

Paper Code :3334

**B.A. HONOURS IN ECONOMICS**  
**THIRD YEAR HONOURS**  
**Paper – XII**  
**ECONOMETRIC METHODS**

**Unit – I**

Definition and Scope of Econometrics, The methodology of Econometric Research, Specification and Estimation of an Econometric Model, Basic concepts of Estimation, Desirable properties of Estimators (small sample and large sample properties).

**Unit – II**

Statistical v/s. Deterministic relationships, Correlation and Regression, Theoretical Frequency Distributions – Binomial, Poisson and Normal.

Testing of Hypothesis, Type-I and Type-II errors, Standard Errors, Tests based on Z, t and  $\chi^2$  (Chi-square) Statistics.

**Unit – III**

Ordinary Least Squares (OLS) Method – Assumptions, Gauss – Markov Theorem, Testing of Regression Coefficients, Coefficient of Determination, F-test.

**Unit – IV**

Heteroscedasticity, Auto Correlation (first order) and Multicollinearity – Consequences, tests and remedies.

**Unit – V**

Lags in econometric Models – Concepts, Koyck model, Partial Adjustment and Adaptive Expectation Models, Qualitative data and Seasonal analysis – Use of dummy variables, Proxy variables, Summary variables – Concepts and uses.

### **Basic Reading List**

1. Gujarati, D. – Basic Econometrics, McGraw Hill, New Delhi.
2. Johnston, J. (1985) – Econometric Methods, McGraw Hill, New York.
3. Madnani, G.M.K. – Introduction to Econometrics – Principles and Applications, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
4. Maddala, G.S. (1993) – Econometrics – An Introduction, McGraw Hill, New York.
5. Koutsoyiannis, A. (1977) – Theory of Econometrics (2<sup>nd</sup> Edition), McGraw Hill, New York.