

M.Com. Part I
Satistics : Paper II(Principal Subject)

(To be made effective From , June - 2006]

Course Contents

Unit I : Mathematical Economics :

25%

Effect of taxation and subsidy on market equilibrium, Edgeworth's Paradox, Partial elasticity of demand, Engel's law, Income elasticity of demand, Formulation of production function, average and marginal production, Elasticity of productivity, Special Study of Cobb-Douglas production function, Elasticity of substitution for two input factors of production.

Input-Output analysis - Leontiefs static open and closed system models, importance in inter-industry relations.

Unit II : Sampling Techniques :

25%

Sample selection and sample size determination - Stein's method, Linear and Circular Systematic sampling, Cluster sampling, Two-stage sampling Description of these methods and estimation of mean and variance.

Varying probability sampling, probability proportional to sample size with replacement - Description and estimation of mean & variance without proof, Double sampling - only description

Unit III : Time Series Analysis :

25%

Distinction between time series and cross - section data, Determination of trend by Logistic curve, modified exponential curve, weighted moving averages, iterated moving averages and variate difference method with necessary assumptions. Study of stationary time series, serial correlation, auto regressive series.

Unit IV : Econometric Methods :

25%

General linear model - basic assumptions, estimation of parameters and tests of significance and associated confidence intervals, Problem of prediction with two regressors and use of multiple correlation coefficient in problems of regression, Problem of multicollinearity and its diagnostic measures without derivation, Use of dummy variables without derivation.

Books For Reference :

1. Allen R.G.D : Mathematical Economics
2. Allen R.G.D. : Mathematical Analysis for Economists
3. Henderson & Quandt : Micro Economic Theory
4. Cochran W.G. (1984) : Sampling Techniques (Wiley Eastern)
5. Murthy M.N. (1964) : Sampling theory and methods: Statistical Publishing Society Calcutta
6. Johnston J (1984) : Econometric Methods (3rd Edition) McGraw Hill
7. Gujarati O. (1979) : Basic Econometrics, McGraw Hill
8. Jaiswal M.C.(1984) : Economic Statistics , (Gujarati) Granth Nirman Board
9. Mody R.J. : Mathematical Economics (Gujarati)
10. Gajjar A.V. & Patel S.S. : Statistics (Gujarati)
11. Goon, Gupta and Dasgupta (1984) : Fundamentals of Statistics Vol. II (World Press)
12. Sudman S. (1976) : Applied Sampling Academic Press.