Econ 105: Principles of Macroeconomics
Quiz I (Version a), 25 January 2018

Name (Family)  
Student #  

Part A: Choose the best answer for the following 18 questions. Make only one choice for each question.  (36 marks)

1. The modern tools of macroeconomic policy are:
   A) tax policy and antitrust policy.
   B) fiscal policy and monetary policy.
   C) monetary policy and exchange rate policy.
   D) capital policy and labour policy.

   B

2. The central mission of modern macroeconomics is to prevent:
   A) shortages.
   B) surpluses.
   C) high gas prices.
   D) a deep recession like the Great Depression.

   D

3. Fiscal policy attempts to affect the level of overall spending in the economy by making changes in:
   A) the interest rate.
   B) the money supply.
   C) banking regulations.
   D) taxes and government spending.

   D

4. Monetary policy attempts to affect the overall level of spending in the economy by making changes in:
   A) taxes.
   B) taxes and government spending.
   C) taxes and interest rates.
   D) interest rates and the quantity of money.

   D

5. An expansion is a period in which:
   A) output declines.
   B) the price level falls.
   C) output rises.
   D) unemployment rises.

   C

6. The short-run alternation between economic downturns and recessions, then economic upturns and expansions is known as the:
   A) business cycle.
   B) contractionary cycle.
   C) expansionary cycle.
   D) disequilibrium cycle.

   A
7. A recession leads to all of the following EXCEPT:
   A) higher unemployment.
   B) reduced output.
   C) reduced income and living standards.
   D) higher employment.

   D

8. In many countries, including Canada, economists adopt the rule that a recession is a period of at least _______ during which aggregate output falls.
   A) one quarter
   B) two consecutive quarters
   C) three consecutive quarters
   D) a full year

   B

9. Long-run growth is the sustained upward trend in:
   A) aggregate output per person over several decades.
   B) nominal GDP over time.
   C) interest rates over time.
   D) aggregate output per person over the business cycle.

   A

10. Which of the following would accurately characterize the portion of a firm's profit paid to the owner of one share of its stock?
    A) interest
    B) dividend
    C) stock
    D) bond

    B

11. Private savings is equal to:
    A) disposable income less taxes.
    B) disposable income less consumption.
    C) wealth.
    D) wealth plus government transfer payments.

    B

12. An example of a government transfer is a(n):
    A) expenditure on the Trans Canada Highway.
    B) bequest from a deceased relative.
    C) Canada pension plan payments.
    D) salary for a member of the Canadian military.

    C

13. Which one of the following transactions is included in a current year's GDP as investment spending?
    A) ABC company purchased 10 000 shares of Telus stock.
    B) Ronnie bought a new BMW.
    C) Anton purchased his friend's condo.
    D) Maggie bought a play-gym set for her day-care business.

    D
14. Which one of the following is an example of consumption expenditure?  
   A) Samantha bought an oven for her cooking show on Food Network.  
   B) Stephanie bought a laptop for her brother.  
   C) Jim purchased 200 shares of Bank of Montreal stock.  
   D) Mr. Smith spent $1500 to buy a used car for his son.  

15. Intermediate goods are not counted in the calculation of GDP because:  
   A) to do so involves double counting.  
   B) these goods are not produced for the market.  
   C) these goods are produced in the underground economy.  
   D) these goods involve financial transactions.  

16. Goods that are produced in a particular period but not sold in that period:  
   A) count as consumption in the next year.  
   B) are included in investment.  
   C) are treated like exports.  
   D) are classified as purely financial transactions.  

17. The purchases of which of the following goods are included in GDP?  
   A) used goods  
   B) newly issued stocks  
   C) foreign-produced investment goods  
   D) capital goods  

18. Suppose that Mr. Green Jeans sells $5000 of wheat to Big Ben Bakery. Big Ben uses the wheat to make flour and then hamburger buns, which it sells to Hamburger Heaven for $11 000. Hamburger Heaven also buys $20 000 of beef from a rancher. Hamburger Heaven uses the beef and buns to make 10 000 hamburgers, which are sold for $5 each. How much do these transactions add to GDP?  
   A) $86 000  
   B) $36 000  
   C) $31 000  
   D) $50 000
**Part B. Answer all questions. MUST show all work clearly and neatly. Only work done in the space provided will be marked. (30 marks)**

1. **Figure: Expanded Circular-Flow Model: (22 marks)**

(a). Calculate GDP in this economy. (4 marks)

\[ GDP = C + I + G + X - IM \]

\[ = 7700 + 1200 + 2000 + 120 - 250 = 10000 \]

(b). Calculate the value of disposable income. (4 marks)

\[ \text{Disposable income} = \text{Income received} - \text{taxes} = C + S_{\text{private}} \]

\[ = (1000 + 200) - 150 = 870 \]

(c). Calculate the total money flow into the households? Does it equal to the total money outflow? (5 marks)

Total money inflow = Income received = 1020

\[ \text{Total money outflow} = C + \text{Taxes} + S_{\text{private}} \]

\[ = 7700 + 150 + 170 = 1020 \]

so they are equal.
(d). Calculate the government budget. Does it have a surplus or deficit? (5 marks)

\[ \text{government budget} = \text{total tax revenue} - \text{total spending} = \$150 - (\$200 + \$20) = -\$70 \text{ deficit}. \]

(e). Calculate total government spending. How does the government finance all of its spending? (4 marks)

\[ \text{total government spending} = \text{G} + \text{transfer} = \$720 \]

finance by borrowing \( \Rightarrow \) \$70

2. Suppose that in the base period a university student buys 20 litres of gasoline at $2 per litre, 2 CDs for $13 each, and 4 movie tickets for $7 each. In the next month, the price of gasoline is $2.25 per litre, CDs cost $12.50 each, and the price of a movie ticket is $7.50. (8 marks)

(a). Calculate the CPI for both months. (4 marks)

\[ \text{CPI}_1 = \frac{2.25(20) + 13(2) + 7.5(4)}{2(20) + 13(2) + 7(4)} \times 100 = 100 \]

\[ \text{CPI}_2 = \frac{2.25(20) + 12.5(2) + 7.5(4)}{2(20) + 13(2) + 7(4)} \times 100 = 106.38 \]
(b). Calculate inflation rate. Interpret your figure. (4 marks)

\[ \pi_2 = \frac{106.38 - 100}{100} \times 100\% = 6.38\% \]

i.e. Price of a basket ↑ by 6.38\% in a month.