Wilfrid W. Csaplar Jr., Ph.D. Economics 350 Final Exam 2003/12/13

Write your name on the cover of the test booklet, on the worksheet "name" of the computer file you submit to me and nowhere else. Enclose this sheet with the booklet. E-mail the Excel file to me at my Bethany account, wcsaplar@bethanywv.edu. 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 14-point question should take 7 minutes. However, you will be allowed some extra time.

1) (14 points each) Define TWO of the following terms and BRIEFLY explain why that variable is important in macroeconomics.
A) Prime interest rate
B) Capital account
C) Spot exchange rate

2) (14 points) For ONE of the variables below, determine if it is a leading, lagging, or a coincident indicator. Explain the logic of its being in the category.
A) Index of consumer expectations
B) Average duration of unemployment.

3) (14 points) For EITHER "currency" OR "revisions," state what it means and explain why it is important that a leading economic indicator have that property.

4) (20 points) Do EITHER Part A OR Part B.
A) Use the data on page "4A and 6A" of the Excel file to find the CPI for each year using 1998 as the base year. Calculate the inflation rate for all years that it can be calculated.
B) Using the data on page "4B" of the Excel file, do a five year backcast using the linear regression form.

5) (24 points) Run a regression using the data on page "5" of the Excel file. Check for EITHER heteroscedasticity OR autocorrelation. State how you know if it exists.

6) (20 points) Do EITHER Part A OR Part B.
A) Calculate real GDP with 1998 as the base year given the data on page "4A and 6A" of the Excel file.
B) What is the difference between NI and PI? Why do we need both of them?

7) (24 points) For ANY ONE theory of cycles in the economy that we studied, state the theory, explain the theory behind it, and explain a problem with it.

8) (28 points) Do EITHER Part A OR Part B.
A) Find the seasonally adjusted values for the data in page "8A" of the Excel file.
B) Use the data on page "8B" of the Excel file to run a regression to predict sales as a function of income, age, and price. Determine if there is multi-colinearity. If there is, than make an appropriate adjustment. Regardless of whether or not multi-colinearity exists, write the final equation for the demand function.

9) (34 points) Do EITHER Part A OR Part B.
A) Suppose that investment is sensitive to interest rates and money demand is insensitive to interest rates. Draw IS/LM diagrams that show that. Briefly explain how they show it. Illustrate an increase in the money supply on that diagram. Explain why the curve(s) moved as drawn and why the policy is effective or ineffective.
B) Suppose that the MPC is small and money demand is insensitive to GDP. Draw IS/LM diagrams that show that. Briefly explain how they show it. Illustrate an increase in the government spending on that diagram. Explain why the curve(s) moved as drawn and why the policy is effective or ineffective.

10) (34 points) Suppose that $C = 0.8*(Y_t+Y_{t-1})/2$, $I = 0.5*(C_t-C_{t-1})$, $G = G_0$, and $X-M = 0$. (Consumption is 80% of the average of the most recent two year's incomes.) Find the reduced form of the equation for GDP. On Excel page "10," run a baseline simulation for $Y_{t-1} = Y_{t-2} = 0$ and $G = 100$. Run it for at least 50 periods. Run a comparison simulation for a permanent increase in of G to 110. Run it for at least 50 periods.