Ref EX/PG/Eco/30/63/2018 (Old)

Master of Arts Examination 2018
(2^{nd} year, 3^{rd} Semester)
Economics
Advanced Econometrics I
Old Syllabus

Time: Two hours **FullMarks 30**

Answer any three questions

1. (a)Explain Seemingly Unrelated Regression Equation (SURE) model highlighting the basic assumptions.
(b) Prove the conditions under which the estimator for SURE model will be equal to OLS estimator.

4+6

2(a) Explain the concept of Generalized Method of Moments (GMM) estimator. What are the major reasons for the current popularity of GMM estimator?
(b) Show that OLS estimator is a special case of GMM estimator.

4+6

3. Consider the General Linear Regression model where some of the explanatory variables may not be predetermined with respect to the error term of the equation. Obtain fully efficient GMM estimator of the parameter vector, highlighting the necessary assumptions. Specify asymptotic covariance matrix for this estimator.

10

4. Explain the concept of nonparametric regression. Distinguish between non parametric and semi parametric regression. In this context explain kernel density estimator stating the concept Kernel function along with the associated properties.

3+ 2+5

5. Write short note on (any two)

(a) Full information maximum likelihood method of estimation

(b) 2SLS estimator as an interpretation of GMM Estimator.

(c) Test of identifying restriction using GMM estimator.

(d) Estimation of variance of X by using GMM