Department of Economics; Concordia University
ECON 203 Section D; Winter 2013
MIDTERM EXAMINATION

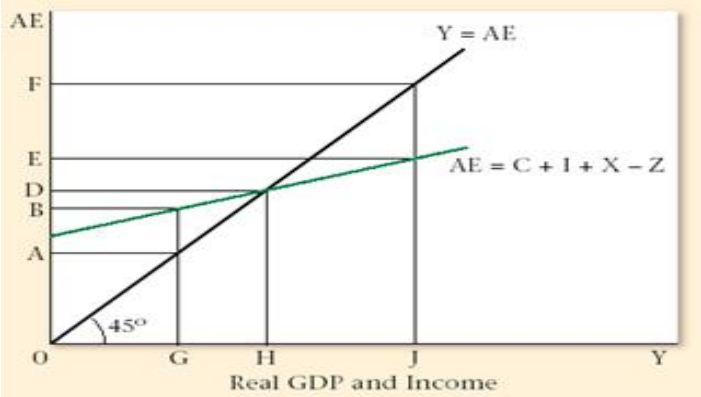
Name: _____ Instructor: Faisal Rabby
Student ID: _____ Feb. 28, 2013
Mark: _____/100 marks Time Limit: 60 minutes

Part I [Total 30 Marks]: Multiple Choice Questions. Circle the best choice under each question/statement

1. If nominal GDP in 2012 is bigger than the nominal GDP in 2011,
   a. the price level must be bigger in 2012 than in 2011
   b. the output in 2012 must be bigger than that in 2011
   c. both the price level and the output must be bigger in 2012 than in 2011
   d. either the price level, or the output or both are bigger in 2012 than in 2011

2. Which of the following would shift the AD curve to the left?
   a. Decrease in government purchases, investment spending, or taxes.
   b. Increase in autonomous consumption or imports.
   c. Increase in government purchases, investment spending or autonomous consumption.
   d. Decrease in government purchases, or investment spending.
   e. Decrease in government purchases, taxes or investment spending.

Figure 1



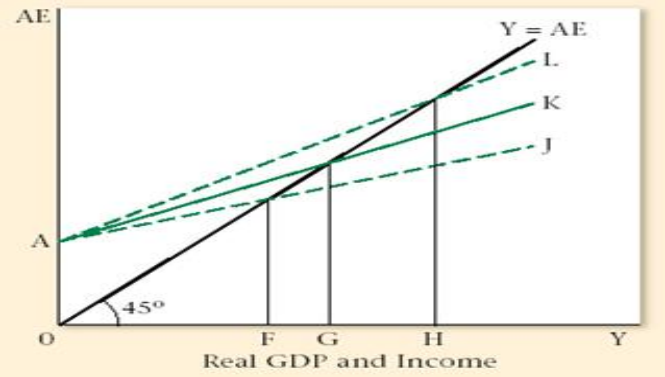
3. Refer to *figure 1* to fill in the blanks.
   If the economy has produced "J" amount of output, there is an unplanned _____ in inventory and firms will react by producing _____ output.
   a. increase; more.
   b. decrease; more
   c. decrease; less
   d. increase; less
   e. increase; the same amount of.

4. If actual equilibrium output exceeds the potential level of output, eventually
   a. price level will rise and actual output will fall.
   b. both price level and actual output will rise.
   c. price level will fall and actual output will rise.
   d. both price level and actual output will fall.

5. In computing GDP, which of the following is NOT included as investment spending?
   a. investment in stocks and bonds
   b. new home construction
   c. changes in business firms' inventory stocks
   d. a and b.

6. The CPI in 2008 was about 150 and the CPI in 2009 was about 160. The rate of inflation between 2008 and 2009 was about
   a. 5 percent.
   b. 6.7 percent.
   c. 10 percent.
   d. 3.3 percent.

Figure 2



7. Refer to figure 2: It shows three possible equilibrium outputs for three corresponding expenditure functions. Suppose the economy's initial equilibrium output level is OG. If there is an increase in the tax rate (t), what might be the new aggregate expenditure curve and the new equilibrium output?
   a. The new expenditure function is AL; equilibrium output is OH.
   b. The new expenditure function is AK; equilibrium output is OF.
   c. Expenditure function is AJ; equilibrium output is OF.
   d. Expenditure function is AL; equilibrium output is OH.

8. Taxes are called automatic stabilizers because
   a. They decrease the size of the spending multiplier
   b. They increase the size of the spending multiplier
   c. They decrease government budget balance
   d. They increase investment spending.

9. In Utopia, currently 1000 people are in the labour force and the unemployment rate is 10%. Suddenly Utopia intakes 200 new adult immigrants all of whom start looking for jobs. The new unemployment rate becomes
   a. 20%.
   b. 25%.
   c. 30%.
   d. 10%.

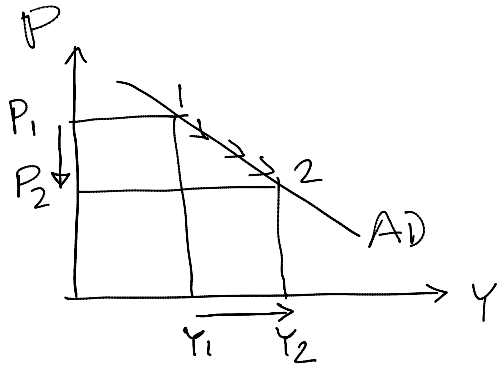
10. If consumption is $25,000 when income is $21,000, and consumption increases to $25,900 when income increases to $22,000, the Marginal Propensity to Save (MPS) is
    a. 0.9 b. 0.8 c. 0.1 d. 0.2.

Part II (Total 70 Marks): Short Questions

Question #1 [Total=10 marks]: True or False: Explain whether the following two statements are true or false. Marks are based solely on explanation. No marks will be awarded for simply stating "true" or "false" without explanation.

(i) Aggregate demand increases when price level decreases. This can be shown by shifting the AD curve to the left. (5 marks)

FALSE.
The quantity of GDP demanded increases when price level decreases. This can be shown by a downward movement along the AD curve, not by shifting the AD curve.



(ii) The bigger the marginal propensity to import, the steeper the aggregate expenditure curve is, and the bigger the spending multiplier is. (5 marks)

The bigger the MPZ, the flatter the expenditure curve (i.e. the smaller the slope of the AE curve), and the smaller the multiplier.

The slope of AE = c(1-t) – z : when z increases, slope decreases.

The multiplier is 1/ [1 – c(1-t) + z] : when z increases, the multiplier will decrease.

Question #3 [Total 25 marks]: Policies

Suppose an economy can be described as follows:

$C = 50 + 0.8Y_d$	**(Y_d is disposable income)**
I = 200	**(Investment spending)**
G = 200	**(Government Spending)**
T = 0.25Y	**(Percentage taxes)**
X = 200	**(Exports)**
Z = 0.1Y	**(Imports)**

(i) Calculate the equilibrium Y. Also let this value of Y to be Yp (Potential Output). (7 marks)

AE = 50 + .8 (Y-.25Y) + 200 + 200 + 200 - .1Y = 650 + .5Y
For equilibrium point:
Y = 650 + .5Y
0.5Y = 650
Y = 650/0.5 = 1300

(ii) Find the spending multiplier (3 marks)

1/0.5 = 2

(iii) If investment falls from 200 to 100 (other things unchanged), find the new equilibrium Y. (5 marks)

ΔY = -100*2 = -200
New Y = 1300 – 200 = 1100

(iv) Suppose the government wants to push the economy back to the Y level in part (i) but with investment still at 100. Find the new G necessary. Also find the budget balance BB with this new G. (5 marks)

ΔG = 100.
New BB = New tax revenue – New G = 1300x.25 – 300 = 325 – 300 = 25

(v) With the above change in G (found in part iv) the economy's output will keep on increasing in multiple rounds. By what amount will the economy's output increase in the 1st, 2nd and 3rd rounds? (5 marks)

Round 1: When expenditure rises by100, income will also rise by 100 (because one group's spending is another group's income)

Round 2: (due to the 1st round's rise in income) Expenditure will increase by 100 x 0.5 = 50. This is because the slope of the AE curve is 0.5, meaning that for every 100 unit rise in Y, expenditure will rise by 50 units.

Round 3: 50 x 0.5 = 25

Question #4 [Total 25 Marks]: Okun's Law and AD/AS/LAS

The table below gives information for the potential output and actual output values for two years for a fictitious economy. Use this information to answer the following questions.

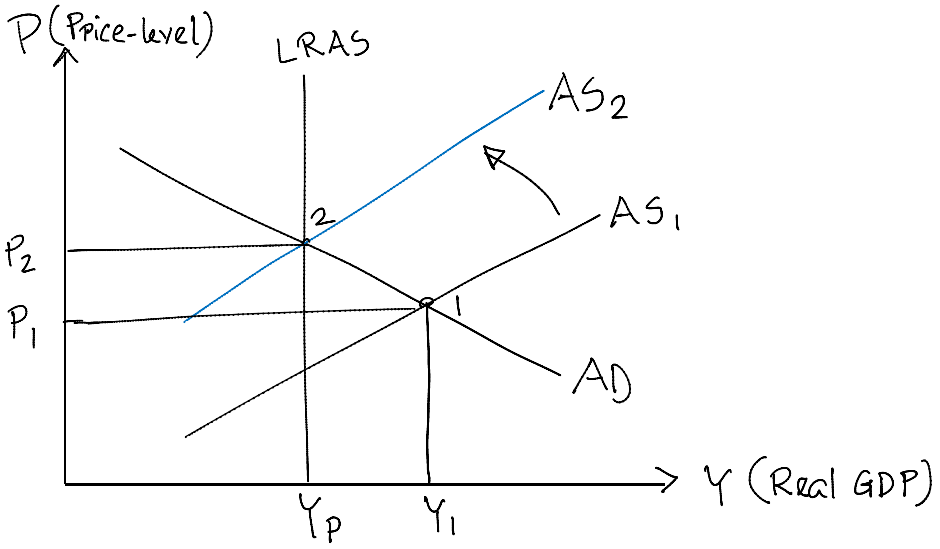
Year	Yp	Real Y	%ΔY	$\%\Delta Y_P$	Unemployment Rate	Output Gap Type (Recessionary or Inflationary)
2011	1000	1000	-------	-------	5%	-------
2012	980	1020	**2%**	**-2%**	**3%**	**inflationary**

i. Fill in the blank cells of the above table (8 marks)

ii. According to the AD-AS model, the gap you have found above will be automatically closed in the long run without any government or central bank policy intervention. Explain why/how this long-run adjustment will occur. (4Marks)

The inflationary gap will cause more than natural demand for labor and other inputs. This will enable labor unions to negotiate higher wages. Other input prices will also increase due to their higher demand.
The higher cost of production will reduce firms' profits, leading them to produce less output. Eventually the output gap will be closed as the AS curve will shift to the left. Price level will rise and the actual output will be equal to the potential output.

iii. Now draw the graph of AD/AS/LAS model to show the above adjustment process in part (ii); label the axes, and all the curves correctly, and use arrows to show any shifts/movements. (4 marks)



iv. Use the 2012's unemployment rate from the above table to answer this question:
If the size of the labor force is 300,000, how many people are employed in 2012? Show your work. (4)

3% unemployed, i.e. 97% employed.
0.97 x 300,000 = 291,000

v. If the nominal GDP was 1060 in 2012 (while the real GDP was 1020), what was the GDP deflator for 2012? (5)

(1060/1020) x 100 = 103.9 (approximately)

For any given year, the CPI value stays very close to the GDP-deflator, but not exactly equal. State the reason why CPI and GDP- deflator values are slightly different from each other. (2 marks)

CPI basket includes only consumption goods/services while GDP-deflator includes all goods/services produced in the economy.

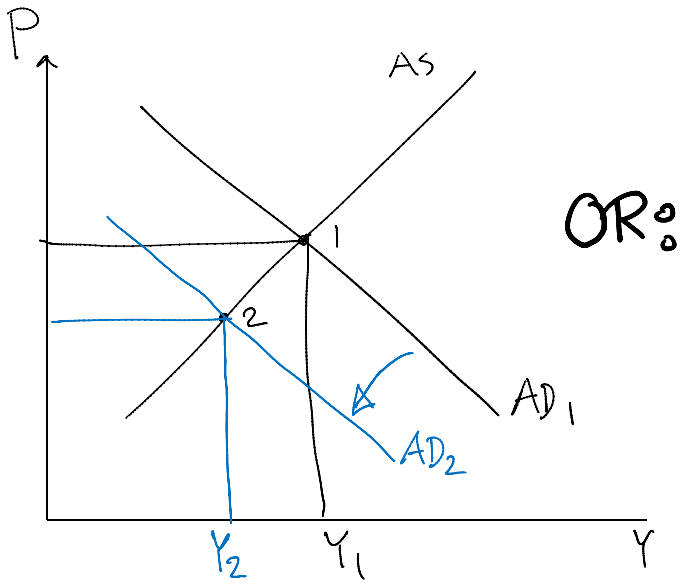
Question #5 [10 Marks]: News Analysis

EU forecast paints bleak economic picture for 2013
Robin Emmott; BRUSSELS — Reuters
Friday, Feb. 22 2013, 6:01 AM EST
"The euro zone will not return to growth until 2014, the European Commission said on Friday, …. blaming a lack of bank lending and record joblessness for delaying the recovery. The 17-nation bloc's economy, which generates nearly a fifth of global output, will shrink 0.3 per cent in 2013, said the Commission"

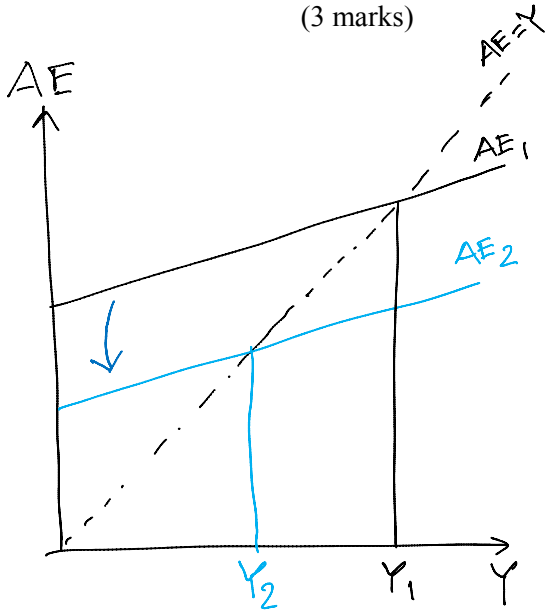
i. How would an economic slowdown in the Europe affect the Canadian economy? (2 marks)

Other things unchanged, an European slowdown would decrease Canada's net export.

Draw a graph to show this effect on Canada's real GDP in the short run. You may use either the AD-AS model, or the Aggregate Expenditure model. Label the axes and curves correctly and use arrows to show shifts/movements. (3 marks)



OR:



Use the following news excerpt to answer part (ii)

Dismal retail numbers don't bode well for … economy
DAVID PARKINSON; The Globe and Mail
Friday, Feb. 22 2013, 11:46 AM EST

"Hope you had a Merry Christmas. The retailers at your local mall sure didn't. Statistics Canada reported truly dismal December retail trade numbers Friday: …sales slumped 2.1 per cent in what is supposed to be the biggest shopping month of the year."

ii. According to the above news excerpt, Canadian households reduced their consumption spending. Draw a graph to show how a decrease in Consumption would affect Canada's real GDP in the short run. You may use either the AD-AS model, or the Aggregate Expenditure model. Label the axes and curves correctly and use arrows to show shifts/movements. (5 marks)

Same graphs as in part (i)