

This is just a sample of the questions that you can find in the exam.

Notes:

- 1) Write T (= True) or F (= False) into the box on the left of the question.
- 2) If your answer is correct, you obtain 1 point.
- 3) **If your answer is wrong, you lose 0.5 point. So, if you don't know the answer, it is better not to answer.**
- 4) Calculators, books, cellular phones, notebooks, and any other piece of paper are not permitted.
- 5) The total time for this exam is 1 hour.

Chapter 1

- Real GDP adjusts for inflation and for population growth.
- The real interest rate is equal to the nominal interest rate plus expected inflation.
- A procyclical variable is a variable that is positively correlated with real GDP.
- Canadian macroeconomic data show that investment is less volatile than real GDP.
- Canadian macroeconomic data show that money supply is not correlated with the real interest rate and is positively correlated with the nominal interest rate.

Chapter 2 - Part 1

The representative consumer has to choose the optimal demand of consumption goods C and leisure l in order to maximize his utility given a budget constraint.

- If the utility function of the representative consumer is $U = C + l$, then the indifference curves are decreasing, convex, and they never cross.
- The marginal rate of substitution between consumption and leisure, defined as $MRS_{C,l} = -\frac{dC}{dl}$, represents the reduction in leisure to obtain one additional unit of consumption, in order to maintain the same level of utility.
- The budget constraint $C = (w \cdot h + \pi - T) - w \cdot l$ implies that the full disposable income is entirely used to buy consumption goods and leisure.

Chapter 2 - Part 2

The representative firm has to choose the optimal demand of labor in order to maximize its profits given a technological constraint.

- The curve that represents the relationship between the Marginal product of labor and the quantity of labor employed is downward sloping.
- The optimality condition for profit maximization $MP_N = w$ permits to determine the labor demand function.

Chapter 2 - Part 3

The competitive equilibrium. The one-period closed-economy is characterized by the presence of one representative consumer (who chooses the optimal demand of consumption and leisure), one representative firm (that chooses the optimal demand of labor), the government, and two markets (goods and labor).

- The optimality condition is that the highest possible indifference curve is tangent to both the production possibilities frontier and the representative consumer's budget constraint.