

**B.A./B.Sc. SEMESTER-I
ECONOMICS
MICROECONOMICS**

TERM-1

UNIT-I

Introductory: Definition of Economics, Adam Smith, Marshall, Robbins, Nature and Scope of Microeconomics. Basic Concepts: Human wants, Utility and Satisfaction, Basic Economic Problems.

Demand Function; Supply Function, Price Determination, Slope and Elasticity, Elasticity of Demand – Price, Income and Cross and their Measurement. Utility Analysis and Indifference Curve Analysis.

UNIT-II

Theory of Demand and Consumer Behavior: Revealed Preference Analysis and their Comparison.

Theory of Production and Costs: Concept of Production Function. Laws of Returns to Scale and Law of Variable Proportions and their Compatibility.

Cost: Traditional and Modern Costs Theory, Concepts and Costs curves in the short and in the long run. Revenue Curves and their relationship with elasticity of demand.

TERM-2

UNIT-III

Market forms: Perfect Competition; Assumptions, Price and output determination of firm and Industry in Short run and Long run; Supply Curve. Monopoly; Assumptions, Equilibrium, Supply Curve. Monopolistic Competition : Assumptions, Product differentiation, Selling costs, Excess capacity..

UNIT-IV

Marginal Productivity Theory; Factor Pricing (with reference to labour) under Perfect Competition and Imperfect Competition, Modern Theory of Distribution.

Rent: Concept; Ricardian Theory and Modern Theory of Rent.

Interest: Concept of interest; classical theory, loanable funds theory.

Profit: Concept of profit; Risk and uncertainty theories.

BA/BSc SEMESTER-I
QUANTITATIVE TECHNIQUES-I

Term-1

UNIT-I

Solution of Linear Equations: Solution of Simultaneous Linear Equations (upto two variable case), Application of Linear Equation in Economics; Solution of Quadratic Equations. Series: Arithmetic Progression Series, Geometric Progression Series and their applications in economics.

UNIT-II

Elements of Analytical Geometry: Straight line and circle; Basic concepts of trigonometry (with formulae); Concepts of combination and permutation, Elements of set theory, union, intersection, difference, symmetric difference, complementation, Venn diagrams.

TERM-2

UNIT-III

Difference between a constant and a variable, concept of functions, classifications of functions, graph of linear and quadratic functions.

Limits and continuity of a function (Excluding Trigonometric and Inverse functions): Concept of differentiation (ab-intio principle).

UNIT-IV

Derivatives (Excluding Trigonometric and Inverse Functions): Rules of derivatives; functions of functions rule; derivatives of implicit functions, parametric functions, exponential functions, logarithmic functions; successive derivatives.

**B.A./B.Sc. SEMESTER-II
ECONOMICS
INDIAN ECONOMY**

TERM-1

UNIT-I

Nature of Indian Economy, Agriculture in India: Nature and Importance of Agriculture, Causes of Decline in Productivity, Sustainable Agricultural Growth. Green Revolution and New Agricultural Strategy, Land Reforms: Need, Implementation and Critical Evaluation, WTO and Indian Agriculture.

UNIT-II

Industry: Performance and Problems of Industrial Development, Public Sector and Private Sector, Privatization of Public Sector Enterprises: Role of Small and Cottage Industries. Latest Industrial Policy.

TERM-2

UNIT-III

Foreign Trade: Direction and Composition of Exports and Imports Since 1991, Recent Foreign Trade Policy, Balance of Payment Problem. Foreign Capital and Multinational Corporations in India.

UNIT-IV

Features of Population Growth in India, Major Problems of the Economy - Unemployment, Poverty and Inequality, Indian Tax Structure, Centre-State Financial Relations and Inflation. Planning- Objectives, Strategy, Evaluation of Planning in India. A Brief Idea of Objectives, Targets, Resources of the Latest Five Year Plan.

B.A./B.Sc. SEMESTER-II
QUANTITATIVE TECHNIQUES-II

TERM-1

UNIT-I

Statistics: Definition, Scope in Economics, Significance, Limitations. Tabulation, Classification and Graphical representation of data (Pie Chart, Bar Diagram, Histogram, Frequency Polygon, Ogive Curve, etc.).

UNIT-II

Concepts and Measures of Central Tendency: Mean, Median and Mode; Concepts and Measures of Relative Dispersion; Concepts and Measures of Skewness and Kurtosis.

TERM-2

UNIT-III

Correlation Analysis: Introduction, Importance, Karl-Pearson's Coefficient of Correlation, Spearman's Rank Correlation Coefficient, Simple Regression Analysis; Difference between Correlation and Regression, Lines of Regression, Inter-relationships between Correlation and Regression Coefficients.

UNIT-IV

Index Numbers: Concept of Index Number, Purpose Construction & Problems, Laspeyre, Paasche and Fisher's Formulae, Tests of Consistency, Concept of Consumer Price Index & Whole Sale Price Index.

Analysis of Time Series: Definition, Components of Time Series, Measurement of Trend by different methods, Measurement of Seasonal Variations.

**B.A./B.Sc. SEMESTER-III
ECONOMICS
MACRO ECONOMICS**

TERM-1

UNIT-I

Distinction between Micro and Macro Economics; Determination of Income and Employment : Classical and Keynesian models; Say's Law of Market and aggregate demand and aggregate supply.

Consumption functions; average (short-run and long run) and marginal propensity to consume; static and dynamic multipliers.

UNIT-II

Investment: Meaning, Demand schedules and factors affecting investment decision. Marginal Efficiency of Capital. Accelerator, multiplier-accelerator interaction.

Trade cycles-meaning, characteristics and phases. Samuelson and Hicks Models of trade cycles.

TERM-2

UNIT-III

Money: Its functions and role. Money and Capital Markets (Introductory). Quantity Theory of Money. Fisher's and Cambridge's equations. Liquidity preference theory.

Banking: Definitions of banks. Credit creation and credit control.

UNIT-IV

Inflation: Concept, Causes and cures. Inflation-unemployment Trade-off (only Phillips' contribution).

Macroeconomic Policies: Fiscal policy – meaning, objectives and instruments.

Monetary policy – meaning, objectives and instruments.

B.A./B.Sc. SEMESTER-III

QUANTITATIVE TECHNIQUES-III

TERM-1

UNIT-I

Differentiation: Maxima and Minima of Functions, Partial derivatives, Higher order partial derivatives.

UNIT-II

Integration (Excluding Trigonometric and Inverse Functions): Indefinite Integrals; Integration by Partial Fractions; Integration by substitution; Integration by parts; Definite Integrals.
Application of Integration in Consumer Surplus and Producer Surplus.

TERM-2

UNIT-III

Matrices: Definition, Types, Addition, Subtraction and Multiplication of Matrices, Scaler Multiplication, Transposition, Determinants and their Properties, Minors and Co-factors, Rank of a Matrix, Inverse of a Matrix, Cramer's Rule for Solution of Simultaneous system of equations. Applications of matrices in economics.

UNIT-IV

Linear Programming: Formulation of problem, Assumptions, Graphical solution, Simplex method. Use of Artificial Variables, Dual Simplex method.
Input-Output Analysis: Basic concepts, Input-Output tables for closed and open economies, Leontief Basic Input-Output Model, Simple Applications of Input-Output Analysis.

B.A./B.Sc. SEMESTER-IV

ECONOMICS

INTERNATIONAL ECONOMICS AND PUBLIC FINANCE

TERM-1

UNIT-I

International Trade: Internal and External Trade. Classical and Heckscher. Ohlin Theories, Gains from Trade, Terms of Trade, (gross, net and income terms of trade). Trade and economic development.

Commercial Policy: Free trade vs. protection, rationale of a protectionist policy in less developed area. GATT & WTO (Introductory)

UNIT-II

Balance of Payments: Meaning and components of balance of payments, Methods for correcting adverse balance of payments, devaluation and direct control.

Rate of Exchange: Meaning and determination, Fixed and flexible exchange rates.

TERM-2

UNIT-III

Public Finance: Nature, scope importance.

Public Expenditure: Meaning, principles, importance, effect of public expenditure on production and distribution.

UNIT-IV

Taxes: Meaning, classification, features of a good taxation system, canons of taxation, incidence and impact of taxation.

Public Debt: Meaning, objectives, importance, its burden.

B.A./B.Sc. SEMESTER-IV

QUANTITATIVE TECHNIQUES-IV

TERM-1

UNIT-I

Multiple Linear Regression: Concepts, Estimation and Applications (without derivations) of: Partial and Multiple Correlation.

Non-Linear Regression: Quadratic and Exponential; Estimation of Fitting of Various Growth Curves (Modified Exponential, Gempertz and Logistic).

UNIT-II

Probability: Definition, Additive & Multiplicative Laws and their Applications, Bayes Theorem, Concept of Random Variable, Probability Mass Function & Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.

TERM-2

UNIT-III

Theoretical Probability Distributions: Derivations of the properties of Binomial, Poisson, Normal, Beta and Gamma Distributions.

UNIT-IV

Sampling: Various concepts – Population, Sampling Units, Complete Enumeration sample Surveys, Concept of an Estimator and The Standard Error, Standard Error of Estimates. Features of a Good Sample, Random and Subjective Sampling, Simple Random Sampling (with and without replacement), Stratified Random Sampling (applications only).

**B.A./B.Sc. SEMESTER-V
ECONOMICS
ECONOMICS OF DEVELOPMENT**

TERM-1

UNIT-I

Economic Development: Meaning and Measurement, Economic and Non-Economic Factors, Nature of Underdevelopment, Characteristics of Undeveloped Countries. Human Development Index.

Dualism: Social and Technological Dualism, Lewis Model of Unlimited Supply of Labour, Problems of Unemployment and Disguised Unemployment.

UNIT-II

Models of Growth: Classical, Marxian, Schumpeter's, Harrod-Domar and Solow's Growth Models.

TERM-2

Unit-III

Rostow's Stage Theory, Strategies of Economic Development-Balanced vs. Unbalanced Growth; Theory of Big Push; Libenstein's Critical Minimum Efforts Thesis, Export Promotion and Import Substitution.

UNIT-IV

Capital Formation – Meaning and Sources. Choice of Technique, Role of Planning in Under Developed Countries, Need, Objective, Strategy, Types and Problems of Planning.

**B.A./B.Sc SEMESTER-V
QUANTITATIVE TECHNIQUES**

TERM-1

UNIT-I

Sampling Distributions: Derivation of properties of Z, T, Chi Square and F distributions.

UNIT-II

Statistical Inference: Point & Interval Estimation; Properties of a Good Estimator, Maximum Likelihood Method of Estimation, its applications for Binomial, Poisson and Normal distributions. Basic Concepts of Null and Alternative Hypotheses, Types of Errors; One Tailed and Two Tailed Tests, Power of Test, Critical Region.

TERM-2

UNIT-III

Tests of significance based on normal deviate (Z), T, Chi square and F statistics.

UNIT-IV

Analysis of Variance: Introduction, Assumptions, Techniques of Analyzing Variance, Analysis of Variance of one-way and two-way classified data.

**B.A./B.Sc SEMESTER–VI
ECONOMICS
QUANTITATIVE METHODS FOR ECONOMISTS**

TERM-1

UNIT–I

Sets, Relations and functions and continuity, Derivative of simple functions only (excluding log & exponential functions). Maxima/Minima for single variable functions. Introduction to matrices -- definition, properties & inverse.

UNIT–II

Measures of central tendency — Mean, Mode, Median and Geometric Mean; Measures of dispersion.

TERM-2

UNIT–III

Concepts and Measure of skewness and kurtosis: Boyle's & Karl Pearson's measures. Simple correlation & regression (ungrouped & grouped data).

UNIT–IV

Interpolation: Concepts and Methods — Binomial expansion, Newton and Lagrange's Method (with emphasis on missing values only). Price Index Numbers—Weighted and Unweighted Index Numbers, various formulae and consistency tests.

**B.A./B.Sc SEMESTER-VI
QUANTITATIVE TECHNIQUES-VI**

TERM-1

UNIT-I

Definition, Scope and Nature of Econometrics. Simple Linear Regression Model (OLS method) with applications.

UNIT-II

General Linear Regression Model, assumptions, properties (BLUE). Gauss-Markov Theorem, Concepts of R^2 and \bar{R}^2 , Test of Significance (Stress on Numericals).

TERM-2

UNIT-III

Econometric Problems of Heteroscedasticity and Multicollinearity in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Specification Bias.

UNIT-IV

Problems of Auto-Correlation in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Distributed Lag Models and Auto-Regressive Models. Dummy Variable Technique and its Uses.