receive government unemployment benefits
 - (iv) an increase in the number of previously unemployed women who stop looking for work and become discouraged workers
- a. (i) and (ii) only
 - b. (iii) only
 - c. (ii) and (iii) only
 - d. (ii), (iii), and (iv) only

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PART II: Miscellaneous [10 points]

1. Suppose that in a closed economy GDP is equal to 20,000, consumption equal to 15,000, government purchases equal 4,000 and taxes equal 3,000. What are private saving, public saving, and national saving? [2 points]
2. For an imaginary closed economy, $T = \$5,000$; $S = \$11,000$; $C = \$48,000$; and the government is running a budget surplus of \$1,000. What are private saving and GDP? [2 points]
3. The country of Meditor, a small country with a closed economy, uses the merit as its currency. Recent national income statistics showed that it had GDP of \$600 million merits, no government transfer payments, taxes of \$150 million merits, a budget surplus of \$40 billion merits, and investment of \$100 billion merits. What were its consumption and government expenditures on goods and services? [2 points]
4. Suppose that some country had an adult population of about 46 million, a labor-force participation rate of 75 percent, and an unemployment rate of 8 percent. How many people were employed? [2 points]
5. Suppose that the adult population is 6 million, the number of employed is 3.8 million, and the labor-force participation rate is 70%. What is the unemployment rate? [2 points]