

Gondwana University, Gadchiroli

Syllabus for M.A. (Economics) Course
under
Credit Based Semester System

Session : 2012-13 onwards

Scheme of Examination for M.A.
(Economics)

SYLLABUS PRESCRIBED FOR M.A. PART – I AND PART II EXAMINATION ECONOMICS

M.A. PART I - FIRST SEMESTER

Compulsory papers

EC - 01 Micro Economic Analysis I

EC - 02 Macro Economic Analysis I

Optional Paper I: any one from group A

OP - 01 : Statistics for Economics – I

OP - 02 : Agricultural Economics - I

OP - 03 : Regional Economics

OP - 04 : Economics of Education and Health

Optional Paper II: Any one from group B

OP - 05 : Econometrics - I

OP - 06 : Public Economics - I

OP - 07 : Economics of Infrastructure

OP - 08 : History of Economic Thought

M.A. PART I - SECOND SEMESTER

Compulsory papers

EC - 03 Micro Economic Analysis II

EC - 04 Macro Economic Analysis II

Optional Paper III : Any one from group C

OP - 09 : Environmental Economics

OP - 10 : Poverty and Income Distribution

OP - 11 : Industrial Economics

OP - 12 : Rural Economy and Social Change

Optional Paper IV: Any one from group D

OP - 13 : Econometrics - II

OP - 14 : Agricultural Economics - I

OP - 15 : Statistics for Economics – II

OP - 16 : Welfare Economics

**SYLLABUS PRESCRIBED FOR
M.A. PART – I EXAMINATION
ECONOMICS**

**M.A. Part – I Semester - I
Compulsory Paper**

EC – 01 : Micro Economic Analysis - 1

Module 1 : Introduction and Basic Concepts.

- 1.1 Meaning, Importance, concept and limitations of Micro Economics, Basic Economic Problem- Choice and Scarcity.
- 1.2 Methodology of Economics : Deductive and Inductive and Static and Dynamic Equilibrium
- 1.3 Concept of Equilibrium : General Equilibrium v/s Partial Equilibrium,

Module 2 : Demand Analysis - I

- 2.1. Concepts of cardinal and ordinal utility.
- 2.2 Applicability of Indifference Curve Analysis
- 2.3 Revealed Preference Theory.

Module 3 : Demand Analysis - II

- 3.1 Concept of Elasticity – Price, Income and Cross – Elasticity, Measurements, empirical estimations.
- 3.2 Hicks revision of demand theory, the concept of consumers surplus

Module 4 : Theory of Production and Costs

- 3.1 Production Function :- Law of Variable Proportions and Returns to Scale.
- 3.2 Isoquants:- Properties , Producer's equilibrium
- 3.3 Economies of Scale: - Internal Economies and Diseconomies, External Economies and Diseconomies.
- 3.4 Technical Progress & production function
- 3.5 Cobb- Douglas (C-D) Production Function
- 3.6 Short Run and Long Run Cost Curve.

Books Recommended :

- 1 Ahuja H. L., Advanced Economic Theory : Microeconomics Analysis, 13th Edition, S. Chand and Co. Ltd., New Delhi.
- 2 Bain J. (1958) Barriers to New Competition, Harrard University Press, Harvard.
- 3 Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- 4 Baumol, W.J. (1982), Economics Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- 5 Chaturvedi, Gupta and Pal (2002) Business Economics: Text and Cases Galgotia Publishing Company, New Delhi.
- 6 Dewett K. K., Modern Economic Theory, S. Chand & Company Ltd., Revised Edition, 2005.
- 7 Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
- 8 Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
- 9 Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
- 10 Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
- 11 Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
- 12 Varian, H. (2000): Microeconomic Analysis, W.W. Norton, New York.

M.A. Part – I : Semester - I Compulsory Paper

EC – 02 : Macro Economic Analysis-I

Module 1 : National Income and macro economic analysis

- 1.1 Definitions, different concepts, importance and difficulties in measurement of National Income.
- 1.2 Methods of measurement of national income –circular flow of income in two –three and four sector economy;
- 1.3 Different forms of national income accounting: Social accounting, flow of funds accounting and balance of payments accounting.
- 1.4 Meaning, concept, importance and limitation of Macro Economics

Module 2 : Supply of Money

- 2.1 Composition of money supply and determinants of money supply
- 2.2 RBI Approach to Money Supply - M1, M2, M3 and L1, L2, L3
- 2.3 High Powered Money and Money Multiplier; Budget Deficits and Money Supply
- 2.4 RBI's money measures

Module 3: Demand for Money

- 3.1 Classical Approach to Demand For Money – Fisher and Cambridge
- 3.2 Keynesian approach - Liquidity Preference Theory : Transaction, Precautionary and Speculative Demand for Money;
- 3.3 Milton Friedman's Approach – Wealth theory.
- 3.4 Portfolio balance Approach – Baumol and Tobin.

Module 4 : Consumption Function

- 4.1 Keynes, psychological law of consumption – implication of the law ; short-run and long-run consumption function ;
- 4.2 Determinants of consumption function
- 4.3 Income – consumption relationship – absolute income, relative income, life cycle and permanent income hypotheses.

Books Recommended :

- 1 Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols), Oxford University Press, London.
- 2 D'Souza, Errol (2008), Macroeconomics, Pearson Education, Delhi.
- 3 Gupta R.D.and Rana A.S. (1998): Post-Keynesian Economics, Kalyani Publishers, Ludhiana.
- 4 Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern macroeconomics, Oxford University Press, New Delhi.
- 5 Jha, R (1991) : Contemporary Macro Economic theory and Policy, Wiley Eastern Ltd.,
- 6 Jhingan, M.L.(1999) : Macro Economics
- 7 Keynes, J.M (1936) : General Theory of Employment, Interest and Money
- 8 Mithani D. M., Money, Banking, International trade and public finance, Himalaya Publications

- 9 Rakshit, M. (1998), Studies in the Macroeconomics of Developing Countries, Oxford University Press, New Delhi.
- 10 Reddy.Y.V. (2000): A Review of Monetary and Financial Sector Reforms in India, UBSPD, New Delhi.

M.A. Part – I : Semester - I

Optional Paper – Group : A

OP – 01 : Statistics for Economics - I

Module 1 : Sampling and sampling methods

- 1.1 Sample and Population, Parameters and Statistics.
- 1.2 Variables and Attributes; sampling and non-sampling errors;
- 1.3 Concept of sampling - random and non-random sampling; Simple random; Stratified random, systematic sampling, cluster sampling and non-random sampling methods.
- 1.4 Indian Statistics : CSO, NSSO, Recent Population Census, Agricultural and Industrial Statistics

Module 2 : Statistical Methods - I

- 2.1 Measures of Central Tendency : Meaning, Importance and Uses, Requirement of Good Measures,
- 2.2 Types of Measures of Central Tendency : Arithmetic Mean, Median, Mode, Harmonic Mean and Geometric Mean

Module 3 : Statistical Methods - II

- 3.1 Measure of Dispersion : Meaning, Importance and Uses, Requirement of a good Measures of Dispersion and Skewness
- 3.2 Correlation analysis : Types, Methods of Studying Correlation, Karl Pearson's Coefficient of Correlation, Calculation of Correlation for Grouped and Ungrouped Data, Interpretation of the Correlation Co-Efficient, Properties of Correlation Co-Efficient, Spearman's Rank Correlation and Interpretation
- 3.3 Regression : Concept & Linear Regression, Fitting of Lines of Regression by the Least Squares Method

Module 4 : Theory of Probability

4.1 Probability, distribution, Events spaces.

4.2 Joint, Marginal and Conditional Probability under conditions of certainty and uncertainty. 3.3 Random variable: Expectation and Distribution.

4.4 Addition and Multiplication Theorems.

4.5 Probability Distribution, discrete and continuous and Expected values.

Books Recommended :

- 1 Goon AM, M.K.Gupta and B.Dasgupta.: Fundamentals of Statistics, Vol.1, The World Press, Ltd, Calcutta.
- 2 Gupta S.C And Mrs. Indira Gupta: Business Statistics: Himalaya Publishing House; Delhi
- 3 Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons New Delhi.
- 4 Gupta, S.P., Introduction to Statistical Methods., S.Chand & Sons New Delhi.
- 5 King, W.I.: The Elements Of Statistical Methods; The Macmillan Co. New York.
- 6 Monga, G.S. (1972), Mathematics and statistics for Economics, Vikas Publishing House, New Delhi.
- 7 Murray R Spigel and Larry J. Stephens : Statistics, McGraw Hill International, Ed.
- 8 Nagar,A.L.and R.K.Das: Basic Statistics Oxford University Press, New Delhi.
- 9 Speigal, M.R., Theory and Problems of Statistics, McGraw hill Book Co.,London.
- 10 Veerachamy R.: Quantitative Methods for Economists, New Age International. Ed.

M.A. Part – I : Semester - I

Optional Paper – Group : A

OP – 02 : Agricultural Economics - I

Module 1: Agricultural and Economic Development:

- 1.1 Nature and scope of agricultural economics, Traditional Agriculture and its modernization,
- 1.2 Role of agriculture in economic development, Interdependence between agriculture and industry
- 1.3 Agricultural development : poverty and environment.
- 1.4 Recent Trends in agricultural development in India.

Module 2 : Rural Economic Activities and rural infrastructure :

- 2.1 Livestock resources and productivity, White revaluation, Fishery and poultry development
- 2.2 Issues and problems of rural industrialisation
- 2.3 Development of agro based industries
- 2.4 Rural transport, communication, banking and problems of rural electrification
- 2.5 Rural social infrastructure : Education and health.

Module 3 : Agriculture production and productivity:

- 3.1 Agriculture production : Resource use and efficiency
- 3.2 Production function analysis in agriculture, factor combination and resource substitution
- 3.3 Technical change, labour absorption and gender issues in agriculture services
- 3.4 Farm Budgeting and cost concepts

Module 4 : Land Reforms and land Policy

- 4.1 Land distribution : structure and trends
- 4.2 Land tenures and farming system : peasant, capitalist, collective and state farming
- 4.3 Land reform measures and performance
- 4.4 Problems of marginal and small farmers.

Books Recommended :

- 1 Acharya S.S. and Agarwal N.L. (1994), Agricultural Prices-Analysis and Policy, Oxford and IBH Publishing Co., Pvt.Ltd., New Delhi.
- 2 Agrawal A.N. & Kundan K.L. Agricultural Problems of India, Vikas Pub. House, New Delhi
- 3 B.N.P. Singh. : Indian Economy Today Changing Contours. Deep and Deep Pub.
- 4 Belshaw, H, Agricultural Credit in Economically under Developed Countries, FAO, Rome.
- 5 Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, MacMillan, Delhi.
- 6 Bhalla, G.S. (1994). Economic Liberalisation and Indian Agriculture, Institute for Studies in Industrial Development, New Delhi.
- 7 Bhupat M. Desai, N.V.Namboodiri (2001), "Organisation and Management of Rural Financial Sector" Text, cases and Exercise, Oxford and IBH Publishing Pvt. Ltd., New Delhi, Calcutta.
- 8 Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
- 9 Chada, G.K. and A.N. Sharma (1997). Growth, Employment and Poverty: Change and Continuity in Rural India, Vikas Publishing House, New Delhi.
- 10 Dantwala, M.L. (1996). Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
- 11 Dantwala, M.L., et.al. (1991), Indian Agricultural Development Since Independence, Oxford & IBH,, New Delhi.
- 12 Dewett Kewal : Indain Economy C.Chand & Co. Ltd. New Delhi.
- 13 E.O. Heady (1964), Economics of Agricultural Production and Resource Use, Prentice Hall of India Pvt.Ltd., New Delhi.
- 14 Government of India (1976), Report of the National Commission on Agriculture, New Delhi,
- 15 Government of India (1976). Report of the National Commission on Agriculture, New Delhi.
- 16 Government of India, Economic Survey (Annual), New Delhi.
- 17 Gulab Nath Singh, Dal Singer Singh and Ram Iqbal Singh (1987), Agricultural Marketing in India (Analysis, Planning and Development), chugh publications, Allahabad.
- 18 Gulati and Kelly (1999). Trade Liberalisation and Indian Agriculture, Oxford Univ. Press, New Delhi.
- 19 Gulati, A. and Kelly, J. (1999), Trade Liberalization and Indian Agriculture, Oxford University Press, New Delhi.

- 20 Hanumantha Rao, C.H. (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 21 Jodhar, N. (Eds.) (1996). Challenges to Indian Bankings, Macmillan, New Delhi.
- 22 Joshi, P.C. (1975), Land Reforms in India Trends and Prospects, Allied Publishers, Bombay.
- 23 Kahlan A.S., Tyagi D.S.(1983) , "Agricultural Price Policy in India, Allied Publishers, Bombay.
- 24 Kapila Uma (ed) Indian Economy Since Independence. Academic Foundation
- 25 Kathuriamand, G.and Chandrasekhar, K. Elements of Agricultural Finance.
- 26 Kaur, R.(1975), Agricultural Price Policy in Economic Development with stability, National Publishing House, Delhi.
- 27 M.V.Nadkarni (1973) : Agricultural Price Policy in Economic Development Kalyan Publishers, new Delhi.
- 28 Mamoria C.B. Agricultural Problems of India Kitab Mahal Pub. 2005.
- 29 Mitra, A. (1977), Terms of Trade and Class Relations, Frank Cass Co.Ltd., London.
- 30 Rao, C.H. Hanumantha (1975). Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 31 Rudra A. (1982), Indian Agricultural Economics, Myths and Reality, Allied Publishers, New Delhi.
- 32 Rudra, A. (1982). Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
- 33 Saint, G.R. (1979), Farm Size, Resources Use Efficiency and Income Distribution, Allied Publishers, New Delhi.
- 34 Singh Acharya, Sagar - Sustainable Agricultural Poverty and Food Securities, Rawat Publication Jaypur Vol- I & II
- 35 Subba Rao, K, and Ajain DeJanuary (1986), Agricultural Price Policy and Income Distribution in India, Oxford University Press, New Delhi.
- 36 Subbarao, K. and De Janvry (1986). Agricultural Price Policy and Income Distribution in India, Hansra, B. S. and Vijayaragavan, K (2003): Agribusiness and Extension Management,

M.A. Part – I : Semester - I
Optional Paper – Group : A
OP – 03 : Regional Economics

Module – 1: Scope and Definition of regional Economic:

- 1.1 Concept of Regional Planning -Different types of regions - complementary region
- 1.2 Causes for Regional Imbalances- Measures to reduce regional Imbalances- Regional Development and regional planning- Sectoral and Functional approaches -Macro and Micro level planning of regional economics.
- 1.3 Importance of Regional analysis in developed and backward economics
- 1.4 Regional Economic Problems- Perspectives on Economic Growth and Development

Module – 2: Regional Income and Social Accounting:

- 2.1 Concept of Region-definitinal problems-Physical or geographical, demographic, planning regions, nodal regions analysis for identification of a region.
- 2.2 Regional approach to the problems of a backward economy.
- 2.3 Models and Problems of Regional Economic Growth.

Module – 3: Identification of Backward regions:

- 3.1 Determinants of Regional Development:
- 3.2 Natural Endowments Human Resources-Capital-Technology-Economic and Social infrastructure;
- 3.3 Factor and commodity mobility and Regional development; Convergence Theory.

Module – 4: National and regional Planning goals and objectives:

- 4.1 Historical perspectives of Indian development: Regional Development Models:
- 4.2 Metropolitan Model-Bombay, Delhi. Calcutta. Command Area Development-Tribal Development-
- 4.3 Drought Prone Area-Mineral Based Regions, Components of regional planning, Magnitude of Regional imbalances-
- 4.4 Regional Planning Policy in India and Maharashtra and Vidarbha.

Books Recommended :

- 1 Chand, M. and U.K. Puri : Regional Planning in India, Allied Publishers, New Delhi.
- 2 Dholakia, R.H : Regional Disparity in Economic Growth in India, Himalaya Publishing House, Bombay.
- 3 Glasson, J : An Introduction to Regional Planning, Concepts, Theory and Practice, Hutchison, London.
- 4 Hanumantha Rao, CH : Regional Disparities and Development in India, Ashish Publishing House, New Delhi.
- 5 Rao, H. Regional Disparities & Development in India, Ashish Publishing House, New Delhi
- 6 Richardson, H.W : Regional Economics, Weidenfield and Nicolson, London.
- 7 Siebert, H. Regional Economic Growth; Theory & Policy, International Textbook Company, Scranton

M.A. Part – I : Semester - I **Optional Paper – Group : A** **OP – 04 : Economics of Education and Health**

Module 1 : Economics of Education

- 1.1 Meaning of Economics of Education, Demand for Education—Private Demand and Social Demand; Determinants of Demand;
- 1.2 Costs of Education—Expenditure on Education; Private Costs and Social Costs;
- 1.3 Benefit of Education— Direct and Indirect Benefits; Private and Social Benefit;
- 1.4 Cost–Benefit Analysis, rate of return to investment in education

Module 2 : Education and Economic Development in India

- 2.1 Objectives of Educational Planning; A Review of Educational Development in India – Primary, Secondary, Vocational, Higher, Technical and Adult Education;
- 2.2 Educational Policy in India; Expenditure on Education and Improvement in Literacy in India; Educational Development and Employment in India.
- 2.3 Globalization and higher education, National Knowledge Commission Effects of educational financing on income distribution; Effects of education, Ability and family background on earnings, 2.4 Poverty and income distribution, Education and employment;

Module 3 : Demand for and Supply of Health

- 6.1 Nature of Demand for Supply of Health, Determinants of Demand,
- 6.2 Models of Demand for Health
- 6.3 Pricing of Health Care Services-Drugs, Hospitals;
- 6.4 Cost of Health Care Services; Market Failure;

Module 4 : Financing Health Care

- 4.1 Financing of health care and resource constraints, Health Status Indicators and measurement,
- 4.2 A review of per capita private and public expenditure on health services.
- 4.3 Economic Reforms and Health Sector. Need for a social health insurance for the poor, disabled and the aged.
- 4.4 The role of development financing institutions in financing health services.
- 4.5** Health insurance Policy in India.

Books Recommended :

- 1 Agarwal, Pawan, Higher Education in India: The need for Change.
- 2 Aggarwal and Aggarwal, Educational Planning in India, Vol. I, Delhi.
- 3 Altbach, Philip G. and Chitnis, S. (1993), Higher Education Reform in India: Experience and concepts
- 4 Banerjee D., Social Cultural and Foundations of Health Services Systems of India, Inquiry, Supplement to Vol. XII June.
- 5 Banerjee D., Poverty, Class and Health Culture in India Vol. I, Prachi Prakashan, New Delhi.
- 6 Baru, R.U., *Private Health Care in India; Social Characteristics and Trends*, Sage Publications, New Delhi.
- 7 Baumol, W.J. and W.E.Oates (1988), *The Theory of Environmental Policy*, (2nd Edition), Cambridge University Press, Cambridge.
- 8 Becker, G.S., *Human Capital* (2nd Edition), National bureau of Economic Research, New York.
- 9 Berman, P. and M.E Khan, *Paying for Indian's Health Care*, Sage Publications, New Delhi.

- 10 Berman, R.(Ed), Health Sector Reform in Developing Countries: Making Health Development Sustainable, Boston: Harvard Series on Population and International Health.
- 11 Blaug, M., Introduction to Economics of Education, Penguin, London.
- 12 Bromely, D.W. (Ed), Handbook of Environment Economics, Blackwell, London.
- 13 Cohn, E. and T.Gaske, Economics of Education, Pergamon Press, London.
- 14 Das Gupta M., Chen, L. C. and Krishna, T. N, Health, Poverty and Development in India, Oxford University Press, Delhi.
- 15 Feldstein M.S., Economic Analysis of Health Service Efficiency, North Holland, Amsterdam.
- 16 Fisher , A.C., Resource and Environmental Economics, Cambridge University Press, Cambridge
- 17 Gandhian Institute for Rural Health and Family Planning (1972), Studies on Mortality in India,
- 18 Hanley, N., J.F.Shogern and B. White, Environmental Economics in Theory and Practice, Macmillan.
- 19 ICRIER Working Paper. Indian Council for Research on International Economic Relations. No. 180.Working Paper No. 108.
- 20 Indian Council of Social Sciences Research and Indian Council of Medical Research (1981), Health for All -200 A.D., ICSSR, Delhi.
- 21 Jeroen, C.J.M: Vanden Bergh, Handbook of Environmental and Resource Economics, Edward Elgar publishing Ltd., U.K.
- 22 Kapur, Devesh and Mehta, Pratap Bhanu, Indian Higher Education Reform: From Half-Baked
- 23 Krishnakumar T. and Rao K.N., Financing of Health Services in India: Perspectives and Issues”, Department of Economics, University of Hyderabad,
- 24 Madan T.N. , Doctors and Society: Three Asian Case Studies, Vikas Publishing House, Delhi.
- 25 McMohan, W.W., Education and Development; Measuring the Social Benefits, Oxford University Press, Oxford.
- 26 Mehta, S., S.Mundle and U.Sankar, Controlling Pollution: Incentives and Regulation, SAGE Publications, New Delhi.
- 27 Murthy M.N.,A.James ; and S.Misra, The Economics of water Pollution in India, Oxford University Press, new Delhi.
- 28 Padmanabhan, C.B., Financial Management in Education, Select Books, New Delhi.

- 29 Panchamukhi, P.R., Economics of Health: A Trend Report in ICSSR, A Survey of Research in Economics, Vol.VI, Infrastructure, Allied, Delhi.
- 30 Rao, V.K.R.V, Education and Human Resources Development, Allied Publishers Bombay.
- 31 related to its Development and Finance. International Institute of and Perspectives. London: Sage Publications.
- 32 Sengupta R.P, Ecology and Economics: An approach to Sustainable Development, Oxford University Press, New Delhi.
- 33 Shri Prakash, Cost of Education: Theoretical Exploration and Empirical Prognostication,
- 34 Tilak, J, B.G., The Economics of Inequality in Education, Sage Publishers, New Delhi
- 35 Tilak, J.B.G., Education for Development in Asia, Sage Publications, New Delhi.
- 36 Vaizey, J., Economics of Education, Faber and Faber, London.
- 37 Woodhall, M., Cost Benefit Analysis in Educational Planning, UNESCO, Paris.
- 38 World Bank, The World Development Report, 1993 : Investing in Health, Oxford university Press, New York.
- 39 World Bank, The Financing Health Services of Developing Countries: An Agenda for Reform, World Bank Policy Study, Washington

M.A. Part – I : Semester - I

Optional Paper – Group : B

OP – 05 : Econometrics - I

Module 1 : Basic Econometrics

- 1.1: Nature, meaning and scope of econometrics; Simple and general linear regression model – Assumptions, Estimation (through OLS approach) and properties of estimators;
- 1.2 Gauss-Markov theorem; Concepts and derivation of R-square and adjusted R- square;
- 1.3 Concept and analysis of variance approach and its application in regression analysis;
- 1.4 Estimation of non-linear equations – parabolic, exponential, geometric, hyperbolic, modified exponential; Gomertz and logistic functions.

Module 2 : UNIT II : Problems in Regression Analysis

- 2.1 Multicollinearity: Nature, problem and remedies
- 2.2 Auto-correlation: Nature, problem and remedies
- 2.3 Heteroscedasticity: Nature, problem and remedies
- 2.4 Specification error: Nature, problem and remedies

Module 3 : Regressions with Qualitative Independent Variables

- 3.1 Dummy variable technique – Testing structural stability of regression models
- 3.2 Comparing two regressions, interaction effects, seasonal analysis, piecewise linear regression, use of dummy variables,

3.3 Regression with dummy dependent variables.

3.4 The LPM, Logit, Probit and Tobit models – Applications

Module 4 : Dynamic Econometric Models

4.1 Autoregressive and distributed lag models – Koyak model, Partial adjustment model, adaptive expectations;

4.2 Instrumental variables; Problem of auto-correlation – Application; Almon approach to distributed-lag models; Error correction models,

4.3 Causality test, Granger test and Sim's test.

4.4 Error correction mechanism and models

Books Recommended :

- 1 Gujarati D.N., Basic Econometrics, McGraw Hill, New Delhi.
- 2 Dongherty C (1992), Introduction to Econometrics, oxford University Press, New York.
- 3 Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed), The Macmillan Press Ltd., London.
- 4 Maddala, G.S. (Ed) (1993), Econometric Methods and Application (2 Vols), Aldershot, U.K.
- 5 Krishna K.L. (Ed) (1997), Econometric Applications in India, Oxford University Press, New Delhi.
- 6 Madani, G.M.K. (2000): Introduction to Econometrics: Principles and applications, Oxford University Publications.
- 7 Patricia E Gaynor and Rickey C Kirk Patrick (1994) : Introduction to Time Series and Forecasting in Business and Economics, Magraw Hill Publications.
- 8 Croxton F.E. Cowden D.J. and Klein S. Applied General Statistics- Prentice Hall New Delhi.
- 9 William H. Greene .(2008) Econometric Analysis. Pearson Education Publication New Delhi
- 10 Amemiya T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.
- 11 Goldberger, A. S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.

M.A. Part – I : Semester - I
Optional Paper – Group : B
OP – 06 : Public Economics

Module 1 : Introduction

- 1.1 The Role and function of the Government in an economy
- 1.2 Meaning , Objectives and interdependence of Monetary and Fiscal Policies.
- 1.3 Meaning, Types and Measurement of Taxable Capacity.
- 1.4 Provision of Private Goods, Public Goods, Social Goods, Merit Goods and Mixed Goods.

Module 2 : public Expenditure and Taxation

- 2.1 Structure and growth of public expenditure
- 2.2 Reforms in expenditure budgeting
- 2.3 Theory of incidence : alternative concepts of incidence
- 2.4 Theory of optimal taxation and problem of double taxation

Module 3 : Government Budget and Revenue

- 3.1 Budget – Meaning and Components.
- 3.2 Preparation, Presentation and Execution of Budget.
- 3.3 Trends in Revenues of Union , State and Local Bodies since 1991
- 3.4 Economic Reforms in Direct and Indirect Taxes

Module 4 : Fiscal Policy and Federal Finance

- 4.1 Indian Fiscal Policy since 1991.
- 4.2 Interdependence of fiscal and monetary policies
- 4.3 Transfer of Resources from Union to States.
- 4.4 Recommendations of latest Finance Commission.
- 4.5 Centre – States conflicts on Finances

Books Recommended :

- 1 Atkinson, A.B. and J.E. Siglitz (1980): Lectures on Public Economics, Tata McGraw Hill, New York.
- 2 Auerbach, A.J. and M. Feldstern (eds.) (1985): Handbook of Public Economics. Vol.1, North Holland, Amsterdam.
- 3 Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- 4 Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- 5 Bhargava, P.K. (1984): Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi
- 6 Bhargava, P.K. (1991), India's Fiscal Crisis. Ashish Publishing House, New Delhi.
- 7 Bhatia, H.L. (2000): Public Finance, Vikas Publishing House Pvt. Ltd. Delhi.
- 8 Chellai, Raja J.(eds.)(1997), Towards Sustainable Growth, Oxford University Press, New Delhi.
- 9 Datt, R. (Ed.)(2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
- 10 Gandhi, V.P. (1970): Some Aspects of India's Tax Structure, Vora and Company, Bombay.
- 11 Hemlata Rao (2006) Fiscal Federalism –Issues and Policies, New Century Publications, New Delhi.
- 12 Kirit S.Parikh (Ed.) (1999) India Development Report -1999-2000, Oxford University Press, New Delhi.
- 13 Mundle, S. (1999), Public Finance Policy: Issues for India, Oxford University Press, New Delhi.
- 14 Musgrave, R.A. and P.B. Musgrave (1976): Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo
- 15 Musgrave, R.A.and P.S. Musgrave (1976): Public Finance in Theory and Practice, McGraw Hill, Kogakhusa, Tokyo.
- 16 Sahni, B.S. (Ed.) (1972): Public Expenditure Analysis: Selected Readings, Rotherdam University Press.
- 17 Singh S.K. (1986) Public Finance in Developed and Developing Countries, S.Chand and Company Ltd, New Delhi.

M.A. Part – I : Semester - I
Optional Paper – Group : B
OP – 07 : Economics of Infrastructure

Module I: Basic Infrastructure and energy problem

- 1.1 Introduction- Infrastructure and Economic Development – Social and Physical Infrastructure-
- 1.2 Infrastructure as a Public goods and or social good Energy & Economic Development
- 1.3 Factors determining demand for energy –Effects of energy shortage costing and pricing energy
- 1.4 Energy conservation, renewable and non-conventional sources of energy. Public–private partnership in energy investment and energy development.

Module 2 : Development of Transport and Tourism in India

- 2.1 Development of transport system- economic Development- Models of freight and passenger demand.
- 2.2 Problems of individual models of transport. Principle of pricing- current policy- problems and measures.
- 2.3 Tourism and economic development - role of state in promoting tourism - tourism planning - infrastructural requirements for marketing tourism.

Module 3 : Communications, electricity and Gas

- 3.1 Rate making in telephone utilities; principles of decreasing costs in telephone industry 3.2 Characteristics of postal services- its importance – Restructuring of postal services
- 3.3 Bulk supply and pricing of electricity. The relative economics of Thermal, Hydel and Nuclear Power Plants.
- 3.4 The case for a nuclear power grid- the exploitation natural gas.

Module 4 : Education and Health

- 4.1 Education in India and development of human resources; elementary, secondary and higher education in India.
- 4.2 Problems of India’s education system, Reforms in education its impact on employment. Education policy in India.
- 4.3 Role of Health is improving the quality of human capital, Determinants of health- Health and Nutrition
- 4.4 Health crisis in India- The new health policy- National Rural Health Mission- Health Programmes under recent plans.

Books Recommended :

1. Baru R.V: Private Health Care in India - Social Characteristics and Trends (Sage, New Delhi, 1998)
2. Becker G.S: Human Capital (National Bureau of Economic Research, New York, 1974)
3. Berman P (Ed): Human Health Sector Reform in Developing Countries - Making Health Development Sustainable (Harvard Series on Population and International Health, Boston 1995)
4. Bhatia A.K: Tourism Development - Principles and Practices (Sterling, New Delhi 1996)
5. Jha R, Murthy M.N & Paul S: On fixing Prices for Postal Services in India (National Institute of Public Finance and Policy, New Delhi, 1990)
6. NCAER: India Infrastructure Report: Policy Implications for Growth and Development (NCAER, New Delhi, 1996)
7. Panchamukhi P.R: Economics of Health - A Trend Report in ICSSR, A Survey of Research in Economics, Vol.VI, Infrastructure (Allied, New Delhi, 1980)
8. Parikh K.S (Ed): India Development Report 1999-2000 (Oxford University Press, New Delhi, 2000)
9. Raghuram G & Rekha J: Infrastructure Development and Financing (Mac Millan, New Delhi, 1999)

M.A. Part – I : Semester - I
Optional Paper – Group : B
OP 08 : History of Economic Thought

Module 1 : Classical Economics: Adam Smith, Ricardo, Malthus, J.B. Say and J.S. Mill.

Module 2 : Sismondi, St. Simon, Robert Owen, Proudhon.

Module 3 : Marxism, Fabianism, Guild Socialism, Marshall, Keynes.

Module 4 : Kautilya, B.R. Ambedkar, M.K. Gandhi, Amartya Sen.

Books Recommended:

- 1 Ambedkar, B.R. : States and Minorities.
- 2 Bell, F. : History of Economic Thought.
- 3 Bhatnagar & others: A History of Economic Thought
- 4 Bhatta, H.L. : History of Economic Thought.
- 5 Datta, Bhabatosh : Indian Economic Thought (Twentieth Century Perspective)
- 6 Desai, S.S.M. : Development of Indian Economic Thought.
- 7 Ghosh, B.N. : Indian Economic Thought (Nineteenth Century Perspective)
- 8 Gide & Rist : History of Economic Thought.
- 9 Gray, Alexander: A History of Economic Thought:
- 10 Haney, L.H. : History of Economic Thought.
- 11 Kuber, W.N. : Dr. Ambedkar - A critical study.
- 12 Loknathan : History of Economic Thought.
- 13 Mithani, D.M. : History of Economic Thought
- 14 Paul, RR.: A History of Economic Thought.
- 15 Srivastava, S.K.: History of Economic Thought

**M.A. Part – I : Semester - II
Compulsory Paper**

EC – 03 : Micro Economic Analysis - II

Module 5 : Price and Output Determination –I

- 5.1. Theory of Perfect Competition : Short Run And Long Run Equilibrium of the Firm and Industry
- 5.2 Theory of Monopoly : Equilibrium of the Firm, Price Discrimination and Dumping, measurement Of Degree Of Monopoly Power
- 5.3 Regulation and Control of Monopoly.

Module 6 : Price and Output Determination-II

- 6.1 Concepts of monopolistic and Imperfect Competitions.
- 6.2 Price and non-price competition, Group Equilibrium, Product differentiation, Selling costs, Excess capacity.
- 6.3 Duopoly Models : Cournot & Bertrand, Edgeworth and Stackelberg
- 6.4 Oligopoly Models : Collusive oligopoly, Price Leadership and Price War, Model of Kinked demand curve
- 6.5 Bain's Limit Pricing Theory
- 6.6 Baumol's Sales Revenue Maximization Model.

Module 7 : Theory of Distribution

- 7.1 Marginal Productivity Theory. Product Exhaustion Thesis, Euler's theorem.
- 7.2 Modern Theory of Rent.
- 7.3 Wage determination and collective Bargaining.
- 7.4 Loanable funds Theory of interest, Liquidity Preference Theory of Interest.
- 7.5 Innovation theory of Profit : Risk and uncertainty, Theory of Profit.

Module 8 : Welfare Economics.

- 8.1 Pigou's Theory of Welfare Economics.
- 8.2 Pareto's optimality conditions.
- 8:3 Rawl's Theory of justice equity efficiency trade off
- 8:4 Arrow's Impossibility theorem,
- 8.5 Amartya Sen.'s Social Choice Theory.

Books Recommended :

- 1 Ahuja H. L., Advanced Economic Theory : Microeconomics Analysis, 13th Edition, S. Chand and Co. Ltd., New Delhi.
- 2 Bain J. (1958) Barriers to New Competition, Harrard University Press, Harvard.
- 3 Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.

- 4 Baumol, W.J. 91982), Economics Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- 5 Chaturvedi, Gupta and Pal (2002) Business Economics: Text and Cases Galgotia Publishing Company, New Delhi.
- 6 Dewett K. K., Modern Economic Theory, S. Chand & Company Ltd., Revised Edition, 2005.
- 7 Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
- 8 Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
- 9 Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
- 10 Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
- 11 Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
- 12 Varian, H. (2000): Microeconomic Analysis, W.W. Norton, New York.

M.A. Part – I : Semester - II Compulsory Paper

EC – 04 : Macro Economic Analysis-II

Module 5 : Investment Function :

- 5.1 Meaning and determinants of Investment : marginal efficiency of capital (MEC) and investment: Long and Short run shifts in investment functions
- 5.2 Doctrine of Multiplier and Principle of Accelerator, Super Multiplier.

Module 6 : Rate of Interest :

- 6.1 Theories of interest rates: Classical, Neo-classical, Keynesian.
- 6.2 Relative effectiveness of monetary & fiscal policies
- 6.3 Interest rates and price expectations –Nominal and real interest rates –

Module 7 : Theories of Inflation :

- 7.1 Keynesian theory : Demand pull and Cost push
- 7.2 Philips curve analysis – Short run and Long run
- 7.3 Friedman's Expectation model

7.4 Tobin's modified Philips Curve

7.5 Policies to control inflation.

Module 8 : Trade Cycles and Financial markets :

8.1 Trade cycles – phases of trade cycle. Anti cyclical Policy.

8.2 Theories of Trade Cycles – Hawtrey. Hayek, Schumpeter and Samuelson

8.3 Money Market – Characteristics and Constituents

8.4 Capital Market – Instruments and institutions of money and capital markets

Books Recommended :

- 1 Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols), Oxford University Press, London.
- 2 D'Souza, Errol (2008), Macroeconomics, Pearson Education, Delhi.
- 3 Gupta R.D. and Rana A.S. (1998): Post-Keynesian Economics, Kalyani Publishers, Ludhiana.
- 4 Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern macroeconomics, Oxford University Press, New Delhi.
- 5 Jha, R (1991) : Contemporary Macro Economic theory and Policy, Wiley Eastern Ltd.,
- 6 Jhingan, M.L.(1999) : Macro Economics
- 7 Keynes, J.M (1936) : General Theory of Employment, Interest and Money
- 8 Mithani D. M., Money, Banking, International trade and public finance, Himalaya Publications
- 9 Rakshit, M. (1998), Studies in the Macroeconomics of Developing Countries, Oxford University Press, New Delhi.
- 10 Reddy.Y.V. (2000): A Review of Monetary and Financial Sector Reforms in India, UBSPD, New Delhi.

M.A. Part – I : Semester - II
Optional Paper – Group : C
OP – 09 : Environmental Economics

Module 1: Elements of Environmental Economics

- 1.1 Meaning, Nature and Scope of Environmental Economics;
- 1.2 Economic Development and the Environment, Elements of Ecology;
- 1.3 Interaction Between Ecological and Economic Systems;
- 1.4 Environment- Development-Poverty Nexus; Sustainable Development-Concept and Operationalisation

Module 2: Economics of Natural Resource Management and Sustainable Development.

- 2.1 Concept of Sustainable, Rules of Sustainable Development- Indicators of sustainable development,
- 2.2 Mechanism for environment regulation in India; Environmental laws and their implementation- Policy instruments for controlling water and air pollution- Forestry policy; 2.3 Economics of Renewable Resources; Resource Scarcity as Limits to Growth;
- 2.4 Pricing of Resources; Energy and Economic Development.

Module 3 : Environmental Problems of Agricultural and Industrial Development:

- 3.1 Environmental Problems of Industrial development: Water Pollution, Air Pollution, Noise Pollution,
- 3.2 Special Economic Zones and the environment,
- 3.3 Environmental Problems of Agricultural development- Salinity, water logging, desertification of land, Excess use of water, fertilizers and pesticides,
- 3.4 farm implements cropping Pattern, Causes, impact and importance of social forestry.

Module 4 : Environmental Problems and Environmental Policy in India:

- 4.1 Rural and Urban environmental problems – Population and the Environment
- 4.2 Housing and Slums and the environment, Rural Sanitation Scheme, Poverty and the Environment.
- 4.3 WTO and environment, issues of Climate Change, Environmental Policy in India-Environment protection laws in India,
- 4.4 Central pollution Control Board, state and Local Bodies and Environment protection.

Books Recommended :

- 1 Ali, S. A. (1979), Resources for Future Economic Growth, Vikas Publishing House, New Delhi.
- 2 Baumol, W.J.and W.E. Oates (1988), The Theory of Environmental Policy (2nd edition), Cambridge University Press, Cambridge.
- 3 Bhattacharya, R.N. (Ed) (2001), Environmental Economics; An Indian Perspective, Oxford University Press, New Delhi.
- 4 Chopra, K. (1998), Valuation of Bio-diversity within Protected Areas: Alternative Approach and a case study, Institute of Economics Growth, Delhi.
- 5 Chopra, K., Kadekodi G.K.and M.N. Murthy : The Management of Common Property Resources, SAGE, New Delhi.
- 6 Garge, M. R. (Ed.) (1996), Environmental Pollution and Protection, Deep and Deep Publications, New Delhi.
- 7 Hanley, N., J.F.Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.
- 8 Kolstad C.D.(1999), Environmental Economics, Oxford University Press, New Delhi.
- 9 Lodha, S. L. (Ed.) (1991), Economics of Environment, RBSA Publishers, Jaipur.
- 10 Markandya, A. and M. N. Murty (2000), Cleaning up the Ganges: Cost-Benefit Analysis of Ganga Action Plan, Oxford University Press, New Delhi.
- 11 Mehta, S.S Mundle and U. Sankar : Controlling pollution: Incentives and Regulation, SAGE, New Delhi - 1995
- 12 Murthy, M.N, A. James and S. Misra : The Economics of Water pollution in India: Oxford University Press, New Delhi, 1995
- 13 Pearce, D.W. and R.Turner (1991), Economic of Natural Resource Use and Environment, John Hapkins University Press, Baltimere.
- 14 Rajlaxmi & Birunda (1994) Environomics, Allied Publishers Limited, Madras
- 15 Rathore, M. S. (Ed.) (1996), Environmental and Development, Rawat Publications Jaipur.
- 16 Sankar, U.(Ed), (2001, Environmental Economics, Oxford, University Press, New Delhi.
- 17 Singh, G. N. (Ed.) (1991), Environmental Economics, Mittal Publications, New Delhi
- 18 Singh, Katar and Anil Shishodia; Environmental Economics; Theory and Applications, Sage

Publications, New Delhi, 2007.

- 19 Tirpathy, S.M. and Sumakar Panda, Fundamentals of Environmental Studies, Vrinda Publications, Delhi.
- 20 World Bank: World Development Report, 1992: Environment and Development Oxford University Press, New Delhi

M.A. Part – I : Semester - II

Optional Paper – Group : C

OP – 10 : Poverty and Income Distribution

Module -1: Meaning and Development of poverty and income distribution

- 1.1 Development, meaning; dimensions and paths:
- 1.2 Ideologies of poverty and income distribution.
- 1.3 International aspects of poverty and income distribution,
- 1.4 Development and inequality-income distribution and development-Kuznets curve.

Module-2:

- 2.1 Poverty and income distribution in the Indian context historical perspective- Colonialism, Families and Drain Theory
- 2.2 Trends in Poverty and income Distributions
- 2.3 Temporal and Spatial-during the era of Planning.
- 2.4 Income distribution and poverty alleviation policies macro and micro instruments.

Module-3:

- 3.1 Employment generation and wages; Human capital formation, Social service, Asset distribution, Taxation subsidies
- 3.2 Target growth approach-Basic needs approach.

3.3 Conceptual frame, poverty and income distribution, Poverty and deprivation;

3.4 Kinds of poverty indicators, Culture of poverty and perspectives.

Module-4:

4.1 Concepts of inequality-social, Political and others-inter and intra generational aspects of income distribution.

4.2 Measurement of poverty and inequality – Poverty line, its composition and construction

4.3 indices of poverty, head count ratio. Poverty gap Squared Poverty Gap- Sen's index, Human Development index, Human poverty income, Limitations-Trends in Rural and Urban,

4.4 Poverty in India-Criteria for inequality Measurement – Complete Measures of inequality.

Books recommended :

- 1 Dantwala M.L, Poverty in India, Then and Now, 1870-1970.
- 2 Dandekar and Rath: Poverty in India (1971)
- 3 Deb Raj Ray: Development Economics (Oxford University press)., 1998.
- 4 Developing Countries, Oxford University Press, 1981.
- 5 Dudley Jackson: Poverty, Macmillan Studies, Macmillan Press 1972.
- 6 Jain T.L. :Poverty in India, ESS. Publications, 1987.
- 7 Michael P.Todaro, Economics Development (Addison-Wesley), 2000.
- 8 Paul Streeten, et. al., First Things First: Meeting Basic Human Needs
- 9 Sen A. K.: On Economic inequality, Oxford Press.
- 10 Subrahmanian S. (Ed): Measurement of inequality and Poverty, oxford press
- 11 William Loehr (Ed): Economic Development, Poverty and Income distribution
- 12 Yusiro Haymai: Understanding Village Community

M.A. Part – I : Semester - II

Optional Paper – Group : C

OP – 11 : Industrial Economics

Module 1 : Introduction

- 1.1 Meaning, Scope, Need & Significance of the Study of Industrial Economics.
- 1.2 Industrial Profile - Private Sector, Large, Medium & Small Scale Industries, Village Industries, Public Sector, Role and Problems of Public Sector Industries, Disinvestment Policy.
- 1.3 Integration, Industrial Combinations - Causes, Mergers & Amalgamations, Effects of Industrial Monopoly.

Module 2 : Pattern and Growth of Indian Industries

- 2.1 Role and pattern of Industrialization in India.
- 2.2 Changes in the Industrial Policy of India during planning.
- 2.3 Role of public sector, private sector and co-operative sector.
- 2.4 Role and Performance of small scale and cottage industries in India.
- 2.5 Regional industrial growth in India.
- 2.6 Impact of Globalization, Privatization and Liberalizations.
- 2.7 Industrial economic concentration and remedial measures.

Module 3 : Industrial Finance

- 3.1 Sources of Industrial Finance.
- 3.2 Corporate and Institutional Finance- Their changing significance.
- 3.3 Foreign Direct Investment. Recent Trends.
- 3.4 Economic Reforms and Development financial Institutions in India.
- 3.5 Brief assessment of the working of IFCI, ICICI, IDBI, SIDBI, Exim Bank, SFCs, Commercial Banks.

Module 4 : Industrial Policy and Industrial Labour

- 4.1 Trade Union Movement in India.
- 4.2 Industrial Disputes – causes and machinery to solve them.
- 4.3 Labour Market Reforms.
- 4.4 Industrial Policy – 1991; Trends in Industrial Growth after 1991.
- 4.5 Trends in India's industrial growth after 1991.

Books Recommended :

- 1 Ahluwalia I.J.(1985) : Industrial Growth in India, Oxford University Press , New Delhi.
- 2 Barthwal, R.R. (1985): Industrial Economics, Wiley Eastern Ltd., New Delhi.
- 3 Cherunilam, F.(1994): Industrial Economics, Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
- 4 Desai, B. (1999), Industrial economy in India (3rd Edition), Himalaya Publishing House, Mumbai.
- 5 Kuchhal, S.C. (1980):Industrial Economy of India (5th Edition),Chaitanya Publishing House, Allahabad.
- 6 Sai Singh, A. and A.N.Sadhu (1988) : Industrial Economics, Himalaya Publishing House, Bombay.
- 7 Kamien M.T. and N.L.Schwarz (1982) : Market Structure and Innovation, Cambridge University Press, Cambridge,
- 8 Bhagwati, J. & P. Desai (1972) : India Planning for Industrialization, Oxford University Press, London.
- 9 Brahmananda, ' P.R. and V.R. Panchanmukhi (Eds.)(1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
- 10 Chekravarthy, S. (1987): Development Planning : the Indian Experience, Oxford University Press, New Delhi.
- 11 Sandesara, J.C. (1999), Industrial Policy and Planning-1947-1991: Tendencies Interpretations and Issues, Sage Publications, New Delhi.
- 12 Sen R and B.Chatterji (2001) : Indian Economy : Agenda for the 21st Century, Essays in Honour of Professor PR.Brahmananda , Deep & Deep Publications Pvt. Ltd., New Delhi.
- 13 Ahluwalia, I.J. (1985) : Industrial Growth in India-Stagnation since the mix sixties-Oxford University Press, New Delhi.
- 14 Richard, N. Cooper : Growth and Equality, The Role of Foreign Trade Investment World Bank and Oxford University Press, 2002.
- 15 Memoria and Memoria (2000), Dynamics of Industrial Relations in Indian (15th Eds.), Himalaya Publishing House, Mumbai.

- 16 Khan M. I. (1981). Indian Financial Systems. Allied publishers, New Delhi.
- 17 Sen , R. and B. Chatterjee (2001), Indian Economy : Agenda for the 21st Century (Essays in honour of Professor P.R. Brahmananda), Deep and Deep Publications Pvt. Ltd. New Delhi.
- 18 Mamoria and Mamoria (2000), Dynamics of Industrial Relations in India (15th Edition), Himalaya Publishing House, Mumbai.
- 19 Nayar, Deepak (ed.)(1994) : Industrial Growth and Stagnation, Oxford University Press.

M.A. Part – I : Semester - I
Optional Paper – Group : C
OP – 12 : Rural Economy and Social Change

Module 1 :

- 1.1 Nature and scope of rural Economy,
- 1.2 Importance of Agriculture in economic Development of India,
- 1.3 Rural Economic problems of India;
- 1.4 Nature of land Problems-Evolution of Policy-Land Reforms.

Module 2:

- 2.1 Agricultural Holdings, Fragmentation and Sub-division of Holdings, Cooperative Farming
- 2.2 Rural Labour Problems -nature of Rural Unemployment
- 2.3 Employment and Wage Policy-Sources of Technological change and Green Revolution.
- 2.4 Globalization and Indian Villages.

Module 3:

- 3.1 Rural Society-its Structure and Change;
- 3.2 Village and its Social Organization-Indian Village and its types,
- 3.3 Rural-Urban Continuum and Rural-Urban relationships.
- 3.4 Rural social Institutions-family, Property, caste, Class,

Module 4:

- 4.1 Agrarian structure, indebtedness and Poverty, Jajmani System, Religion, Village,

- 4.2 Local Self Government, Panchayat Raj
- 4.3 Community Development Prgrammes
- 4.4 Social Change in Rural India-Impact of Westernization.

Books Recommended :

1. Carver, The Principles of Rural Economics.
2. Desai, A., Rural Sociology in India.
3. Dube, S.C., India's changing villages.
4. Nanavati & Anjala, rural problems in India.
5. Ruddar Dutt & K.P.M.Sundaram, Indian Economy.
6. Sachdeva, D.A.& Vidya Bhushan, An Introduction to Sociology.

M.A. Part – I : Semester - II
Optional Paper – Group : D
OP – 13 : Econometrics – II

Module 5 : Simultaneous Equation Models

- 5.1 Introduction and examples; the simultaneous equation bias and inconsistency of OLS estimates;
- 5.2 The identification problem; Rule of identification – order and rank Conditions;
- 5.3 Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS),
- 5.4 2SLS, 3SLS and ML methods – Applications.

Module 6 : Time Series Analysis

- 6.1 Stationarity, Unit roots, co-integration-spurious regression,
- 6.2 Dickey-Fuller test, Engle- Granger test, Random walk model,
- 6.3 Forecasting with ARIMA modeling Box-Jenkins methodology;
- 6.4 Vector auto regression; Problems with VAR modeling – Applications;

Module 7 : Panel Data Techniques

7.1 Panel data techniques.

7.2 Random coefficients model' fix effects model;

7.3 Random effect model.

7.4 Applications in Economic Analysis

Module 8 : Multivariate Analysis

8.1 Multivariate probability distribution, Properties and Uses

8.2 Marginal and conditional probability distribution,

8.3 Multivariate normal distribution and its properties; Hostelling T-scale;

8.4 Discriminate and Principal Component Analysis

Books Recommended :

- 1 Gujarati D.N., Basic Econometrics, McGraw Hill, New Delhi.
- 2 Dongherty C (1992), Introduction to Econometrics, oxford University Press, New York.
- 3 Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed), The Macmillan Press Ltd., London.
- 4 Maddala, G.S. (Ed) (1993), Econometric Methods and Application (2 Vols), Aldershot, U.K.
- 5 Krishna K.L. (Ed) (1997), Econometric Applications in India, Oxford University Press, New Delhi.
- 6 Madani, G.M.K. (2000): Introduction to Econometrics: Principles and applications, Oxford University Publications.
- 7 Patricia E Gaynor and Rickey C Kirk Patrick (1994) : Introduction to Time Series and Forecasting in Business and Economics, Magraw Hill Publications.
- 8 Croxton F.E. Cowden D.J. and Klein S. Applied General Statistics- Prentice Hall New Delhi.
- 9 William H. Greene .(2008) Econometric Analysis. Pearson Education Publication New Delhi

- 10 Amemiya T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.
- 11 Goldberger, A. S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.

M.A. Part – I : Semester - I

Optional Paper – Group : D

OP – 14 : Agricultural Economics – II

Module 5 : Rural labour market

- 5.1 Labour supply, mobility of labour and segmentation in labour markets
- 5.2 Marginalisation of rural labour
- 5.3 Nature, extent and trends in rural unemployment
- 5.4 Agriculture wages in India, male female wage differences

Module 6 : Rural finance and Cooperation in India

- 1.1 Role of capital and rural credit
- 1.2 Characteristics and sources of rural credit
- 1.3 Rural credit institutions : Commercial banks, cooperatives, regional rural banks and NABARD
- 1.4 Agricultural cooperatives in India : problems and prospects

Module 7 : Agricultural Prices

- 7.1 Agriculture markets and market efficiency
- 7.2 Regulated markets and marketable surplus
- 7.3 State policy regarding agricultural marketing
- 7.4 Warehousing and crop insurance
- 7.5 Objectives of agricultural price policy : instruments and evaluation
- 7.6 Food security and public distribution system

Module 8 : Agricultural growth and external sector

- 8.1 Recent trends in agricultural growth in India
- 8.2 Cropping pattern shifts, Prices of inputs and subsidies
- 8.3 Role of public investment and capital formation in India
- 8.4 Sustainable agriculture
- 8.5 Role of World Trade Organisation, Role of NMCs
- 8.6 Impact of WTO on Indian Agriculture

Books Recommended :

- 1 Acharya S.S. and Agarwal N.L. (1994), Agricultural Prices-Analysis and Policy, Oxford and IBH Publishing Co., Pvt.Ltd., New Delhi.
- 2 Agrawal A.N. & Kundan K.L. Agricultural Problems of India, Vikas Pub. House, New Delhi
- 3 B.N.P. Singh. : Indian Economy Today Changing Contours. Deep and Deep Pub.
- 4 Belshaw, H, Agricultural Credit in Economically under Developed Countries, FAO, Rome.
- 5 Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, MacMillan, Delhi.
- 6 Bhalla, G.S. (1994). Economic Liberalisation and Indian Agriculture, Institute for Studies in Industrial Development, New Delhi.
- 7 Bhupat M. Desai, N.V.Namboodiri (2001), "Organisation and Management of Rural Financial Sector" Text, cases and Exercise, Oxford and IBH Publishing Pvt. Ltd., New Delhi, Calcutta.
- 8 Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
- 9 Chada, G.K. and A.N. Sharma (1997). Growth, Employment and Poverty: Change and Continuity in Rural India, Vikas Publishing House, New Delhi.
- 10 Dantwala, M.L. (1996). Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
- 11 Dantwala, M.L., et.al. (1991), Indian Agricultural Development Since Independence, Oxford & IBH,, New Delhi.
- 12 Dewett Kewal : Indain Economy C.Chand & Co. Ltd. New Delhi.
- 13 E.O. Heady (1964), Economics of Agricultural Production and Resource Use, Prentice Hall of India Pvt.Ltd., New Delhi.
- 14 Government of India (1976), Report of the National Commission on Agriculture, New Delhi,
- 15 Government of India (1976). Report of the National Commission on Agriculture, New Delhi.
- 16 Government of India, Economic Survey (Annual), New Delhi.
- 17 Gulab Nath Singh, Dal Singer Singh and Ram Iqbal Singh (1987), Agricultural Marketing in India (Analysis, Planning and Development), chugh publications, Allahabad.
- 18 Gulati and Kelly (1999). Trade Liberalisation and Indian Agriculture, Oxford Univ. Press, New Delhi.
- 19 Gulati, A. and Kelly, J. (1999), Trade Liberalization and Indian Agriculture, Oxford University Press, New Delhi.
- 20 Hanumantha Rao, C.H. (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 21 Jodhar, N. (Eds.) (1996). Challenges to Indian Bankings, Macmillan, New Delhi.

- 22 Joshi, P.C. (1975), Land Reforms in India Trends and Prospects, Allied Publishers, Bombay.
- 23 Kahlan A.S., Tyagi D.S.(1983) , "Agricultural Price Policy in India, Allied Publishers, Bombay.
- 24 Kapila Uma (ed) Indian Economy Since Independence. Academic Foundation
- 25 Kathuriamand, G.and Chandrasekhar, K. Elements of Agricultural Finance.
- 26 Kaur, R.(1975), Agricultural Price Policy in Economic Development with stability, National Publishing House, Delhi.
- 27 M.V.Nadkarni (1973) : Agricultural Price Policy in Economic Development Kalyan Publishers, new Delhi.
- 28 Mamoria C.B. Agricultural Problems of India Kitab Mahal Pub. 2005.
- 29 Mitra, A. (1977), Terms of Trade and Class Relations, Frank Cass Co.Ltd., London.
- 30 Rao, C.H. Hanumantha (1975). Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 31 Rudra A. (1982), Indian Agricultural Economics, Myths and Reality, Allied Publishers, New Delhi.
- 32 Rudra, A. (1982). Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
- 33 Saint, G.R. (1979), Farm Size, Resources Use Efficiency and Income Distribution, Allied Publishers, New Delhi.
- 34 Singh Acharya, Sagar - Sustainable Agricultural Poverty and Food Securities, Rawat Publication Jaypur Vol- I & II
- 35 Subba Rao, K, and Ajain DeJanuary (1986), Agricultural Price Policy and Income Distribution in India, Oxford University Press, New Delhi.
- 36 Subbarao, K. and De Janvry (1986). Agricultural Price Policy and Income Distribution in India, Hansra, B. S. and Vijayaragavan, K (2003): Agribusiness and Extension Management,

M.A. Part – I : Semester - II
Optional Paper – Group : D
OP – 15 : Statistics for Economics - II

Module 5 : Probability Distribution Function

5.1 Binomial, Poisson,

5.2 Normal t-test, chi-square, t-test.

Module 6 : Statistical Estimation and Testing of Hypothesis

6.1 Types of estimators and their properties.

6.2 Sampling distribution for sample mean and Proportion.

6.3 Point and Interval estimation.

6.4 Null and Alternate Hypothesis.

6.5 Level of significance and Level of confidence, Confidence limits and Critical Region;

6.6 Tests of significance- Type I and II errors.

Module 7 : Time series

7.1 Nature and decomposition of a time series-trend.

7.2 Cyclical, seasonal and random components.

7.3 Fitting trend curves.

Module 8 : Index Numbers Periods

8.1. Index Numbers :Meaning ,Characteristics and Uses ,Constriction and Limitations

8.2. Types of Index Numbers

8.3. Price Index Numbers : Types - Wholesale And Retail Price Index Numbers, Laspeyre's and Paasche's Index Numbers, Fisher's Idle Index Number

8.4. Cost of Living Index Numbers : Steps in Construction, Methods, Computation and Use of the Cost of Living Index Numbers

Books Recommended :

- 1 Goon AM, M.K.Gupta and B.Dasgupta.: Fundamentals of Statistics, Vol.1, The World Press, Ltd, Calcutta.
- 2 Gupta S.C And Mrs. Indira Gupta: Business Statistics: Himalaya Publishing House; Delhi
- 3 Gupta, S.C., Fundamentals of Applied Statistics, S. Chand & Sons New Delhi.
- 4 Gupta, S.P., Introduction to Statistical Methods., S.Chand & Sons New Delhi.
- 5 King, W.I.: The Elements Of Statistical Methods; The Macmillan Co. New York.
- 6 Monga, G.S., Mathematics and statistics for Economics, Vikas Publishing House, New Delhi.
- 7 Murray R Spigel and Larry J. Stephens : Statistics, McGraw Hill International, Ed.
- 8 Nagar,A.L.and R.K.Das: Basic Statistics Oxford University Press, New Delhi.
- 9 Speigal, M.R., Theory and Problems of Statistics, McGraw hill Book Co.,London.
- 10 Veerachamy R.: Quantitative Methods for Economists, New Age International. Ed.

M.A. Part – I : Semester - I
Optional Paper – Group : D
OP – 16 : Welfare Economics

Module 1 : Pre-Paretian Welfare Economics

- 1.1 Benthamite approach to aggregate welfare
- 1.2 Optimum resource allocation and welfare maximisation
- 1.3 Marshallian welfare economics
- 1.4 Hicks consumer surplus

Module 2 : Paretian Welfare Economics - I

- 2.1 Pareto optimality
- 2.2 The consumption optimum
- 2.3 Comparable optima vs unique social optima
- 2.4 Compensation criteria : contribution of Barone, Kaldor and Hicks

Module 3 : Paretian Welfare Economics - II

- 3.1 Scitovsky double criteria
- 3.2 Samuelson utility possibility curve
- 3.3 Value judgment and welfare economics
- 3.4 Bergson's social welfare function
- 3.5 Arrow's impossibility curve

Module 4 : Some later developments

- 4.1 Private and social costs
- 4.2 Problems of non market interdependence
- 4.3 Externalities of production and consumption
- 4.4 External economies and diseconomies
- 4.5 Pigovian welfare economics
- 4.6 Dynamic welfare economics

Books Reommended :

2. Arrow K.J., Social Choice and Individual Values, Yale University Press, New haven
3. Baumol W.J., Welfare Economics and the theory of the State, Longmans, London
4. Fieldman A. M. Welfare Economics and OScila Chice Theory, Martinus Nijhoff Boston
5. Myint H, Theories of Welfare economics, Longman
6. Nicolas B., Economic theory and the AWelfare State, Edward Elgar Publising, UK
7. Quirk J and Sapasnik, Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York