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Student Number: _____

ECO1102A, Introduction to Macroeconomics

Professor G. Lenjosek

Midterm

May 30, 2017

80 minutes

INSTRUCTIONS – READ THESE BEFORE YOU BEGIN

1. Silence all cell phones and any other electronic devices, and remain quiet at all times.
2. Only non-programmable calculators may be used during the exam. You may NOT share non-programmable calculators.
3. Place your student card face up on your desk for the duration of the exam.
4. This questionnaire is printed *double sided*. You may use the *detachable blank sheet* at the end of the questionnaire for your rough work.
5. Fill in your **NAME** and **STUDENT NUMBER** on the first page of *this questionnaire*.
6. Print the **COURSE CODE**, your **STUDENT NUMBER** and your **LAST NAME ONLY** on the *answer (Scantron) sheet* provided. Then *blacken the cells* (ovals) using a pencil. Exams with missing or incomplete personal information will not be graded.
7. There are 50 multiple choice questions in total, each worth 1 point. Check that your copy is complete.
8. Use the Answer Sheet to answer the Multiple Choice questions. *Do so by identifying the letter of the choice that best completes the statement or answers the question.*
9. When you have finished, personally hand your completed Answer Sheet and questionnaire to Shengyi or me.
10. Look at the blackboard from time to time for information and/or possible corrections.

Good luck !!

1. 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?
 - a. Sally is saving; Microsoft Canada is investing.
 - b. Sally is investing; Microsoft Canada is saving.
 - c. Sally and Microsoft Canada are both investing.
 - d. Sally and Microsoft Canada are both saving.

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

3. If the government were to replace income taxes with consumption taxes, what would happen to the interest rate and investment, respectively?
 - a. increase and decrease
 - b. decrease and decrease
 - c. increase and increase
 - d. decrease and increase

4. 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 loanable funds would shift to the right and the demand for loanable funds would remain unchanged.
 - b. The supply of loanable funds would shift to the right and the demand for loanable funds would shift to the left.
 - c. The supply of and demand for loanable funds would shift to the left.
 - d. The supply of and demand for loanable funds would shift to the right.

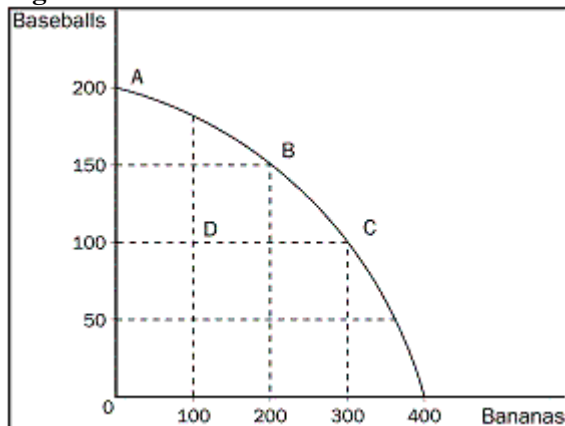
5. Suppose that an economy with constant returns to scale doubled its physical capital stock, doubled its available natural resources, and doubled its human capital, but kept the size of its labour force the same. What would be the effects on the economy's output and on its productivity?
 - a. Output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

6. Why do birth rates tend to be lower in developed countries than in developing countries?
 - a. Because women in developed countries have greater access to jobs and the opportunity cost of having children is higher.
 - b. Because people are older in developed countries.
 - c. Because education is more expensive in developed countries.
 - d. Because government policies in developing countries reward families with children.

7. Suppose Japanese-based Sony Corporation builds and operates a new chip factory in Canada. What would the future production from such an investment do?
- increase Canadian GDP more than it would increase Canadian GNP
 - not affect Canadian GNP, but it would increase Canadian GDP
 - increase Canadian GNP more than it would increase Canadian GDP
 - have no effect on Canadian GNP or GDP
8. Suppose that a country produces only eggs and ham. In 2014, 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?
- Nominal GDP is \$400, real GDP is \$500, and the GDP deflator is 125.
 - Nominal GDP is \$500, real GDP is \$400 and the GDP deflator is 125.
 - Nominal GDP is \$400, real GDP is \$400, and the GDP deflator is 100.
 - Nominal GDP is \$500, real GDP is \$400, and the GDP deflator is 80.
9. 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 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.
 - An economist would agree with the report, but wouldn't think it was important because growth will not slow down for several centuries.
10. Which of the following terms refers to institutions that help match one person's saving with another person's investment?
- The banking system.
 - The financial system.
 - The monetary system.
 - The Bank of Canada.
11. If investment rises and interest rates fall, which of the following best explains these changes?
- The government reduced the tax rate on savings.
 - The government went from surplus to deficit.
 - The government instituted an investment tax credit.
 - The government repealed an investment tax credit.
12. Which of the following is included in the consumption component of GDP?
- purchases of newly constructed homes
 - purchases of foreign goods and services
 - goods produced, but not sold during the reference period
 - purchases of labour services by government
13. What do the two loops in the circular-flow diagram represent?
- The flow of dollars and the flow of financial assets.
 - The flow of inputs and outputs, and the flow of dollars.
 - The flow of capital goods and the flow of consumer goods.
 - The flow of goods and the flow of services.

14. 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?
- \$1,500
 - 0
 - \$1,000**
 - \$500
15. 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 deficit
 - \$5 billion surplus and a \$10 billion deficit**
 - \$5 billion surplus and a \$10 billion surplus
 - \$15 billion surplus and a \$10 billion surplus

Figure 1



16. Refer to Figure 1. What is the opportunity cost to society of 300 bananas?
- 150 baseballs
 - 100 baseballs**
 - 50 baseballs
 - 200 baseballs
17. In the late 1970s, nominal interest rates were high and inflation rates were very high. As a result, what were real interest rates?
- Low, but never negative.
 - Moderately high.
 - Low, and in some years they were negative.**
 - Very high.
18. Which of the following best defines the natural rate of unemployment?
- It is the rate associated with the highest possible level of GDP.
 - It is the unemployment rate that would prevail with zero inflation.
 - It is the difference between long-run and short-run unemployment rates.
 - It is the amount of unemployment that the economy normally experiences.**

Table 1

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:

Year	Apples	Bread	Robes	Gasoline
2011	\$1.00	\$2.00	\$10.00	\$1.00
2012	\$1.00	\$1.50	\$9.00	\$1.50
2013	\$2.00	\$2.00	\$11.00	\$2.00
2014	\$3.00	\$3.00	\$15.00	\$2.50

19. **Refer to Table 1.** What was the inflation rate, as measured by the CPI, between 2013 and 2014?
- 46.46 percent
 - 40 percent
 - 40.25 percent
 - It is impossible to determine without knowing the base year.
20. 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?
- \$21 billion
 - \$18 billion
 - There is not enough information to answer the question.
 - \$13 billion
21. A government statistics agency reports that there are 48.6 million people over age 25 who have at least a bachelor's degree. Of this number, 38.0 million are in the labour force and 36.9 million are employed. What is the unemployment rate in this group?
- about 24.1 percent
 - about 21.8 percent
 - about 2.9 percent
 - about 2.3 percent
22. Tom is looking for work after school, but everywhere he fills out an application he is told that so have lots of others. Simon has a law degree. Several firms have made him offers, but he thinks he might be able to find a firm where his talents could be put to better use. Which categories of unemployment do Tom and Simon belong to?
- Tom and Simon are both frictionally unemployed.
 - Tom is frictionally unemployed, and Simon is structurally unemployed.
 - Tom is structurally unemployed, and Simon is frictionally unemployed.
 - Tom and Simon are both structurally unemployed.
23. A central bank raised the reserve requirement ratio from 10 percent to 12 percent. Other things the same, how does the money multiplier change?
- It increases by 2.
 - It decreases by 2.
 - It decreases by 1.67.
 - It increases by 1.67.

24. Stephen Harper is running for re-election against Justin Trudeau. Harper proclaims that more people are working now than when he took office. Trudeau says that the unemployment rate is higher now than when Harper took office. Which of the following can you conclude?
- Both of them could be telling the truth if the labour force grew slower than employment.
 - Both of them could be telling the truth if the labour-force participation rate and the labour force both fell.
 - Both of them could be telling the truth if the labour force grew faster than employment.
 - Both of them could be telling the truth if the labour-force participation rate and the labour force both grew.
25. Suppose that some people are counted as unemployed when, to remain eligible for employment insurance, they search for work only at places where they are unlikely to be hired. If these individuals were counted as out of the labour force instead of as unemployed, how would the labour statistics change?
- The unemployment rate would be higher, and the labour-force participation rate would be lower.
 - The unemployment rate and the labour-force participation rate would be lower.
 - The unemployment rate and the labour-force participation rate would be higher.
 - The unemployment rate would be lower, and the labour-force participation rate would be higher.
26. If the reserve ratio is 10 percent and a bank receives a new deposit of \$20, what happens to the bank's reserves in the longer term?
- Reserves increase by \$2.
 - Reserves increase by \$18.
 - Reserves increase by \$20.
 - Reserves increase by \$200.

Table 2 below shows data for males and females aged 15 and over in a fictional country.

Not in the Labour Force		Unemployed		Employed	
Male	Female	Male	Female	Male	Female
45 million	35 million	5 million	5 million	85 million	65 million

27. **Refer to Table 2.** What is the adult female unemployment rate?
- 4.76 percent
 - 5.56 percent
 - 7.14 percent
 - 7.69 percent
28. Suppose a bank uses \$100 of its \$500 excess reserves to make a new loan when the reserve ratio is 20 percent. How does this action by itself initially change the money supply?
- The money supply increases by \$500.
 - The money supply increases by \$100.
 - The money supply decreases by \$500.
 - The money supply increases by \$80.

29. 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?
- It would change GDP, but in an uncertain direction.
 - It would make GDP rise over time.**
 - It would make GDP fall over time.
 - It would make no change to GDP over time.
30. 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?
- The marginal benefit of teaching was greater than the marginal cost.
 - The marginal cost of leaving was greater than the marginal benefit.
 - The marginal cost of teaching was greater than the marginal benefit.
 - The marginal benefit of leaving was greater than the marginal cost.**

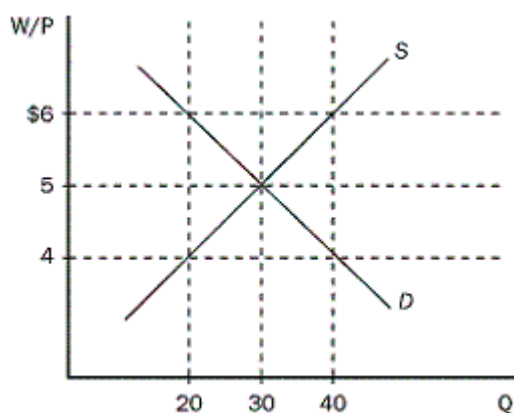
Table 3 below contains information pertaining to the Bank of Kingston.

Assets		Liabilities	
Reserves	\$12,000	Deposits	\$240,000
Loans	\$228,000		

31. **Refer to the Table 3.** If the Bank of Canada requires a reserve ratio of 4 percent, how much in excess reserves does the Bank of Kingston hold?
- \$1,200
 - \$2,400**
 - \$2,880
 - \$3,000
32. 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 more slowly than the prices of the goods in the market basket used to compute the CPI.
 - 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.
33. How are the services provided by an economy's stock of houses included in GDP?
- They are included and based on estimates of the rental value of houses.**
 - They are included and valued as the mortgage payments made on houses.
 - 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.

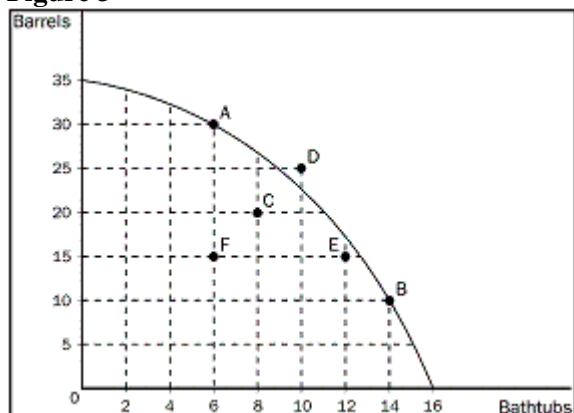
34. A worker in Bangladesh can earn \$1 per day making cotton cloth on a hand loom. A worker in Canada can earn \$100 per day making cotton cloth with a mechanical loom. What accounts for the difference in wages?
- Bangladesh has a low-wage policy to make its textile industry more competitive in world markets.
 - There is little demand for cotton cloth in Bangladesh and great demand in Canada.
 - Labour is more productive making cotton cloth with a mechanical loom in Canada than with a hand loom in Bangladesh.
 - Canadian textile workers belong to a union.
35. 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?
- The GDP deflator and the CPI will both be unaffected.
 - The GDP deflator and the CPI will both increase.
 - The GDP deflator will be unaffected, and the CPI will increase.
 - The GDP deflator will increase, and the CPI will be unaffected.
36. If a central bank wanted to increase the money supply, which of the following would it most likely do?
- It would make open-market sales and lower the bank rate.
 - It would make open-market purchases and raise the bank rate.
 - It would make open-market sales and raise the bank rate.
 - It would make open-market purchases and lower the bank rate.
37. Matt loses his job and decides to sit around at home for a few months. Assuming that other things remain the same, what happens to the unemployment rate?
- The unemployment rate increases because he is still in the labour force.
 - The unemployment rate increases because he is not in the labour force anymore.
 - The unemployment rate decreases because he is not in the labour force anymore.
 - The unemployment rate decreases because he is still in the labour force.
38. How does M1 compare with M2?
- M1+ is larger and less liquid than M2.
 - M1+ is larger, but more liquid than M2.
 - M1+ is smaller and less liquid than M2.
 - M1+ is smaller, but more liquid than M2.
39. If the reserve ratio is 7 percent and a bank receives a new deposit of \$300, by how much can the bank increase its new loans?
- by \$21
 - by \$279
 - by \$300
 - by \$4,285
40. Since World War II, which of the following has happened to the labour-force participation rate in Canada?
- It has decreased for both men and women.
 - It has increased for both men and women.
 - It decreased for women and increased for men.
 - It increased for women and decreased for men.

Figure 2 below shows the effects of a minimum-wage law.



41. **Refer to the Figure 2.** If there was originally no minimum wage and then the government instituted a minimum wage of \$6, what would happen to employment in this market?
- Employment would fall by 20.
 - Unemployment would increase by 10.
 - Employment would rise by 10.
 - Unemployment would increase by 20.**

Figure 3



42. **Refer to Figure 3.** Which of the following combinations is efficient for this economy to produce?
- 15 barrels and 6 bathtubs
 - 25 barrels and 10 bathtubs
 - 20 barrels and 8 bathtubs
 - 30 barrels and 6 bathtubs**
43. At one time, country X had no banks, but had currency of \$10 million. Then a banking system was established with a reserve requirement of 20 percent. The country's residents deposited half of their currency into the banking system. If banks do not hold excess reserves, what is the country's money supply now?
- \$10 million
 - \$25 million
 - \$30 million**
 - \$50 million

44. 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?
- 8 times higher than it is now
 - 12 times higher than it is now
 - 16 times higher than it is now
 - 4 times higher than it is now
45. If Canada increases its saving rate, which of the following will happen in the long run?
- The growth rate of productivity will increase, and real GDP per person will decrease.
 - The growth rates of productivity and real GDP per person will increase.
 - Productivity will increase, and the growth rate of real GDP per person will increase.
 - Productivity and real GDP per person will increase.
46. In 2010, real GDP in Country B was \$750 billion and the population was 3 million. In 2011, real GDP was \$990 billion and the population was 3.3 million. What was the growth rate of real GDP per person?
- 20 percent
 - 11 percent
 - 17 percent
 - 14 percent
47. What is the role of money in an economy?
- Money is an investment asset.
 - Money allows greater specialization.
 - Money serves as a person's wealth.
 - Money allows people to save
48. If the unemployment rate is 4.8 percent, the labour force participation rate is 62 percent, and the adult population is 108 million, then about how many people would be employed?
- about 52 million
 - about 64 million
 - about 67 million
 - about 103 million
49. What impact do employment insurance, sectoral changes and efficiency wages have on unemployment?
- Employment insurance creates frictional unemployment, while sectoral changes and efficiency wages create frictional unemployment.
 - Employment insurance and sectoral changes create frictional unemployment, while efficiency wages create structural unemployment.
 - Employment insurance, sectoral changes and efficiency wages all create frictional unemployment.
 - Employment insurance, sectoral changes and efficiency wages all create structural unemployment.
50. Which of the following concepts is NOT illustrated by the production possibilities frontier?
- opportunity cost
 - tradeoffs
 - equity
 - efficiency

