

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. The Excel file will be handed in via Moodle. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point. The test has 240 points (to be scaled down to 200 points) and is scheduled to take 120 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes. I cannot give extra time because one of you actually has an exam at 12:00.

1) (14 points) Answer EITHER Part A OR Part B.

A) The following table comes from the supplementary text. Suppose the economy has been growing, but the money supply has decreased for six straight months. What does that tell you? Explain your logic.

	Decreasing Trends During Cyclical Expansions								Increasing Trends During Cyclical Contractions							
	Months of Duration								Months of Duration							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
M1 Money Supply	0.20	0.32	0.43	0.47	0.60	0.64	0.69	0.69	0.25	0.36	0.43	0.56	0.60	0.75	0.75	0.75

B) What is meant by *conformity*? Why is that an important property for a variable to have if you are going to use that to forecast?

2) (14 points) Answer EITHER Part A OR Part B.

A) What is “seigniorage”? Why might you want to do it? Why is doing too much of it bad? Explain your logic.

B) In general, what are the two ways you can get the debt-to-GDP ratio to decrease? Explain how they reduce it. You do not need to write the equation, but it may help your explanation.

3) (14 points) Answer EITHER Part A OR Part B.

A) The two schools of thought differ on what the full-employment budget (deficit, balance, or surplus) should be when there is high unemployment. For ONE of the schools of thought, tell me what they feel the government’s full-employment budget should be. Explain their logic.

B) What is meant by the phrase “taxes cause distortions”? Explain why that is an important consideration when deciding what taxes a government should have.

4) (16 points) Answer EITHER Part A OR Part B.

A) Use the tab Q4A to forecast the Steeler’s score through the rest of the season. Use the same value, same change, same percent change, five game moving average, and four game weighted moving average.

B) Use the tab Q4B to calculate the CPI with 2010 as a base year, using Laspeyres and Paasche methods then calculate the PCE. Also calculate inflation for all three methods.

5) (16 points) Answer EITHER Part A OR Part B.

A) Draw the Neo-Classical School’s SRAS curve. Explain why it takes its shape.

B) We discussed several reasons why there may be real wage rigidity. Explain the one you think is the strongest argument. Why did you choose that one?

6) (16 points) Answer EITHER Part A OR Part B.

A) What happens to the monetary base, money multiplier, and money supply when people decide to keep more money liquid as currency? Explain your logic.

B) Do you feel *rules* or *discretion* is the best type of monetary policy. Explain your logic.

7) (18 points) Answer EITHER Part A OR Part B.

A) Draw the supply and demand for the US\$ compared to the Euro (€). Illustrate the effects of France's GDP going down. Explain why the curve(s) moved as drawn. Which currency depreciated? How can you tell?

B) Draw the SRPC/LRPC diagram with the economy at full employment and an expected inflation rate of 3%. Illustrate the effects of an increase in the money supply of 6% but people not changing their expectations. Explain why the curve(s) moved as drawn and how you found the new point.

8) (22 points) Both the Neo-Classical School and the Neo-Keynesian School inaccurately predict the cyclical nature of one variable. For **ONE** of those schools, tell me what variable they predict wrong. Use a graph to show how they reach their conclusion. How do they explain the apparent contradiction?

9) (24 points) Answer EITHER Part A OR Part B.

A) Use the data in the tab "Q9A" of the [Excel file](#) to forecast quantity as a function of the different prices, and income. Check for multi-collinearity of the independent variables. Is it acceptable to leave all three variables in? Why or why not? **If it is not acceptable**, re-run the regression without one variable and tell me why you left that variable out. **If it is acceptable**, then tell me how many pounds of nuts you would expect to sell to a person with an income of \$40,000 if you charged \$6/lb of nuts, and \$12/lb of pears. Given the results, are pears and nuts substitutes, likely substitutes, likely unrelated, likely complements, or complements? Explain your logic.

B) Use the data in the sheet "Q9B" on the [Excel file](#) to run a regression to predict sales as a function of income and price. Do the quick checks for heteroscedasticity and autocorrelation. Explain how you know whether or not you had each problem. **If there is only a problem with autocorrelation or find both problems**, then run a regression which would adjust for that problem. Explain what you did and why. **If there is only a problem with heteroscedasticity**, then do the formal test for it and explain what you did. Use 2.12 as the cutoff.

10) (34 points) Answer EITHER Part A OR Part B.

A) Use the data in the tab Q10A of the [Excel file](#) to forecast sales through the end of 2011. Also, seasonally adjusted sales for **all dates**. If their sales for 2013 were \$8000, then how much would they expect to sell in the third quarter (July) of 2013? Do all calculations in the Excel sheet. If you want to explain anything, then do it on the spreadsheet.

B) Suppose consumption is \$100 more than 80% of (average of this year's disposable income and last year's disposable income). The tax rate is 40% of GDP. Investment is 50% of this year's GDP. Government spending is \$500. Exports are \$400 and imports are 14% of this year's GDP. Write these equations. Solve the equations for  $Y_t$  as a function of exogenous variables and lagged values of GDP. Show all work. What is the short-run government spending multiplier? Briefly state how you found it. If GDP had been \$4000 for several years, then use the tab Q2B on the Excel to calculate the levels of GDP for the next 25 years. Plot the data for GDP on the Excel sheet making sure everything is labeled. What is the pattern of the graph? State how you reached that conclusion

11) (42 points) Answer EITHER Part A OR Part B.

A) Illustrate the effects of an improvement in technology on the LRAS/SRAS/AD, IS/LM/FE, and real MS/real MD diagrams. Explain why the curve(s) moved as drawn. What happens to the price level, unemployment rate, interest rates, and GDP?

B) Illustrate the effects of an increase in the income tax rate, on the LRAS/SRAS/AD, IS/LM/FE, and real MS/real MD diagrams. Assume a Neo-Keynesian model. Explain why the curve(s) moved as drawn. What happens to the price level, unemployment rate interest rates, and GDP?