SYLLABUS [DRAFT] FOR B.A. [ECONOMICS] UNDER SEMESTER SYSTEM UNDER VINOBA BHAVE UNIVERSITY HAZARIBAGH.

SYLLABUS OUTLINE FOR

B.A. ECONOMICS [HONS.]

Semester I	Semester II
Paper I: Micro Economics I	Paper III: Macro Economics
Paper II: Money and Banking	Paper IV: Indian Economics
Semester III	Semester IV
Paper V: Micro Economics II	Paper VII: Mathematical Methods for Economics
Paper VI: Statistical Methods in Economics	Paper VIII: International Economics
Semester V	Semester VI
Paper IX: Growth and Development	Paper XIII: Public Finance
Paper X: History of Economic Thought	Paper XIV: Environmental Economics
Paper XI: Optional Paper I	Paper XV: Optional Paper III
Paper XII: Optional Paper II	Paper XVI: Optional Paper IV

Students will opt for any one of the following groups for the optional papers:

OPTIONAL PAPERS:

GROUP A: Mathematical Economics [Papers XI and XV] and Econometrics [Papers XII and XVI].

GROUP B: Agricultural Economics [Papers XI and XV] and Demography [Papers XII and XVI].

GROUP C: Industrial Economics [Papers XI and XV] & Financial Institutions [Papers XII and XVI].

Paper I

Micro Economics – I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit I: Introduction

- 1.1: Subject Matter of Economics
- 1.2: Nature and Scope of Economics: Micro and macro Economics; Positive and Normative Economics; Dynamic and Comparative Static Economics.
- 1.3: Methodology in Economics: Deductive and Inductive Methods.
- 1.4: Central Economic Problems: Scarcity and Choice; Production Possibility Frontier [PPF].

Unit 2: Consumer Behaviour and Demand

- 2.1: Cardinal Utility Analysis: Total and marginal Utility; Law of Diminishing Marginal Utility; Law of Equi-Marginal Utility; Consumer's Equilibrium.
- 2.2: Ordinal Utility Analysis: Indifference Curves; Budget Constraints; Consumer's Equilibrium.
- 2.3: Price Effect: Substitution Effect [Hicks and Slutsky]; Income Effect.
- 2.4: Income Consumption Curve [ICC] and Price Consumption Curve [PCC]; Normal, Inferior and Giffen Goods.
- 2.5: Consumer's Surplus: Marshall and Hicks.
- 2.6: Theory of Demand: Derivation of Demand Curve under Cardinal and Ordinal Theories; Law of Demand; Factors Influencing Demand; Changes in Demand and Engels' Curve; Elasticity of Demand; Price; Income and Cross Elasticities.

Unit 3: Theory of Production

- 3.1: Production Function: Short Run and Long Run.
- 3.2: Low of Variable Proportions;
- 3.3: Returns to Scale: Economies of Scale.
- 3.4: Cobb-Douglas Production Function: It's Properties.
- 3.5: Isoquant Analysis; Iso-Cost Line; Producer's Equilibrium; Production Decision and Expansion Path.

Unit 4: Theory of Costs and Revenue

- 4.1: Concepts of Costs and their inter-relationship: Short Run and Long Run.
- 4.2: Concepts of Revenue and their inter-relationship; Break-Even Analysis.

Paper - II

Money and Banking

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Money

- 1.1: Money: Meaning and Function: Role of Money in Capitalistic, Socialistic and Mixed Economies.
- 1.2: Quantity Theory of Money: Cash Transactions Approach and Cash Balance Approach.
- 1.3: Keynesian Theory of Money and Prices.

Unit 2: Central Banking

- 2.1: Objectives, Functions and Limitations of Central Bank with reference of RBI.
- 2.2: Supply of Money: Concept, Components and Aggregates; Money Multiplier.
- 2.3: Quantitative and Qualitative Methods of Credit Control.
- 2.4: Objectives, Functions and Limitations of Money Market: Developed and Developing with special reference to India.

Unit 3: Commercial Banking

- 3.1: Meaning, Types, Functions and Principles of Commercial Banks.
- 3.2: Structure and Balance Sheet of a Commercial Bank; Assets and Liabilities.
- 3.3: Process of Credit Creation.
- 3.4: Commercial Banking in India: Evaluation of Banking Sector since Independence; Critical Appraisal of Commercial Banking after Nationalization; Recent Banking Reforms.

Unit 4: Financial Markets

- 4.1: Banking System; Bond Market; Foreign Exchange Market; Equity Market Concepts.
- 4.2: Introduction to the Concept of Derivatives.
- 4.3: Futures; Options; Call/Put.

Paper - III

Macro Economics

* The question paper will contain a total of eight questions out of which any four will have to attempted.

Unit 1: National Income and Social Accounting

- 1.1: Concept of Circular Flow
- 1.2: Concept and Measurement of National Income
- 1.3: Concept of Social Accounting
- 1.4: Environmental Concerns in National Income; Green Accounting.

Unit 2: Theory of Output and Employment

- 2.1: Say's Law of Market and Classical Theory of Employment: Critical Analysis and Keynes' Objections.
- 2.2: Consumption Function and Savings Function: APC; MPC; APS and MPS; Factors Affecting Consumption Function; Psychological Law of Consumption.
- 2.3: Investment Function: Autonomous and Induced Investment; MEC and Rate of Interest.
- 2.4: Principle of Effective Demand: Equality and Equilibrium of AD/AS and S/I; Paradox of Thrift.
- 2.5: Investment Multiplier and its Effectiveness in Less Developed Countries.
- 2.6: Theory of Acceleration.

Unit 3: Trade Cycles

- 3.1: Nature and Characteristics of Trade Cycle.
- 3.2: Hawtrey's Monetary Theory of Trade Cycle.
- 3.3: Hayek's Over-Investment Theory of Trade Cycle.
- 3.4: Keynesian Views on Trade Cycle.

Unit 4: Inflation

- 4.1: Definition, Types, Causes and Effects of Inflation.
- 4.2: Measures to Control Inflation.
- 4.3: Concept of Inflationary Gap.

Paper IV

Indian Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Structure of Indian Economy

- 1.1: Basic Features of Indian Economy
- 1.2: Natural Resources: Land, Water and Forest Resources.
- 1.3: Broad Demographic Features: Population Size, Structure [Sex and Age]; Characteristics; Change in Population; Rural-Urban Migration; Occupational Distribution; Problem of Over-Population; Population Policy.

Unit 2: Problems and Planning in India

- 2.1: Poverty and Inequality;
- 2.2: Problem of Unemployment;
- 2.3: Problem of Rising Prices;
- 2.4: Objectives, Strategy, Achievements and Failures of Planning in India; Analysis of Current Five Year plan.
- 2.5: New Economic Reforms: Liberalization, Privatization, Globalization and its progress.

Unit 3: Agriculture and Industry

- 3.1: Nature and Importance of Agriculture: Trends in Agricultural Production and Productivity; Factors Affecting Productivity.
- 3.2: Land Reforms.
- 3.3: New Agricultural Strategy, Green Revolution and Agricultural Reforms after 1991.
- 3.4: Rural Credit and Agricultural Marketing.
- 3.5: Industrial Policies of 1948, 1956 and 1991.
- 3.6: Large Scale Industries: Present Position and Problems of Sugar, Iron and Steel, Jute and Cotton Textile Industries.
- 3.7: Cottage and Small Scale Industries: Growth, Importance and Problems.

Unit 4: External Sector and Economics of Jharkhand

- 4.1: Role of Foreign Trade.
- 4.2: Composition and Direction of India's Foreign trade and FDI.
- 4.3: Basic Features of Jharkhand Economy.
- 4.5: Mineral and Forest Resources.
- 4.6: Agriculture in Jharkhand.

Semester III

Paper V

Micro Economics - II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Market Structure

- 1.1: Forms of Market: perfect and Imperfect Markets: Salient Features.
- 1.2: Equilibrium of the Firm and Industry [Short Run and Long Run] under Perfect Competition; Derivation of Supply Curve.
- 1.3: Monopoly: Price and Output Determination [Short Run and Long Run]; Price Discrimination;
- 1.4: Monopolistic Competition: Price and Output Determination (Individual and Group Equilibrium); Importance of Selling Costs.
- 1.5: Oligopoly: Kinked Demand Curve Theory.

Unit 2: Factor Pricing

- 2.1: Marginal Productivity Theory of Distribution; Adding-Up Problem [Euler's Theorem].
- 2.1: Theories of Wage determination: Demand and Supply Theory; Collective Bargaining.
- 2.3: Rent: Ricardian and Modern Theory.
- 2.4: Interest: Classical and Keynesian Theories.
- 2.5: Profit: Innovation, Risk and Uncertainty Theories.

Unit 3: Welfare Economics

- 3.1: Concept of Welfare: Value Judgement; Problems in Measuring Welfare.
- 3.2: Classical Welfare Economics: Pigou.
- 3.3: Pareto's Criterion of Measuring Welfare;

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Semester III

Paper VI

Statistical Methods in Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Introduction to Statistics

- 1.1: Basic Concepts: Population and Sample, Parameter, Statistic, Primary and Secondary Data.
- 1.2: Classification and Tabulation.
- 1.3: Diagrammatic and Graphical Representation of Data.

Unit 2: Central Tendency and Dispersion

- 2.1: Measures of Central Tendency: Arithmetic Mean, Median, Mode, Geometric Mean and Harmonic Mean.
- 2.2: Measures of Dispersion: Mean Deviation, Quartile Deviation, Standard Deviation, Coefficient of Variation.
- 2.3: Measures of Skewness.

Unit 3: Correlation and Regression

- 3.1: Correlation; Coefficient of Correlation Karl Pearson and Rank Correlations.
- 3.2: Regression Analysis: Linear Regression; Interpretation of Regression Coefficients.

Unit 4: Time Series and Index Numbers

- 4.1: Time Series Analysis: Concept; Components; Least Square Method of Determination of Trend.
- 4.2: Index Numbers: Concept; price relative; quantity relative; weighted index number.
- 4.3: Methods of Construction of Index Numbers: Laspeyre, Paasche and Fisher.
- 4.4: Tests for Adequacy of Index Number.

Unit 5: Probability

- 5.1: Probability: Concept.
- 5.2: Rules of Probability: Addition and Multiplication Theorems.

Paper VII

Mathematical Methods for Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Basic Concepts

- 1.1: Set Theory: Concepts and set operations.
- 1.2: Variables and Functions; Equations and Systems of Equations;
- 1.3: Elements of Coordinate Geometry: Straight Line.
- 1.4: Homogeneous Functions.

Unit 2: Calculus

- 2.1: Concept of Limit and Differentiation [Simple and Partial] of a Function.
- 2.2: Maxima and Minima; Its applications in Economics.
- 2.3: Pricing under Monopoly and Perfect Competition.
- 2.4: Inter-Relationships among Total, Marginal and Average Cost and Revenues.
- 2.5: Integration of a Function: Definite and Indefinite.
- 2.6: Economic Applications of Integrals: Obtaining Total Function from Marginal Function: Revenue, Cost and Product; Consumer's Surplus.

Unit 3: Matrix and Determinants

- 3.1: Various Types of Matrices.
- 3.2: Matrix Operations.
- 3.3: Determinants.
- 3.4: Inverse of a Matrix.
- 3.5: Cramer's Rule.

Paper VIII

International Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Scope of International Economics

- 1.1: International Economics: Definition, Nature and Importance.
- 1.2: Gains from Trade: Their Measurement and Distribution.
- 1.3: Comparative Cost Advantage [Ricardian] and Heckcher-Ohlin Theory of International Trade.

Unit 2: International Trade Policy

- 2.1: Free Trade vs. Protection.
- 2.2: Methods of Trade Restriction: Tariff and Quotas Their Impact.

Unit 3: Foreign Exchange

- 3.1: Exchange Rate Determination: Gold Standard [Mint Parity]; Purchasing Power Parity Theory.
- 3.2: Devaluation and Appreciation of currency.

Unit 4: Balance of Trade and Balance of Payment

- 4.1: Concepts and Components of Balance of Trade and Balance of Payment.
- 4.2: Equilibrium and Disequilibrium in Balance of Payment; Consequences of Disequilibrium in Balance of Payment; Measures to Correct Deficit in Balance of Payment.

Unit 5: International Financial Institutions and India

- 5.1: Functions of IMF; World Bank; WTO with reference to India.
- 5.2: Balance of Payment Crisis; Need and Importance of Foreign Capital.

Paper IX

Growth and Development

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Introduction to Economic Growth and Development

- 1.1: Economic Growth and Development: Concepts and Contrasts.
- 1.2: Factors Affecting Economic Growth.
- 1.3: Development and Under-Development; Obstacles to Under-Development.
- 1.4: Concept of Poverty Line.
- 1.5: Theory of Demographic Transition.
- 1.6: Capital Formation.

Unit 2: Theories of Growth and Development

- 2.1: Classical Theories of Development: Adam Smith and David Ricardo.
- 2.2: Harrod-Domar Growth Model.
- 2.3: Schumpeter and Capitalistic Development.
- 2.4: Lewis Model.
- 2.5: Rostow's Model of Growth.

Unit 3: Macro Economic Policy and Economic Development

- 3.1: Role of Monetary and Fiscal Policies in Developing Countries, including India.
- 3.2: External Resources: FDI, AID vs. Trade; Technology Inflow, MNC activity in India.

Paper X

History of Economic thought

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Early Period

- 1.1: Mercentalism.
- 1.2: Physiocracy.

Unit 2: Development of Classical Economics

- 2.1: Adam Smith: Division of Labour, Theory of Value, Capital Accumulation, Distribution, Views on Trade, Economic Progress.
- 2.2: David Ricardo: Value, Theory of Rent, Distribution, Ideas on Economic Development and International Trade.
- 2.3: T.R.Malthus: Theory of Population, Theory of Gluts.
- 2.4: Karl Marx: Dynamics of Social Change, Theory of Value, Surplus Value, Profit and Ciris of Capitalism.
- 2.5: J.B.Say: Economic Ideas.

Unit 3: The Marginalist Revolution

- 3.1: Jevons and Walrus.
- 3.2: Neo-Classical Thought: Alfred Marshall.

Unit 4: the Keynesian Revolution

4.1: Economic Ideas of J. M. Keynes.

Unit 5: Indian Economic Thought

- 5.1: Economic Ideas of Mahatma Gandhi.
- 5.2: Economic Ideas of Amartya Sen.

OPTIONAL PAPERS

GROUP A

MATHEMATICAL ECONOMICS AND ECONOMETRICS

Paper XI

Mathematical Economics - I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Elementary Mathematics in Economics

- 1.1: Role of Mathematics in Economics.
- 1.2: Functions and its Graphs.
- 1.3: Set Theory: Kinds of Sets; Operation of Sets; Venn Diagrams; Cartesian Products.

Unit 2: Limits and Differentiation

- 2.1: Limits and Continuity.
- 2.2: Differentiation: Rules of Differentiation; Higher Order Derivatives.
- 2.3: Application of Derivatives: Differentiation of a Function; Concavity and Convexity; Maxima and Minima; Inflection Points; Perfect Competition; Monopoly; Elasticity.

Unit 3: Calculus and Multi-Variable Functions

- 3.1: Functions of Several Variables and Partial Derivatives.
- 3.2: Rules of Partial Differentiation; Second Order Partial Derivatives.
- 3.3: Application of Partial Derivatives in Economics.

Unit 4: Integration and Its Applications

- 4.1: Concept; Rules of Integration; Integration by Substitution.
- 4.2: Definite and Indefinite Integrals.
- 4.3: Economic Applications of Integration.
- 4.3: Consumer's Surplus.

OPTIONAL PAPERS

GROUP A

MATHEMATICAL ECONOMICS AND ECONOMETRICS

Paper XII

Econometrics - I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Introduction

- 1.1: Definition and Scope of Econometrics.
- 1.2: Importance of Error Term.
- 1.3: Desirable Properties of Estimators: Unbiasedness; Efficiency; Consistency and Sufficiency; properties of Ordinary Least Squares.

Unit 2: Probability and Mathematical Expectation

- 2.1: Probability: Concepts.
- 2.2: Additional and Multiplication Theorems of Probability; Baye's Theorem.
- 2.3: Mathematical Expectation: Meaning and Properties.

Unit 3: Simple Regression Analysis and Theoretical Distribution

- 3.1: Correlation and Regression; Coefficient of Determination.
- 3.2: Theoretical Frequency Distribution: Binomial and Normal Distributions; Their uses and Properties.

OPTIONAL PAPERS

GROUP B

AGRICULTURAL ECONOMICS AND DEMOGRAPHY

Paper XI

AGRICULTURAL ECONOMICS – I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Rural Economy of India

- 1.1: Composition of Indian Rural Economy: Farm and Non-Farm Sector.
- 1.2: Place of Agriculture in Rural Economy.
- 1.3: Diversification of Agriculture: Agriculture and Allied Activities [Fisheries, Horticulture, Floriculture].
- 1.4: Forestry in India: Growth, Problems and State Policies.
- 1.5: Rural Industrialization: Food Processing and Agro-Based Industries.
- 1.6: Development of Rural Infrastructure.

Unit 2: Development of Agriculture

- 2.1: Role and Importance in Economic Development: Linkages between Agricultural Sector and Non-Agricultural Sector; Changing Nature of Linkages.
- 2.2: Irrigation in India.
- 2.3: Trends in Agricultural Growth and Agricultural Productivity.

Unit 3: Agrarian Relations and Land Reforms in India

- 3.1: Agrarian Relations: Land Reforms Programme during 1950s and 1960s.
- 3.2: Land Reforms Programme and Performance during 1970s and after.

OPTIONAL PAPERS

<u>GROUP B</u>

AGRICULTURAL ECONOMICS AND DEMOGRAPHY

Paper XII

DEMOGRAPHY – I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

UNIT 1: Introduction

- 1.1: Demography: Concepts; Definitions; Nature; Scope and Importance.
- 1.2: Population Study and Demography: Similarities and Dissimilarities.
- 1.3: Relationship of Demography with other Disciplines.

Unit 2: Theories of Population

- 2.1: Malthusian Theory of Population.
- 2.2: Optimum Theory of Population.
- 2.3: Theory of Demographic Transition.

Unit 3: Sources of Demographic Data in India

- 3.1: Population Census.
- 3.2: Civil Registration System.
- 3.3: Demographic Surveys.
- 3.4: Merits and Demerits of Sources of Population Data.

Unit 4: Structure of Population

- 4.1: Population Trends: Historical Evidence of Growth of Population and its Distribution in India.
- 4.2: Age and Sex Structure of Population in India: Pattern; Determinants; Age Pyramids; Individual and Population Ageing; Temporal and Spatial Variations in Sex Ratios.
- 4.3: Population Explosion in India: Causes and Consequences.

OPTIONAL PAPERS

GROUP C

INDUSTRIAL ECONOMICS AND FINANCIAL INSTITUTIONS

Paper XI

INDUSTRIAL ECONOMICS – I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Introduction

- 1.1: Industry and Economic Development.
- 1.2: Industry and Sectoral Linkages.
- 1.3: Industrial Classification and Information.

Unit 2: Industrial Organization and Ownership Structure

- 2.1: Public; Private; Joint and Cooperative Sectors.
- 2.2: Private Corporate Sector.
- 2.3:Industrial Competition and Monopoly.

Unit 3: Location and Dispersion

- 3.1: Location of Industries.
- 3.2: Theories of Location.
- 3.3: Diversification, Integration and Merger of Industrial Units.
- 3.4: Dispersion and Problems of Regional Imbalance.

Unit 4: Composition of Industrial Sector

- 4.1: Significance of Size.
- 4.2: Major Large Scale Industries: Sugar; Cement; Cotton; Iron and Steel; Jute Industries.
- 4.3: Agro-processing Industries.
- 4.4: Small-Scale Industries; Cottage and Village Industries and Rural Industrialization.

OPTIONAL PAPERS

GROUP C

INDUSTRIAL ECONOMICS AND FINANCIAL INSTITUTIONS

Paper XII

FINANCIAL INSTITUTIONS – I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Money

- 1.1: Money: Meaning; Functions and Types.
- 1.2: Supply of Money: Concept, Components and Aggregates.
- 1.3: Money Market and Capital Market.

Unit 2: Commercial Banks

- 2.1: Commercial Banks: Objectives; Functions; Types.
- 2.2: Role of Commercial Banks in Economic development of India.
- 2.3: Liabilities and Assets of Commercial Banks.
- 2.4: Mechanism of Credit Creation by Commercial Banks: Purpose and Limitations.
- 2.5: Pre-Requisites of Sound Commercial Banking System.

Unit 3: Foreign Exchange Markets

- 3.1: Foreign Exchange; Foreign Exchange Rate; Foreign Exchange Market.
- 3.2: Concepts of Spot Exchange Rates and Forward Exchange Rates.
- 3.3: Determination of Exchange Rates under Fixed and Flexible Exchange Rate Regimes.

Paper XIII

Public Finance

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Nature and Scope of Public Finance

- 1.1: Meaning and Scope of Public Finance.
- 1.2: Distinction between Private and Public Finance, Public goods and Private goods.
- 1.3: Principle of Maximum Social Advantage.

Unit 2: Public Expenditure

- 2.1: Meaning, Classification and Principle of Public Expenditure.
- 2.2: Effects of Public Expenditure on production and distribution.
- 2.2: Trends in Public Expenditure and Causes of Growth of Public Expenditure in India.

Unit 3: Taxation

- 3.1: Sources of Public Revenue.
- 3.2: Taxation: Meaning and Classification of Taxes.
- 3.3: Principles of Taxation: Benefit and Ability to Pay Approaches.
- 3.4: Impact and Incidence of Taxes.
- 3.5: Taxable Capacity.
- 3.6: Characteristics of a good Tax System.
- 3.7: Effects of Taxation on production and distribution.

Unit 4: Public Debt and Financial Administration

- 4.1: Public Debt: Meaning, Types, Sources and Need.
- 4.2: Effects and Burden of Public Debt.
- 4.3: Methods of Debt Redemption.
- 4.4: Public Budget: Economic and Functional Classification of Budget.
- 4.6: Preparation of Budget in India.
- 4.7: Centre-State Financial Relations in India.

Paper XIV

Environmental Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Environmental Issues

- 1.1: Elementary Ecology, Entropy Law.
- 1.2: Two-Way Environment-Economy Linkage.

Unit 2: Basic Concepts

- 2.1: Basic Concepts: Elements of Capital Theory; Externality; Public Goods; Renewable and Non-renewable resources; Common Property Resources.
- 2.2: Social Cost-Benefit Analysis.

Unit 3: Environmental Degradation

- 3.1: Causes and Effects of Environmental Degradation; Degradation of Land, Forest and Natural Resources.
- 3.2: Pollution from Energy Use: Effects on Health, Land, Water and Air.
- 3.3: Pollution prevention, control and Abatement.

Unit 4: Environmental Policies

- 4.1: Pollution Control System and Policy in India.
- 4.2: Concepts and Indicators of Sustainable Development.
- 4.3: Environmental Accounting.

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OPTIONAL PAPER

GROUP A

MATHEMATICAL ECONOMICS AND ECONOMETRICS

PAPER XV

Mathematical Economics – II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Basic Matrix Algebra

- 1.1: Matrices: Types.
- 1.2: Addition, Subtraction and Multiplication of Matrices.
- 1.3: Order of Matrices; Transpose of a Matrix; Minor, Cofactors and Inverse of a Matrix.
- 1.4: Determinants: Properties and Value of a Determinant.
- 1.5: Rank of a Matrix.
- 1.6: Solution of Equations by Matrix Inversion.

Unit 2: Game Theory

- 2.1: Game Theory: Introduction and Concepts.
- 2.2: Pure Strategy: Saddle Point Solution.
- 2.3: Mixed Strategy: Optimal Expected Payoff.
- 2.4: Minimax Theorem.

Unit 3: Linear Programming

- 3.1: Linear Programming: Basic Concepts; Primal and Dual.
- 3.2: Basic Theorems of Linear Programming.
- 3.3: Graphical Solution of Linear Programming.

Unit 4: Input-Output Analysis

4.1: Input-Output Analysis: Simple Static Model; Concept and Measurement.

OPTIONAL PAPERS

GROUP A

MATHEMATICAL ECONOMICS AND ECONOMETRICS

Paper XVI

Econometrics - II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Sampling Distribution and Testing

- 1.1: Sampling: Simple; Random and Stratified.
- 1.2: Sampling Distribution: Distribution of Sample Mean and Variance.
- 1.3: Testing of Hypothesis: Point and Interval Estimation.
- 1.4: Type-I and Type-II Errors; Standard Errors.
- 1.5: Tests based on t and Chi-Square Statistics.

Unit 2: Estimation Theory

- 2.1: Ordinary Least Squares [OLS]: Two Variable Linear Method; Assumptions.
- 2.2: Properties of OLS Estimators; Gauss-Markov Theorem.

Unit 3: Problems in OLS Estimation

- 3.1: Problem of Heteroscedasticity: Their Consequences.
- 3.2: Problem of Auto-Correlation [First Order]: Their Consequences, Tests and Remedies; First order Autoregressive scheme, Mean, Variance and Co-Variance of auto-correlated U's.
- 3.3: Problem of Multicollinearity: Their Consequences.

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OPTIONAL PAPER

GROUP B

AGRICULTURAL ECONOMICS AND DEMOGRAPHY

PAPER XV

AGRICULTURAL ECONOMICS – II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Technological Change in Agriculture

- 1.1: Technology in Agriculture: Traditional Techniques and Practices; HYV Seeds; Fertilizers; Water Technology [Green Revolution].
- 1.2: Sustainable Agriculture.
- 1.3: Emerging Trends in Agricultural Technology; Dry Land Farming.

Unit 2: State and Agriculture – I

- 2.1: Agricultural Finance in India: Importance; Types of Requirements; Institutional and Non-Institutional Sources of Finance; Existing Rural Credit Delivery System [Multi-agency Approach].
- 2.2: Agricultural Marketing in India: Markets and Marketing Functions.
- 2.3: Role of Cooperatives in Agriculture.

Unit 3: State and Agriculture - II

- 3.1: Agricultural Planning in India: Decentralized Planning and Indicative Planning.
- 3.2: Incentives in Agriculture: Price and Non-Price Incentives; Input Subsidies.
- 3.3: Agricultural Price Policies [APP]: Nature of Demand and Supply of Agricultural Products; Need for State Intervention; Objectives of APP; Instruments of APP and their Evaluation.
- 3.4: Food Security in India and Public Distribution System.

Unit 4: Indian Agriculture since Independence

- 4.1: Agricultural Development in India.
- 4.2: Underemployment and Disguised Unemployment in Rural Economy.
- 4.3: Globalization of Indian Economy and its Effects on Indian Agriculture.
- 4.4: WTO and Indian Agriculture.

OPTIONAL PAPER

GROUP B

AGRICULTURAL ECONOMICS AND DEMOGRAPHY

PAPER XVI

DEMOGRAPHY – II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Techniques of Analysis

- 1.1: Crude Birth and Death Rates; Age-specific Birth and Death Rates; Standardized Birth and Death Rates: Concepts, Relative Merits and Demerits.
- 1.2: Study of Fertility: Concepts of Total Fertility Rate, Gross Reproduction Rate and Net Reproduction Rate; Their Relative Merits and Demerits; Factors Affecting Fertility.
- 1.3: Marriage and Marital Status: Concept and Measurement.
- 1.4: Reproductive and Child Health [RCH] in India.

Unit 2: Population Projection

- 2.1: Meaning, Types and Uses of Population Projection.
- 2.2: Techniques of Population Projection: Their Relative Merits and Demerits.
- 2.3: Concept of Stationary, Stable and Quasi-Stationary Population.
- 2.4: Ageing of Population: Concept, Status and Assessment with reference to India.
- 2.5: Changes in Family Structure and Old Age Security in India.

Unit 3: Population Policy of India

- 3.1: Evolution of Population Policy in India.
- 3.2: New National Population Policy: Assessment.
- 3.3: Family Planning and Family Welfare Programme: Achievements and Failures; Shift from Population Control to Family Welfare and Women Empowerment.
- 3.4: Demographic Status and Household Behaviour: Education, Women's Autonomy and Fertility; Population; Health; Poverty and Environment Linkage.
- 3.5: Salient Features of Recent Census.

OPTIONAL PAPERS

GROUP C

INDUSTRIAL ECONOMICS AND FINANCIAL INSTITUTIONS

Paper XV

<u>INDUSTRIAL ECONOMICS – II</u>

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Industrial Productivity

- 1.1: Concept and Measurement of Productivity: Productivity in Indian Industries.
- 1.2: Industrial Sickness.
- 1.3: Under-Utilization of Capacity: Factors Accounting for it and Consequences.

Unit 2: Financing of Industry

- 2.1: Mode of Financing: Equity and Debt.
- 2.2: Institutional Finance: Bank Finance.

Unit 3: Indian Industry in the International Context

- 3.1: Globalization and Indian Industry.
- 3.2: International Competitiveness of Indian Industry.
- 3.3: Privatization and Issues Relating to Disinvestment Policy.

Unit 4: Industrial Development in India

- 4.1: Industrial Structure at the Time of Independence.
- 4.2: Industrial Policy [Role of State].
- 4.3: New Industrial Policy and Economic Reforms.
- 4.4: Industrial Growth and Pattern.

Unit 5: Industrial Labour in India

- 5.1: Structure of Industrial Labour.
- 5.2: Employment Dimension of Indian Industries.
- 5.3: Industrial Legislation.
- 5.4: Industrial Relations.
- 5.5: Issues of Social Security: Wages; Bonus; Exit Policy and Social Security.

OPTIONAL PAPERS

GROUP C

INDUSTRIAL ECONOMICS AND FINANCIAL INSTITUTIONS

Paper XVI

FINANCIAL INSTITUTIONS – II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Central Bank

- 1.1: Central Bank: Functions and Objectives.
- 1.2: Instruments of Credit Control: Quantitative and Qualitative Methods.
- 1.3: Role and Functions of RBI: Development and Regulatory Functions.
- 1.4: Monetary Policies: Objectives and Limitations; Recent Monetary Policies of RBI.

Unit 2: Financial Institutions in India

- 2.1: Importance of Financial System in India.
- 2.2: Financial Institutions in India: Function and Growth.
- 2.3: Measures to Liberalize Financial System.
- 2.4: Banking and Financial Sector Reforms: Impact on Economic Growth in India.

Unit 3: Development Banking

- 3.1: Structure of Cooperative Institutions and Development Banks in India [SIDBI, IDBI] Objective; Role and Limitations.
- 3.2: Definition and Types of NBFs: Mutual Funds; LIC; Investment Companies; Venture Capital.
- 3.3: Growth and Importance of NBFs.
- 3.4: Recent Measures taken by RBI and SEBI to regulate Working of NBFs.

Unit 4: Financial Markets

- 4.1: Structure of Financial Markets: Call Money; Treasury bills, Commercial Bills.
- 4.2: Stock market and Market for Gilt-Edged Securities.
- 4.3: Unregulated Credit Markets.
- 4.4: SEBI and Working of Capital Markets in India.

SYLLABUS [DRAFT] FOR B.A. [ECONOMICS] UNDER SEMESTER SYSTEM UNDER VINOBA BHAVE UNIVERSITY HAZARIBAGH.

SYLLABUS OUTLINE FOR

B.A. ECONOMICS [GENERAL/SUBSIDIARY]

Semester I	Semester II
Paper I: Micro Economics I	Paper I: Money and Banking
Semester III	Semester IV
Paper III: Indian Economics	Paper IV: Development Issues of Indian Economy
Semester V	Semester VI
Paper V: Micro Economics II	Paper VI: Public Finance and International Trade

Paper I

Micro Economics - I

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit I: Introduction

- 1.1: Subject Matter of Economics; Central Economic Problems; Production Possibility Frontier.
- 1.2: Micro and Macro Economics; Positive and Normative Economics.

Unit 2: Consumer Behaviour and Demand

- 2.1: Cardinal Utility Analysis: Total and marginal Utility; Law of Diminishing Marginal Utility; Law of Equi-Marginal Utility; Consumer's Equilibrium.
- 2.2: Ordinal Utility Analysis: Indifference Curves; Budget Constraints; Consumer's Equilibrium.
- 2.3: Consumer's Surplus: Marshall and Hicks.
- 2.6: Theory of Demand; Elasticity of Demand: Price, Income and Cross.

Unit 3: Theory of Production

- 3.1: Production Function: Short Run and Long Run.
- 3.2: Law of Variable Proportions; Returns to Scale: Economies of Scale.
- 3.3: Isoquant Analysis; Iso-Cost Line; Producer's Equilibrium.

Semester II

Paper - II

Money and Banking

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Money

- 1.1: Money: Meaning & Function: Role of Money in Capitalistic, Socialistic & Mixed Economies.
- 1.2: Quantity Theory of Money: Transactions Approach and Cash Balance Approach.

Unit 2: Central Banking

- 2.1: Objectives, Functions and Limitations of Central Bank with reference of RBI.
- 2.2: Quantitative and Qualitative Methods of Credit Control.

Unit 3: Commercial Banking

- 3.1: Meaning, Types, Functions and Principles of Commercial Banks.
- 3.2: Process of Credit Creation.
- 3.4: Commercial Banking in India: Evaluation of Banking Sector since Independence; Critical Appraisal of Commercial Banking after Nationalization.

Unit 4: Inflation

- 4.1: Definition, Types, Causes and Effects of Inflation.
- 4.2: Measures to Control Inflation.
- 4.3: Concept of Inflationary Gap.

Paper - III

Indian Economics

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Structure of Indian Economy

- 1.1: Basic Features of Indian Economy
- 1.2: Natural Resources: Land, Water and Forest Resources.
- 1.3: Broad Demographic Features.

Unit 2: Planning in India

- 2.1: Objectives, Achievements and Failures of Planning; Analysis of Current Five Year plan.
- 2.2: New Economic Reforms: Liberalization, Privatization and Globalization; Their progress.

Unit 3: Important Areas of Concern

- 3.1: Poverty and Inequality;
- 3.2: Problem of Unemployment;
- 3.3: Problem of Rising Prices;

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<u>Semester II</u>

Paper IV

Development Issues of Indian Economy

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Agriculture

- 1.1: Nature, Importance and Trends of Indian Agriculture.
- 1.2: Land Reforms.
- 1.3: New Agricultural Strategy and Green Revolution.
- 1.4: Rural Credit.

Unit 2: Industry

- 2.1: Industrial Development during the Planning Period.
- 2.2: Industrial Policies of 1948, 1956 and 1991.
- 2.3: Large Scale Industries: Sugar, Iron and Steel, Jute and Cotton Textile Industries.
- 2.4: Small Scale Industries: Growth, Importance and Problems.

Unit 3: External Sector

- 3.1: Role of Foreign Trade.
- 3.2: Trends in Export and Import.
- 3.3: Composition and Direction of India's Foreign trade.

Micro Economics - II

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Theory of Costs and Revenue

- 1.1: Concepts of Costs and their inter-relationship: Short Run and Long Run.
- 1.2: Concepts of Revenue and their inter-relationship; Break-Even Analysis.

Unit 2: Market Structure

- 2.1: Forms of Market: perfect and Imperfect Markets: Salient Features.
- 2.2: Equilibrium of the Firm and Industry under Perfect Competition.
- 2.3: Monopoly: Price and Output Determination; Price Discrimination.
- 2.4: Monopolistic Competition: Price and Output Determination.

Unit 2: Factor Pricing

- 2.1: Marginal Productivity Theory of Distribution.
- 2.1: Theories of Wage determination: Demand and Supply Theory and Collective Bargaining.
- 2.3: Rent: Scarcity Rent; Differential Rent.
- 2.4: Interest: Classical and Keynesian Theories.
- 2.5: Profit: Innovation and Risk Theories.

Semester VI

Paper VI

Public Finance and International Trade

* The question paper shall contain a total of eight questions out of which any four will have to attempted.

Unit 1: Nature and Scope of Public Finance

- 1.1: Meaning and Scope of Public Finance; Public Finance and Private Finance.
- 1.2: Principle of Maximum Social Advantage.

Unit 2: Public Revenue and Expenditure

- 2.1: Sources of Public Revenue.
- 2.2: Taxation: Meaning and Classification.
- 2.3: Impact and Incidence of Taxes; Effects of Taxation.
- 2.4: Meaning, Classification and Principle of Public Expenditure.
- 2.5: Effects of Public Expenditure.

Unit 3: International Trade

- 3.1: International Economics: Definition, Nature and Importance.
- 3.2: Inter-Regional and International Trade.
- 3.3: Gains from Trade: Their Measurement and Distribution.
- 3.4: Theory of Comparative Costs; Heckcher-Ohlin Theory.
- 3.5: Free Trade vs. Protection.

Unit 4: International Financial Institutions

4.1: I.M.F. and I.B.R.D.: Their Objectives and Functions.