ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD  
(Department of Economics)

WARNING
1. PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.
2. SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE’S OWN WILL BE PENALIZED AS DEFINED IN “AIOU PLAGIARISM POLICY”.

Course: Applied Econometrics (2703)  
Level: M. Phil Economics  
Semester: Autumn, 2012  
Total Marks: 100  
Pass Marks: 50

ASSIGNMENT No. 1  
(Units: 1–4)

Q. 1 Prove mathematically the properties of OLS estimator?  
Q. 2 What is the nature of heteroscedasticity. How it can be detected? Also give its remedial measures in brief.  
Q. 3 Explain in details the difference between the models with qualitative explanatory variables and models with qualitative dependent variables. Also explain the methods of estimation of these models?  
Q. 4 Differentiate among 2SLS, GMM and 3SLS methods of estimation?  
Q. 5 Explain in details the concept of seemingly Unrelated regression?

ASSIGNMENT No. 2  
(Units: 5–9)

Q. 1 What is Koyck transformation? How the problem of infinite number of lags is solved in Koyck distributed lag model?  
Q. 2 Explain in details various methods of estimating the non-linear equations?  
Q. 3 Which one of these models you will prefer for estimation of lag models and why?  
a) Method of Instrumental Variables  
b) Almond Polynomial Distributed Lag Model  
Q. 4 Explain the concept of stationarity, ARIMA models and ARCH models. Also explain the methods of estimating ARCH models?  
Q. 5 What is co-integration in time series econometrics? Also explain the Johanson and Joselious approach of co-integration?