Midterm Examination #1

Do Part I, and two questions from Part II. Be sure to show your work. You are free to use notes, texts, calculators, computers, or any other inanimate objects. Exams will be collected at 11:00. Please reaffirm the *Honor Code*. You have 70 minutes; this portion of the exam has a possible score of 70 points. Use your time wisely.

"For one thing, money is a contract – the freest, most gorgeous contract of them all. Money is somebody else's promise to pay, to give me what I want, when I want it. What a magnificent conception!" – David Bazelton

Part I (30 points)
1.   Use the following version of Model 1 to address parts a –e.

			Endogenous	**Exogenous**
$W/P = d0 - d1*L + d2*K + d3*RM$	(1)		W, P, L, L^s, Y	$K, RM, EITC$
$L^s = so + s1*(W/P) + s2*EITC$	(2)		AD, C, I, T	M, k, G
$L = L^s$	(3)			
$Y = 100*L^{.7}K^{.3}$	(4)			
$AD = k*M/P$	(5)		EITC=earned income tax credit	
$AD = C + I + G$	(6)			
$C = .8*(Y-T)$	(7)			
$T = .25*Y$	(8)			
$Y = AD$	(9)			

   a. Determine the reduced form equation for employment.
   b. Determine the reduced form equation for output (income).
   c. Identify the Aggregate Supply curve.
   d. Use the results from a, b, and c to determine how an increase in the earned income tax credit (EITC-subsidies to low income workers) would affect employment, output, real wages, and the price level.
   e. Use the results from a, b, and c to determine how a rise in governmental purchases (G) would affect employment, output, real wages, and the price level.

Part II. Answer two of the following three questions (20 points each). **Be sure to show your work.**

2.   Use the data in the table below to represent a household's consumption and income for each given year.

   a. Use a fixed weight index (Laspeyres) to determine how much **income** has changed for this household from year 1 to year 2.
   b. Use a current weight index (Paasche) to determine how much **income** has changed from year 1 to year 2.
   c. Use a chain weighted index to determine how much **income** has changed between the two years.

Year	Steak (pounds)		Eggs (dozen)		Beer (pints)	
	Price	Quantity	Price	Quantity	Price	Quantity
1	$10	100	$1.30	500	$3.00	100
2	$20	80	$1.50	1000	$5.00	120

3.   The data in the table below describe key features of the trade relations between China and three of its major trading partners. Use these data to answer parts a. and b. Exchange rates are expressed in Chinese Yuan or Renminbi terms.

Country	Share of Trade	Exchange Rate 2005	Exchange Rate 2012	Price Index 2005 (CPI)	Price Index 2012 (CPI)
Europe	40%	10.6 RMB/Euro	8.26 RMB/Euro	NA	NA
Japan	30%	12.9 Yen/ RMB	12.8 Yen/RMB	NA	NA
USA	30%	8.28 RMB/$	6.30 RMB/$	195	230

   a.   Calculate the trade weighted exchange rate for China for 2012, assuming that the 2005 rate equals 100. How much has it changed since 2005? [*Be careful to use appropriate units in your calculations.*]
   b.   Assume that China's price index in 2005 was 100 and that for 2012, it stands at 130. How has the real exchange rate between the U.S & China changed between 2005 and 2012?
   c.   Explain why the real exchange rate represents terms of trade.

4.   On a number of occasions, U.S. Senators have proposed levying a tariff on Chinese imports. Assume that the U.S. is a large open economy. Carefully illustrate and discuss the potential effects of such a policy on the real exchange rate, net exports, and domestic investment. How would the results change if the U.S. were a small open economy?