Paper Code :3333

B.A. HONOURS IN ECONOMICS
THIRD YEAR HONOURS
Paper – XI
MATHEMATICAL ECONOMICS

Unit – I

Variables, Constants and Parameters, Simple Functional Relationship and their Graphs, Elementary ideas of Differential and Integral Calculus, Matrix and Determinants, Solution of Simultaneous Equations, Quadratic Equations.

Unit – II

Utility function, Budget line, Constrained Optimization, Consumer's Equilibrium, Income effect, Substitution effect and Price effect, Slutsky equation, Derivation of Demand Curve, Elasticity of Demand.

Unit – III

Properties of Production Function – Homogeneous and Non-Homogeneous, Cobb-Douglas, CES, Returns to Scale, Technological Progress and Production Function, Choice of Optimal Combination of Factors of Production; Cost and Revenue Functions, Derivation of Cost Curves, Relation between total, Average and Marginal cost and revenue, Adding up theorem.

Unit – IV

Concept of Equilibrium – Equilibrium of the firm under Perfect Competition, Monopoly and Monopolistic Competition, Subsidies and Taxes, Monopoly – Price Discrimination, Cobweb Model.

Unit – V

Input-Output Analysis – The simple closed and open model, Linkages, Concepts and Measurement, Dynamic input-output model.

Linear programming, Basic concepts, Primal and Dual, Basic theorem of Linear Programming, Graphic and Simplex Method, Concept of Game Theory and Saddle Point.

Basic Reading List

1. Henderson, J. and R.E. Quandt (1980) – Microeconomic Theory: a Mathematical Approach, McGraw Hill, New Delhi.
2. Mehta and Madnani – Mathematics for Economists, Sultan Chand and Sons, New Delhi.
3. Madnani, G.M.K. – Mathematical Economics: Oxford and IBH Publishing Co., New Delhi.
4. Cliang, A.C. – Fundamentals of Mathematical Economics, McGraw Hill, New York.
5. अग्रवाल, एच.एच. – अर्थमिति एवं गणितीय अर्थशास्त्र, आर.बी.एस.ए. पब्लिशर्स, जयपुर।