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 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (8 points) Answer EITHER Part A OR Part B.
A) Suppose the exchange rate between the US$ and the Japanese yen is 110¥/US$ and the Japanese government changes it to US$0.01/¥. Did the US$ appreciate, depreciate, revalue, or devalue? Explain your logic.
B) If the nominal exchange rate is £0.9/$, the price level in Great Britain is £150/Q_{GB}, and the price level in the USA is \$200/Q_{US}, then what is the real exchange rate? Show all work. So, given PPP which currency is overpriced? Explain your logic.

2) (12 points) Answer EITHER Part A OR Part B.
A) The unemployment rate in the USA has been high for 7 years now. What does that do to the natural rate of unemployment? Why does it have that effect?
B) Why aren't wage a price controls a good way to lower the inflation rate in the long-run? Explain your logic.

3) (14 points) Draw the supply and demand for the US$ with the euro (€) as the other currency. Draw the effects of EITHER an increase in the interest rates in the euro-zone OR a drop in the GDP of the USA. Explain why the curve(s) moved as drawn. Which currency appreciated? Explain your logic.

4) (16 points) Answer EITHER Part A OR Part B.
A) Which variable does the Neo-Keynesian model predict its cyclicality wrong? Explain both how they reach their conclusion on the cyclicality and how they explain the discrepancy between the theory and the data.
B) Illustrate a liquidity trap on the real MS/real MD diagram. Explain why the liquidity trap causes the diagram to look as drawn and how it affects monetary policy.

5) (16 points) Answer EITHER Part A OR Part B.
A) Draw the SRPC/LRPC diagram for a country which has been expecting 10% inflation because that is what it has been for several years. The government announces they are going to take a cold turkey approach and immediately change the money supply growth to 1%. However, most people believe the government will actually increase the money supply by 7% and the government does what they said they would. Assuming the economy started at full employment, illustrate the initial situation, any move-ment(s), and the ending point. Explain how you found the starting and ending points and why the curve(s) moved as drawn.
B) Draw the short-run Phillips Curve and long-run Phillips Curve diagram. Assume that the country has an unemployment rate of 8% and is expecting 5% inflation. Find the initial point and explain how you found it. Suppose the government increased the money supply by 4% but people thought they were increasing it by 3%. Illustrate the effects of this on the diagram. Explain why the curve(s) moved as drawn and how you found the new ending point.

6) (16 points) Use the data in the tab "Q1" 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 four 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 pumpkin pies you would expect to sell to a person with an income of $40,000 if you charged $10/pie, $18/cake, and $2/doughnuts. Given the results, are pies and cakes substitutes, likely substitutes, likely unrelated, likely complements, or complements? Explain your logic.

7) (18 points) Use the data in the sheet "Q2" on the Excel file to run a regression to predict sales as a function of 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,** then run a regression which would adjust for that problem. Explain what you did and why. **If both problems exist or there is only a problem with heteroscedasticity,** then do the formal test for heteroscedasticity using the F test, and explain what you did.