

ST4 E01: ECONOMETRIC METHODS

UNIT I

Demand and supply functions, elasticity of demand, equilibrium of market, production functions- homogeneous functions, elasticity of production, input- output analysis, simple linear regression models.

UNIT II

Multiple linear regression models, estimation of the model parameters, tests concerning the parameters, confidence intervals, prediction, heteroscedasticity, tests, consequences, Multicollinearity- consequences, Farrar-Glauber test, remedial measures.

UNIT III

Aitken's generalized least square method, tests for auto correlation, consequences, and estimation procedures, stochastic regressors, errors in variables, use of Dummy variables in regression, polynomial regression models, logistic regression, step-wise regression.

UNIT IV

Simultaneous equation models, instrumental variables, recursive models, distributed- lag models identification problems, rank and order condition, methods of estimation- indirect least squares, least variance ratio and two-stage least squares, FIML- methods.

References Books:

1. Johnston J. (1984) *Econometric Methods* (Third edition), McGraw Hill, New York.
2. Montgomery D.C., Peck E.A. and Vining G.G. (2007) *Introduction to Linear Regression Analysis*, John Wiley, India.
3. Gujarati D (1979) *Basic Econometrics*, McGraw Hill.
4. Koutsoyiannis A (1979) *Theory of Econometrics*, Macmillian Press.
5. Apte P.G. (1990) *Text book of Econometrics*, Tata Me Graw Hill.
6. Theil H. (1982) *Introduction to the Theory and Practice of Econometrics*, John Wiley.