**Addis Ababa University School of Commerce**

**Department of Economics**

**Econometrics I (Assignment II), Individual Assignment**

**Year II, Semester I**

***Review Questions***

1. Having derived a model for exchange rate as a function of interest rate differential and performed the following regression:

You suspect that errors are serially correlated.

1. Describe how to implement the test of null that the error terms ( are serially uncorrelated against the alternative that they follow AR (1) process?
2. Suppose there is a presence of serial correlation, how would you deal with it?
3. Explain the differences between heteroscedacity and autocorrelation. Under which circumstances is one most likely to encounter each of these problems? Explain in general, the procedure for dealing with each. Do these techniques have anything in common? Explain?
4. Prove that , where d is the Durbin-Watson statistic and is an estimator of .
5. Multicollinearity is a problem usually encountered in Econometrics.
6. Explain the nature of the problem
7. How you check for multicollinearity?
8. Explain the consequence of multicollinearity in the model?