

ECONOMICS
1ST YEAR HONOURS
TERM – 1

PAPER: IA (Microeconomic Principles)

Unit 1: The Economic Way of Thinking (Smt. Sunetra Sengupta)

- 1.1 Normative Economics and Positive Economics –Methodology.
- 1.2 Wants, Scarcity, Competing Ends and Choice -Defining Economics.
- 1.3 Basic Economic Questions, Microeconomics and Macroeconomics.
- 1.4 Principles of Microeconomics - principles of individual decision making and principles of economic interactions - Introduce trade-off, Opportunity Cost, Efficiency, Marginal Changes and Cost-Benefit, Trade, Market economy, Market failure, Externality and Market power.
- 1.5 Interdependence and the Gains from Trade - production possibilities frontier and increasing costs, absolute and comparative advantage, comparative advantage and gains from trade.

Unit 2: Market and Adjustments (Smt. Sunetra Sengupta)

- 2.1 The Evolution of Market Economies. Price System and the Invisible Hand.
- 2.2 The Decision-takers - households, firms and central authorities.
- 2.3 The Concepts of Markets - individual market, separation of individual markets, interlinking of individual markets. Difference among markets - competitiveness, goods and factor markets, free and controlled markets. Market and non-market sectors, public and private sectors, economies - free market, command and mixed.
- 2.4 Different Goods: Public goods, Private goods, Common resources and Natural Monopolies.
- 2.5 Market and competition; Demand and its determinants; Supply and its determinants; relation of Quantity Demand with Price (using arguments of income and substitution effects); relation of Quantity Supply with Price (using increasing costs argument); Laws of Demand and Supply; Demand and Supply as Planning Curves; movement along and shift of the curve; Demand, Supply and Other factors.
- 2.6 Equilibrium and Disequilibrium.
- 2.7 Market Adjustment without Government (with illustrations).

Unit 3: Market Sensitivity and Elasticity (Smt. Sunetra Sengupta)

- 3.1 Importance of Elasticity in Choice-Decisions.
- 3.2 Method of Calculation - Arc Elasticity, Point Elasticity – definition.
- 3.3 Demand and Supply Elasticities - types of elasticity and factors effecting elasticity.
- 3.4 Demand Elasticity and Revenue.
- 3.5 Income and Cross Price elasticity.
- 3.6 Long run and Short Run elasticities of Demand and Supply.
- 3.7 Case Studies - OPEC and Oil Price, Illegal Drugs.

Unit 4: Government Intervention (Smt. Sunetra Sengupta)

- 4.1 The Economic Role of Government with respect to Market: (i) Price Ceiling, Price Floor and Market Adjustment (with short case studies of agricultural administered price, minimum wage and rent control); (ii) Black Market (iii) Tax and market adjustment; (iv) Elasticity and Tax incidence.

PAPER-1B (Macroeconomic Principles)

Unit 1: Nature and Scope of Macroeconomics (Smt. Upoma Chatterjee)

- 1.1 Distinction between Macro economics and Microeconomics -Aggregation and Macroeconomics.
- 1.2 Goals and Instruments of Macroeconomics.
- 1.3 Supply and Demand in Macroeconomics Introduce Economic growth, GNP gap, booms, recessions, depressions, business cycles, fiscal policy, monetary policy, international economic policy, macro equilibrium, exchange rate, inflation and deflation, stagflation, supply shock and tight money.
- 1.4 Brief history and Schools of Macroeconomics - Keynesian, Classical, New Keynesian and New Classical.

Unit 2: Accounting Output and Income (Smt. Upoma Chatterjee)

- 2.1 The Circular Flow Explication - Measuring Output - Gross National Product - Nominal GNP, Real GNP and GNP Deflator.
- 2.2 The Two Approaches to measure GNP - The Final Goods Approach and Income Approach.
- 2.3 Intermediate goods and value added approach.
- 2.4 Flow Statistics and Stock Statistics -Investment -Consumption -Capital stock.
- 2.5 GNP, Gross Domestic product, Net National product, National Income and Disposable Income.
- 2.6 GNP and Economic Well Being.

Unit 3: Consumption and Investment (Smt. Upoma Chatterjee)

- 3.1 Consumption and Savings - Consumption, Income and Saving, Consumption Function, Marginal Propensity to Consume, Marginal Propensity to Save.
- 3.2 Determinants of Consumption.
- 3.3 Determinants of Investment. Investment Demand Curve and interest rate.

Unit 4: Production and Growth (Smt. Upoma Chatterjee)

- 4.1 History of Economic Growth and Why Growth Matters.
- 4.2 Importance of productivity in growth. Determinants of productivity- physical capital, human capital, natural resources and technological knowledge.
- 4.3 Economic Growth and Public Policy - importance of saving and investment, diminishing returns and catch-up effect, foreign investment, education, property rights and political stability, free trade, population control and research and development (brief illustration in the context of Indian economic reform).

Paper IIA: Statistics for Economics**Unit 1: Data Presentation (Smt. Chhanda Mandal)**

- 1.1 Data - Classification and presentation, Population and Sample, Collection of Data - Variable and Attribute.
- 1.2 Frequency distribution - Diagrammatic representation of frequency distribution.

Unit 2: Central Tendency (Smt. Chhanda Mandal)

- 2.1 Arithmetic Mean, Median and Mode (for both grouped and ungrouped data), Comparison of Mean, Median and Mode, Geometric and Harmonic Mean, Composite Mean.
- 2.2 Application: Index Numbers: their concept as weighted averages, Problems in the Construction of Index Numbers, Chain Index, Cost of Living Index Number (different formulae).
- 2.3 Wholesale Price Index and Cost of Living Index in India, Uses of Index Numbers.

Unit 3: Dispersion (Smt. Chhanda Mandal)

- 3.1 Range, Mean Deviation Quartile Deviation and Standard Deviation, Measures of Relative Dispersion, Curve of Concentration.
- 3.2 Measurement of Economic Inequality: Gini Coefficient and Lorenz Curve.

Unit 4: Skewness and Kurtosis (Smt. Chhanda Mandal)

- 4.1 Central and non central moments, different measures of skewness and kurtosis.

Paper IIB: Mathematics for Economics**Unit 1: Introduction to Functions and Graphs (Md. Nazmul Islam)**

- 1.1 The concept of sets and their operations.
- 1.2 Cartesian product, vocabulary of functions, graphs, polynomials, increasing and decreasing functions.
- 1.3 Local, global maximum, linear and non-linear functions and their slopes.
- 1.4 Differentiability and continuity of a function.

Unit 2: Derivatives and its uses in single-variable calculus (Md. Nazmul Islam)

- 2.1 Use of first derivatives for graphing, second derivatives and curvature.
- 2.2 Maxima and minima (local and global).
- 2.3 Concepts of average and marginal change and elasticity.

Unit 3: Functions of several variables (Md. Nazmul Islam)

- 3.1 Level curves.
- 3.2 Partial derivatives, second order derivatives and use of chain rule, convexity of level curves.
- 3.3 Monotonic transformation, homogeneous function, Euler's theorem.

Unit 4: Linear Algebra, Fundamentals of Matrix Algebra and Linear Programming (Md. Nazmul Islam)

- 4.1 System of linear equations and its solutions, Cramer's rule.
- 4.2 Comparative Static exercise, matrix operations of linear equation systems, system with multiple or no solutions.
- 4.3 Input-Output Matrices.
- 4.4 Formulation of a linear programming problem, concepts of feasible and basic feasible solution, duality.

TERM - II**Paper IA: Microeconomic Principles****Unit 5: Utilitarian Approach (Smt. Sunetra Sengupta)**

- 5.1 The History of Utility Theory - From Cardinal to Ordinal Approach
- 5.2 Utility in Cardinal Approach - Utility and choice, Total Utility and Marginal utility, Utility and choice - maximization, marginal utility theory of demand

Unit 6: Markets and Welfare (Smt. Sunetra Sengupta)

- 6.1 Willingness to Pay and Consumer Surplus
- 6.2 Willingness to Sell and Producer Surplus
- 6.3 Market Efficiency and Deadweight Loss
- 6.4 Deadweight Loss of Taxation

Paper IB: Macroeconomic Principles**Unit 5: Unemployment (Smt. Upoma Chatterjee)**

- 5.1 Defining and Measuring the Unemployment Rate -Counting of Unemployed - Employed, Unemployed, Labour Force, Discouraged Workers. Okun's Law. Economic Costs of High Unemployment.
- 5.2 Types of Unemployment - Frictional Unemployment and Job Search, Structural Unemployment and Cyclical Un-employment, Voluntary versus Involuntary Unemployment.
- 5.3 Sources of Inflexibility in wages - minimum wages, unions and collective bargaining and efficiency wages

Unit 6: Money and Monetary Institutions (Smt. Upoma Chatterjee)

- 6.1 The Classical and Modern View
- 6.2 Definition and functions of Money
- 6.3 Origins of Money including Gresham's Law
- 6.4 Money Creation, Models of Banking - ratios approach and competitive banking system, money supply and competitive banking
- 6.5 Money and Relative Values - money as a veil, neutrality of money, money illusion, real and monetary effects and price level changes
- 6.6 Reserve Bank of India, Targets and instruments of monetary policy

Paper IIA: Statistics for Economics**Unit 5: Probability Theory (Smt. Chhanda Mandal)**

- 5.1 Elements of Probability Theory - Sample Space, Events Meaning of Probability, Classical Definition of Probability.
- 5.2 The Addition Rule, The Multiplication Rule, Theorems of Total Probability, Conditional Probability and Statistical Independence.
- 5.3 Limitations of the Classical definition, Frequency definition, Axiomatic Approach, Bayes' Rule.

Unit 6: Random Variables and Probability Distributions (Smt. Chhanda Mandal)

- 6.1 Definition of random variable - discrete and continuous random variable, probability mass function and probability density functions, Expectation and Variance of random variables.

- 6.2 Univariate Probability Distributions: Binomial, Poisson, Hypergeometric, Normal and Standard Normal Distribution -Mean Variance, Skewness and Kurtosis.
- 6.3 Moment Generating Functions, Limiting form of Binomial distribution (with proof), Limiting form of Poisson distribution (no proof), Importance of Normal Distribution in Statistics, Central Limit Theorem (statement only).

Paper IIB: Mathematics for Economics

Unit 5: Optimisation with Equality and Inequality Constraints (Md. Nazmul Islam)

- 5.1 Constrained and unconstrained optimization with first-order and second-order conditions.
- 5.2 Homogeneous and homothetic functions, concave and quasi-concave functions and their programming.

Unit 6: Difference Equations (Md. Nazmul Islam)

- 6.1 Linear first-order difference equation and their solution.
- 6.2 Linear second-order difference equation and their solution.

TERM - III

Paper IA: Microeconomic Principles

Unit 7: Market failure, Externalities and Public Goods (Smt. Sunetra Sengupta)

- 7.1 Market Failure (definition) and its causes.
- 7.2 Externalities and market inefficiency: difference between social costs and private costs, Positive and negative externalities, Private Solution to Externalities: Coase theorem, Public Policy towards Externalities: Regulation, Pigovian tax and subsidies, tradable permits.
- 7.3 Public Goods and Common Resources: Public Good and the free rider problem. Common Resources and Tragedy of Commons. Examples of Public Goods and Common Resources.

Unit 8: Conflicting and Complementary Roles of Market and Government (Smt. Sunetra Sengupta)
(Summary)

Paper 1B: Macroeconomic Principles

Unit 7: Inflation (Smt. Upoma Chatterjee)

- 7.1 Definition and measurement of Inflation rate - CPI and GNP Deflator.
- 7.2 Index-number problems in measuring the cost of living.
- 7.3 Types of Inflation - Moderate inflation, Galloping Inflation and hyperinflation.
- 7.4 Impact of Inflation - redistribution of Income and Wealth and distortions on output and prices.
- 7.5 Correcting economic variables from inflationary effects.

Paper IIA: Statistics for Economics

Unit 7: Bivariate Analysis (Smt. Chhanda Mandal)

- 7.1 Definition of bivariate data, scatter diagram, covariance - measure of association - Coefficient of Simple Correlation - Properties and the method of calculation.
- 7.2 Concept of rank correlation -Spearman's Rank Correlation.
- 7.3 Measure of influence - Simple Linear Regression - Least Squares and Normal Equations and determination of regression coefficient.

Unit 8: Population Statistics (Smt. Chhanda Mandal)

- 8.1 Measurements of mortality: Crude Death Rate, Specific death Rate, Standardised death rate, Mortality index, infant mortality rate.
- 8.2 Measurements of fertility: Crude birth rate, general fertility rate, age-specific fertility rate, total fertility rate, Gross Reproduction Rate, Net Reproduction Rate.
- 8.3 Life Table: its uses.

Paper IIB: Mathematics for Economics

Unit 7: Differential Equations (Md. Nazmul Islam)

- 7.1 Linear first-order differential equation.
- 7.2 Linear second order differential equation with real equal and unequal roots and complex roots.

Unit 8: Game theory (Md. Nazmul Islam)

- 8.1 Concepts of Game, representation, pure strategy and mixed strategy solutions.
- 8.2 Two person Zero sum game as a linear programming problem, Constant & Non-constant sum game
- 8.3 Prisoner's Dilemma, Dominance, Pure Strategy, Nash Equilibrium.

2ND YEAR HONOURS**TERM -1****Paper - IIIA: Microeconomics****Unit 1: Consumer Theory (Md. Nazmul Islam)**

- 1.1 Assumptions on preference ordering, indifference curve, marginal rate of substitution and convexity of IC, budget constraint, consumers' equilibrium interior and corner, Derivation of Demand Curves from ICs, composite good convention. Application: Cash subsidy versus subsidy in kind.
- 1.2 Income and price consumption curves Price effect -substitution effect (Hicks and Slutsky), inferior goods and Giffen goods, income effect, ordinary and compensated demand curves.
- 1.3 Inter-temporal choice (saving and borrowing).
- 1.4 Revealed preference.
- 1.5 Choice under uncertainty - utility function and expected utility, risk aversion and risk preference (concepts only)

Unit 2: Production and Costs (Md. Nazmul Islam)

- 2.1 Technology, Production Functions and Isoquants, short run and long run, production with one and two variable inputs, total average and marginal products, law of diminishing return, marginal rate of technical substitution, elasticity of substitution, economics of scale.
- 2.2 Types of production functions - Cobb-Douglas, fixed-coefficient and CES functions.
- 2.3 Cost structure-implicit cost, explicit cost, accounting cost, sunk cost, economic cost, fixed cost, variable cost, total, average and marginal cost. Determinants of Short run cost, Cost Curves, cost minimization and expansion path, Short run versus long run cost curves, economies of scope.

Unit 3: Market Structure (Md. Nazmul Islam)

- 3.1 Organization, Firms and Profit Maximization.
- 3.2 Marginal Revenue, Marginal Cost and Profit Maximization.
- 3.3 Perfect competition - short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run, Economic rent and profit, long-run industry supply -constant, increasing and decreasing cost.
- 3.4 Efficiency of competitive equilibrium, Government intervention and dead weight loss, Application - Minimum prices and price supports.
- 3.5 Monopoly and barriers to entry - output determination and price rule, measure and sources of monopoly power, social costs of monopoly power - deadweight loss.
- 3.6 Pricing with market power - first, second and third degree price discrimination.
- 3.7 Monopolistic competition - short run and long run equilibrium, excess capacity.
- 3.8 Oligopoly - Oligopoly equilibrium as Nash equilibrium, Cournot and Stackelberg Model, Competition versus collusion - the Prisoners' Dilemma.

Paper - IIIB: Macroeconomics**Unit 1: The Economy in the Long Run (Smt. Upoma Chatterjee)**

- 1.1 The classical analysis of the real sector-determination of employment, income and interest rate.
- 1.2 Job Loss, Job finding and Natural Rate of Unemployment.
- 1.3 Money and Inflation - quantity theory of money, seigniorage and inflation tax, inflation and interest rates, nominal interest rate and demand for money.

Unit 2: The Economy in the Short Run (Smt. Upoma Chatterjee)

- 2.1 Simple Keynesian analysis of aggregate demand with out and with the government sector, multiplier.
- 2.2 IS-LM, fiscal and monetary policy.
- 2.3 IS-LM and Aggregate Demand

- 2.4 Aggregate supply - Sticky Wage Model and Imperfect Information Model, Aggregate Supply and Phillips curve, inflation and Unemployment trade off without and with rational expectations.
- 2.5 Economy wide equilibrium with fiscal and monetary policy, demand and supply shocks, wage price flexibility and rigidity (only definition), Keynesian aggregate supply and Classical Aggregate Supply.

Unit 3: Foreign Trade and Exchange Rate (Smt. Chhanda Mandal)

- 3.1 Economic Openness with an emphasis on Indian economy, balance of payments, BOP and the Central Bank, Financing Current Account Deficit.
- 3.2 Exchange Rate Concepts, Determination of Exchange Rate - fixed and flexible, Importance of Foreign Currency Reserves with reference to India, Domestic Adjustment, BOP Crisis and Speculative Attack, Internal and External Balance under Fixed Rate, Advantages of Flexible exchange and Fixed Rates.
- 3.3 Foreign exchange market reform in India, relation of Devaluation with purchasing power parity and inflation, purchasing power parity principle.
- 3.4 IS-LM model without capital flows, Open economy with capital flows - the Mundell-Fleming Model.

Unit 4: Theories of Consumption and Investment (Smt. Upoma Chatterjee)

- 4.1 Consumption - Keynes and consumption function, inter-temporal choice, life cycle and permanent income hypothesis.
- 4.2 Investment-business fixed investment, neo-classical approach, Tobin's q, Residential investment and accelerator model of inventories.

Paper - IV A: Development Theory

Unit 1: Concepts and measures of development (Smt. Sunetra Sengupta)

- 1.1 Nature, Questions and Values of Development, Meanings of development-economic growth, redistribution from growth and capabilities approach to development, Objectives of development.
- 1.2 Measures of development - Purchasing power parity and Per capita income as an index of development, difference between growth and development, human development index.
- 1.3 Definition of developing economy.
- 1.4 Characteristics of a developing economy.

Unit 2: Process of Development - theoretical perspectives (Smt. Sunetra Sengupta)

- 2.1 Theories of transition-Clark and Fisher on change in sectoral share; Rostow's stages of growth; Kuznets's characteristics of Growth; Industrialisation, Growth and Kaldor's growth laws; The neo-classical approach of market and growth.

Unit 3: Factors in economic development (Smt. Sunetra Sengupta)

- 3.1 Land: Ownership and tenancy system - fixed rent contract and share cropping, role of agriculture in development, barriers to agricultural development and land reforms.
- 3.2 Labour - Population and Labor force growth, casual and long term labor, permanent labor market.
- 3.3 Capital: Role of capital accumulation in economic development. Significance of capital-output ratio, role of technology and technological progress, learning, human capital.

Unit 4: Population and Development (Smt. Sunetra Sengupta)

- 4.1 Concepts of Population: definitions of fertility, mortality, birth rates, death rates, fertility rate, life expectancy, infant mortality rate, youth dependency ratio.
- 4.2 Theory of demographic transition.

Paper - IVB: Indian Economy since Independence

Unit 1: Indian Economy at the time of Independence (Smt. Upoma Chatterjee)

- 1.1 Features of Indian Economy around 1947-1950 and characteristics of economic underdevelopment of India (with reference to colonial rule of India)

Unit 2: Planning: Evolution of India's Development Goal and Strategy (Smt. Upoma Chatterjee)

- 2.1 The background and Structure of Indian Planning.

- 2.2 Structural Constraints and India's development strategy - Choice of industrialization strategies - public vs. private sector, capital goods versus consumer goods- Mahalanobis Plan Model (basic argument), import substitution vs. export promotion strategy.
- 2.3 Agriculture-industry relationship - demand side and supply side linkages - agriculture-industry terms of trade -food crisis of the 1960s and imperatives for agricultural growth, genesis of green revolution - fourth plan (basic argument).
- 2.4 Poverty Eradication, foreign aid and self-reliance - Fifth Five Year Plan Model (basic argument)
- 2.5 Regional inequality in India - causes; policies for balanced regional development.
- 2.6 Planning deficiencies and its abandonment- 7th five year plan and Indian economic crisis.

Unit 3: Land and Agriculture (Smt. Chhanda Mandal)

- 3.1 Land and tenancy system- sharecropping- Different dimensions of Land Reform - Productivity Debate - Marketable Surplus.
- 3.2 Green Revolution - features of green revolution - positive and negative impacts of green revolution. Performance of Indian agriculture.
- 3.3 Agricultural Policies and Pricing-Agricultural Price commission - support price vs. procurement price – Public investment in agriculture - agricultural subsidies and tax.

TERM - II

Paper - IIIA: Microeconomics

Unit 3: Market Structure (Md. Nazmul Islam)

- 3.1 Organization, Firms and Profit Maximization.
- 3.2 Marginal Revenue, Marginal Cost and Profit Maximization.
- 3.3 Perfect competition - short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run, Economic rent and profit, long-run industry supply-constant, increasing and decreasing cost.
- 3.4 Efficiency of competitive equilibrium, Government intervention and dead weight loss, Application - Minimum prices and price supports.
- 3.5 Monopoly and barriers to entry - output determination and price rule, measure and sources of monopoly power, social costs of monopoly power - deadweight loss.
- 3.6 Pricing with market power - first, second and third degree price discrimination.
- 3.7 Monopolistic competition - short run and long run equilibrium, excess capacity.
- 3.8 Oligopoly-Oligopoly equilibrium as Nash equilibrium, Cournot and Stackelberg Model, Competition versus collusion - the Prisoners'Dilemma.

Unit 4: Input Markets (Md. Nazmul Islam)

- 4.1 Basic concepts-derived demand, productivity of an input, marginal product of an input, marginal revenue product.
- 4.2 Marginal productivity theory of distribution.
- 4.3 Labor market-supply of labor, competitive labor markets, monopsony, collective bargaining.
- 4.4 Land markets and rent.

Paper - IIIB: Macroeconomics

Unit 5: Demand for Money (Smt. Upoma Chatterjee)

- 5.1 Demand for money: Portfolio theory of money demand, Baumol- Tobin analysis of cash management.

Paper - IV A: Development Theory

Unit 5: Development strategies (Smt. Sunetra Sengupta)

- 5.1 Complementarity and Coordination
- 5.2 Poverty Trap of Nurkse and Big Push theory of Rosenstein-Rodan.
- 5.3 Linkages - backward and forward; linkages, policy and big push.
- 5.4 Choice of technology and choice of scale (large vs small) and criteria for investment.
- 5.5 Gains from Trade - static, dynamic and vent for surplus, tariffs versus subsidies. Prebisch doctrine, Prebisch- Singer thesis and Terms of Trade.

Unit 6: Development in a Labour surplus economy (Smt. Sunetra Sengupta)

- 6.1 The concept of economic dualism.
- 6.2 Lewis' model of economic development with unlimited supply of labour, Disguised Unemployment: Types and Measurement.
- 6.3 The Informal Sector.
- 6.4 Rural-urban migration of labour - Harris-Todaro model.

Paper - IVB: Indian Economy since Independence

Unit 4: Industrial Development: Evolution, Trade and Policy (Smt. Chhanda Mandal)

- 4.1 Structure and composition of Industry-issues of concentration, large vs small industry - industrial location. Small scale reservation policy. Trends and patterns of industrial growth.
- 4.2 Foreign trade regime, protection and foreign competition, Productivity; import substitution versus export Competitiveness, effect on export competitiveness.
- 4.3 Industrial Policies - Industrial licensing system.

TERM - III

Paper - IIIA: Microeconomics

Unit 5: Other issues related to Market (Md. Nazmul Islam)

- 5.1 General Equilibrium and Economic Efficiency - Exchange, production and welfare.
- 5.2 Reasons for Market Failure
- 5.3 Markets with asymmetric information- adverse selection, moral hazards, agency problems (concepts only).

Paper - IIIB: Macroeconomics

Unit 6: Economic Growth (Smt. Chhanda Mandal)

- 6.1 Solow model, Golden Rule of capital, impact of changes in saving propensity, population growth and technological progress. Growth accounting and Solow residual.
- 6.2 Endogenous Growth Theory (introduction).

Paper - IVA: Development Theory

Unit 7: Development, Inequality and poverty (Smt. Sunetra Sengupta)

- 7.1 Meaning of inequality, inequality measures, Lorenz Curve, Range, Coefficient of variation, Gini-coefficient, Kuznet's Inverted U hypothesis.
- 7.2 Poverty, relative and absolute deprivation with respect to income, Poverty line, Poverty measures – Head count ratio, Poverty gap ratio, Income gap ratio, Human Poverty Index.
- 7.3 Social dimensions of poverty - rural poverty, women and ethnic minorities and indigenous populations.
- 7.4 Tackling Poverty - The World Bank Approach.

Unit 8: Environment and development. (Smt. Sunetra Sengupta)

- 8.1 Development and Environmental - an overview.
- 8.2 Basic Issues of development and environment-Sustainable development and environment accounting, population and resources, poverty, rural development, urban development, global environment – rain forest destruction and greenhouse gases.
- 8.3 Policies for Environmental Regulation.

Paper - IVB: Indian Economy since Independence

Unit 5: Employment, Wages and Inflation (Smt. Chhanda Mandal)

- 5.1 The trends and pattern of employment and wages in India - informalisation and tertiarisation of employment -problems of unemployment and under-employment.
- 5.2 Government policies on employment and wages and employment - employment guarantee scheme - minimum wage.
- 5.3 Movement of prices in India-trends and patterns -causes, consequences and policies adopted.

3RD YEAR HONOURS
TERM -I

Paper-VA: international Economics

Unit 1: Basic Models of Trade (Smt. Chhanda Mandal)

- 1.1 Ricardian Model: Comparative advantage.
- 1.2 One factor economy: production possibility frontier, relative demand and relative supply and autarkic terms of trade.
- 1.3 Trade in Ricardian world: determination of international terms of trade, complete specialization, gains from trade.

Unit 2: Resources, Comparative Advantage, and Income Distribution (Smt. Chhanda Mandal)

- 2.1 Model of two factor economy: Assumptions, Factor prices and commodity prices (Stolper-Samuelson effect) -correspondence, Resources & output, Rybzynski effect.
- 2.2 Effects of International Trade between two factor economies, Relative prices and the pattern of Trade, Trade and distribution of Income, Factor Price Equalization.
- 2.3 Empirical studies - Leontief Paradox.

Unit 3: The Standard Trade Model (Smt. Chhanda Mandal)

- 3.1 Production Possibilities and relative supply, relative prices and demand, welfare effects of changes in terms of trade, determining relative prices.
- 3.2 Economic growth: shift of RS curve, growth and production possibility frontier, RS and terms of trade, International effects of growth, International transfers of income: shifting RD curve, Transfer problem, effects of transfer on terms of trade, Tariffs and export subsidies.
- 3.3 Offer curves: Derivation, International Equilibrium.

Paper - VB: Public Finance

Unit 1: Introduction to public economics (Smt. Upoma Chatterjee)

- 1.1 The nature, scope and significance of public economics.

Unit 2: Forms and Functions of Government (Smt. Upoma Chatterjee)

- 2.1 Different forms of government- unitary and federal. Tiers of government in the federal form- Central, State, Local (Introductory discussion with examples).
- 2.2 Functions of Government - Economic functions -allocation, distribution and stabilization.
- 2.3 Regulatory functions of the Government and its economic significance.

Unit 3: Federal Finance (Md. Nazmul Islam)

- 3.1 Federal Finance: Different layers of the government, Inter governmental transfer- horizontal vs. vertical equity.
- 3.2 Grants-merits and demerits of various types of grants-unconditional vs. conditional grants, tied grants, matching grants.

Unit 4: Public Goods and Public Sector (Md. Nazmul Islam)

- 4.1 Concept of public goods-characteristics of public goods, national vs. local public goods, determination of provision of public good.
- 4.2 Externality, concept of social versus private costs and benefits, merit goods, club goods.
- 4.3 Provision versus production of public goods. Market failure and public provision. Pricing of public goods vertical summation.

Paper VIA: Comparative Development Experience

Unit 1: International comparisons of development (Smt. Sunetra Sengupta)

- 1.1 Differences in initial conditions of development of less developed countries and present day developed countries.
- 1.2 Nature of development gap prevailing at present between developed and less developed countries.

Unit 2: Genesis of capitalism. (Smt. Sunetra Sengupta)

- 2.1 Different types of social organization, feudalism, pre-capitalist societies other than feudalism, capitalism in the West, development of the Third World
- 2.2 Industrial revolution in Great Britain - Causes - Why Great Britain became the pioneer? - Characteristics - Effects.

Unit 3: Industrialization Experiences in Early Part of 20th Century (Smt. Sunetra Sengupta)

- 3.1 The Great Debate in Soviet Union on the assignment of priority on development of heavy industry in the process of planned economic development.
- 3.2 The Great Depression of the 1930's and recovery -Experiences of USA and Great Britain.

Unit 4: Post Second World War Development Scenario (Smt. Sunetra Sengupta)

- 4.1 Global Change, Welfare state and mixed economy.
- 4.2 Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development.
- 4.3 Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia.
- 4.4 Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.

Paper VIB: Contemporary Economic Issues: India and West Bengal**Unit 1: Economic Reform in India since 1991 (Md. Nazmul Islam)**

- 1.1 Background of Indian Economic Reforms - New Economic Policy. Redefining India's development strategy. Changing Role of State and Market.
- 1.2 Industrial Policy, Disinvestment policy and Privatization.
- 1.3 Financial sector reforms including banking reform. Monetary Policy of RBI.
- 1.4 Fiscal Policy Reform - tax reform, debt management, FRBM act and subsidies.
- 1.5 External sector reforms: Foreign Exchange market, balance of payments, reform, convertibility, export-import policy, foreign direct investment.

Unit 2: Agriculture, Poverty and Social Security (Md. Nazmul Islam)

- 2.1 Post-reform Agricultural Performance and its Crisis.
- 2.2 Poverty and exclusion, NREGA, social security for unorganized workers and forest policy.

Paper VIIA: Statistics & Basic Econometrics**Unit 1: Joint Probability Distribution (Smt. Chhanda Mandal)**

- 1.1 Joint Probability Distribution - Idea of Independence, Marginal and Conditional Distribution. Expectation of the product of two variates.

Unit 2: Sampling Theory (Smt. Chhanda Mandal)

- 2.1 Population and Sample, Parameter and Statistic, Random Sampling - Methods of Drawing Random samples -with replacement and without replacement, Random sampling Numbers.
- 2.2 Sampling Distribution, Standard Error.

Unit 3: Sampling Distribution (Smt. Chhanda Mandal)

- 3.1 Sampling Distributions associated with Normal Population, Expectation and Standard Error of Sample Mean for with replacement and without replacement random samples.
- 3.2 Chi-Square Distribution, Student t Distribution, F-Distribution (definition and important properties only- Idea of degrees of freedom.

Unit 4: Classical Statistical Inference (Smt. Chhanda Mandal)

- 4.1 Estimators - Desirable properties of estimators - Unbiasedness, Minimum Variance, Consistency and Sufficiency.
- 4.2 Point Estimation - Maximum Likelihood Estimators and their properties.

- 4.3 Maximum Likelihood estimation of the parameters of Binomial, Poisson and Normal Distributions.
- 4.4 Confidence Intervals -Testing of Hypothesis -p-Values -Type-I and Type -II Errors.
- 4.5 Simple applications of tests for the Mean and Variance of a Univariate Normal Population.

Paper VIIB: Applied Economics

Group A: Application of Economics to Managerial Issues

Unit 1: Nature and Scope of Managerial Economics (Smt. Upoma Chatterjee)

- 1.1 Nature and Scope of Managerial Economics.
- 1.2 Basic Economic Tools in Managerial Economics: Opportunity Cost Principle, Incremental Principle, Principle of Time Perspective, Discounting Principle and Equi-marginal Principle.
- 1.3 Managerial Economist - Role and Responsibilities.

Unit 2: Demand, Cost and Profit Analysis (Smt. Upoma Chatterjee)

- 2.1 Demand Analysis: Demand Estimation for major consumer durables, nondurable products; Demand forecasting techniques.
- 2.2 Cost Estimation.
- 2.3 Cost-Volume-Profit Analysis (Break-Even Analysis): What is C-V-P Analysis? Objectives of C-V-P Analysis, Assumptions of C-V-P Analysis Determination of Break-even point, Profit-Volume Graph, Profit-Volume Ratio, Margin of Safety, Uses and Applications of Break-Even Analysis, Limitations of C- V -P Analysis.

Unit 3: Organizational Design, Principal-Agent Analysis & Incentive Design (Smt. Upoma Chatterjee)

- 3.1 The Nature of the Firm, the Breadth of the Firm, Assigning Decision-Making Responsibilities, Monitoring & Rewarding performance, Separation of Ownership & Control in the Modern Corporation.

Unit 4: Pricing Policies and Practices (Smt. Upoma Chatterjee)

- 4.1 Factors Governing Prices, Objectives of Pricing Policy, Price Leadership, Full-Cost Pricing, Mark-up Pricing, Limit
- 4.2 Pricing, Marginal Cost Pricing or Variable Cost Pricing, Rate of Return Pricing, Going-Rate Pricing, Peak- Load Pricing, Cyclical Pricing, Pricing over the life-cycle of a product (a) Skimming Price (b) Penetration Price (c) Pricing in Maturity; Product-line pricing, Price Discounts and Differentials, Price Forecasting.

Paper VIIB: Applied Economics

Group B: Mathematical Economics

Unit 1: Theory of the Consumer (Md. Nazmul Islam)

- 1.1 Utility maximization, Lagrangian multiplier, Indirect Utility function, Roy's Identity, Derivation of Slutsky's equation, Slutsky's Equation in elasticity form, Compensated demand curve Different forms of Utility Function- Separable, quasi-linear, homogeneous and homothetic Labour-leisure choice.

Unit 2: Theory of the Firm (Md. Nazmul Islam)

- 2.1 Output maximization, Cost minimization, Homogeneous and homothetic production functions, Elasticity of substitution, CES production function, Relationship between average cost and marginal cost.
- 2.2 Factor demand curves, output elasticity, Analysis of firms in competitive equilibrium and monopoly, imposition of taxes.
- 2.3 Analysis of factor demands in the long run.
- 2.4 Fixed coefficient production functions, Leontief Input-Output system.

Unit 3: Games and Decisions (Md. Nazmul Islam)

- 3.1 Two person matrix games, solving matrix games with mixed strategies, Sequential Games and Decisions.

Paper VIIIA: Indian Economic History

Unit 1: Economic condition in India on the eve of British rule (Smt. Sunetra Sengupta)

Unit 2: Aspects of Economic Policies under in British India (Smt. Sunetra Sengupta)

- 2.1 Land policy.
- 2.2 Policy of Discriminating Protection.
- 2.3 Early Industrial Development and Managing Agency System.
- 2.4 Currency and monetary policy.
- 2.5 Infrastructure and Transport.

Paper VIIIB: Term Paper

Preparing for and writing the term paper should be started.

TERM – II**Paper -VA: International Economics****Unit 3: The Standard Trade Model (Smt. Chhanda Mandal)**

- 3.1 Production Possibilities and relative supply, relative prices and demand,-welfare effects of changes in terms of trade, determining relative prices.
- 3.2 Economic growth: shift of RS curve, growth and production possibility frontier, RS and terms of trade, International effects of growth, International transfers of income: shifting RD curve, Transfer problem, effects of transfer on terms of trade, Tariffs and export subsidies.
- 3.3 Offer curves: Derivation, International Equilibrium.

Unit 4: Trade Policy (Smt. Chhanda Mandal)

- 4.1 Partial equilibrium analysis: Tariff - cost and benefit, effective rate of protection and intermediate goods, quota, tariff- quota equivalence and nonequivalence, export subsidy, voluntary export restraint.
- 4.2 General Equilibrium Analysis: Distinction between small and large open economy, welfare effects of tariff in a small country, optimum tariff for large open economy, Metzler's paradox.
- 4.3 Tariff & Import Quotas in presence of monopoly.

Paper - VB: Public Finance**Unit 5: Government Budget and Policy (Md. Nazmul Islam)**

- 5.1 Government budget and its structure - Receipts and expenditure - concepts of current and capital account, balanced, surplus and deficit budgets, concept of budget deficit vs. fiscal deficit, functional classification of budget. Concept of Revenue Deficit.
- 5.2 Budget, government policy and its impact. Budget multipliers.

Unit 6: Revenue Resources (Md. Nazmul Islam)

- 6.1 Concept of tax, types of tax - direct tax and indirect tax, canons of taxation, subsidy, transfer policy.
- 6.2 Principles of taxation-Ability to Pay principle (brief discussion), Benefit Approach (Actual Examples).
- 6.3 Tax Design - introduction - truth seeking mechanism.

Paper VIA: Comparative Development Experience**Unit 5: Development and underdevelopment as historical processes (Smt. Sunetra Sengupta)**

- 5.1 Dependency Approach.
- 5.2 Unequal exchange.

Unit 6: Evolution of New international economic order (Smt. Sunetra Sengupta)

- 6.1 Neo liberalism, Washington consensus, North-South Divide, Recasting of IMF and World Bank.
- 6.2 General Agreements on Tariff and Trade (GAIT) and the Dunkel Draft controversy-World Trade Organization (WTO).
- 6.3 Economic Integration and Regional Trading Blocs.

Paper VIB: Contemporary Economic Issues: India and West Bengal**Unit 3: Post-reform performance of Indian Economy (Smt. Upoma Chatterjee)**

- 3.1 Appraisal of Indian Economic Reform. India's Growth Experience.

Unit 4: Indian economy: Some Current and Future Issues (Smt. Upoma Chatterjee)

- 4.1 Inclusive development
- 4.2 Growth of the Service Sector.
- 4.3 Food security, Food Procurement and Public Distribution System.
- 4.4 Migration and Urbanization.
- 4.5 Land acquisition, SEZ and Industrialization.
- 4.6 Demographic dividend.

Paper VITA: Statistics & Basic Econometrics**Unit 4: Classical Statistical Inference (Smt. Chhanda Mandal)**

- 4.1 Estimators-Desirable properties of estimators, Unbiasedness, Minimum Variance, Consistency and Sufficiency.
- 4.2 Point Estimation - Maximum Likelihood Estimators and their properties.
- 4.3 Maximum Likelihood estimation of the parameters of Binomial, Poisson and Normal Distributions.
- 4.4 Confidence Intervals -Testing of Hypothesis -p-Values -Type-I and Type -II Errors.
- 4.5 Simple applications of tests for the Mean and Variance of a Univariate Normal Population.

Unit 5: Elementary Econometrics (Smt. Chhanda Mandal)

- 5.1 Classical Linear Regression Model (CLRM): Specification of the Model-Assumptions-Linearity in variables and parameters, Estimation of the Error Variance.
- 5.2 Gauss Markov Theorem, Goodness of fit: R square -Coefficient of Determination.
- 5.3 Inference in the Linear Regression Model - Confidence interval for the parameters and the Testing of Hypotheses -Prediction with the Simple Regression model.
- 5.4 Concepts of Heteroscedasticity and Autocorrelation problems.

Paper VIIB: Applied Economics**Group A: Application of Economics to Managerial Issues****Unit 5: Capital Budgeting (Smt. Upoma Chatterjee)**

- 5.1 What is Capital Budgeting? Need for Capital Budgeting; Different Steps in the Capital Budgeting Process; Nature of Capital Budgeting Problem; Capital Budgeting Appraisal Methods (a) Payback Method (b) Accounting Rate of Return Method (c) Net Present Value Method (d) Internal Rate of Return Method (e) Benefit-Cost Ratio Method; Comparison between NPV and IRR Methods; Capital Rationing; Alternative Methods of Financing Investments.

Unit 6: Cost of Capital (Smt. Upoma Chatterjee)

- 6.1 Cost of Debt Capital, Cost of Preference Share Capital, Cost of Equity Capital, Cost of Retained Earnings, Average Cost of Capital, The Opportunity Cost Concept - Borrowing Rate vs. Lending Rate.

Paper VIIB: Applied Economics**Group B: Mathematical Economics****Unit 4: Inter-temporal Choice Theory (Md. Nazmul Islam)**

- 4.1 n-period utility maximization, Time preference, Stocks and flows.

Unit 5: Behaviour under uncertainty (Md. Nazmul Islam)

- 5.1 Uncertainty and Probability, State preference approach for preferences.
- 5.2 Expected Utility Hypothesis, Risk aversion and its measures.

Unit 6: Comparative Statics (Md. Nazmul Islam)

- 6.1 Generalisation to n variables: First and Second order conditions.
- 6.2 Profit maximisation: n factors and Utility Maximisation.
- 6.3 National Income Model, IS-LM Model.
- 6.4 Simple Trade Models.

Paper VIIIA: Indian Economic History**Unit 3: Impact of British rule on India (Smt. Upoma Chatterjee)**

- 3.1 Deindustrialisation
- 3.2 Commercialisation of agriculture
- 3.3 Economic Drain

Paper VIIIB: Term Paper

Preparing for and writing the term paper should be continued.

TERM - III**Paper - VA: International Economics****Unit 5: Accounting, Income Determination and Exchange Rates (Smt. Sunetra Sengupta)**

- 5.1 Balance of payment accounts; national income accounting in an open economy; monetary account;
- 5.2 Determination of national Income, multiplier analysis, the transfer problem, introduction of foreign country and repercussion effect.
- 5.3 Fixed and Flexible Exchange rates: Adjustments, Demand & Supply of foreign exchange, Effects of exchange rate changes on domestic prices and terms of trade, Marshall-Lerner condition, J-curve effect.

Paper - VB: Public Finance**Unit 7: Tax Structure (Md. Nazmul Islam)**

- 7.1 Effects of income tax on work effort; saving and risk bearing (just brief ideas).
- 7.2 Excess burden of indirect taxes.
- 7.3 VAT, Goods and Services Tax (pros and cons).
- 7.4 Non-tax revenue resources-earnings from public under-takings, interest on loans.

Unit 8: Distribution and Stabilization (Md. Nazmul Islam)

- 8.1 Instruments for stabilization.
- 8.2 Public Debt - internal and external.
- 8.3 Public Finance and Public Choice: The Role of State.

Paper VIA: Comparative Development Experience**Unit 7: Development policies and role of the state (Smt. Sunetra Sengupta)**

- 7.1 Nature of Development planning, Rationale for development planning.
- 7.2 Washington Consensus, New Consensus and the State.

Unit 8: Some Recent Development Experiences (Smt. Sunetra Sengupta)

- (i) China, (ii) Africa, (iii) Argentina.

Paper VIB: Contemporary Economic Issues: India and West Bengal**Unit 5: West Bengal Economy: An Overview (Smt. Upoma Chatterjee)**

- 5.1 West Bengal Economy Structure and Growth - based on state domestic product (SDP) data and employment data from National Sample Survey and Census of India.
- 5.2 West Bengal Economy in relation to India and major states in recent decades: in terms of indicators on per-capita SDP, per capita consumption (rural and urban), income growth, human development.

Unit 6: Growth and Development of West Bengal Economy (Smt. Upoma Chatterjee)

- 6.1 Land Reforms, agricultural growth and related current problems- growth of non-farm rural sector
- 6.2 Industrial development - problems and prospects; Tertiary sector growth - Informalisation in manufacturing and tertiary sectors.
- 6.3 Poverty alleviation, Employment generation, self-help-group and social security: Problems and policies.

Paper VIIA: Statistics & Basic Econometrics**Unit 5: Elementary Econometrics (Smt. Chhanda Mandal)**

- 5.1 Classical Linear Regression Model (CLRM): Specification of the Model-Assumptions-Linearity in variables and parameters, Estimation of the Error Variance.

- 5.2 Gauss Markov Theorem, Goodness of fit: R square -Coefficient of Determination.
- 5.3 Inference in the Linear Regression Model- Confidence interval for the parameters and the Testing of Hypotheses - Prediction with the Simple Regression model.
- 5.4 Concepts of Heteroscedasticity and Autocorrelation problems.

Unit 6: Time Series Data (Smt. Chhanda Mandal)

- 6.1 Time Series: Introduction, Components, Measurements: Secular Trend (Free hand curve fitting, Moving averages, fitting mathematical curves), Seasonal fluctuation (monthly averages, ratio to moving averages, ratio to trend)

Paper VIIB: Applied Economics

Group A: Application of Economics to Managerial Issues

Unit 7: Inventory Management (Smt. Upoma Chatterjee)

- 7.1 Inventory Costs, Concept of Average Inventory; Various Inventory Models : (a) Economic Order Quantity (EOQ) (b) Optimum number of Orders per year (c) Optimum no. of Days' Supply per Order; Quantity Discounts – Cost Comparison Approach; EOQ Concept and Production Processes.

Unit 8: Corporate Governance (Smt. Upoma Chatterjee)

- 8.1 Role of Institutional Investors, Mechanisms and Controls -Internal and External Govt. Controls, Problems of Corporate Governance, Role of Accountant, Regulation - Rules & Principles, Enforcement, Action beyond obligation, Corporate Governance Models with emphasis on Anglo American Model, Impact of Corporate Governance on Firm Performance.

Paper VIIB: Applied Economics

Group B: Mathematical Economics

Unit 7: Application of Difference and Differential Equations (Md. Nazmul Islam)

- 7.1 Cobweb Model.
- 7.2 Multiplier-Accelerator Interaction Model.
- 7.3 Linear Systems via Eigen values.
- 7.4

**ECONOMICS
1ST YEAR GENERAL
TERM - I**

Paper IA: Microeconomics I

Unit 1: Economics and Microeconomics (Smt. Sunetra Sengupta)

- 1.1 What is economics? Branches of Economics. What is microeconomics?
- 1.2 Economic agents and their activities as consumer, producer, investor. Concepts of demand and supply, and markets.

Unit 2: Demand and Consumer Behaviour (Smt. Chhanda Mandal)

- 2.1 What is demand? Law of Demand - Demand curve and its foundation in consumer behaviour.
- 2.2 Utility Approach: Total and Marginal Utility-Law of Diminishing Marginal Utility. Relation between Law of Demand and Law of Diminishing Marginal Utility.
- 2.3 Indifference Curve Approach: Definition and Characteristics-Consumer's Equilibrium- income Effect and Substitution Effect-Price Effect.
- 2.4 Elasticity of Demand: Price Elasticity and Income Elasticity of Demand, Measurement of Price Elasticity.

Paper IA: Macroeconomics I

Unit 1: National Income Accounting (Md. Nazmul Islam)

- 1.1 National Income Concepts: Distinction between Gross Domestic Product, Net Domestic Product and Net National Product
- 1.2 Different Methods of Measuring National Income.

Unit 2: Money and Banking (Md. Nazmul Islam)

- 2.1 Concept and Functions of Money- Value of Money-Money supply - components of money supply (M1, M2, etc)
- 2.2 Quantity Theory of Money: Fisher's Version and Cambridge Version.
- 2.3 Banking: Functions of Commercial Banks: Credit Creation - role in money supply - Functions of Central Banks: Credit Control Methods.

Unit 3: Consumption and Investment (Smt. Upoma Chatterjee)

- 3.1 Concept of aggregate consumption - private vs public consumption - Keynesian Consumption Function - Relation between Average and Marginal Propensity to Consumer-Multiplier Theory
- 3.2 Concept of aggregate investment - components of investment - aggregate investment function and determinants of investment.

TERM - II**Paper IA: Microeconomics I****Unit 2: Demand and Consumer Behaviour (Smt. Chhanda Mandal)**

- 2.1 What is demand? Law of Demand - Demand curve and its foundation in consumer behaviour.
- 2.2 Utility Approach: Total and Marginal Utility-Law of Diminishing Marginal Utility. Relation between Law of Demand and Law of Diminishing Marginal Utility.
- 2.3 Indifference Curve Approach: Definition and Characteristics - Consumer's - Equilibrium - income Effect and Substitution Effect-Price Effect.
- 2.4 Elasticity of Demand: Price Elasticity and Income Elasticity of Demand, Measurement of Price Elasticity.

Unit 3: Producer's Behaviour (Smt. Sunetra Sengupta)

- 3.1 Concept of production - raw material and factors of production technology - organization of production - large scale vs. small scale production.
- 3.2 Production technology and production Function - total product, average product, marginal product (with numerical example) - Returns to Factor and Returns to Scale.
- 3.3 Cost of Production: Real Cost and Opportunity Cost -Fixed and Variable cost; Cost curves - Shape of Cost Curves (Short-run and Long run) - Relation between Average Cost and Marginal Cost.
- 3.4 Revenue - Total Revenue, Average revenue, Marginal Revenue - Relation between Average Revenue, Marginal Revenue and Price Elasticity of Demand.

Paper IB: Macroeconomics I**Unit 3: Consumption and Investment (Smt. Upoma Chatterjee)**

- 3.1 Concept of aggregate consumption - private vs public consumption - Keynesian Consumption Function - Relation between Average and Marginal Propensity to Consumer-Multiplier Theory
- 3.2 Concept of aggregate investment - components of investment - aggregate investment function and determinants of investment.

TERM - III**Paper IA: Microeconomics I****Unit 3: Producer's Behaviour (Smt. Chhanda Mandal)**

- 3.1 Concept of production -raw material and factors of production technology- organization of production - large scale vs. small scale production.
- 3.2 Production technology and production Function - total product, average product, marginal product (with numerical example) - Returns to Factor and Returns to Scale.
- 3.3 Cost of Production: Real Cost and Opportunity Cost-Fixed and Variable cost: Cost curves - Shape of Cost Curves (Short-run and Long run) - Relation between Average Cost and Marginal Cost.
- 3.4 Revenue - Total Revenue, Average revenue, Marginal Revenue - Relation between Average Revenue, Marginal Revenue and Price Elasticity of Demand.

Paper IB: Macroeconomics I**Unit 4: Government sector (Smt. Upoma Chatterjee)**

- 4.1 Transactions of the Government sector-Budget -receipts and expenditures-revenue account and capital account
- 4.2 Principles of Taxation: Direct and Indirect Taxation -Regressive, Progressive and Proportional Taxation.
- 4.3 Public Debt- Internal & external-purpose and implications.

**2ND YEAR GENERAL
TERM -1****Paper IIA: Microeconomics II****Unit 1: Theory of Markets (Smt. Sunetra Sengupta)**

- 1.1 Concepts of Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly.
- 1.2 Short-run and Long-run Equilibrium under perfect Competition at the Firm level, as well as industry level.
- 1.3 Idea of price discrimination.
- 1.4 Price and Output Determination under Monopoly.

Unit 2: Theory of Distribution (Smt. Chhanda Mandal)

- 2.1 Marginal Productivity Theory of Distribution-Factor Price Determination.
- 2.2 Rent: (a) Ricardian Theory, (b) Modern Theory.
- 2.3 Wage: Distinction between Money Wage and Real Wage-Factors Determining Real Wage-Role of Trade Union in Wage Determination under competitive set up.
- 2.4 Interest: Real and Money Interest Loanable fund and liquidity preference theory of interest.
- 2.5 Profit: Alternative theories of profit.

Paper IIB: Macroeconomics II**Unit 1: Theories of Income and Employment (Smt. Upoma Chatterjee)**

- 1.1 Concept of Classical Theory of Employment and output-Say's Law of markets.
- 1.2 Simple Keynesian theory of Income and Employment: Concept of Effective Demand.

Unit 2: Prices and Inflation (Md. Nazmul Islam)

- 2.1 Concept of price index - alternative price indices and measurements of inflation rate.
- 2.2 Concept of inflation, Deflation and Stagflation: Inflationary Gap - Distinction between Demand-Pull and Cost-Push inflation.
- 2.3 Anti-Inflationary Monetary and Fiscal Policies - Effects of Inflation.

Paper IIIA: Indian Economy I**Unit 1: Indian Economy-An Overview (Md. Nazmul Islam)**

- 1.1 The structure of Indian Economy - its sectoral composition, rural-urban dimension - India's per capita income - relative position relation to developed and underdeveloped economies
- 1.2 Features and Causes of Underdevelopment of the Indian Economy.

Unit 2: National Income Trends (Smt. Upoma Chatterjee)

- 2.1 National Income of India: Trend, Estimation and Distribution.

Unit 3: Demography (Md. Nazmul Islam)

- 3.1 The trends and pattern of population growth-age distribution - demographic rates and population projection
- 3.2 The nature of population problem in India and government policies related to population.

Paper IIIB: Indian Economy II**Unit 1: Indian Agriculture (Smt. Sunetra Sengupta)**

- 1.1 Characteristics of Indian Agriculture: Causes of Low Productivity.
- 1.2 Land Reforms: Meaning, importance. Evaluation of the Programmes.

- 1.3 New technology and Green Revolution and its effects.
- 1.4 Effects of Economic Reforms on Indian Agriculture.

Unit 2: Indian Industry (Smt. Sunetra Sengupta)

- 2.1 Structure of Indian industry -Role of Cottage, Small-scale and Large scale Industries in India's development.
- 2.2 Problems and strategies of industrial development Economic Development - Problems and Solutions.
- 2.3 Industrial Labour, Industrial Finance, Industrial Policy.

Unit 3: Finance in India (Smt. Chhanda Mandal)

- 3.1 Financial Markets and Financial system in India
- 3.2 Banking: Role of Indian Commercial Banks - Credit Control Policy of Reserve Bank of India.

TERM - II

Paper IIA: Microeconomics II

Unit 2: Theory of Distribution (Smt. Chhanda Mandal)

- 2.1 Marginal Productivity Theory of Distribution-Factor Price Determination.
- 2.2 Rent: (a) Ricardian Theory, (b) Modern Theory.
- 2.3 Wage: Distinction between Money Wage and Real Wage-Factors Determining Real Wage-Role of Trade Union in Wage Determination under competitive set up.
- 2.4 Interest: Real and Money Interest, Loanable fund and liquidity preference theory of interest.
- 2.5 Profit: Alternative theories of profit.

Paper IIB: Macroeconomics II

Unit 3: External Sector (Md. Nazmul Islam)

- 3.1 International Trade: Distinction between Internal and International Trade - exports and imports in goods and services.
- 3.2 Basis of Trade: Concepts of absolute advantage and comparative Advantage -Arguments for Free Trade -Argument for Protection.

Paper IIIA: Indian Economy I

Unit 4: Dualism (Smt. Upoma Chatterjee)

- 4.1 Dualism, in the Indian Economy: Poverty Line-Poverty Eradication Programmes in India.

Paper IIIB: Indian Economy II

Unit 4: Indian Public Finance (Smt. Chhanda Mandal)

- 4.1 Central and state budgets - revenue account and capital account - Sources of Revenue of Union and State Governments -direct and indirect tax - major heads of expenditures - plan vs. non-plan expenditures
- 4.2 Union-State Financial Relation - Role of Finance Commission of India.

TERM - III

Paper IIA: Microeconomics II

Unit 2: Theory of Distribution (Smt. Chhanda Mandal)

- 2.1 Marginal Productivity Theory of Distribution-Factor Price Determination.
- 2.2 Rent: (a) Ricardian Theory, (b) Modern Theory.
- 2.3 Wage: Distinction between Money Wage and Real Wage-Factors Determining Real Wage-Role of Trade Union in Wage Determination under competitive set up.
- 2.4 Interest: Real and Money Interest Loanable fund and liquidity preference theory of interest.
- 2.5 Profit: Alternative theories of profit.

Paper IIB: Macroeconomics II

Unit 3: External Sector (Md. Nazmul Islam)

- 3.1 International Trade: Distinction between Internal and International Trade - exports and imports in goods and services.

- 3.2 Basis of Trade: Concepts of absolute advantage and comparative Advantage-Arguments for Free Trade-Argument for Protection.

Paper III A: Indian Economy I

Unit 5: Indian Planning (Md. Nazmul Islam)

- 5.1 Background for Indian Planning and Planning process and institutions
5.2 Objectives, achievements and failures of India's Five-year Plans (broad outline).

Paper IIIB: Indian Economy II

Unit 5: India's Foreign Trade (Smt. Chhanda Mandal)

- 5.1 Importance of foreign trade for Indian Economy.
5.2 India's Foreign Trade: Change in volume and direction of trade in the post liberalisation period.

**3RD YEAR GENERAL
TERM - I**

Paper IV A: Development Economics I

Unit 1: (Smt. Sunetra Sengupta)

Distinction between Economic Growth and Economic Development. Net National Income and Per Capita Income as Growth Indicators- Concept of HDI.

Unit 2: (Smt. Sunetra Sengupta)

Development Planning & its necessity -balanced vs. unbalanced growth. Complementary Roles of Agriculture and Industry -Role of Technology in Agriculture and Industry.

Unit 3: (Md. Nazmul Islam)

Population and Economic Development. The Two Way Relation. Domestic Capital. Formation in an Underdeveloped Country: The Problems-Incentives for Savings and Investment.

Paper IVB: International Economics & Statistics

Unit AI: (Md. Nazmul Islam)

Comparative Advantage and Protectionism : Principle of Comparative advantage, Ricardo's analysis, Economic Gains from trade, Graphical Analysis of comparative advantage, Equilibrium Price ratio, Extensions to many commodities and countries, Protectionism: Supply and demand analysis of trade and tariffs, Free Trade, Trade barriers, Prohibitive Tariff, Non-prohibitive Tariff, Quotas, Economic costs of tariff, Arguments for protection.

Unit B1: (Smt. Chhanda Mandal)

Data - Classification and presentation, Population and Sample, Collection of Data - Variable and Attribute, Frequency Distribution - Diagrammatic representation of frequency distribution - Cumulative frequency - Ogive.

Unit B2: (Smt. Chhanda Mandal)

Central Tendency- Arithmetic Mean, Median and Mode (for both grouped and ungrouped data).

TERM - II

Paper IV A: Development Economics I

Unit 4: (Smt. Upoma Chatterjee)

Foreign Investment: Different forms -Their roles in Economic Development. Role of IMF & World Bank: in economic development of the LDCS.

Paper IVB: International Economics & Statistics

Unit AI: (Md. Nazmul Islam)

Comparative Advantage and Protectionism: Principle of Comparative advantage, Ricardo's analysis, Economic Gains from trade, Graphical Analysis of comparative advantage, Equilibrium Price ratio,

Extensions to many commodities and countries, Protectionism; Supply and demand analysis of trade and tariffs, Free Trade, Trade barriers, Prohibitive Tariff, Non-prohibitive Tariff, Quotas, Economic costs of tariff. Arguments for protection.

Unit A2: (Smt. Upoma Chatterjee)

Balance of Payments: Debits and Credits, Balance on Current Account and Capital Account, Exchange rates and Balance of Payments.

Unit B3: (Smt. Chhanda Mandal)

Dispersion: Range and Standard Deviation, Measures of Relative Dispersion - Curve of Concentration, Concepts of Measurement of Economic Inequality: Lorenz Curve.

TERM - III

Paper IVA: Development Economics I

Unit 5: (Smt. Chhanda Mandal)

Gender Related Issues.

Paper IVB: Development Economics I

UnitA2: (Smt. Upoma Chatterjee)

Balance of Payments: Debits and Credits, Balance on Current Account and Capital Account, Exchange rates and Balance of Payments.

Unit B3: (Smt. Chhanda Mandal)

Dispersion: Range and Standard Deviation, Measures of Relative Dispersion - Curve of Concentration, Concepts of Measurement of Economic Inequality: Lorenz Curve.