

Master of Arts Examination 2017
(2nd Year, 3rd Semester)
Economics
Advanced Econometrics I

Time: Two hours

Full Marks 30

Answer any three questions

1(a) What do you mean by Seemingly Unrelated Regression Equation (SURE)?

(b) Construct a suitable model of your own satisfying the properties of seemingly unrelated regression equation and derive the appropriate estimators.

(c) Give some economic examples where you can use specification of such model.

3+5+2

2 (a) What do you mean by Method of Moments estimators. In this context explain the concept of Generalized Method of Moments (GMM) estimators.

(b) Show that 2SLS estimator is a special case of GMM estimator.

4+6

3 (a). Explain the concept of fully efficient GMM Estimator. For a general linear regression model derive fully efficient GMM Estimator highlighting the basic assumptions.

3(b). Specify variance- covariance matrix of such estimator.

7+3

4 (a) How does nonparametric estimation differs from parametric estimation?

[Turn over

(b) Discuss the concept of Kernel Density Estimation. In this context explain the concept of Kernel function and the associated properties. Show that the Kernel estimator is biased for small sample.

4+6

5. Write short note on (any two)

- (a) Equality between SURE and OLS estimator.
- (b) Full information Maximum Likelihood Estimation Method.
- (c) OLS estimator as an interpretation of GMM Estimator.
- (d) Test of identifying restriction using GMM estimator.

5+5