

First Midterm (October 21, 2016)

Instructions: Please fill in your name/initials and student number on every page of this questionnaire and on the Answer Sheet provided. Use the Answer Sheet to answer the Multiple Choice questions. Answer the Short Answer questions in the space provided on this questionnaire. There are 33 questions in total (30 multiple choice plus 3 short answers). This exam has 9 pages -- check that your copy has all of them. You may use a non-programmable calculator. Good luck !!

Multiple Choice Questions (60 points -- 2 points per question)

Identify the letter of the choice that best completes the statement or answers the question.

1. Which of the following is included in the consumption component of GDP?
 - a. goods produced, but not sold during the reference period
 - b. purchases of newly constructed homes
 - c. CPP/QPP payments
 - d. purchases of foreign goods and services

2. A worker in Bangladesh can earn \$1 per day making cotton cloth on a hand loom. A worker in Canada can earn \$100 per day making cotton cloth with a mechanical loom. What accounts for the difference in wages?
 - a. Labour is more productive making cotton cloth with a mechanical loom in Canada than with a hand loom in Bangladesh.
 - b. Canadian textile workers belong to a union.
 - c. There is little demand for cotton cloth in Bangladesh and great demand in Canada.
 - d. Bangladesh has a low-wage policy to make its textile industry more competitive in world markets.

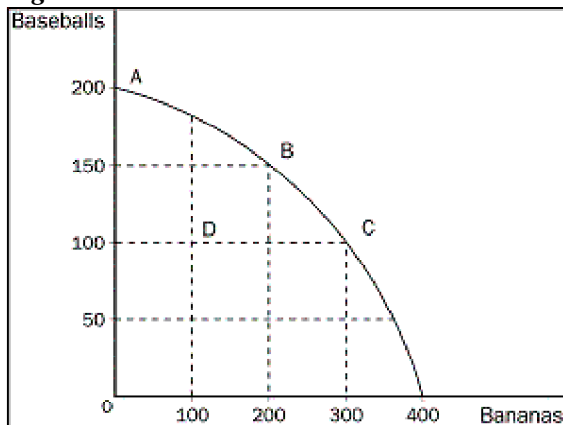
3. Suppose your economics professor has been offered a corporate job with a 30% pay increase. She has decided to take the job. What happened for her?
 - a. The marginal benefit of leaving was greater than the marginal cost.
 - b. The marginal benefit of teaching was greater than the marginal cost.
 - c. The marginal cost of leaving was greater than the marginal benefit.
 - d. The marginal cost of teaching was greater than the marginal benefit.

4. Suppose that a country produces only eggs and ham. In 2016, it produced 100 units of eggs at \$3 each and 50 units of ham at \$4 each. In 2010, the base year, eggs sold for \$1.50 per unit and ham sold for \$5 per unit. What can we conclude?
 - a. Nominal GDP is \$400, real GDP is \$400, and the GDP deflator is 100.
 - b. Nominal GDP is \$400, real GDP is \$500, and the GDP deflator is 125.
 - c. Nominal GDP is \$500, real GDP is \$400, and the GDP deflator is 80.
 - d. Nominal GDP is \$500, real GDP is \$400 and the GDP deflator is 125.

5. Which of the following terms refers to institutions that help match one person's saving with another person's investment?
 - a. The monetary system.
 - b. The financial system.
 - c. The Bank of Canada.
 - d. The banking system.

6. If the government were to replace income taxes with consumption taxes, what would happen to the interest rate and investment, respectively?
 - a. decrease and decrease
 - b. increase and increase
 - c. decrease and increase
 - d. increase and decrease
7. Which of the following concepts is NOT illustrated by the production possibilities frontier?
 - a. efficiency
 - b. tradeoffs
 - c. opportunity cost
 - d. equity
8. Over time, people have come to rely more on market-produced goods and less on goods that they produce for themselves. How would this change affect GDP?
 - a. It would make no change to GDP over time.
 - b. It would make GDP fall over time.
 - c. It would make GDP rise over time.
 - d. It would change GDP, but in an uncertain direction.
9. If real GDP per person in Canada doubles every 25 years over the next 100 years, how much higher will Canadian real GDP per person be a century from now?
 - a. 12 times higher than it is now
 - b. 4 times higher than it is now
 - c. 16 times higher than it is now
 - d. 8 times higher than it is now

Figure 1



10. **Refer to Figure 1.** What is the opportunity cost to society of 300 bananas?
 - a. 100 baseballs
 - b. 50 baseballs
 - c. 200 baseballs
 - d. 150 baseballs

11. If the price of imported clothing produced by a Canadian company operating in Thailand increases, what effect would this have on the Canadian GDP deflator and the CPI?
 - a. The GDP deflator and the CPI will both be unaffected.
 - b. The GDP deflator will be unaffected, and the CPI will increase.
 - c. The GDP deflator and the CPI will both increase.
 - d. The GDP deflator will increase, and the CPI will be unaffected.

12. If investment rises and interest rates fall, which of the following best explains these changes?
 - a. The government reduced the tax rate on savings.
 - b. The government went from surplus to deficit.
 - c. The government instituted an investment tax credit.
 - d. The government repealed an investment tax credit.

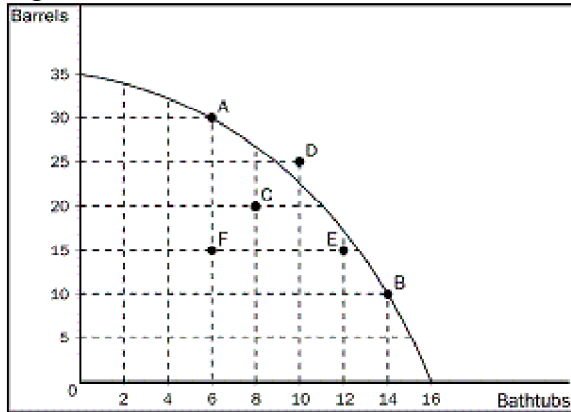
13. Suppose Japanese-based Sony Corporation builds and operates a new chip factory in Canada. What would the future production from such an investment do?
 - a. increase Canadian GDP more than it would increase Canadian GNP
 - b. increase Canadian GNP more than it would increase Canadian GDP
 - c. have no effect on Canadian GNP or GDP
 - d. not affect Canadian GNP, but it would increase Canadian GDP

14. Suppose that an economy with constant returns to scale doubled its physical capital stock, doubled its available natural resources, and doubled its human capital, but kept the size of its labour force the same. What would be the effects on the economy's output and on its productivity?
 - a. Output would stay the same and so would its productivity.
 - b. Output and productivity would both increase by more than double.
 - c. Output would increase by less than double, but productivity would double.
 - d. Output and productivity would both increase, but by less than double.

15. What do the two loops in the circular-flow diagram represent?
 - a. The flow of inputs and outputs, and the flow of dollars.
 - b. The flow of dollars and the flow of financial assets.
 - c. The flow of goods and the flow of services.
 - d. The flow of capital goods and the flow of consumer goods.

16. Which of the following statements best describes the relationship between the initial wealth and the growth rate of a country?
 - a. Yearly growth rates for countries that were rich a century ago fluctuated very little around their average growth rates during the past 100 years.
 - b. Over the last 100 years, Japan had the highest real GDP growth rate, and now it has the highest real GDP per person.
 - c. 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.
 - d. Data show no strong relationship between initial conditions and growth rates despite what the catch-up effect may suggest.

Figure 2



17. Refer to Figure 2. Which of the following combinations is efficient for this economy to produce?
- 25 barrels and 10 bathtubs
 - 15 barrels and 6 bathtubs
 - 30 barrels and 6 bathtubs
 - 20 barrels and 8 bathtubs
18. Country A does not trade with any other country. Its GDP is \$30 billion. Its government purchases \$5 billion worth of goods and services each year, collects \$7 billion in taxes, and provides \$3 billion in transfer payments to households. Private saving in Country A is \$5 billion. What is consumption?
- \$13 billion
 - \$18 billion
 - \$21 billion
 - There is not enough information to answer the question.
19. Welfare payments are indexed for inflation using the CPI. A recent newspaper editorial claimed that welfare recipients are harmed by years of low inflation because they do not receive as large an increase in their payments as they do in years of high inflation. Is the newspaper editorial correct?
- The newspaper editorial is correct if the prices of the goods consumed by welfare recipients increase faster than the prices of the goods in the market basket used to compute the CPI.
 - The newspaper editorial is correct.
 - The newspaper editorial is correct if the market basket consumed by welfare recipients is the same as the market basket used to compute the CPI.
 - The newspaper editorial is correct if the prices of the goods consumed by welfare recipients increase slower than the prices of the goods in the market basket used to compute the CPI.
20. Why do birth rates tend to be lower in developed countries than in developing countries?
- Because education is more expensive in developed countries.
 - Because women in developed countries have greater access to jobs and the opportunity cost of having children is more costly.
 - Because government policies in developing countries reward families with children.
 - Because people are older in developed countries.

Use the following information to answer the following question.

The CPI for a country is calculated using a market basket consisting of 5 apples, 4 loaves of bread, 3 robes, and 2 litres of gasoline. The per-unit prices of these goods have been as follows:

Table 1

| Year | Apples | Bread | Robes | Gasoline |
|------|--------|--------|---------|----------|
| 2013 | \$1.00 | \$2.00 | \$10.00 | \$1.00 |
| 2014 | \$1.00 | \$1.50 | \$9.00 | \$1.50 |
| 2015 | \$2.00 | \$2.00 | \$11.00 | \$2.00 |
| 2016 | \$3.00 | \$3.00 | \$15.00 | \$2.50 |

21. **Refer to Table 1.** What was the inflation rate, as measured by the CPI, between 2015 and 2016?
 - a. 40.25 percent
 - b. It is impossible to determine without knowing the base year.
 - c. 40 percent
 - d. 46.46 percent

22. If Canada increases its saving rate, which of the following will happen in the long run?
 - a. The growth rate of productivity will increase, and real GDP per person will decrease.
 - b. Productivity will increase, and the growth rate of real GDP per person will increase.
 - c. Productivity and real GDP per person will increase.
 - d. The growth rates of productivity and real GDP per person will increase.

23. Which of the following would happen in the market for loanable funds if the government were to decrease the tax rate on interest income?
 - a. The supply of, and demand for, loanable funds would shift to the right.
 - b. The supply of loanable funds would shift to the right and the demand for loanable funds would remain unchanged.
 - c. The supply of loanable funds would shift to the right and the demand for loanable funds would shift to the left.
 - d. The supply of, and demand for, loanable funds would shift to the left.

24. Suppose that, in a closed economy, GDP is equal to \$10,000, taxes (net of transfers) are equal to \$2,500, consumption equals \$6,500, and government spending equals \$2,000. What is private saving?
 - a. \$1,500
 - b. 0
 - c. \$1,000
 - d. \$500

25. If both nominal interest rates and inflation rates are very high, real interest rates could be:
 - a. Low, but never negative.
 - b. Moderately high.
 - c. Very high.
 - d. Low, and sometimes negative.

26. In 2015, real GDP in Country B was \$750 billion and the population was 3 million. In 2016, real GDP was \$990 billion and the population was 3.3 million. What was the growth rate of real GDP per person?
- 17 percent
 - 14 percent
 - 20 percent
 - 11 percent
27. How are the services provided by an economy's stock of houses included in GDP?
- They are not included in GDP since they are not sold on the market.
 - They are included and equal the value of spending on new houses in the year.
 - They are included and valued as the mortgage payments made on houses.
 - They are included and based on estimates of the rental value of houses.
28. Sally buys a bond issued by Microsoft Canada, which uses the funds to buy new machinery for one of its production facilities. Who is investing and who is saving?
- Sally is investing; Microsoft Canada is saving.
 - Sally and Microsoft Canada are both saving.
 - Sally is saving; Microsoft Canada is investing.
 - Sally and Microsoft Canada are both investing.
29. Suppose a leading environmental group publishes a report contending that humans are using natural resources faster than they can be regenerated. The group claims that this means that economic growth will eventually stop, and will even be reversed. How would an economist respond to the group's position?
- An economist would agree with the report, but wouldn't think it was important because growth will not slow down for several centuries.
 - An economist would disagree with the report because labour and capital are the primary determinants of growth, and since they are plentiful, growth will not slow down.
 - An economist would disagree with the report, in part because it ignores the mitigating effects of technological change.
 - An economist would agree with the report, and would point to rising natural resource prices as evidence.
30. There are two sets of estimates of national account numbers for a closed economy for next year. In the first set, government expenditures will be \$30 billion, transfer payments will be \$10 billion, and taxes will be \$45 billion. In the second set, GDP will be \$200 billion, taxes will be \$50 billion, transfer payments will be \$20 billion, consumption will be \$120 billion, and investment will be \$40 billion. Based on these numbers, what are the respective estimated results for the government's budget?
- \$15 billion surplus and a \$10 billion surplus
 - \$5 billion surplus and a \$10 billion deficit
 - \$15 billion surplus and a \$10 billion deficit
 - \$5 billion surplus and a \$10 billion surplus

Short Answer Questions (40 points)

Answer in the space provided. Clearly label your diagrams.

1. (12 points in total; 6 points for the graph) Using a graph representing the market for loanable funds, show and explain how and why interest rates and investment would be affected if the government budget goes from surplus to deficit.

3. (13 points in total; 7 for explaining the catch-up effect) The catch-up effect says that countries with low income can grow faster than countries with higher income. However, in statistical studies that include many diverse countries, we do not observe the catch-up-effect unless we take account of (or control for) other variables that affect productivity. Using a diagram of the production function, explain how the catch-up effect works. Then, considering the determinants of productivity, list and explain four factors that could prohibit or limit a poor country's ability to catch up with rich ones.