

M.A. (FINAL) ECONOMICS

Optional Paper

Paper X-B

ECONOMETRICS

Unit I

Nature, meaning and scope of econometrics; Simple and general linear regression model- Assumptions, Estimation (through OLS method) and properties of good estimators; Gauss-Markov Theorem; Concepts and derivation of R^2 and adjusted R^2 ; Multiple Regression Analysis and its numerical application.

Unit II

Nature, test, consequences and remedial steps of problems of heteroscedasticity; Multicollinearity, auto-correlation- nature and consequences, detecting auto-correlation and Durbin Wastson 'd' statistic and measures to solve the problem of auto correlation. Errors of measurement. Concept of Discriminant Analysis.

Unit III

Dummy variable technique -Testing structural stability of regression models comparing to regressions, interaction effects, seasonal analysis, piecewise linear regression, use of dummy variables, regression with dummy dependent variables; The LPM, Logit, Probit and Tobit models -Applications.

Unit IV

Autoregressive and distributed lag models -Koyak model, Rationalisation of Koyak model, The adaptive expectations and partial adjustment model. The method of Instrumental variables; Almon approach to distributed- lag models; Causality in Economics, The Granger Test.

Unit V

The simultaneous equation model- Introduction and examples. Bias and Inconsistency of OLS estimators; The identification problem; Rules of identification - order and rank conditions; Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS); 2SLS, 3SLS methods -Applications.

BASIC READING LIST

- Amemiya, T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.
- Baltagi, B.H. (1998), Econometrics, Springer, New York.
- Dongherty, C. (1992), Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.
- Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.

- Hill R.C., E.G. William and G.G. Judge (1997), Undergraduate Econometrics, Wiley, New York.
- Kennedy, P. (1998), A Guide to Econometrics (4th Edition), MIT Press, New York.
- Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
- Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed.), The Macmillan Press Ltd., London.
- Krishna, K.L. (Ed.) (1997), Econometric Applications in India, Oxford University Press, New Delhi.
- Maddala, G.S. (Ed.) (1993), Econometrics Methods and Application (2 Vols.), Aldershot, U.K.
- Theil, H. (1981), Introduction to Econometrics, Prentice Hall of India, New Delhi.

ADDITIONAL READING LIST

Unit I

- Croxton, F.E., D.J. Cowden and S. Klein (1973), Applied General Statistics, Prentice Hall, New Delhi.
- Maddala, G.S. (1997), Econometrics, McGraw Hill, New York.

Unit II

- Intrilligator, M.D. (1978), Econometric Methods. Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Johnston, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
- Anderson, T.W. (1958), Introduction to Multivariate Statistical Analysis, Chapman and Hall, London.
- Chatfield, C. and A.J. Collins (1980), Introduction to Multivariate Analysis, Chapman and Hall, London.

Unit III

- Chow, G.C. (1983), Econometrics, McGraw Hill, New York.
- Pindyck, R.S. and D.L. Rubinfeld (1976), Econometric Models and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.

Unit IV

- Chow, G.C. (1983), Econometrics, McGraw Hill, New York.
- Franses, P.H. (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press, New York.

- Hamonda, O.F. and J.C.R. Roley (1997), Time Series Model, Causality and Exogeneity, Cheltenham, U.K.
- Hansen, P.R. and S. Johanson, (1998), Workbook on Cointegration, Oxford University Press, New York.
- Harvey, A.C. (1981), Econometric Analysis of Time Series, Phillip Allen, London.
- Johnston. J. (1991), Econometric Methods, McGraw Hill Book Co.. London.
- Maddala, G.S. (1997). Econometrics, McGraw Hill, New York.
- Dhrymes, P.J. (1970). Econometrics -Statistical Foundations and Applications, Harper and Row Publishers, New York.
- Franses, P.H. (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press, Cambridge.
- Hansen, P.R. and S. Johanson, (1998), Workbook on Cointegration, Oxford University Press, New York.
- Intrilligator, M.D. (1978). Econometric Methods. Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.

Unit V

- Chow, G.C. (1983), Econometrics, McGraw Hill, New York.
- Intriligator. M.D. (1978), Econometric Methods, Techniques and Applications. Prentice Hall, Englewood Cliffs, New Jersey.
- Pindyck, R.S. and D.L. Rubinfeld (1976), Econometric Models and Economic Forecasts, McGraw Hill-Kogakusha, Tokyo.