Fraser International College

Economics 105 Midterm Exam I (Spring 2022)

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FIC Student Number:

Total: 50 Points

Instructions:

1. **This exam contains 4 questions.**
2. **You are required to answer all questions in the exam and type out the answers. No typing no marks.**
3. **You are required to put down the steps and explanations for each question. No explanations no points.**
4. **You are expected to submit the exam ON TIME. If you are late, each minute late will be deducted for 1 point until 50 points are gone. Please plan your time wisely.**
5. **Please make sure that you label ALL questions in sequential order or it will not be graded.**
6. **Your submission file must be in either Word or PDF; other formats will not be graded.**
7. **You can only submit one file. Please put all your answers in one file.**
8. **Good luck!**

1. [19 points in total] Suppose that a worker in Canada can produce 4 cars or 8 computers per month, while a worker in Russia can produce 1 car or 5 computer per month. Assume that each country has 100 worker.

   a) Fill out the following table: (2 points)

	Output	
	Cars (100 workers/month)	Computers (100 workers/month)
Canada	400 (2)	800 (0.5)
Russia	100 (5)	500 (0.2)

0.5 each

   b) Which country has the absolute advantage in the production of cars? Why? (2 points)

Canada (1) because 400 > 100 (1)

   c) Which country has the absolute advantage in the production of computers? Why? (2 points)

Canada (1) because 800 > 500 (1)

   d) Which country has the comparative advantage in the production of cars? Why? (2 points)

Canada (1) because 2 < 5 (1)

   e) Which country has the comparative advantage in the production of computers? Why? (2 points)

Russia (1) because 0.2 < 0.5 (1)

f) Suppose both countries specialize in producing the goods that they have comparative advantage and trade with each other. The term of trade is 150 cars trade for 400 computers. Please fill in the following table. (9 points)

	Canada		Russia	
	cars	computers	cars	computers
Without trade				
production	200	400	80	100
consumption	200	400	80	100
With trade				
production	400	0	0	500
consumption	250	400	150	100
Gains from trade	50	0	70	0

0.5 each

2. [11 points in total] Complete the following table. The data are in millions of dollars. (3 points)

	Year 1	Year 2	Year 3
Gross domestic product	4532	4804	5140
Consumption	3127	3320	3544
Investment	589	629	673
Government purchases	861	913	977
Net exports	-45	-58	-54

1 each

a) Does investment include the purchase of stocks and bonds? Why or why not? (3 points)

1 NO. Investment spending includes spending on capital equipments, structures & inventories. It doesn't include financial assets like bonds & stocks. 2

b) Does the "government purchases" component include government spending on Employment Insurance benefits"? Why or why not? (3 points)

No. Govt purchases are spending on public goods & the salaries of govt workers. It doesn't include transfer payments like EI benefits b/c it doesn't represent the value of g&s produced. 2

c) What does it mean when it is said that net exports are negative? (2 points) 1

$NX = EX - IM$. when $NX < 0$ it means that the country's EX is less than its imports & thus it is the net borrower in the world financial market. 1

3. [10 points in total] The following table shows the prices and quantities consumed in the country known as College Canada. Suppose the base year is 2014. Please fill in the following table.

Year	Price of books	Quantity of books	Price of pencils	Quantity of pencils	Price of pens	Quantity of pens	CPI	Inflation rate
2014	$50	(10)	$1	(100)	$5	(100)	1000	n/a
2015	$50	12	$1	200	$10	50	145.45	45.45%
2016	$60	12	$1.5	250	$20	20	250	71.88%

2 each

	cost of basket in current yr.	cost of basket in base yr
2014	1100	1100
2015	1600	1100
2016	2750	1100

$CPI = \frac{\text{cost of the basket in current yr}}{\text{cost of the basket in base yr}} \times 100$

4. [10 points in total] Use the saving and investment identities from the National Income Accounts to answer the following questions. Suppose the following values are form the national income accounts of a country with a closed economy. (All values are in billions.)

Y = $600
T = $100
C = $400
G = $120

a) What is the value of saving and investment in this country? (4 points)

$S = I = Y - C - G = 600 - 400 - 120 = \$80b$ 4

b) What is the value of private saving? (3 points)

$S^P = Y - T - C = 600 - 100 - 400 = \$100b$ 3

c) What is the value of public saving? (3 points)

$S^G = T - G = 100 - 120 = -\$20b$ 3