

Write your name on the cover of the test booklet and on an otherwise blank page of the Excel file and nowhere else. Enclose this sheet with the booklet. Upload the Excel file to Moodle. 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. Therefore, expect to spend 1 minute for every 2 points. For example, a 14-point question should take 7 minutes; however, you can take the full two hours.

1) (10 points) Answer EITHER Part A OR Part B.

- A) What would you do if you were the President of the USA to decrease the natural rate of unemployment, a.k.a., the full employment level of unemployment? How would that decrease the natural rate of unemployment? Make sure you choose a solution which is politically feasible.
- B) Explain the *hysteresis* theory of the natural rate of unemployment.

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

- A) Draw the supply and demand for the US\$ on the foreign exchange market with Euro as the other currency. Illustrate an increase in the European interest rates. Explain why the curve(s) moved as drawn.
- B) Draw the supply and demand for the US\$ on the foreign exchange market with the Yen as the other currency. Draw a fixed exchange rate at too low a value. What will happen as a result? Illustrate that on the diagram. Explain your logic.

3) (16 points) Answer EITHER Part A OR Part B.

- A) Draw the Augmented Short-run Phillips Curve and the Long-run Phillips Curve. Some politicians think that they can change the money supply to choose another point on the curve to get re-elected. What is the problem with that logic?
- B) Draw the Augmented Short-run Phillips Curve and the Long-run Phillips Curve. Illustrate an increase in the expected rate of inflation. Explain why the curve(s) moved as drawn.

4) (20 points) Answer EITHER Part A OR Part B using the data in the [Excel file](#).

- A) Use the data on Page "4A" to run a regression which predicts *Quantity* as a function of *Price* and *Advertising*. Are both of the variables significant? **If not**, explain how you know what variable is not significant and re-run the regression again without the insignificant variable. **If yes**, then predict how much the firm would sell if the price was \$50 and the advertising was also \$50. Would you rely on that number to predict your sales? Why or why not?
- B) Use the data on Page "4B" to run a regression which will predict *Quantity* based upon *Income* and *Price*. Is there a problem with multi-collinearity? **If yes**, then explain how you determined that and re-run the regression without one of the variables. Explain how you chose which variable to eliminate. **If no**, then explain how you know that and determine how much a person with an income of \$20,000 would buy if the price was \$20.

5) (20 points) Answer EITHER Part A OR Part B using the data in the [Excel file](#).

- A) Use the data on Page "5A" to run a regression which would predict the *Number of Sick* people based upon *Time*. Does it have a problem with either heteroscedasticity or autocorrelation? **If there is heteroscedasticity**, explain how you know there is a problem. **If there is autocorrelation**, then explain how you know there is a problem. What would you do to correct the problem? Explain what you would do without actually doing it. **If neither exist**, then how many people would you expect to be sick in January of 2001? Would you rely on this number? Explain your logic.
- B) Use the data on Page "5B" to run a regression which would predict the *Sales* based upon *Income* and *Price*. Does it have a problem with either heteroscedasticity or autocorrelation? **If there is heteroscedasticity**, explain how you know there is a problem. **If there is autocorrelation**, then explain how you know there is a problem. What would you do to correct the problem? Explain what you would do without actually doing it. **If neither exist**, then how many would a person with an income of \$30,000 buy if the price was \$18? Would you rely on this number? Explain your logic.

6) (20 points) Answer EITHER Part A OR Part B.

- A) Illustrate on the IS/LM/FE diagram for **just the USA** an appreciation of the US\$ on the foreign exchange market. Explain why the curve(s) moved as drawn.
- B) Illustrate on the IS/LM/FE diagram for **just Mexico** an appreciation of the US\$ on the foreign exchange market. Explain why the curve(s) moved as drawn.