

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper I****Micro Economic Analysis****Module 1: Demand Analysis (40)**

Elasticities (price, cross, income) of demand – theoretical aspects and empirical estimation; elasticity of supply; Theories of demand – utility; indifference curve (income and substitution effects; Slutsky theorem, compensated demand curve) and their applications; Revealed preference theory; Revision of demand theory by Hicks; Consumer's Surplus; Inter-temporal consumption; Recent developments in demand; Elementary theory of price formation – demand and supply equilibrium; Cobweb theorem; lagged adjustment in interrelated markets.

Module 2 : Theory of Production and Cost (30)

Production function – short period and long period; Law of Variable Proportions and Returns to Scale; Isoquants – least cost combination of inputs; Returns to factors; Economies of Scale; Multiproduct Firm; Elasticity of Substitution; Euler's Theorem; Technical progress and production function; Cobb-Douglas, CES; Empirical work on Production Function; Traditional and Modern Theories of cost.

Module 3: Price and Output determination (30)

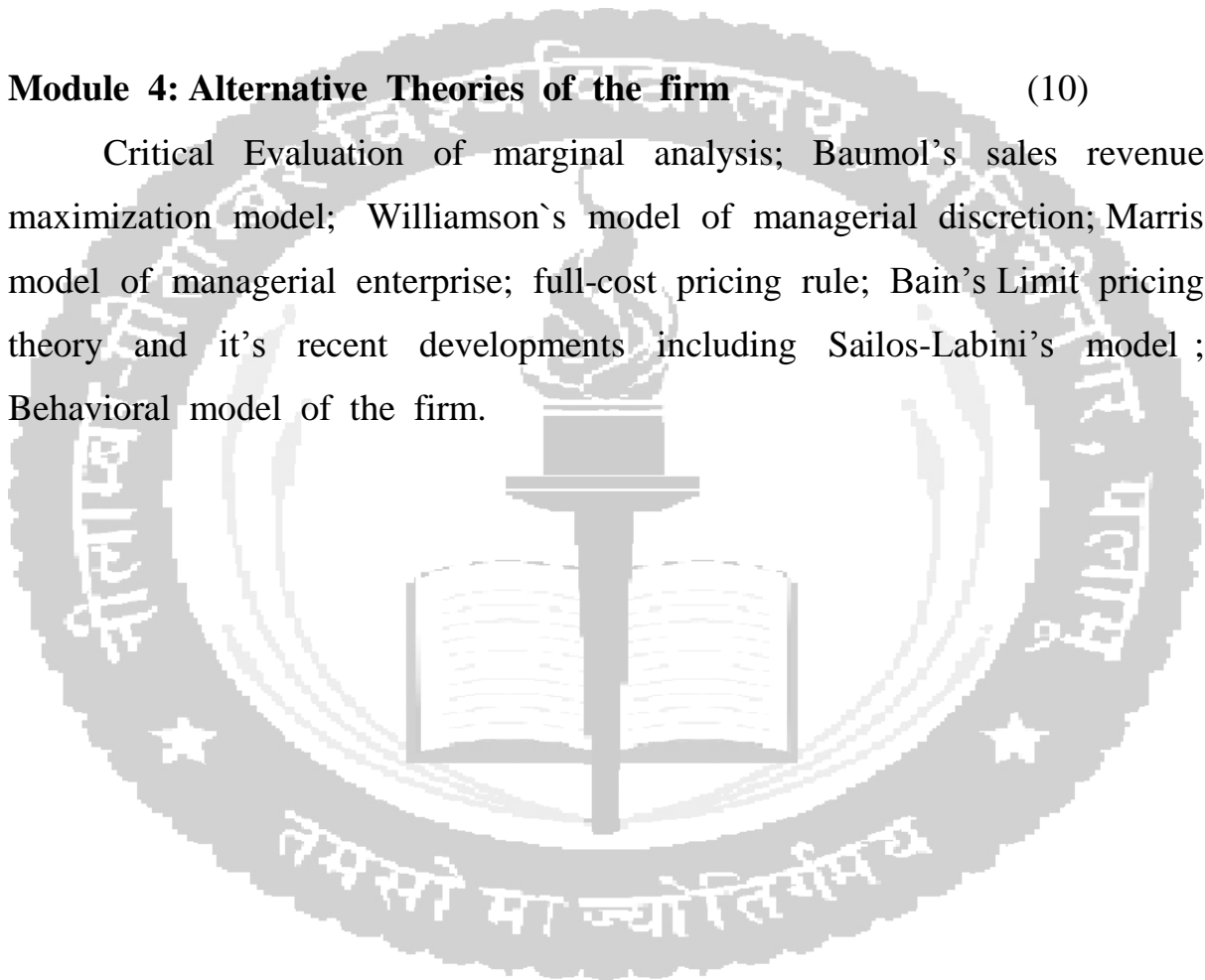
Marginal analysis as an approach to price and output determination; perfect Competition short run and long equilibrium of the firm and industry, price and output determination, supply curve ; Monopoly - short run and long run equilibrium, price discrimination, welfare aspects, Monopoly control and regulation; Monopolistic competition – general and Chamberlain approaches to equilibrium, of the firm and the group with product

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differentiation and selling cost, excess capacity under monopolistic and imperfect competition, criticism of monopolistic competition; Oligopoly – non-collusive (Cournot, Bertrand, Edgeworth, Chamberlain, kinked demand curve and Stackelberg`s solution) and collusive (cartels and mergers, price leadership and basing point price system) models; Price and output determination under Monopsony and bilateral monopoly; workable competition – structure, conduct and performance norms.

Module 4: Alternative Theories of the firm (10)

Critical Evaluation of marginal analysis; Baumol`s sales revenue maximization model; Williamson`s model of managerial discretion; Marris model of managerial enterprise; full-cost pricing rule; Bain`s Limit pricing theory and it`s recent developments including Sairos-Labini`s model ; Behavioral model of the firm.



SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper II****Welfare and Distribution****Module 1: Introduction and Basic Concepts (5)**

Basic economic problem – choice and scarcity; deductive and inductive methods of analysis; positive and normative economics; economics models; characteristics of equilibrium and disequilibrium systems

Module 2: Distribution (40)

Neo-c classical approach – marginal productivity theory; product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; theory of distribution in imperfect product and factor markets; determination of rent, wages, interest and profit; Macro theories of distribution - Ricardian, Marxian, Kalecki and Kaldor.

Module 3: Welfare Economics (20)

Pigovian welfare economics; Pareto-optimal conditions; value judgement; social welfare function; compensation principle; inability to obtain optimum welfare – imperfections, market failure, decreasing costs; uncertainty and non existent and incomplete and incomplete markets; Theory of second best – Arrow's Impossibility Theoram; Rawl's Theory of jutice, Equity-Efficiency trade off.

Module 4: General Equilibrium (20)

Partial and general equilibrium, Walrasian excess demand and input output approaches to general equilibrium existence, stability and uniqueness of equilibrium and general equilibrium conditions and monopolies; production without consumption – one sector model, homogenous function, income distribution; production without consumption- two sector model, relationship between relative commodity and factor prices (stopler-Samuelson Theoram) relationship between output mix and relationship factor prices, effect of changes in factor supply in closed economiy (Rybczynski's Theoram) production and consumption.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper III****Macro Economic Analysis****Module 1: National Income and Accounts (10)**

Circular flow of Income in two, three and four-sector economy; Different forms of National Income accounting – Social accounting, Input-Output accounting, Flow of Funds Accounting and Balance of Payment Accounting.

Module 2: Consumption Function (20)

Keynes psychological law of consumption- implication of the law; short run and long run consumption function; empirical evidence on consumption function; income-consumption relationship – absolute income, relative income, life-cycle and permanent income hypothesis.

Module 3: Investment Function (20)

Marginal efficiency of investment and level of Investment; Marginal efficiency of capital and Investment – long run and short run; The Accelerator and Investment behavior impact of inflation; Influence of policy measures on Investment - empirical evidence.

Module 4: Macroeconomics in an open economy (10)

Mundell-Fleming Model – asset market, expectations and exchange rates; monetary approach to balance of payments.

Module 5: Neo Classical and Keynesian synthesis (20)

Neo classical and Keynesian views on interest; The IS-LM Model; extension of IS-LM Model with Government sector; Relative Effectiveness of monetary and Fiscal policies; Extension of IS-LM model with labor market and flexible prices.

Module 6: Business Cycles (10)

Theories of Schumpeter, Kaldor, Samuelson and Hicks; control of Business Cycle relative efficacy of monetary and fiscal policies.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper IV****Monetary Theory****Module 1: Supply of Money** (20)

Financial Intermediation – a mechanistic model of bank deposit determination; a behavioral model of money supply determination, a demand determined money supply process; RBI approach to money supply; high-powered money and money multiplier; budget deficits and money supply and open economy; control of money supply.

Module 2: Demand for Money (20)

Classic Approach to Demand for money - Quantity Theory Approach, Fisher's Equation, Cambridge Quantity Theory, Keynes Liquidity preference Approach Transaction, Precautionary and speculative demand for money – aggregate demand for money; Derivation of LM Curve.

Module 3: Post Keynesian Demand for Money (20)

Post Keynesian Approaches to Demand for Money – Patinkin and the Real Balance Effect, Approaches to Baumol and Tobin; Friedman and the Modern Quantity Theory; Crisis in Keynesian Economics and the revival of Monetarism.

Module 4: Theory of Inflation (30)

Classical, Keynesian and Monetarist Approaches to Inflation; Structuralist Theory of inflation; Philip's Curve analysis- short run and long run Philips Curve; Samuelson and Solow – the natural rate of unemployment hypotheses; Tobin's modified Philips Curve; Adaptive Expectations and Rational Expectation; Policies to control inflation.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper v****Mathematical Economics****Module 1: Mathematical Methods -1 (40)**

Concept of function and types of function ; Limit, continuity and derivative; rules of differentiation of revenue, cost, demand, supply functions; Elasticities and their types; multi-variable functions; concept and types of production function; rule of partial differentiation and interpretation of partial derivatives; problems of maxima and minima in single and multivariable functions; unconstrained and constrained optimization in simple economic problems; simple problems in market equilibrium; concept of integration; simple rules of integration; application to consumer's surplus and producer's surplus; growth rates.

Module 2: Mathematical Methods -2 (40)

Determinants and their basic properties; solution of simultaneous equations through Cramer's rule; concept of Matrix - their types, simple operations on matrices, matrix inversion and rank of a matrix; concept of vector - its properties; matrices and vectors; concept of quadratic forms - Eigen Roots and Eigen vectors; Introduction to Input – Output Analysis; Difference Equation - solution of first order and second order difference equation; Application in Trade Cycle Models; Growth Models and Lagged Market Equilibrium Models.

Module 3: Mathematical Methods -3 (30)

Linear Programming - basic concepts; formulation of a Linear Programming Problem - its structure and variables; nature of feasible, basic and optimal solution; solution of linear programming through graphical method; Statement of basic theorems of Linear Programming; Formulation of the dual of the program and its interpretation; concept of duality and statement of duality theorems; concept of Game; Strategies - simple and mixed; value of a game; saddle point solution; simple applications.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper VI****Statistics****Module 1: Statistical Methods - 1 (30)**

Meaning, assumptions and Limitations of simple Correlation and Regression Analysis Pearson's Product Moment and Spearman's Rank Correlation coefficients and their properties; Concept of the least-squares and the lines of regression; Standard error of estimates; Partial and Multiple correlation and regression (applications only); Methods of estimation of non-linear equations - Parabolic, exponential, modified exponential, Gompertz and Logistic relationships.

Module 2 : Statistical Methods-2 (30)

Deterministic and non-Deterministic experiments; Various types of events-classical and empirical definitions of probability, Laws of addition and multiplication; Conditional probability and concept of interdependence; Baye's Theorem and it's applications; elementary concept of random variables; probability, mass and density function; Expectations, moments and moment generating functions; properties (without derivations) of binomial, Poisson and normal distributions.

Module 3: Statistical Methods - 3 (40)

Basic concepts of sampling - random and non-random sampling; Simple random; stratified random and p.p.s. Sampling; Concept of an estimator and its sampling distribution; Desirable properties of an estimator; Formulation of statistical hypotheses – Null and alternative; Goodness of fit; confidence levels and level of significance; Hypothesis testing based on Z, t, X^2 (Chi-square) and F Tests; Type I and Type 2 errors.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper VI****Public Economics****Module 1: Introduction (10)**

Role of Government in organized society; Changing perspective – government in a mixed economy: public and private sector, cooperation or competition; Government as an agent for economic planning and development; Government as a tool for operationalizing the planning process; private goods, public goods and merit goods; Market failure - imperfections, decreasing costs, externalities, public goods; Uncertainty and nonexistence of futures markets; Informational asymmetry - Theory of Second Best.

Module 2 : Rationale of Public Policy (10)

Allocation of resources - provision of public goods; Voluntary exchange models; Impossibility of decentralized provision of public goods (contribution of Samuelson and Musgrave); Demand – revealing schemes for public goods - contribution of Clarks, Groves and Leyard, Tiebout model of club goods; Stabilization policy - Keynesian case for stabilization policy; Uncertainty and expectation; Failure of inter-temporal markets; Liquidity Preference; Social goals; Poverty alleviation; Provision of infrastructural facilities, removing distributional inequalities and regional imbalances.

Module 3: Public Expenditure (10)

Wagner's law of increasing state activities; Wiesman-Peacock hypothesis; Pure Theory of Public expenditure; structure and growth of public expenditure; Criteria for public Investment; Social cost-benefit analysis -

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Project evaluation, estimation of costs, discount rates; Reforms in expenditure budgeting; Programs budgeting and zero-based budgeting.

Module 4 : Taxation (10)

Theory of incidence; Alternative concepts of incidence - allocative and equity aspects of individual. taxes; Benefit and Ability to Pay approaches; Theory of Optimal Taxation; Excess burden of taxes; Trade-off between equity and efficiency; the problem of double taxation

Module 5 : Public Debt (10)

Classical view of Public Debt; Compensatory aspect of debt policy; Burden of public debt; sources of public debt; Debt through created money; Public borrowings and Price level; principles of debt management and repayment.

Module 6 : Fiscal Policy (15)

Objectives of Fiscal policy - full employment, anti-inflation, economic growth, redistribution of income and wealth; Interdependence of fiscal and monetary policies; Budgetary deficits and the its implications; Fiscal Policy for stabilization – automatic vs. discretionary stabilization; Alternative measures of resource mobilization and their impact on growth, distribution and prices; Balanced budget multiplier.

Module 7 : Indian Public Finances (20)

Indian Tax system; Revenue of the Union, States and Local Bodies; Major taxes in India: base of taxes, direct and indirect taxes, taxation in agriculture, expenditure tax reforms in direct and indirect taxes, taxes on services; Non-tax revenue of Center, State and local bodies; Analysis of the Central and State government budgets; Lack of flexibility in Central and State budgets, shrinking size of development finance through budgets; Trends in public expenditure and public debt; Fiscal crisis and fiscal sector reforms in India; Report of Finance Commissions in India.

SYLLABUS**M.A. Part – I (Compulsory Paper)****Paper- VIII****Economics of Social Sector and Environment****Module 1 : Measurement of Environmental Values (20)**

Use Values, Option values and non-use values; Valuation methods based on observed market behavior; Hedonic property values and household production models (Travel cost method and household health production function). Methods based on response to hypothetical markets, contingent valuation methods.

Module 2 : Economics of Natural Resource Management and Sustainable Development (20)

Theories of Optimal use of exhaustible and renewable development; Environmental and Development trade-off and the concept of sustainable development; Integrated environmental and economic accounting and the measurement of environmentally corrected GDP; Macroeconomic Policies and Environment.

Module 3 : Environmental and Natural Resource Problems In India (20)

Mechanism for environment regulation in India; Environmental laws and their implementation; policy instruments for controlling water and pollution and forestry policy; People's participation in the management of common and forest lands; The institutions of joint forest management and the joint protected area management; Social forestry – rationale and benefits.

SYLLABUS**Module 4: Economics of Education**

Education as an instrument of economic growth; human capital - Human capital physical capital, components of human capital; demand for education - Private and soc demand; determinants of demand; cost of education – expenditure on education - expenditure on education, priva and social costs and wastage and stagnation; benefits; Educational planning and economic growth - cost benef analysis, production function models; education and labor market – effects of education ability and family background on earnings, poverty and income distribution; economic of educational planning in deve4loping countries with special emphasis on India.

Module 5: Economics of Health

(20)

Health dimensions of development; determinants of development - poverty, malnutrition and environmental issues; dimensions of health care- demand and supply of health care; Financing of health care and resource3 constraint; the concept of human life value; theory and empirical studies of production of health care; inequalities of health class and gender perspectives; institutional issues in health care delivery.

SYLLABUS**M.A. Part – II (Compulsory Paper)****Paper- IX****Indian Economics****Module 1: Economic Development and its Determinants (7)**

Approaches to Economic Development and its measurement - sustainable development; Role of State, market and other institutions; Indicators of development - PQLI, Human Development Index (H D I), gender development indices.

Module 2: Planning in India (7)

Objectives and Strategy of Planning; Failures and achievements of Plans; Developing grass-root organizations for development – Panchayats, NGO's and pressure Groups.

Module 3: Demographic Features, Poverty and Inequality (6)

Broad demographic features of Indian population; Rural-urban Migration; Urbanization and civic amenities; Poverty and Inequality.

Module 4: Resource Base and Infrastructure (10)

Energy; Social Infrastructure- education and health; Environment; Regional Imbalances; Issues and policies in infrastructure development.

Module 5: The Agricultural Sector (10)

Institutional structure - land reforms in India; Technological change in agriculture - pricing of agricultural input and output; Terms of Trade between agriculture and industry; Agricultural finance policy; Agricultural marketing and warehousing; Issues in food security - policies for sustainable agriculture.

SYLLABUS**Module 6: The Industrial Sector** (12)

Industrial policy; Public sector enterprise and their performance ; problem of sick units in India; Privatization and disinvestments debate; Growth and pattern of industrialization; Small-scale sector; Productivity in industrial sector; Exit policy - issues in labor market reforms; Approaches for employment generation.

Module 7: Money, Banking and Prices (10)

Analysis of Price behavior in India; financial sector reforms; Interest rate policy; Review of monetary policy of RBI; Money and Capital Markets; Working of SEBI in India.

Module 8: External Sector (8)

Structure and direction of foreign trade; Balance of Payments; Issues in export-import policy and FEMA; Exchange rate policy; Foreign capital and MNC's in India; the progress of trade reforms in India.

Module 9: Economic Reforms

Rationale of external and internal reforms; Globalization of Indian Economy; WTO and its impact of different sectors of the economy; Need for and issues in good governance; Issues in competition and safety nets in Indian economy.

SYLLABUS**M.A. Part – II (Compulsory Paper)****Paper- X****Theories of Growth and development****Module 1: Economic Growth- 1 (30)**

Economic growth of development - Factors affecting economic growth: capital, labor, and technology; Growth Models - Harrod and Domar, instability of equilibrium; Neoclassical growth models - Solow and Meade, Mrs. Joan Robinson's growth models, Cambridge criticism of neo-classical analysis of growth, the capital controversy.

Module 2: Economic Growth-2 (20)

Technological progress - embodied and disembodied technology progress; Hicks, Harrod; Learning by doing, production function approach to the economic growth; Total factor productivity and growth accounting; Growth models of Kaldor and Pasinetti golden rule of accumulation; Stability of equilibrium; money in economic growth; Endogenous Growth; Intellectual capital: role of learning, education and research; A.K. model – Explanation of country differentials in economic growth.

Module 3: Social and Institutional Aspects of Development (30)

Development and under Development - perpetuation of underdevelopment, Poverty - absolute and Relative; Measuring Development and development gap - per capita income, inequality of income, Human Development Index and other indices of development and quality of life - Food security, education, health and nutrition; Human resource development; Population problem and growth pattern of population - Theory of Demographic Transition; Population as limits to growth and ultimate source- Population, Poverty and Environment; Economic Development and

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Institutions- market and market failure, state and state failure, issues of good governance.

Module 4: Theories of Development

(30)

Classical Theory of Development - contributions of Adam Smith, Ricardo, Malthus and James Mill; Karl Marx and development of capitalistic economy - Theory of social change, surplus value and profit; Immutability laws of capitalist development; Crisis in capitalism - Schumpeter and capitalistic development, innovation - role of credit, profit and degeneration of capitalism; Structural analysis of development; Imperfect market paradigm.



SYLLABUS**M.A. Part – II (Compulsory Paper)****Paper- XI****Approaches to Development****Module 1: Approaches to Development (30)**

Partial theories of growth and development - vicious circle of poverty, circular causation, unlimited supply of labor, big push, balanced growth, unbalanced growth, critical minimum effort thesis, low-income equilibrium trap; Dualism - technical, behavioral and social; Ranis and Fei model; Dependency Theory of development; Structural view of development.

Module 2: Sectoral Aspects of Development (20)

Role of agriculture in economic development; Efficiency and productivity in agriculture, New Technology and sustainable agriculture; Globalization and agriculture growth; Rationale and pattern of industrialization in developing countries; The choice of techniques and appropriate technology and employment; Efficiency of small-scale vs. large-scale production; Terms of trade between agriculture and industry, infrastructure and its importance; labor markets and their functioning in developing countries.

Module 3: Trade and Economic Development (12)

International Trade as engine of growth; Static and dynamic gains from trade; export-led growth; Dual gap analysis; Balance of Payment; Tariffs and effective protection; post-GATT international economic order; WTO and Developing Countries.

Module 4: Macroeconomic Policies and Development (12)

Role of monetary and fiscal policies in developing countries - prior savings, inflation and growth- empirical evidence; External resources – FDI, aid vs. trade, technology inflow.

SYLLABUS**Module 5: Allocation of Resources (12)**

Need for Investment criteria in developing countries – present vs future, Alternative Investment criteria; Cost- benefit analysis, Shadow Prices, Project evaluation and UNIDO guidelines.

Module 6: Planning and Development (12)

Need for planning – democratic, decentralized and indicative planning, micro-level planning; Review of Indian Plan models and planning.



SYLLABUS**M.A. Part – II (Compulsory Paper)****Paper- XII****International Trade and Finance****Module 1: Theory of International Trade (20)**

The pure Theory of international trade - Theories of absolute advantage, comparative advantage and opportunity costs, modern Theory of international trade; Theorem of factor Price equalization; Empirical testing of Theory of absolute cost and comparative cost - Heckscher-Ohlin Theory of trade, Kravis and Linder Theory of trade; Role of dynamic factors, i.e. changes in tastes, technology and factor endowments in explaining the emergence of trade; The Rybczynski's theorem - concept and policy implications of immiserizing growth; Causes of emergence and measurement of intra-industry trade and its impact on Developing Countries.

Module 2: Measurement of Gains and Theory of Interventions (20)

Measurement of gains from Trade and their distribution; Concepts of Terms of Trade, their uses and limitations; Hypothesis of secular deterioration of terms of trade, its empirical relevance and policy implications for less developed countries; Trade as an engine of economic growth; welfare implications' – empirical evidence and policy issues; Theory of Interventions (tariffs, quotas and non-tariff barriers); economic effects of tariffs and quotas of National Income, output, employment, terms of trade, income distribution; Balance of Payments on trading partners both in partial and general equilibrium analysis. The political economy of non –tariff barriers and their implications; nominal, effective and optimum rates of tariffs - their measurement, impact and welfare implications; Trade under imperfectly competitive market.

SYLLABUS**Module 3: Balance of Payment (20)**

Meaning and components of balance of payment; equilibrium and disequilibrium in the Balance of Payments; the process of adjustment under system of gold standard, fixed exchange rates and flexible exchange rates; expenditure reducing and expenditure switching policies and direct controls for adjustment; policies for achieving internal and external equilibrium simultaneous under alternative exchange regimes; A critical review of the monetary approach to the theory of balance of payments adjustment; foreign trade multiplier with and without foreign repercussion and determination of National Income and output; relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in Developing Countries.

Module 4: Theory of Regional Blocs (25)

Forms of economic cooperation; reforms for the emergence of trading blocs at the global level; static and dynamic effects of a customs union and free trade areas; rationale and economic progress of SAARC/SAPTA and ASEAN regions. Problems and prospects of forming a customs union in the Asian region. Regionalism (EU, NAFTA); Multilateralism and WTO; Rise and fall of gold standard and Bretton Woods system; need adequacy and determinants of international reserves; conditionality clause of IMF; emerging international monetary system with special relevance to post – Maastricht development and Developing Countries; reforms of the international monetary system, India and Developing Countries; Theory of short term capital movements and East Asian Crisis and lessons for developing countries; international trade and financial institutions; functions of GATT/WTO (TRIPS, TRIMS), UNCTAD, IMF, World Bank and Asian Development Bank - their achievements and failures, WTO and World Bank from the point of view of India.

SYLLABUS**Module 5: Trade Policies in India**

(15)

Trade problems and trade policies in India during the last five decades; recent changes in the direction and composition of trade and their implications; Rationale and impact of trade reforms since 1991 on Balance of Payments, employment and growth, Problems of India's international debt; working and regulation of MNC's in India; Instruments of export promotion and recent import and export policies and agenda for future.



SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘A’****Mathematical Economics****Paper I – Micro Economic Analysis****Module 1: Theory of Consumer Behaviour** (40)

Cardinal and ordinal utility: Ordinal utility maximization; Slutsky equation, compensated demand functions, income, substitution, and Price effects; Concept of elasticities – generalizations to valuable case; Separate and additive utility functions; homogeneous and homothetic utility functional; constant elasticity of substitution (CES), and transcendental logarithmic utility functions; indirect utility function; theorem; consumer's surplus; Theory of Revealed Preference and index numbers; Linear expenditure systems; treatment of demand for durable goods; Empirical demand functions; Consumer behavior under risk and uncertainty.

Module 2 : Theory of Production (30)

Production function – homogeneous and non – homogeneous; Properties of Cobb – Douglas Production function; CES; VES and trans – log production function; Simple derivation of short run and long run cost functions; Modern Approach to the Theory of Costs; Cost function; Producer's equilibrium – Laws of Returns and Returns to Scale; Constrained optimization of a producer; Generalization to n variables case; Input demand functions; Adding – up Theorem; Technical progress through production function; Analysis of joint profit maximization and multi – product firm; Production possibility curve; Empirical uses of production function analysis.

SYLLABUS**Module 3 : Price Determination in Various Markets (20)**

Price Determination in perfect competition, monopoly, monopolistic competition Duopoly, oligopoly and Monopsony. Pricing of factors of production; Bilateral monopoly.

Module 4 : Market Equilibrium (20)

Single market equilibrium – Marshallian and Walrasian equilibrium conditions; Lagged market equilibrium; Multi – market equilibrium – General equilibrium systems of Walras and Debreu; Conditions of stability of equilibrium.



SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘A’****Mathematical Economics****Paper II – Macroeconomic and Operational Analysis****Module 1 : Determination of Income and Fluctuations in Income (30)**

Classical and Keynes Macro system; Static and dynamic multiplier; Determinants of Investment; Accelerator, Trade Cycle Model of Samuelson and Hicks, Goodwin, Kalecki and Philips; Stabilization Policy; Rational Expectations and Economic policy; Lucas's Model.

Module 2 : Growth Models (20)

Harrod problem; Neo – classical model of growth, Solow and Meade growth models with technical progress; optimal growth; golden rule of accumulation; Turnpike theorem; Endogenous growth.

Module 3 : Game Theory, Linear Programming and Input –Output Analysis (40)

Concept of Game – two person zero sum game, Pay – off matrix, pure and mixed strategies, maximin and solutions, saddle point solution ; Non constant sum game; Prisoner's dilemma ; Linear Programming- primal and dual problem, Simplex Method; transport and storage problems and other applications of Linear Programming in Economics; Input Analysis – Open and closed Systems, Simon -Hawkins condition ; Leontieff's dynamic system; Testing Consistency of planning models.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘B’****Econometrics****Paper I – Single Equation Model****Module 1: Basic Econometrics (40)**

Nature, Meaning and scope of econometrics; Simple and general Linear regression model – Assumptions, Estimation (through OLS approach) and properties of estimators; Gauss – Markov Theorem; Concepts and derivation of R^2 and adjusted R^2 ; Concept and analysis of variance approach and its application in regression analysis; Estimation of non – linear equations – parabolic, exponential, geometric, hyperbolic, modified exponential; Gomertz and logistic function.

Module 2; Problems in Regression Analysis (20)

Nature, test, consequences and remedial steps of problems of heteroscedasticity; Multicollinerity and auto – correlation; Problems of specification error; Errors of measurement.

Module 3; Regressions with Qualitative Independent Variables (15)

Dummy variable technique – testing structural stability of regression models comparing to regression, interaction effects, seasonal analysis, piecewise linear regression, use of dummy variables, regression with dummy dependent variables; The LPM, Logit, Probit and Tobit models – Applications.

Module 4; Dynamic Econometric Model (20)

Autoregressive and distributed lag models – Koyak Model, partial adjustment model, adaptive expectations; instrumental variables; problems of auto – Correlation - Application; Almon approach to distributed lag models; Error correlation mechanism, Causality test, Granger's test and Sim's test.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘B’****Econometrics****Paper II – Simultaneous Equation Model****Module 1: Simultaneous Equation Models- 1** (20)

The simultaneous equation bias and inconsistency of OLS estimators; Structural and Recursive form Models; the identification problems – Rules of identification; order and rank conditions.

Module 2: Simultaneous Equation Models – 2 (25)

Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect Least squares (ILS); 2SLS, 3SLS and ML methods – Applications.

Model 3: Times Series Analysis (20)

Stationary, unit roots, co-integration-spurious regression, Dickey Fuller test, Engle Granger test, Random walk model, Forecasting with ARIMA modeling; Box – Jenkins methodology; Vector auto – regression; Problems with VAR Modeling – Applications; Time varying parameters and Kalman filter.

Module 4: Multivariate Analysis (15)

Multivariate probability distribution, marginal and conditional probability distribution, multivariate normal distribution and its properties, Discriminant analysis.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘C’****Agricultural Economics****Paper I – Agriculture and Rural Economy: Theory****Module 1: Agriculture and Economic Development (20)**

Nature and scope of agricultural and rural economics; Traditional agriculture and its modernization; Role of agriculture in economic development; Interdependence between agriculture and industry – some empirical evidence; Models of interaction between agro and the rest of the economy; Agricultural development, poverty and environment.

Module 2: Diversification of Rural Economic Activities (15)

Livestock economics – livestock resources and their productivity; Problems of marketing; White revolution; Fishery and poultry development; Forestry, horticulture and floriculture; issues and problems in rural industrialization and development of agro – based industries.

Module 3: Economics of Rural Infrastructure (15)

Use of land, water and energy; rural transport, communication, banking, extension services; role, modes and problems of rural electrification; rural social infrastructure – education and health and information dissemination.

Module 4: Agricultural Production and Productivity (20)

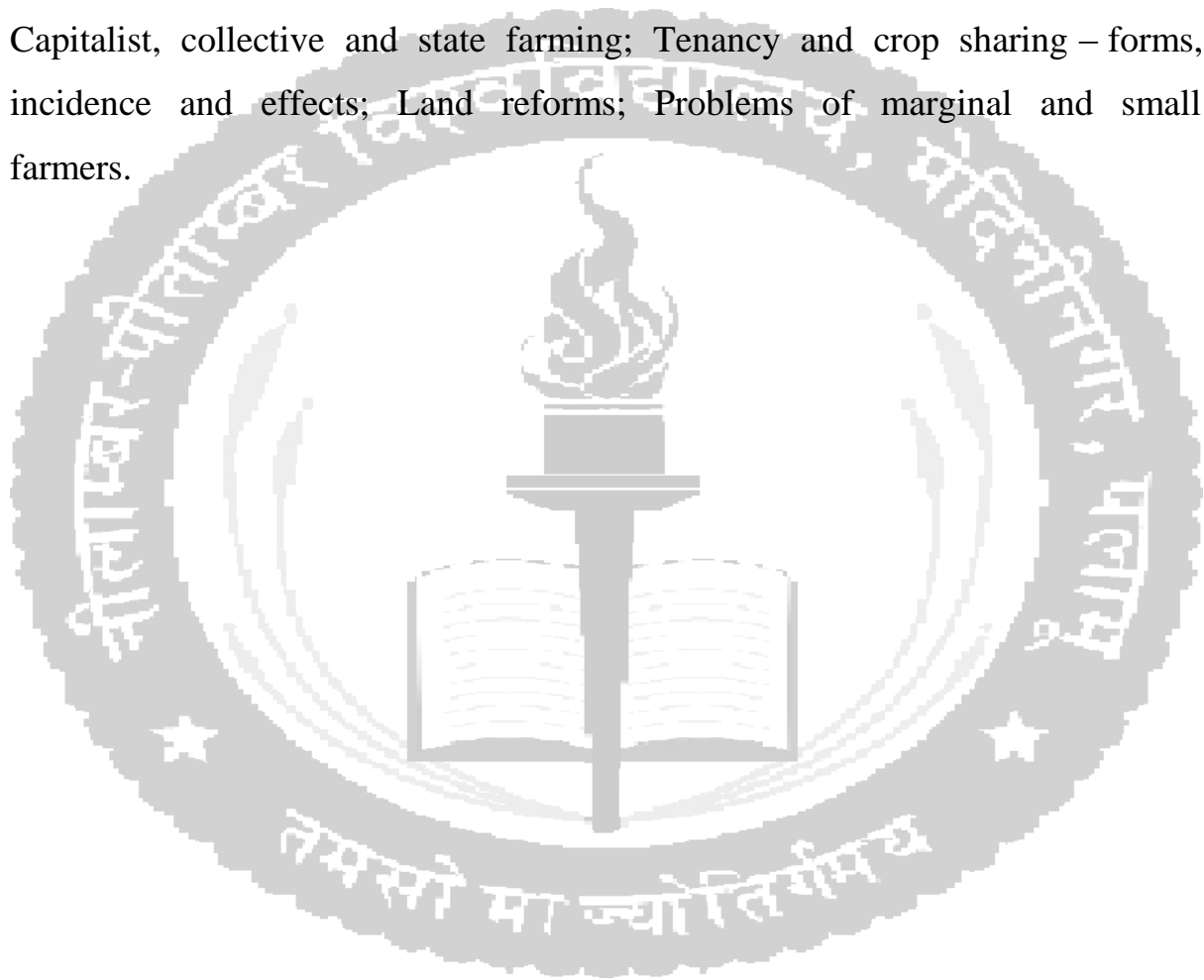
Agricultural production – Resource use and efficiency; production function analysis in agriculture; Factor combination and resource substitution; Cost and supply curves; Size of farm and laws of returns – theoretical and empirical findings; Farm budgeting and cost concepts; Supply response of

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individual crops and aggregate supply; Resource use efficiency in traditional agriculture; Technical change, labor absorption and gender issues in agricultural services.

Module 5: Land Reforms and Land Policy (20)

Principles of land utilization; Land distribution – structure and trends; Land values and rent; Land tenures and farming system – peasant, Capitalist, collective and state farming; Tenancy and crop sharing – forms, incidence and effects; Land reforms; Problems of marginal and small farmers.



SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘C’****Agricultural Economics****Paper II – Agriculture and Rural Problems****Module 1: Rural Labor Market (15)**

Rural labor supply; Interlocking of factor markets; Mobility of labor and segmentation in labor, markets, marginalization of rural labor; Nature, extent and trends in rural unemployment; Agricultural wages in India; Male – Female wage differences; Non- agricultural rural employment – trends and determinants.

Module 2: Rural Finance (10)

Role of capital and rural credit; Organized and unorganized capital market; rural savings and capital formation; Characteristics and sources of rural credit – institutional and non – institutional; Reorganization of rural credit – cooperatives, commercial banks, regional rural banks; Role of NABARD.

Module 3: Cooperation in India (10)

Cooperative movement; Genesis and growth of cooperative sector; Agricultural cooperation in India; Problems and prospects of cooperative institutions.

Module 4: Agricultural Prices (25)

Marketing and state policy; Agricultural markets and marketing efficiency – Marketing functions and costs; Market structure and imperfections; Regulated markets; marketed and marketable surplus; Behaviour of agricultural Price – Cobweb model; Price and income stability; State policy

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with respect to agricultural marketing; Warehousing; Prices; Taxation and crop insurance; Terms of trade between agricultural and non – agricultural Prices; Need for state intervention; Objectives of agricultural Price policy – instruments and evaluation; Food security in India and public distribution system.

Module 5: Agricultural Growth in India (25)

Recent trends in agricultural growth in India; Inter – regional variations in growth of output and productivity; Cropping pattern shifts; Supply of inputs – irrigation, power, seed, and fertilizers; Pricing of inputs and role of subsidies; Distribution of gains from technological change; Role of public Investment and capital formation in Indian agriculture; Strategy of agricultural development and technological progress; Sustainable agriculture indigenous practices; Bio – technological practices and growth potential.

Module 6: Agriculture and External Sector (15)

International Trade in agricultural commodities; Commodity agreements – Role of World Trade Organization, Issues in liberalization of domestic and international trade in agriculture – Nature and feature of agri – business; Role of MNCs; Globalization of Indian economy and problems and prospects of Indian Agriculture; Impact of World Trade Organization on Indian agriculture.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘D’****Demography****Paper I – Theories Of Demography****Module 1: Population and Development (20)**

Meaning and scope of demography; Components of population growth and their inter – dependence; Measures of population change; Structure, distribution and sources of population data; Theories of population – Malthus, Optimum Theory of Population; Theory of demographic transition – Views of Meadows, Enke and Simon; Population and Development.

Module 2: Structure of Population (20)

Population trends in the Twentieth Century; Population explosion – Threatened or real, distant or imminent; International aspects of population growth and distribution; Pattern of age and sex structure in more developed and less developed countries; determinants of age and sex structure; Demographic effects of sex and age structure, economic and social implications; Age pyramids and projections – Individual ageing and population ageing.

Module 3: Fertility, Nuptiality and Mortality (25)

Importance of study of Fertility – totality rate, Gross reproduction rate and net reproduction rate; Levels and trends of fertility in more and less developed countries; Factors affecting fertility – socio – economic factors, economic status, health, education, nutrition, caste, religion, race, region, rural – urban status of husband and wife; Nuptiality – concept and analysis

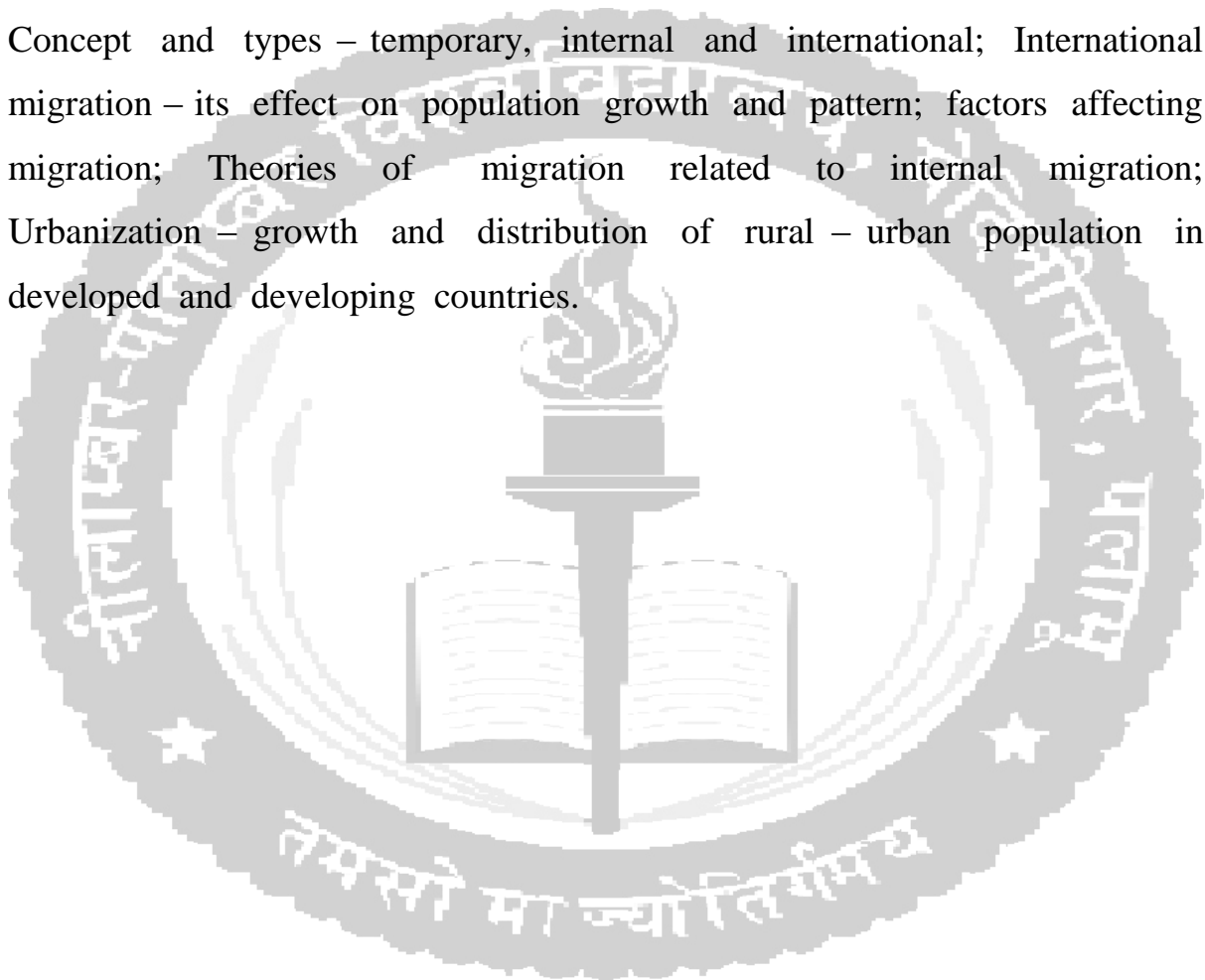
SYLLABUS

of marital status, single mean age at marriage; synthetic cohort methods; Trends in age at marriage; Mortality – Death rates, crude and age specific; Mortality at birth and infants mortality rate; Factors for decline in Mortality in recent past; Life table – construction and uses; Concepts of stable population; Methods of population projection.

Module 4: Migration and Urbanization

(15)

Concept and types – temporary, internal and international; International migration – its effect on population growth and pattern; factors affecting migration; Theories of migration related to internal migration; Urbanization – growth and distribution of rural – urban population in developed and developing countries.



SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘D’****Demography****Paper II – Demographic Features of India****Module 1: Demographic Data Base in India (25)**

Study of census in India – Methodology and characteristics of census; Nature of information collected in 1971, 1981, 1991 and 2001 census in India; National Family Health Survey land 2 and rapid Household Survey; Changing Characteristics of population in India; Population growth rates, trends and regional variations in sex ratio; Age structure of population, foetal, infant and child mortality rates; Maternal mortality rates; life expectancy; Appraisal of Kerela Model; Pattern of Urbanization and Migration In India.

Module 2: Population and Development with Reference to India (25)

Population, economy and environment linkages - population, health, nutrition, productivity nexus; Population and human development issues; Culture and fertility; Education and fertility; Demography and household economic behavior.

Module 3: Population Policy in India (30)

Evolution of population policy in India – shift in policy form population control to family welfare, to women empowerment; Family planning strategies and their outcomes; Reproductive health, maternal nutrition and child health policies; Population and strategies for human development of different social groups; Social impact of new reproductive techniques and their regulation; The new population policy; Tasks before the National Population Commission.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘E’****Industrial and Labor Economics****Paper I- Industrial Economics****Module 1: Introduction (10)**

Industry and Economic Development; Industry and Sectoral linkages; Industrial classification and data information.

Module 2: Industrial Organization and Ownership Structure (15)

Public, Private, Joint and Cooperative Sectors; Private Corporate sector; MNCs and their role; industrial competition and monopoly; Corporate Governance.

Module 3: Pricing of Industrial Products (6)

Industrial Pricing and Market structure; Pricing in India.

Module 4: Location and Dispersion (6)

Locations of industries – Theories of location; Diversification; Integration and Merger of industrial units; dispersion and problems of regional imbalance.

Module 5: Composition of industrial sector (15)

Significance of size; major large scale industries – suger, cement, cotton iron and steel, jute, agro – processing industry; small scale industries; cottage and village industries and rural industrialization – emerging global competition and Indian Industry.

SYLLABUS**Module 6: Industrial productivity (8)**

Concept and measurement of productivity in Indian industries; industrial sickness; under – utilization of capacity – factors accounting for it and consequences.

Module 7: Financing of Industry (6)

Mode of financing – equity and debt; institutional finance; bank finance.

Module 8: Indian Industry in the International Context (10)

Globalization and Indian industry; International competitiveness of Indian Industry; privatization and issue relating to disinvestments policies.

Module 9: Industrial Development in India (15)

Industrial structure at the time of independence; Industrial Policy (Role of State) ; New Industrial Policy and Economic Reforms; Industrial Growth and pattern.



SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘E’****Industrial and Labor Economics****Paper II – Labor Economics****Module 1: Labor Markets** (20)

Nature and characteristic of labor markets in developing countries like India; Paradigms of labor market analysis – Classical and dualistic economy; Demand for labor in relation to size and pattern of Investment; Choice of technologies and labor policies; supply of labor in relation to Growth of labor – force; labor market policies; mobility and productivity of labor; rationalization in India.

Module 2: Employment (25)

Employment and Development relationship – poverty and unemployment in developing countries; unemployment – concept, types and measurement, particularly in India; Impact of rationalization; technological change and modernization on employment in agricultural sector; analysis of educated unemployment; employment policy in Five Year Plans and its evaluation.

Module 3: Wage Determination (25)

Classical, neo – classical and bargaining Theories of Wage determination; concepts of minimum wage, living wage and fair wage in Theory and practice; discrimination in labor markets; wage determination in various sectors – rural, urban, organized, unorganized and in informal sectors; non – wage component of labor remuneration; inflation – wage relationship at micro and levels; productivity and wage relationship; analysis of rigidity in labor markets; asymmetric information and efficiency of labor markets in wage determination; national wage policy; wage and boards in India; bonus system and profit sharing.

SYLLABUS**Module 4: Industrial Relations**

(15)

Theories of labor movement – growth, pattern and structure of labor unions in India, achievements of labor unions; causes of industrial disputes and their settlement and prevention mechanism; role of tripartism; current trends in collective bargaining; role of judicial activism; labor legislation in India; Indian Labor Laws and practices in relation to International Labor standards.

Module 5: State and Labor

(15)

State and social security of labor – concept of social security and its evolution; social assistance and social insurance; review and appraisal of state' policies with respect to social security and labor welfare in India; Special problems of labor: child labor, female labor, discrimination and gender bias in treatment of labor; receding state and it's effect on working of labor markets; labor markets reforms – exit policy, need for safety nets, measures imparting flexibility in labor markets; Second National Commission on Labor; Globalization and labor market.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘F’****Computer Applications****Paper I – Computer And Its Elementary Uses****Module 1: Basics of Computers (25)**

Computer Fundamentals; Organization and components of a computer, computer Hardware – CPU, Memory, Disk Drives, Inputs – Output devices, keyboard, mouse and VDC; Computer peripherals like printer, scanner, digitizer etc; Computer software – operating system, application software and packages.

Module 2: Use of Computer For Office Automation (25)

Text editors and word processor software packages; operative familiarization with any one package like MS Word; concept and use of Spreadsheet; operation and use of MS Excel; Basics of database; Table; Records and fields; Data entry and query processing; operative principles of MS Access; Document formation and presentation through MS PowerPoint.

Module 3: Data Analysis And Trend Forecasting (30)

Basics of Statistical functions and analysis – mean, median, mode, standard deviation; distribution function and density function; Statistics package handling and command description for SPSS; Regression and auto regression; correlation and auto – correlation; covariance and auto covariance.

Module 4: IT Application To Commerce (25)

Electronic trading and marketing, online shopping and malls; B2B, B2C, C2B and G2B models and their applications; document and transaction security and digital signature; Integrated transaction on mobile platform.

SYLLABUS**M.A. Part – II (Optional Paper)****Group ‘F’****Computer Applications****Paper II – Computer Application****Module 1: Applications (25)**

Text and mail communication using computers – email, voice mail, document transfer and delivery, internet, world wide web (www) and use for business and commercial activities like e- business and e-commerce; electronic stock market and exchanges; B2B and B2C concepts.

Module 2: Statistical Processing Techniques and Methods (25)

Series, groups, tables, graphs and objects; time and frequency series, regression methods and techniques; regression analysis; data validation; trends and cyclicity forecasting; system modeling 7 description; system equation; specification; error and correction strategies; Statistical modeling and descriptive Statistics; distribution functions; regression Statistics.

Module 3: IT Application To Finance (20)

Online banking; ATMs; Electronic stock exchange; electronic trading, data sharing and dissemination; electronic transactions; document delivery; authentication and validation; transaction processing.