

Syllabi & Course Structure of M A ECONOMICS (PRIVATE)

M.A. PREVIOUS

There shall be five papers, each carrying 100 marks.		
Core Papers:		Max Marks
Paper I	Advanced Economic Theory	100
Paper II	Public Economics	100
Paper III	Indian Economy	100
Optional Papers: (Any Two)		
Any Two of the following shall be offered :-		
Paper IV	Statistics	100
Paper V	Agricultural Economics	100
Paper VI	Industrial Economics	100
Paper VII	Indian Finance	100
Paper VIII	Research Methodology	100
Grand Total		500

**M.A. FINAL
COURSE STRUCTURE**

There shall be five papers, each carrying 100 marks.		
Core Papers:		Max Marks
Paper I	Monetary Economics	100
Paper II	International Economics	100
Paper III	Environmental Economics	100
	Viva-voce	100
Optional Papers: (Any One)		
Any One of the following shall be offered :-		
Paper IV	Population Problems	100
Paper V	Economic Growth	100
Paper VI	Econometrics	100
Paper VII	History of Economic Thought	100
Grand Total		500

M.A. Previous (Syllabi)

Paper I Advanced Economic Theory

Theory of Equilibrium: Stability of Equilibrium, Cobweb theorem.

Theory of Consumer's behaviour: Indifference curve technique; The Revealed Preference Theory and Logical Theory of Ordering.

Theory of Production: The production function -- Cobb-Douglas and CES production function and their properties; Laws of production; Equilibrium of firm.

Theory of pricing: Price determination in Perfect competition, Monopoly, Monopolistic competition and Oligopoly. Alternative theories of firm -- Baumol, Williamson and Marris Models; Bains limit pricing theory; Theory of Games -- Two-person Game, Zero-person Game, Pure and Mixed Strategy, Saddle point solution; Linear Programming; Input-Output Analysis.

Theory of Distribution: Theory of factor pricing, Theories of wage, rent, profit (Knight and Shackles) and interest (IS-LM model); Adding-up problem.

Macro Theories of Distribution: Ricardo, Marx, Kaldor and Kalecki.

Theory of Trade Cycle: Samuelson and Hicks models.

Welfare Economics: Pigou, Pareto, Kaldor-Hicks, Bergson and Arrow; Rawl's theory of justice.

Books Recommended :

Henderson J. and R.E. Quandt, Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.

Koutsoyiannis, A.; Modern Microeconomics, Macmillan.

Ryan, W.J.L.; Price Theory, Macmillan and Co. Limited, London.

Samuelson, P.A. and W.D. Nordhus; Economics, Heritage India.

Stonier, A.W. and D.C. Hague; A Textbook of Economic Theory, ELBS & Longman Group, London.

Varian, H.R.; Intermediate Microeconomics: A Modern Approach (5th Edition), East-West Press, New Delhi.

Hirshleifer, J and A. Glazer; Price Theory and Applications, Prentice Hall of India, New Delhi.

Hicks, J.R.; Value and Capital.

Shakle, A New Prospect of Economics, G.L.S. (ed.).

Robinson, J.; Economics of Imperfect Competition.

Chamberlin, E.H.; Theory of Monopolistic Competition.

Scitovsky, T.; Welfare and competition.

Harrod, R.F.; Towards a Dynamic Economics

Ackley, G.; Macroeconomics : Theory and Policy, Macmillan Publishing Company, New York.

Shapiro, E.; Macroeconomic Analysis, Galgotia Publications, New Delhi.

Dillard, D.; The Economics of John Mayard Keynes, Crossby Lockwood and Sons, London.

Keynes, J.M.; The General Theory of Employment, Interest and Money, Macmillan, London.

Licbhafsky, H. I I.; Nature of Price Theory.

Davidson, Paul.; Theory of Distribution.

Browning & Browning; Microeconomic Theory and Application, Kalyani Publishers.

Rubinfield & Pindyck; Microeconomics, Maxwell Macmillan.

Lipsay; Introduction to Positive Economics, ELBS.

Surrey, M.J.C.; Macroeconomic Themes.

Paper II

Public Economics

Role of Government in Organised Society; Concepts of Public Goods, Private Goods and Merit Goods; Causes of Market Failure -- Imperfections, Decreasing costs, Externalities and nature of public goods.

Theory of Social Goods; Musgrave Budget Model; Political Process of voting and the Provision of Public Goods.

The Budget, Budget Making and the Budgetary Process, Theory of optimum Budget.

Fiscal Policy: Objectives and Instruments, Compensatory Finance, Functional Finance, Interdependence of fiscal and monetary policies, Alternative concepts of deficits and their implications, Fiscal policy for developing economies.

Public Expenditure: Structure and Growth of public expenditure - Wagner's Law of Increasing State activities, Wiseman- Peacock hypothesis, Public expenditure in relation to economic activity, Employment and Income distribution.

Public Revenue: Principles of taxation, Theories of incidence; Excess burden, Effects of taxation, Double taxation, Taxation and Incentives, Theory of Tax Structure change during economic development.

Public Debt: Nature and Management, Burden of Public debt, Methods of redemption.

Fiscal Federalism: Fiscal federalism in India, Vertical and Horizontal fiscal imbalance, Theory of Grants-in-aid; Criteria for transfer of resources, Problems of states' resources and indebtedness, Problems of Local Finance, Reports of Finance Commission in India.

Books Recommended:

Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.

Herber, B.P., Modern Public Finance, Richard D. Irwin, Homewood.

Musgrave, R.A., The Theory of Public Finance: A Study in Public Economy, Tokyo, McGraw Hill Book Co. and Kogakusha Co., (International student Edition)

Musgrave, R.A., Fiscal Systems.

Houghton, R.W., Public Finance

Cutt, James., Taxation and Economic Development in India, Frederick A Praegar Publishers, New York.

Gandhi, V.P., Some Aspects of India's Tax Structure, Vora and Company, Bombay.

Chelliah R.J., Fiscal Policy in Under developed Countries : With special reference to India, George Allen and Unwin, London.

Allan, Charles M., The Theory of Taxation

Prest, Allan R., Public Finance in Theory and Practice.

Shoup, C.S., Public Finance , Aldine, Chicago.

Buchanan, J., The Public Finance, Richard D. Irwin, Homewood.

Head, J.G., Public Goods and Public Policy, Public Finance

Phelps, E.S., Private wants and Public Needs.

Peacock, Alan T., Government Finance and Economic Development,

Cheb, A and G. Hausar, Some Notes on the Lindhal
Hansen, Leif J., Theory of the Determination
Reports of Finance Commission in India.

Paper III

Indian Economy

National Income -- Trends, Composition and Structural change, Income Distribution and Income Inequality, Regional Disparities; Poverty in India - Absolute and Relative, analysis of poverty in India; Unemployment; Interrelation between population, development and environment; Migration and environment; Sustainable development; Population policy; Labour force and Occupational Distribution of Population.

Planning in India: Objectives and Strategy of Planning; Achievements of Plans, Plan Models in India.

Resource Base and Infrastructure: Energy; Social infrastructure -- Education, Health and Environment; Regional imbalance.

Agriculture Sector: Role of agriculture, Share of agriculture in national income, Interrelationship between agriculture and industry, Growth of Indian agriculture; Institutional aspects -- Land reforms; Green Revolution, Technological change in agriculture -- Farm mechanisation; Agriculture price policy of India; Agricultural finance; Agricultural marketing and warehousing; Sustainable agriculture development; Regional disparities in Indian agriculture; WTO and Indian agriculture.

Industrial Sector: Growth and Structure of Indian industries; Industrial policy of India; Policies towards public sector enterprises -- Privatisation and Disinvestment issue; Policy towards cottage and small-scale industries; Industrial sickness and problem of underutilisation of capacity; Industrial labour and industrial relation, issues in labour market reforms, Exit policy; Industrial productivity - measurement, partial and total trends; Industrial finance in India.

External Sector: Composition and direction of foreign trade of India; Balance of payments situation; Trade and exchange rate policies, FEMA; Inflow and outflow of foreign capital and MNCs in India

Economic Reforms: Globalisation of Indian economy, WTO and its impact on Indian economy; Fiscal sector reforms, Parallel economy; Financial sector reform; Issues in competition and safety nets in Indian economy.

A brief study of cooperative movement in India - Organisation, structure and development of different types of Cooperatives in India.

Books Recommended:-

Datt, R. and K.P.M. Sundharam, Indian Economy, S. Chand & Company Ltd., New Delhi.

Misra, S.K. and V.K. Puri, Indian Economy -- Its Development Experience, Himalaya Publishing House, Mumbai.

Kapila, Uma., Indian Economy : Since Independence

Agrawal, A.N., Indian Economy, New Edge International Pvt Limited, New Delhi.

Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.

Ahluwalia, I.J. and I.M.D. Little (Eds), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.

Jalan, B, India's Economic Policy -- Preparing for the Twenty-first Century, Viking, New Delhi.

Parikh, K.S., India Development Report -- 1999-2000, Oxford University Press, New Delhi.

Datt, R. (Ed.), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.

Wadhawa, Charan, D., Some Aspects of Indian Economy

Lucas and Papanek, The Indian Economy-Recent Development and Futre

Prospects

Uppal, J.S., India's Economic Problems

Agrawal, A.N and S.P.Singh., The Economics of Under Development

Myrdal, Gunnar, Asian Drama (Vols. I and II)

Sen, A.K. Choice of Techniques

Hicks, Mukherjee and Ghosh, The Economic Framework of the Indian Economy

Ahluwalia, Isher, J. Industrial Growth in India

Bhagwati, J.W. and Desai, Padma., India: Planning for Industrialisation

Bagchi, A., The Political Economy of Under Development in India

Dandekar, V.M. and N. Rath, Poverty of India

Chakravarty, C., Report of the Reserve Bank of India Committee to Review the working of the Monetary System.

M.A. (Previous)
Optional Paper

Paper IV
Statistics

Measures of Central tendencies--Mean, Median, Mode, Quartiles and Percentiles; Measures of Dispersion -- Mean and standard Deviation, Skewness and Kurtosis; Moments upto fourth order.

Meaning, assumptions and limitations of simple Correlation and Regression analysis; Karl Pearson's product moment and Spearman's rank correlation coefficients and their properties; Coefficients of Determination; Correlation for bivariate distribution; Lines of regression; Coefficients of regression; Curve fitting by Method of least squares (First and Second Degree Curves); Elementary ideas about Partial and Multiple Correlation and Regression.

Association of Attributes : Independence; Measurement of intensity of association; Partial association; Association in contingency tables.

Index Number-Computations of Index numbers. Chain base and fixed base methods. Laspeyre's and Paasche's Index number. Tests for ideal index numbers.

Interpolation and Extrapolation : Assumptions; Uses of interpolation; Binomial expansion; Newton's formula; Lagrange's formula.

Theory of Probability -Definition of probability. Elementary rules of calculation of probabilities, Simple problems relating to calculation of probabilities. Elementary idea about Mathematical expectation.

Theoretical Distribution: Binomial, Poisson and Normal distribution, their simple properties and uses.

Sampling Technique. Theory of Sampling. Simple Random Sample, Cluster Sampling, Multi-stage Sampling.

Test of significance. Large and small sample tests. Sample tests based on Normal Distribution.

Chi square test and goodness of fit, Contingency table and goodness of fit. Basic idea of test of significance based on Z, t and F distributions.

Books Recommended:

Allen, R.G.D., Mathematical Analysis for Economists, Macmillan Press, London.

Gupta, S.C. and V.K. Kapoor, Fundamentals of Applied Statistics, S. Chand and Sons, New Delhi.

Yamane, Taro, Mathematics for Economists, Prentice Hall Of India, New Delhi.

Agarwal, D.R., Quantitative Methods, Vrinda Publications, Delhi.

Agarwal, D.R., Statistics for Economists, Vrinda Publications, Delhi.

Mood, A.M. and P.A. Graybill, Introduction to the Theory of Statistics

Yule, G.U. and M.G. Kendall, An Introduction to the theory of Statistics.

Gupta, C.B., Mathematical Statistics
Elhance, D.N., Fundamentals of Statistics (Hindi Ed.)
Bowley, A.C., Elements of Statistics
Boodington, A.L., Statistics and their Application to Commerce
Conner, L.R., Statistics in Theory and Practics.

Paper V

Agricultural Economics

Nature and Scope of Agricultural economics; Difference between agricultural economics and industrial economics; Problems of agriculture in developing countries.

Role of agriculture in economic development; Economic growth with traditional agriculture; Economic theories of agriculture development.

Economics of Farm size; Returns to scale in agriculture; Agriculture production functions; Agriculture productivity in developing Countries.

Economics of land reforms; Land reforms and economic development; Co-operative and Collective Farming; Technological reforms; Green Revolution, Farm Mechanisation, Irrigation System in India.

Problems of Unemployment and under employment in agriculture; Saving and capital formation in agriculture.

Agricultural Marketing, Cost-Price structure in agriculture; Pricing of agriculture products; Price stabilization measures; Agricultural price policy in India; Agricultural finance.

Indian Agriculture: Land Utilization; Cropping Pattern and Crop Insurance.

Agricultural growth in India: Food policy; Agri Trade, State Trading in foodgrains; New agricultural strategy.

Books Recommended:

The Indian Society of agricultural Economics. Readings in Agriculture Economics. Comparative Experience of Agricultural development in Developing Countries.

Khusro, A.M., Reading in Agricultural Development

Eicher and Witt, Agricultural and Economics Development

Sowth W. and Jhonston, Agricultural Development and Economics Growth

Mellor, J.W., The Economics of Agricultural Development

Scultz, T.W., Economics Growth and Agricultural.

Heady, E.O., Economics of Agricultural Production and Resuorces Use.

Shukla, Tara, Economics and Under-development Agriculture.

Shukla, Tara, Capital Formation in Agriculture.

Shepherd, G.S., Agricultural Price Analysis

Singh, Baljit, Whether Agriculture in India

Sen, S.R., The Straegy for Agricultural Development

Jain, S.C., Agriculture Policy in India

Dwivedi, R.C., New Strategy of Agricultral Development in India

N.C.A.E.R., A Strategy for Agriculture Planning.

Planning Commission, Five Year Plans

Planning Commission, Reports of the Committee of the Panel on Land

ReformsU.N.O., Land Reforms Reports.

Paper VI

Industrial Economics

Meaning and Scope of Industrial Economics; Basic concepts of Industrial Economics -- Firm, Industry, Market, Market Structure, Market Power, Market Conduct, Market Performance, Standard forms of Market Structure; Goals of a firm.

Industrial Efficiency: Concept and Measurement, Measurement of Capacity Utilisation, Efficiency and Size of firm, Determinants of Size of firm, Size of firm and Performance of firm.

Industrial Concentration: Concept, Measurement of Market Concentration and Monopoly Power, Extent of Market Concentration, Concentration and Market Performance of a firm.

Growth of Firm: Size and Growth of a firm, Growth and Profitability of a firm, Constraints on growth of a firm, Productivity.

Expansion of Firm: Diversification, Vertical Integration, Merger and Acquisition.

Market Structure and Innovation: Process of Innovation, Measurement of Innovation Activities, Research and Development, Diffusion of Technology.

Industrial Location Analysis: Determinants of Industrial Location, Theories of Industrial Location -- Weber and Sargent Florence.

Investment Appraisal: Cost-Benefit Analysis -- Net Present Value Method, Internal Rate of Return Method; Social Cost-Benefit Analysis (LM Approach and World Bank Approach).

Indian Industries: Classification of industries, Recent trend in industrial growth in India, MNCs and industrial organisation, Industrial concentration, Regional industrial growth, Industrial policy.

Industrial Finance: Internal Sources, External Sources, Financial Institutions and Capital Market.

Industrial Labour: Industrial labour and industrial relation in India, Labour reforms, Exit policy and social security.

Books Recommended :

Barthwal, R.R., Industrial Economics, Wiley Eastern Ltd., New Delhi

Divine, P.J. and R.M. Jones et. al., An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.

Hay, D. and D.J. Morris, Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.

Bains, J.S., Industrial Organisation, Cheltenham, U.K.

Smith, D.M., Industrial Location : An Economic and Geographic Analysis, John Wiley, New York.

Cherunilam, F., Industrial Economics : Indian Perspective, Himalaya Publishing House, Mumbai.

Robinson, E.A.G., Structure of Competitive Industry (English and Hindi Edition)

Dass and Sivayya, India's Industrial Economy

Dutta, B., The Economics of Industrialization.

Mehta, M.M., Structure of Indian Industries

Rosen, George, Industrial Change in India

U.N.O., Processes and Problems of Industrialisation in Underdeveloped countries.

N.C.A.E.R., The Managing Agency System

N.C.A.E.R., Utilisation of Capacities in Indian Industry

Nurkse, Ranger, Problems of Capital formation in Underdeveloped Countries

Govt. of India, Five Year Plans

Rosen, George, Some Aspects of Industrial Finance in India.

Paper VII **Indian Finance**

Evolution of India's Financial System; Centralized System of Finance (1833-71); Mayor's Reform (1870); Reforms Act. 1919 (Mongtagu-Chelmsford Reforms); Meston Settlement and its working.

Government of India Act, 1935; Niemeyer Award; Desmukh Award.

Theory of Federal Finance; Fiscal Federalism -- Principles and Problems, Union-State.

Financial Relations in India; Finance Commissions -- A Detailed study of the latest report of the Finance Commission.

India's Fiscal Policy: Long-term fiscal policy; Demand Management; Resource Mobilisation for Financing of Five Year Plans; Domestic and Foreign Finance; Fiscal sector and Fiscal Sector Reforms in India.

Trends in Plan and Non-Plan Expenditure; Control of Public Expenditure.

India's Tax Structure; Tax Policy -- Objectives and Instruments; Taxation of Income; A survey of Tax Reforms in India.

Expenditure, wealth and commodities; Corporate Taxation; State Taxes and Expenditure.

Agriculture taxation; Taxation of production and sale; Value Added Tax;. Public Debt in India.

Local Finance: Urban and Rural -- A detailed Study of Central, State and Local Finance.

Structure and Classification of Budgets -- Functional and Economic; Performance budgeting; Zero base budget; National Income Accounting.

Books Recommended:

Kaldor, N., Indian Tax Reform

James Cutt, Taxation of Economic Development of India

Bhargava, R.N., A Manual of Economic and Functional Classification of Government Transaction

U.N., A Manual for Programme and Performance Budgeting

N.C.A.E.R., Economic Functional Classification of Central and State Government Budget 1957-58

Govt. of India, Annual Budgets

Paper VIII

History of Economic Thought

Mercantilism, Physiocracy, Classical Political Economy (Smith, Ricardo, Malthus, Say, Senior and Mill).

The Socialist Tradition (the Utopians, Sismondi, St. Simon and Karl Marx).
List : The Historical School and Institutionalists.

Marginalism (Von Thunen, Jevons, Menger, Wiesner, Bohm Bawerk, Gossen and J.B. Clark).

Neo-classicism (Marshall): General equilibrium, Walras and Pareto.

Books Recommended:

Gide, C and C. Rist, A History of Economic Doctrines

Haney, L.H., History of Economic Thought

Roll, Eric, History of Economic Thought (Eng. & Hindi)

Schumpeter, J.A., Ten Great Economists

Schumpeter, J.A., History of Economic Analysis

Gray, Alexander, Development of Economic Doctrines

Backhouse, R., A History of Modern Economic Analysis

Ekelund, R.B. and R. Herbert, A History of Modern Economic Theory and Method

Heilbroner, R.L., The Worldly Philosophers

Oser, J., The Evolution of Economic Thought

Renia, I., Development of Economic Analysis

Heimann, E., History of Economic Doctrines

Rogin, L., The Meaning and Validity of Economic Theory

Barlier, W.J., A History of Economic Thought

Blaug, Mark, Economic Theory in Retrospect

M.A. FINAL (Syllabi)

Paper I Monetary Economics

Nature and scope of Monetary Economics; Concept and significance of money and liquidity.

Theory of Money Supply and its determinants -- Financial intermediation; A mechanistic model of bank deposit determination; A behavioural model of money supply determination; A demand determined money supply process; The Reserve Bank of India approach to money supply; High-powered money and money multiplier; Budget deficit and money supply; Money supply and open economy .

Demand for Money: Classical approach to demand for money; Quantity theory approach; Fisher's equation; Cambridge quantity theory; Wicksell's approach; Keynes liquidity preference approach -- transaction , precautionary and speculative demand for money, aggregate demand for money; Derivation of L-M Curve; Extension of IS-LM model with government sector; Relative effectiveness of monetary and fiscal policies; Post Keynesian approach to demand for money-- Patinkin and the Real Balance Effect; Approaches of Baumol and Tobin; Friedman and modern quantity theory; Crises in Keynesian Economics and the revival of Monetarism.

Theories of Inflation: Classical, Keynesian and Monetarist approach to inflation; Structural theory of inflation; Philips curve analysis; Samuelson and Solow- the natural rate of unemployment hypothesis; Tobin's modified Philips curve; Adaptive expectations and rational expectations; Stagflation; Policies to control inflation.

Monetary Institutions and Monetary Policy: Financial intermediaries; Commercial banks and their operations; Non-banking financial intermediaries and their operations; Central bank and its operations; Features of a developed money and capital market; Objectives and tools of monetary policy in India; Review of monetary policy of the Reserve Bank of India; Monetary policy and economic stabilisation; Monetary policy and economic growth; Financial Sector Reforms.

International Monetary Economics: Theories of exchange rate determination; Balance of payments; International currency experience.

Books Recommended :

Keynes, J.M., Treatise on Money. Vols. I & II

Keynes, J.M., The General Theory of Employment Interest and Money.

Halm, G.N., Monetary Theory

Kurihara, K., Monetary Theory and Public Policy

De Codr, M.N., Central Banking

Basu, S.K., A Review of Current Banking Theory and Practice.

Gupta, G.P., Monetary Theory

Sethi, J.D., Problems of Monetary Policy in an Underdeveloped country

Hansen, B., A Study in the Theory of Inflation

Hansen, A.H., Monetary Theory and Fiscal Policy

Dillard, D.H., The Economics of J.M. Keynes

Gupta, S.B., Monetary Economics

Hansen, A.H., Guide of Keynes

Paper II

International Economics

Pure Theory: Classical Theories (Ricardo and Mill); Neo-classical theories (Marshall and Haberler) and the General Equilibrium Theory (Ohlin); Trade under imperfectly competitive market; Foreign trade multiplier; Technical progress and foreign trade; Factor reversals; Leontief's Paradox.

The Foreign Exchange Rate: Balance of Payments and Purchasing power parity theory; Fixed and freely fluctuating rates of exchange; Terms of trade and gains from trade.

Commercial Policy: Free trade and protection; Bilateral and multilateral agreement; Most-favoured-nation clause; The theory of Custom Unions; Tariff; Dumping; Exchange Control.

Balance of payments: Conditions for equilibrium; Types of disequilibrium and methods of adjustment.

The rise and fall of Bretton-Wood and emerging International Monetary Systems.

Foreign trade of India: Recent history and present position; Commodity composition; Value and direction of trade; Export promotion and import substitution in recent years.

International reserves and problems of liquidity; Euro-currency market and International Debt Crisis; Exchange Management; Trade Policy and Reforms in India.

Books Recommended:

Ellsworth, P.T., International Economy
Marsh, D.B., World Trade and Investment
Haberler, G.Von, International Trade
Kindleberger, C.P., International Economics
Sodersten, B., International Economics
Ellis, I. S. and Metzler (ed.), Readings in the Theory of International Economics
Caves, R.E. and H.G. Johnson, Readings in International Economics
Vaish, M.C. and Sudama. Singh, International Economics
Mithani, D.M., International Economics
Singhani, G.C., International Economics
Agrawal, H.S. and C.S. Barla, International Economics
Reserve Bank of India, Reports on Currency and Finance
Journal of Industry and Trade

Paper III

Environment Economics

Environment and Development: Definition, Environment and Development trade off; The concept of sustainable development; Environment and human health; Concept of human capital and its economic and social benefits; Global environment externalities and climate change; Trade and Environment in WTO regime.

Importance of environmental sustainability: Views from Brundtland Commission; UNCED and Cairo Summit; Sustainable Development and its various interpretations - Accelerating development and protecting environment; Dilemma before the LDCs - Poverty, population, environment relation in LDCs; Role of State in environmental preservation, Environmental legislation; Indicators of sustainable development; Environmental Accounting.

Pareto Optimality and Competitive Equilibrium; Fundamental theorem of welfare economics; Externalities and market inefficiency; Property rights and externalities; Environment as a public good, Environment as a necessity.

Causes and effects of environmental and ecosystem degeneration; Degradation of land, forest, and natural resources; Pollution from energy use -- effect on health, water, land and air.

Economics of pollution control.

Management of Environment: Quality management; Social awareness; Mechanism of environmental regulation in India - Environmental laws and their implementation.

Environment protection and Tourism.

Books Recommended:

Ehrlich, P., A. Ehrlich and J. Hilden, Economics, Population, Resources, Environment, W.H. Freeman, San Francisco.

Hemple, Lamont C., Environmental Economics: The Global Challenge, First East West Press, Edinburgh.

Lopez, R.E., Where Development Can Go Or Can Not Go, The Role of Poverty-Environment Linkages, Annual World Bank Conference on Development Economics, World Bank, Washington D.C.

Maler, K.G., Environment, Poverty in Economic Growth, Annual World Bank Conference on Development Economics, World Bank, Washington D.C.

Mehrotra, S. and J. Richard, Development With a Human Face, Oxford University Press, New Delhi.

M.A. (Final)
Optional Paper

Paper IV

Population Problems

Population Theories: Malthusian Theory; Optimum Theory; Biological Theory; Transition Theory; Migration -- National and International.

Different Demographic Measurements: Mortality Analysis; Death rate; Age-specific birth rate; death rate; Life-table; Fertility; Birth rate; Age specific birth rate; Gross reproduction rate; Net reproduction rate; Child-women ratio; Growth rate of population.

Sources and evaluation of population data in India: Basis principles of measurement of population growth; Census and registration of data and their limitations; Population projection; Marriage; Family household states; Basic concepts.

India's Population: Past growth and future trends of total population; Trends of birth and death rate; Age and sex composition of population; Occupational and regional distribution; Population Policy for India; Manpower Planning.

A Brief study of broad demographic trends in a few selected industrially advanced and under-developed countries like the U.S.A, U.K, Japan and Ceylon; Implication of population change for capital formation, investment and employment.

Books recommended :

Thompson, S.W. and T. David, Population Problems (Fifth ed.)

Smith, Kenneth, The Malthusian Controversy

Malthus, T.R., An Essay on Population

Cox, P.R., Demography

Bose, Ashish, Pattern of Population Change in India

Joseph. J. Spengler and Dudley Ducan, Population theory and Policy

Cox P.R., Andendum to Demography

Barclay, George, Techniques of Population Analysis

Coal, A.J. and E.M. Hoover, Population Growth and Economic Development in Low Income Countries

Agrawal, S.N., Some Problems of India's Population

Davis, Kingsley, Population of India and Pakistan

U.N.O. , Determinants and Consequences of Population Trends

Coontz, S.I.I., Population Theories and Their Economic Interpretations

World Bank, World Development Report.

Paper V

Economics of Growth

General nature of the problem of economic growth; Growth equilibrium -- Existence, uniqueness and stability (local and global).

Classical growth model : Constant returns; Stationary state growth with technical progress.

Post Keynesian growth models : Harrod and Domar; Problem of Inherent instability (knife-edge problem)

Neo-Keynesian growth models : Kaldor; Pasinetti; Joan Robinson.

Neo Classical models : Solow; Swan; Phelps.

Aggregation and growth : Samuelson's parable; Surrogate production function; Reswitching of techniques.

Models with technical progress : Neutral technical change and stability of growth equilibrium; Phelps new view of Investment; Kaldor's technical progress function; Invention possibility frontier (Kennedy and Weizsacke); Arrow's learning by doing.

Money and growth: Tobin; Johnson.

Two sector growth Models : Uzawa.

Elementary treatment of optimal growth models : General formulation and its solution, Keynes-Ramsey-Rule.

Books Recommended:

Sen, A.K., Growth Economics

H. Wan, Jr., Economic Growth

Finetein, Socialism Capitalism and Economic Development

Jones, An Introduction to Modern theories of Economic Growth

Hahn, F II., Readings in the theory of growth.

Hicks, J.R., Capital and Growth

Solow, R.M., Growth Theory -- An Exposition

Hamberg, D., Models of Economic Growth

Nell, E.J.(ed.), Growth-Profits and Productivity

Paper- VII

Econometrics

Linear Regression Models: The Method of Ordinary least squares; Best Linear unbiased Estimator; The problem of Misspecification and Multicollinearity.

Generalized least Squares: Aitkcon's Procedure; Hetroscedostic Disturbance; Mixed Estimation; Grouping of observations and equations.

Special Topics in Regression Analysis: Autocorrelation; Distributed Lags; Instrumental variables; Errors in variables; Dummy variables; Random Coefficient; Ridge Regression.

Simultaneous Equation Method of Estimation : Indentification Problem (with Restrictions on variances and covariances); Indirect Least Squares; Two-stage and Three-stage least square methods; K-class estimators; Full information and limited information methods of Estimation.

Pooling of the corss-section and time series Data; Specification and estimation of demand function and production function.

Books Recommended:

Johnston, J., Econometrics Methods

Maddala, G.S., Econometrics

Dhrymes, P.J., Econometrics

Klein, L.R., Text Book of Econometrics

Theil, H., Principles of Econometrics

Kmenta, J., Elements of Econometrics

I. C. S. S. R., A Survey of Research in Economic-Econometrics (Vol. VII).

Imtriligator, M.D., Econometric Models -- Techniques and Applications

Malinvaud, E., Statistical Methods in Econometrics.

Paper VIII

Research Methodology

Meaning and Significance of Social Research; Difficulties in Social Research; Difference between social research and research in physical sciences; Problems of social research

Formulation of Problem; Design of Research; Hypotheses; Theories and methods in social sciences; Application of social research methodology to economic research; Some special problems of economic research; Economic research in Under-developed countries. Application of Statistical methods to economic research.

Problem of Measurement; Collection of Data; Analysis of data; Observation; The Questionnaire; Interview Methods; Tests of reliability; Testing of hypothesis; Tests of significance.

Sample Survey : Meaning; Types and Significance.

Formulating a research Project; Characteristics of a good research design; Selection of the Sample; Procedure of sampling; The Case Study Method; The Research Report; National Sample Survey in India.

Book Recommended :-

Lundberg, G.A., Social Research; N.Y.

Kuafmann, F., The Methodology of Social Sciences; N.Y.

Weber, Max, Methodology of Social Sciences; Glencoe; N.Y.

Ackoff, R.L., The Design of Social Research; Chicago.

Young, P.V., Scientific Social Surveys and Research; N.Y.

Parten, M.B., Surveys, Polls and Sample; Harper N.Y.

Doby, J.T. (ed.), An Introduction to Social Research, Stock Pole.

Hyman, H. H. and Assol, Interviewing in Social Associ. Research; Chicago.

Bowley, A.L., Elements of Statistics, London.

Cochran, W.G., Sampling Techniques, Wiley.

Dixon, W., An Introduction to Statistical Analysis, McGraw-Hill.

Johnson, P.O., Statistical Methods in Research; Prentice-Hall, N.Y.

Good, C.V., On Effective Report Writing, Phi Delta Kappan.

Cochrane, R., Advances in Social Research, Constable.

Goode and Halt, Methods in Social Research, Mc Graw-Hill

Gopal, M.H., An Introduction to Research in Social Sciences

Fisher, R.A., The Design of Experiments

Cohen Morris, R., An Introduction to Logic and Scientific Method

Merton, Rober, K., Social Theory and Social Structure

Chapan, F. Stuart, Experimental Designs in Sociological Research

Galtung, Johan, Theory and Methods of Social Research, London.

Mill, John Stuart, A System of Logic