

**DEPARTMENT OF ECONOMICS
PROPOSED ECONOMICS SYLLABUS FOR M.A.
W.E.F 2016-2017 ACADEMIC YEAR**

M.A. PREVIOUS

SEMESTER-I

CORE PAPERS

ECO – 101

ECO – 102

ECO – 103

Micro Economics – I

Macro Economic Analysis – I

Quantitative Methods – I

DISCIPLINE SPECIFIC ELECTIVE PAPERS

ECO –104(a)

Agricultural Economics

OR

ECO –104(b)

Computer Applications -I

ECO –105(a)

Industrial Economics – I

OR

ECO –105(b)

Financial economics-I

ECO –106

Seminars

ECO - 107 Add on Paper

Communicative Skills and Soft skills

SEMESTER-II

CORE PAPERS

ECO – 201

ECO – 202

ECO – 203

Micro Economics – II

Macro Economics Analysis – II

Quantitative Methods – II

DISCIPLINE SPECIFIC ELECTIVE PAPERS

ECO –204(a)

Agri -Business

OR

ECO –204(b)

Computer Applications-II

ECO –205(a)

Industrial Economics – II

OR

ECO –205(b)

Financial Economics – II

ECO –206

Seminars

ECO-207 Add on Paper

Human Values and Professional Ethics

DEPARTMENT OF ECONOMICS
PROPOSED ECONOMICS SYLLABUS FOR M.A.
W.E.F 2016-2017 ACADEMIC YEAR

M.A. FINAL

SEMESTER-III

CORE PAPERS

ECO - 301
ECO - 302
ECO - 303

Econometrics – I
International Economics
Public Economics

DISCIPLINE SPECIFIC ELECTIVE PAPERS

ECO – 304(a)

Economics of Social Sector
OR

ECO – 304(b)

Economics of Insurance - I

ECO – 305(a)

Demography
(OR)

Eco - 305 (b)

Development Economics

ECO – 306

Seminars

ECO – 307

Open Elective – Telangana Economy

SEMESTER-IV

CORE PAPERS

ECO - 401
ECO - 402
ECO - 403

Econometrics – II
Indian Economy
Environment Economics

DISCIPLINE SPECIFIC ELECTIVE PAPERS

ECO – 404(a)

Research Methodology
OR

ECO – 404(b)

Economics of Infrastructure

ECO – 405(a)

Economics of Insurance-II
OR

ECO – 405(b)

Project work

ECO – 406

Seminars

ECO – 407

Open Elective – Indian Economy

Note: If some students are willing to take up project work, they can be allowed by giving undertaking to University that they will not claim any financial assistance for carrying out project work.

DEPARTMENT OF ECONOMICS, MAHATMA GANDHI UNIVERSITY, NALGONDA –TELANGANA STATE

DETAILS OF COURSES FOR POST-GRADUATION IN MASTER OF ARTS IN ECONOMICS

I SEMESTER					II SEMESTER				III SEMESTER				IV SEMESTER		
Course	Teaching Hours	Credits	S. No	Course	Teaching Hours	Credits	S. No	Course	Teaching Hours	Credits	S.No	Course	Teaching Hours	Credits	
1	Micro Economics-I	5	5	1	Micro Economics-II	5	5	1	Econometrics-I	5	5	1	Econometrics-II	5	5
2	Macro Economics-I	5	5	2	Macro Economics-II	5	5	2	International Economics	5	5	2	Indian Economy	5	5
3	Quantitative Methods-I	5	5	3	Quantitative Methods-II	5	5	3	Public Economics	5	5	3	Environmental Economics	5	5
4	a)Agricultural Eco/ b)Computer Applications-I	4	4	4	a)Agri-Business b) Computer Applications-II	4	4	4	Economics of Social Sector /Economics of Insurance-I	4	4	4	Research Methodology /Economics of Infra Structure	4	4
5	Industrial Economics-I/ Financial Economics-I	4	4	5	Industrial Economics-II/ Financial Economics-II	4	4	5	a)Demography b)Development Economics	4	4	5	a) Economics of Insurance-II b) Project Work	4	4
6	Seminar	2	2	6	Seminar	2	2	6	Seminar	2	2	6	Seminar	2	2
7	Communicative Skills & Soft Skills	2	2	7	Human Values & Professional Ethics	2	2	7	Open elective	4	4	7	Open elective	4	4
	Total	25	25		Total	25	25			29	29			29	29

M.A.ECONOMICS, SEMESTER – I
(CORE PAPER)
ECO – 101, MICRO ECONOMICS – I

Module 1: Advanced Consumer Theory: Income and Substitution Effects (Slutsky and Hicks), Consumer surplus – implications. Compensated Demand Curve, Revealed Preference Analysis, Hicks' Revision of Demand Theory.

Module 2: Production Theory: Isoquant Production Function; Returns to Scale; Linear Homogeneous Production function – Cobb Douglas production function, Hicks and Harrod Technical Progress. Cost Functions – short run and long run costs, Modern theory of Costs.

Module 3: Perfect Competition: Features of perfect competition. Determination of Market price and quantity, Short Run and Long run equilibrium of the firm and industry, Derivation of Supply curve, Monopoly: Short and long run equilibrium, Price discrimination.

Module 4: Imperfect Competition I: Monopoly power, Control and regulation of monopoly. Monopsony, Bilateral Monopoly; Chamberlain's Monopolistic Competition – Short and Long run equilibrium.

Module 5: Imperfect Competition II: Duopoly Models: Cournot, Bertrand, Edge worth and Stackelberg Models. Oligopoly: Characteristics, Sweezy's kinked Demand model, Models of cartels and price leadership.

BASIC READING LIST:

1. Koutsoyiannis, A: *Modern Microeconomics*, Macmillan
2. Ahuja: *Advanced Economic Theory*,
3. Pindyck, R.S. and D.L.Rubinfeld: *Microeconomics*, Pearson Educational
4. Crystal, R. and A. Lipsey: *Microeconomics*, Oxford University Press.
5. Varian, H.R.: *Intermediate Microeconomics*, W.W. Norton & Co
6. Krugman, Paul Wells, Robin *Microeconomics*,Worth Publishers W H FREEMAN & CO

M.A.ECONOMICS, SEMESTER – I
(CORE PAPER)
ECO – 102, MACRO ECONOMIC ANALYSIS – I

Module 1: National Income Accounting: Approaches of Macro Economics and Variables – Circular Flow of Income in two, three and four-sector economy; different forms of national income accounting – social accounting input-output accounting flow of funds accounting and balance of payments accounting.

Module 2: Consumption Function: Consumption function – Keynes psychological law of consumption – implication of the law; short-run and long-run consumption function; Empirical evidence on consumption function; income – consumption relationship – absolute income, relative income, permanent and life cycle income hypotheses and their reconciliation.

Module 3: Investment Function: Marginal efficiency of capital and investment – long run and short run MEI and level of investment. The profits and accelerator theories and investment behavior – Influence of policy measures on investment – Financial theory of investment Institutions and capital market in India. Growth and Development of Capital Market – Primary and secondary markets, regulation of capital market and functioning.

Module 4: Supply of Money: Measures of Money Supply, theories of money supply, monetary transmission mechanism and monetary transmission mechanism in India RBI approach to money supply; High powered money and money multiplier; budget deficits and money supply and control of money supply. Analysis and variations in money supply in India.

Module 5: Demand for Money: Theories of demand for money – Classical approach to demand for money – Quantity theory approach, Fisher's equation, Cambridge quantity theory, Keynes liquidity preference approach, transaction. Precautionary and speculative demand for money – aggregate demand for money; Derivation of LM curve. Demand for money India.

BASIC READING LIST:

1. Renerm D.L. (1996) Advanced Macro Economics, McGraw Hill Company Limited, New York.
2. Scarfe, B.L. (1977), Cycles Growth and Inflation, McGraw Hill, New York.
3. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
4. Edey, M and A.T.Peacock (1967), National Income and Social Accounts, Hutchinson University Library, London.
5. Powelson, J.P. (1960), National Income and Flow of Funds Analysis, McGraw Hill, NewYork.
6. Rao, V.K.R.V. (1983), India's National Income: 1950 to 1980, sage Publications, New Delhi.
7. Ruggles, R.and N.Ruggles (1956), National Income Accounts and Income Analysis, McGraw Hill, New York
8. Duesenberry, J.S (1949), Income, Saving and the Theory of Consumer Behaviour. Harvard University Press, Harvard.
9. Friedman.M. (1957), TheTheory of Consumption Function, Princeton University Press, Princeton.
10. Mueller, M.G. (1966), Readings in Macroeconomics, Holt Rinehart and Winston, New York

M.A.ECONOMICS, SEMESTER – I
(CORE PAPER)
ECO – 103, QUANTITATIVE METHODS – I

Module 1: Mathematics – I: Uses and limitations of Mathematics in Economics, Concept of function and type of functions, Concepts of derivative, Rules of differentiation. Interpretation of revenue, Cost demand, supply functions, Elasticities and their types.

Module 2: Mathematics – II: Multivariable functions, Concept and types of production functions, rules of partial differentiation and interpretation of partial derivatives, Problems of maxima and minima in single and multivariable functions.

Module 3 : Statistics – I: Definition of Statistics, Uses and limitation of Statistics in Economics, Methods of collecting data – census and sampling – their advantages and disadvantages, Measures of Central tendency – mean, median and mode, Measures of Dispersion – range, quartile deviation, mean deviation, standard deviation, variance, coefficient of variation, Gini coefficient.

Module 4: Statistics – II: Concept of correlation, Karl Pearson's Coefficient of correlation, Spearman's rank coefficient of correlation, Simple regression, Estimation of regression coefficients by ordinary least square methods, standard error or regression line.

Module 5: Statistics – III: Methods of constructing Index numbers and their uses, weighted and unweighed indices, Laspeyres's, Pasche's and Fisher's indices, Cost of living index numbers.

BASIC READING LIST:

1. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas publishing house, New Delhi.
2. Chiang, A.C. (1988), Fundamental Methods of Mathematical Economics, Mac Graw Hill, New York.
3. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Mac Millian Press and ELBS, London.
4. Dowling, E.T. (1992), Mathematical Economics 2nd Edition, Mac Graw Hill, New York.
5. Gupta, S.P. (2007), Statistical methods, Sultan Chand and Sons, New Delhi.
6. Nagar, A.L. and Das, R.K. (1983): Basic Statistics 2nd Edition, OUP, Delhi.
7. Speigal, M.R. (1992), Theory and Problems of Statistics, Mc Graw Hill Book Co., London.
8. Yamune, Taro (1975) Mathematics for Economists, Prentice Hall of India, New Delhi.

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M.A. ECONOMICS, SEMESTER – I
(ELECTIVE PAPER)
ECO-104 (A) AGRICULTURAL ECONOMICS-I

Module 1: Agriculture and Economic Development: Nature and scope of agricultural and rural economics; Traditional agriculture and its modernization; Role of agriculture in economic development; Interdependence between agriculture and industry. Agricultural development, Agriculture and Allied Activities- Cropping pattern and factors effecting it.

Module 2: Agricultural Production and Productivity: Agricultural production – Resource use and efficiency; Production function analyses in agriculture; Factor combination and resource substitution, Farm size and productivity relationship laws of returns – Supply response of individual crops, Technical change, labour absorption in Agriculture- Recent trends in agricultural growth in India; Inter-regional variations in growth of output and productivity- Sustainable agriculture and Food Security

Module 3: Agriculture Finance: Rural Saving and capital formation; Role of credit and rural credit; Organized and Unorganized Capital Market (Institutional and Non-institutional); Characteristics and sources of Rural credit; Reorganization of rural credit Co-operative societies, Commercial Banks, Regional Rural Banks, Micro Finance; Role of NABARD- Cropping pattern shifts; Supply of inputs - Pricing of inputs and role of subsidies: Distribution of gains from technological change.

Module 4: Agricultural Marketing and Prices: Agricultural prices and Marketing, Behaviour Agricultural prices- Cobweb Model and Income stability; Agricultural markets; Regulated markets; Marketed and marketable surplus; Marketing channels, Price spread ,Behavior of agricultural prices - Terms of trade between agricultural and non-agricultural prices; Need for state intervention; Objectives of agricultural price policy- Strategy of agricultural development- Supply of inputs - Pricing of inputs and role of subsidies: Distribution of gains from technological change

Basic Reading List:

1. Bhaduri, A. (1984) The Economic Structure of Backward Agriculture, Macmillan, Delhi.
2. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Dantwala M.L. Et al, (1991) Indian Agricultural Development since Independence, Oxford & IBH New Delhi.
4. Gulati, A. and t. Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi.
5. Joshi. P.C. (1975), Land Reforms in India: Trends and Prospects, Allied Publishers, Bombay.
6. Kahlon, A.S. and Tyagi D S (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi.
7. Rao. C.H. Hanmantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
8. Rudra, A (1982), Indian Agricultural Economics, Myths and Reality, Allied Publishers, New Delhi.
9. Saini, G.R. (1979), Farm Size, Resource Use Efficiency and Income Distribution, Allied Publishers New Delhi.
10. Upender, M. (1990), Marketable and Marketed Surplus in Agriculture, Mittal Publications, New Delhi.

M.A.ECONOMICS, SEMESTER – I
(ELECTIVE PAPER)
ECO-104 (B) COMPUTER APPLICATIONS -I

Module – 1 Introduction of Computers: History of Computer – Definition – Evolution of Computer – Computer Generations – Micro Computers – Structure of Computer – Uses of Computer – Computer Applications in different fields like Banks, Post-Office, Railways, Income tax.

Module-2: Basic Principle and Components of Computer – Central processing Unit (CPU) – Input Output Devices – Scanner – Printer – Video display – Storage medias – Floppy Disk Drive – Hard Disk Drive – Compact Disk (CD) – Digital Video Disk(DVD)

Module – 3 Microsoft Operating Systems: Operating System – **Microsoft Disk Operating System(MS DOS)** – Internal and External Commands – **Windows, Operating System** – Salient Features – Merits of Windows Operating System – Accessories – System tools – Scan Disk – Word Pad – Note Pad – Paint – Imagination –

Module -4 Windows Explorer – My Documents – My Computer – Internal Explorer – Network Neighborhood. Ms-Word: Creating, Opening and saving files – editing and formatting text – spell and grammar check – auto correct – creation of tables and volumes. MS- Excel: Work sheet – entering data and creating work sheets and work book opening and formatting.

Basic Reading List:

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|---------------------------------|--|
| 1. Sinha, P.K. | : Computer Fundamentals, BPB Publications, New Delhi. |
| 2. Raja Raman.V. | : Fundamentals of Computers, PHI, New Delhi. |
| 3. Kerns | : Essentials of Microsoft Windows, Word and Excel, PHI. |
| 4. Alexis Leon and Mathews Leon | : Introduction to Computers with Ms-Office, TMH. |
| 5. Asthana and Braj Bhushan | : Statistics for Social Sciences (with SPSS applications), PHI |

M.A. ECONOMICS, SEMESTER- I
(ELECTIVE PAPER)
ECO-105 (A) INDUSTRIAL ECONOMICS-I

Module – 1 Theories of Industrialization & Firm: Meaning and classification of Industries. Use-based, Resource Based and ASI Two and Three Digit classification. The Role of Industry in Economic Development. Theories of Industry; Hoffman, Chennery and Gerschenkron.

Module –2 Theories of Growth of Firm: Theories: Downie, Penrose and Marries and Industrial Location theories: Weber, Sargent Florence, and Losch.- factors affecting industrial location.

Module -3 Market Structure and Market Performance: Concepts & Organization of a firm. Market Structure; Sellers Concentration; Product Differentiation; Entry Conditions; Economics of Scale;

Module – 4 Market Performances: Profitability & Innovation. Constraints on Growth. Productivity, Efficiency and capacity Utilization- concept and measurement-Indian situation. Cost-benefit analysis-NPV and IRR Criteria.

Basic Reading List:

1. Ahuliwalia, 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. Chernuliam, 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. Divine, P.J. and R.M. Jones Et. Al (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6. Government of India, Economic Survey (Annual)
7. Hay, D. and D.J.Morris (1979), Industrial Economics: theory and evidence, Oxford University Press, New Delhi.
8. Kuchhal, S.C. (1980), Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
9. Reserve Bank of India, Report on currency and Finance (Annual).
10. Sing, A and A.N.Sadhu (1988), Industrial Economics, Himalaya Publishing House, Mumbai.

M.A.ECONOMICS, SEMESTER –I
(ELECTIVE PAPER)
ECO-105(B) FINANCIAL ECONOMICS-I

Module -I: The Financial System and its significance for Economic Development – The Structure and functions of the Financial System in India- All India development financial institutions, Investment Institutions, Specialized financial institutions and State level financial institutions.

Module–II: Commercial Banking. Banking structure in India-Context, Need and Objectives – financial sector reforms -Narasimham Committee Report – Financial Sector Reforms with reference to Stock Markets.

Module – III: Money Market: Organized sector of the Money Market and their sub-markets- Call money market, Treasury bill market, The Repo Market, Commercial Paper market and Money market mutual funds and their instruments. - Money market reforms in India.

Module – IV: Capital Market: Structure of Capital market- Primary and Secondary markets- New issues and Secondary Issues Markets, Securities-Private and Guilt Edged Securities- Pre and Post Reform Capital Market in India

Basic Reading List:

1. Bhole, L.M. (1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.
2. Bhole, L.M. (2000), Indian Financial System, Chugh Publications, Allahabad.
3. Edminster, R.O. (1986), Financial Institutions, Markets and Management, McGraw Hill, New York.
4. Goldsmith, R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S.Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
6. Harker, P.T. and S.A.Zenios (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.
7. Johnson, H.J. (1996) Financial Institutions and Markets, Tata McGraw Hill, New Delhi.
8. Khan, M.Y. (1996) Indian Financial System, Tata McGraw Hill, New Delhi.
9. Machiraju, M.R. (1999) Indian Financial Systems, Vikas Publishing House, New Delhi.
10. Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
11. Prasad, K.N. (2001) Development of India's Financial System, Sarup & Sons, New Delhi.
12. Robinson, R.I. and D.Wightman (1981), Financial Markets, McGraw Hill, London.
13. Smith, P.F. (1978), Money and Financial Intermediation: The Theory and Structure of Financial System, Prentice Hall, and Englewood-Cliff, New Jersey.
14. Chandra, P. (1997), Financial Markets, (4th Edition), Tata McGraw Hill, New Delhi.
15. Machiraju, H.R. (1997), International Financial Markets in India, Wheeler Publishing, Allahabad.
16. Rangarajan, C. (1999), Indian Economics: Essays on Money and Finance, UBS Publication, New Delhi.
17. Fisher, G.E. and R.J. Jordan (1992), Security Analysis and Portfolio Management, Eastern Economy Edition, New Delhi.

M.A.ECONOMICS, SEMESTER – II
(CORE PAPER)
ECO – 201, MICRO ECONOMICS – II

Module 1: Alternative Theories of the Firm: Baumol’s Model, Williamson, and Marries models, Full Cost pricing models, Bain’s Limit pricing, Sylos-Labini and Modigliani’s models.

Module 2: Distribution: Ricardian and Modern Theories of Rent, Marginal Productivity theory of wages, neo-classical theory of interest, and theories of profit. Product Exhaustion theorem. Technical progress and factor shares.

Module 3: Equilibrium Analysis: General Equilibrium: Walrasian model, Features of Market Equilibrium: Existence, Stability (Marshall and Walrasian conditions), Uniqueness. Cob-web models.

Module 4: Welfare Economics: Pigovian welfare economics, Pareto optimum conditions. Social welfare functions, Compensation principles, Arrow’s impossibility theorem.

Module 5: Economics of Risk and Uncertainty: Role of expectations, Consumer’s choice involving risk (risk takers, risk averse and risk neutral), Neumann – Morgenstern Index, Savage Hypothesis, Gambling and Insurance.

BASIC READING LIST:

1. Koutsoyiannis, A: Modern Microeconomics, Macmillan
2. Ahuja: Advanced Economic Theory,
3. Pindyck, R.S. and D.L.Rubinfeld: Microeconomics, Pearson Educational
4. Crystal, R. and A. Lipsey: Microeconomics, Oxford University Press.
5. Varian, H.R.: Intermediate Microeconomics, W.W. Norton & Co
6. Krugman, Paul Wells, Robin Microeconomics, Worth Publishers W H FREEMAN & CO

M.A.ECONOMICS, SEMESTER – II
(CORE PAPER)
ECO – 202, MACRO ECONOMIC ANALYSIS – II

Module 1: Post-Keynesian Theories of Demand for Money: Post-Keynesian approaches to demand for money – Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin; Friedman and the modern quantity theory; Crisis in Keynesian economics and the revival of monetarism – Friedman Restatement of quality of money and its critical appraisal.

Module 2: Neo-classical and Keynesian Synthesis: Neo-classical and Keynesian views on interest; The IS-LM model; Extension of IS-LM model with government sector; Relative effectiveness of monetary and fiscal policies; IS-LM model in open economy, Monetary approach to balance of payments. Capital flows with fixed exchange rate, trade and capital flows with flexible exchange rate and critical look at IS-LM model.

Module 3: Theory of Inflation: Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation; Philips curve analysis – Short run and long run Philips curve; the nature rate of unemployment hypothesis; Tobin’s modified Philips curve and policies to control inflation.

Module 4: Business Cycles: Business Cycles – Theories of Schumpeter, Samuelson and Hicks – Interaction of multiplier and acceleration model, control of business cycles – relative efficacy of monetary and fiscal policies – Monetary policy and its objectives with special reference to Indian Economy.

Module 5: New Classical Macroeconomics: The new classical macroeconomic approach; Policy implications of new classical approach – Rational expectations theory, Role of expectations in macroeconomic analysis – Additive expectations. Supply side economics assumptions and evaluation. Macro stabilization policies and Financial sector Reforms in India.

Basic Reading List:

1. Gordon, R. and S.G.Harris (1998), Macroeconomics, Addison Wesley.
2. Culbertson, J.M. (1968), Macroeconomic Theory and Stabilization Policy, McGraw Hill, Kogenkosh, Tokyo.
3. Chakravarty, S.C. (1985), Report of the Committee to Review the Working of the Monetary System, Reserve Bank of India, Bombay.
4. Gupta, S.B. (1995), Monetary Planning India, Oxford University Press, New Delhi.
5. Gurley, J. and E.S. Shaw (1960), Money in a Theory of finance Brookings Institution, Washington.
6. Mckinen, G.E. (1978), Money, the Price Level and Interest Rates, Prentice Hall of India, New Delhi.
7. Reddy, Y.V.(2000), A. Review of monetary and Financial Sector Reforms in India-A Central Banker’s Perspective, UBSPD, New Delhi.
8. Fredrman, M. (1956), Studies in the Quantity Theory of Money, the University of Chicago Press, Chicago.
9. Keynes, J.M. (1936), The General Theory of Employment, Interest and Money, Macmillan, London.

M.A.ECONOMICS, SEMESTER – II
(CORE PAPER)
ECO – 203, QUANTITATIVE METHODS – II

Module 1: Mathematics – I: Determinants and their Basic Properties, Solution of Simultaneous equations through Cramer's rule Matrices – Concept and types, Simple operation on matrices, matrix inversion, rank of matrix, concept of vector and its properties, Introduction to input-output analysis.

Module 2 : Mathematics – II: Constrained optimization, Lagrangian function, simple economic applications, maximization of utility and maximization of profits, Introduction to linear programming, formulation of linear programming problem – its structure and variables, Nature of feasible, basic, optimal solution, Solution of linear programming through graphic method, Concept of duality.

Module 3: Statistics – I: Basic concept of sampling – random and non-random sampling, simple random, stratified random and P.P.S sampling, Concept of an estimator and its sampling distribution, Desirable properties of a good estimator, formulation of statistical hypotheses – null and alternative, Testing for mean of a population from large sample and Testing for difference between means of two population from large sample.

Module 4: Statistics – II: Concept of probability, Classical and empirical definitions of probability, laws of addition and multiplication, discrete random variable – its concept, mean and variance, Normal distribution – its concept and properties.

Module 5: Statistics – III: Time series and analysis, components of time-series data, determination of secular trend by moving average and ordinary least square methods, Uses of seasonal indices, Estimation of linear and compound growth rate using OLS method.

BASIC READING LIST:

1. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas publishing house, New Delhi.
2. Chiang, A.C. (1988), Fundamental Methods of Mathematical Economics, Mac Graw Hill, New York.
3. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Mac Millian Press and ELBS, London.
4. Dowling, E.T. (1992), Mathematical Economics 2nd Edition, Mac Graw Hill, New York.
5. Gupta, S.P. (2007), Statistical methods, Sultan Chand and Sons, New Delhi.
6. Nagar, A.L. and Das, R.K. (1983): Basic Statistics 2nd Edition, OUP, Delhi.
7. Speigal, M.R. (1992), Theory and Problems of Statistics, Mc Graw Hill Book Co., London.
8. Yamune, Taro (1975) Mathematics for Economists, Prentice Hall of India, New Delhi.

M.A. ECONOMICS, SEMESTER – II
(ELECTIVE PAPER)
ECO-204 (A) AGRI BUSINESS

Module 1: Production management: production planning, organization and motivation, production centers: Marketing management – Preparation of market plan, the marketing programme, Marketing organization, Motivating and controlling marketing efforts.

Module 2: Financial management: The Accounting system, Basic functional statements: Measures of profitability, Social and Private profitability- The Policy Analysis Matrix,

Module 3: The measurement of shadow prices in the Policy Analysis matrix. Shadow price of land labour and fixed assets: Financial planning and organization.

Module 4: Operational efficiency: Management techniques for effective control, perform and budgeting, some pre-requisites for effective management, planning and evaluation

Basic Reading List:

1. Cramer G.L and Jensen CW, “Agricultural Economics and Agri- business” John Wiley & Sons, New York, 1979
2. Omri Railing. “Introduction to Agribusiness” PHI New Jersey
3. V.K. Srivasta, “Project Planning, Functioning, Implementation and Evaluation” Center for Management in Agriculture, IIM Ahmadabad, 1983.
4. FAO, “Economic Analysis of agricultural policies” Harvard institute for International Development” FAO, 1995
5. Harsh SB, Connor IJ and Schwab, “Meaning the Farm Business” PHI, New Jersey, 1981
6. Singh, I.J, Elements of Farm Management Economics, Affiliated East-West Press Pvt. Ltd. 1977.

M.A.ECONOMICS, SEMESTER – II
(ELECTIVE PAPER)
ECO-204 (B) COMPUTER APPLICATIONS-II

Module – 1 Data Processing Techniques using MS Excel: Concept of Data – Record and File – Types of Data – Data Entry – File handling and Operations like opening, appending and cascading – closing and attribute controls – Data Storage and Retrieval.

Module -2 Data operations – Preparation and Formatting of Text, Tables and Graphs – Estimation of Descriptive Statistics, Index Numbers and Growth Rates, Demand function, Supply function, Production function, Consumption function, Employment Function, Demand for Money function, Supply of Money function, Leontiff Input-Output Model.

Module – 3 MS-Access: Creating, opening and working with data in MS-Access – tables – forms – query – report. MS-Power Point: Concept of presentation – creating, opening and saving the slide shows – animation – viewer’s presentation.

Module – 4: Data Analysis using SPSS: Basics of Data Analysis – Data Entry in SPSS – Computing with SPSS – Preparation of Graphs with SPSS – Distribution Functions and Density Functions – Statistical Package handling and command description for SPSS – Reports, Descriptive – Statistics, Compare Means, Time Series Analysis, Correlation and Regression Models.

Basic Reading List:

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|---------------------------------|--|
| 1. Sinha, P.K. | : Computer Fundamentals, BPB Publications, New Delhi. |
| 2. Raja Raman.V. | : Fundamentals of Computers, PHI, New Delhi. |
| 3. Kerns | : Essentials of Microsoft Windows, Word and Excel, PHI. |
| 4. Alexis Leon and Mathews Leon | : Introduction to Computers with Ms-Office, TMH. |
| 5. Asthana and Braj Bhushan | : Statistics for Social Sciences (with SPSS applications), PHI |

M.A. ECONOMICS, SEMESTER –II
(ELECTIVE PAPER)
ECO-205 (A) INDUSTRIAL ECONOMICS-II

Module -1 Indian Industrial Growth & Pattern: Industrial Pattern under Five Year Plan; Industrial policy 1991: Role of Public and Private Sector, Recent Trends in Industrial growth. Small Scale Enterprises; Problems of SSIs and Sickness. Rural Industrialization and its need in India.

Module -2 Liberalization Privatization in India- MNCs and transfer of technology-Industrial economic concentration and remedial measures, issues in industrial proliferation and environmental preservation.

Module -3 Industrial Finance: Industrial Finance: Owned, External and other Components of Funds; Role, Nature, Volume and types of Institutional Finance – State Level Financial Institutions and Commercial Banks.

Module -4 Financial soundness Assessment of Industrial sector: Financial Statement – Balance Sheet- Assets and Liabilities, Profit & Loss Account, Ratio Analysis.

Basic Reading List:

1. Ahuliwalia, 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. Chernuliam, 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. Divine, P.J. and R.M. Jones Et. Al (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
 6. Government of India, Economic Survey (Annual)
 7. Hay, D. and D.J.Morris (1979), Industrial Economics: theory and evidence, Oxford University Press, New Delhi.
 8. Kuchhal, S.C. (1980), Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
 9. Reserve Bank of India, Report on currency and Finance (Annual)
- Sing, A and A.N.Sadhu (1988), Industrial Economics, Himalaya Publishing House, Mumbai.

M.A.ECONOMICS, SEMESTER –II
(ELECTIVE PAPER)
ECO-205 (B) FINANCIAL ECONOMICS-II

Module -I: Securities Exchange Board of India: National Stock Exchange of India: SEBI and Capital market development. Changing rules of SEBI related to primary market, Mutual funds and for promoters.

Module–II: Concept and Significance of Insurance – Types of Insurance – The Growth and Structure LIC and GIC of India – The Role of Private Insurance in India.

Module-III: Mutual Funds – Organization, Types of Schemes, Growth, Structure and size of Mutual Funds in India.

Module-IV: Critical review of Indian financial system: Comparative performance of money market and capital markets in India. Concerns and Challenges for future of Financial structure development in India.

Basic Reading List:

1. Bhole, L.M. (1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.
2. Bhole, L.M. (2000), Indian Financial System, Chugh Publications, Allahabad.
3. Edminster, R.O. (1986), Financial Institutions, Markets and Management, McGraw Hill, New York.
4. Goldsmith, R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S.Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
6. Harker, P.T. and S.A.Zenios (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.
7. Johnson, H.J. (1996) Financial Institutions and Markets, Tata McGraw Hill, New Delhi.
8. Khan, M.Y. (1996) Indian Financial System, Tata McGraw Hill, New Delhi.
9. Machiraju, M.R. (1999) Indian Financial Systems, Vikas Publishing House, New Delhi.
10. Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
11. Prasad, K.N. (2001) Development of India's Financial System, Sarup & Sons, New Delhi.
12. Robinson, R.I. and D.Wightman (1981), Financial Markets, McGraw Hill, London.
13. Smith, P.F. (1978), Money and Financial Intermediation: The Theory and Structure of Financial System, Prentice Hall, and Englewood-Cliff, New Jersey.
14. Chandra, P. (1997), Financial Markets, (4th Edition), Tata McGraw Hill, New Delhi.
15. Machiraju, H.R. (1997), International Financial Markets in India, Wheeler Publishing, Allahabad.
16. Rangarajan, C. (1999), Indian Economics: Essays on Money and Finance, UBS Publication, New Delhi.
17. Fisher, G.E. and R.J. Jordan (1992), Security Analysis and Portfolio Management, Eastern Economy Edition, New Delhi.
18. Apte; International Financial Management Tata, McGraw Hill Publishing Company. LTD., New Delhi.

M.A. ECONOMICS, SEMESTER – III
(CORE PAPER)
ECO-301, ECONOMETRICS – I

Module 1: Introduction: Nature, meaning definition and scope of econometrics, regression model, reasons for inclusion of error term, assumptions of error term, principle of least square, Gauss- Markov Theorem.

Module 2: Regression Analysis: Multiple regression model, Matrix approach to multiple regression, Estimation, Interpretation and testing of the coefficients, Estimation of elasticities, Relation between simple and multiple regression coefficients, Concepts of partial coefficients, coefficient of determination and adjusted coefficient of determination.

Module 3: Problems in Regression Analysis – I: Relaxing the assumptions of classical model, the problem of auto correlation, consequences of auto-correlation, Durbin Watson test, Remedial measures of auto-correlation, Multi-collinearity-Consequences and remedial measures.

Module 4: Problems in Regression Analysis – II: Nature, Test, Consequences and remedial steps for the problems of heteroscedasticity and errors in variables.

Module 5: Regression with Qualitative Independent Variables: Regression models with dummy variables, uses of dummy variable, stability of regression model, logit model – concept and estimation.

Basic Reading List:

1. Johnston. (1991) Econometric Methods. McGraw Hill Book Co. London
2. Gupta, D.B. Consumption Pattern in India, TMGH.
3. Mahender Reddy, Applied Econometrics (Mimeo).
4. ICSSR (1977); Survey of Research in Economics, Vol. 7.
5. Krishna, K.L. (1999): Economic Application in India, OUP, Delhi.
6. Gujarati, D. (1999): Essentials of Econometrics, Second Edition, McGraw Hill.
7. Gujarati, D. (2002): Basic Econometrics, Third Edition, McGraw Hill.
8. Koutsoyiannis, A. (1977): Theory of Econometrics, 2nd Edition, McMillan, London.
9. Maddala, G.S. (2002): Introduction to Econometrics, McMillan, London.

M.A.ECONOMICS, SEMESTER – III
(CORE PAPER)
ECO – 302, INTERNATIONAL ECONOMICS

Module 1: Theory of International Trade: Theories of absolute advantage, comparative advantage and opportunity costs; - Heckscher – Ohlin theory of trade, Theorem of factor price equalization. The Rybczynski theorem – concept and policy implications of immiserizing growth.

Module 2: Measurement of Gains: Measurement of gains from trade and their distribution; Concepts of terms of trade. Hypothesis of secular deterioration of terms of trade. Trade as an engine of economic growth. The Theory of Interventions; Economic effects of tariffs and quotas. Nominal, effective and optimum rates of tariffs – their measurement, impact and welfare implications,

Module 3: Balance of Payments: Equilibrium and disequilibrium in the balance of payments; The process of adjustment under different systems. Expenditure – reducing and expenditure-switching policies and direct controls for adjustment; Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes. A critical review of the monetary approach to the theory of balance of payments adjustment; foreign trade multiplier.

Module 4: The Theory of Regional Blocs: Forms of economic cooperation: Static and Dynamic effects of customs union and free trade areas; Rationale and economic progress of SAARC/SAFTA and ASEAN EU regions. Problems and prospects of forming a customs union in the Asian region, Regionalism, Multilateralism and WTO.

Module 5: International Institutions: Functions of WTO (TRIPS, TRIMS), UNCTAD, IMF, World Bank and Asian Development Bank. Trade Reforms in India: Recent changes in the direction and composition of trade and their implications; Impact of trade reforms since 1991 on balance of payments and growth. Trade Policies:

Basic Reading List:

1. Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing New York.
3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dana, M.S. (2000), International Economics: Study, Guide and Work Book, (5th Edition). Routledge Publishers, London.
5. Dunn, R.M. and J.H. Mutti (2000), International Economics, Routledge, London.
6. Kindle Berger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
7. King, P.G. (1995), International Economics and International Economic Policy: A Reader, McGraw Hill International, and Singapore.
8. Krugman, P.R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
9. Sodersten, Bo International Economics.

M.A.ECONOMICS, SEMESTER – III
(CORE PAPER)
ECO – 303, PUBLIC ECONOMICS

Module 1: Introduction: Role of state in economic activities – Changing role of state in a mixed economy. Public and Private sector – Evolution of public finance. Multiple theories of public household – Public and Private Goods – Markets mechanism in public and private goods. State as an agent of planning and development.

Module 2: Public Choice: Public choice – Private and public mechanism of allocating resources – Preference revelation and aggregation of preferences; voting systems. An economic theory of Democracy – Politico-eco-bureaucracy, Rent seeking and Direct unproductive profit seeking activities.

Module 3: Public Policy: Rationale for public policy: Allocation of resources for public goods – Voluntary exchange models. Impossibility of decentralized provision of public goods. Demand revealing schemes for public goods – Stabilisation policy – Keynesian Case for Stabilisation policy. Provision of infrastructural facilities; Removing distributional inequalities and regional imbalances.

Module 4: Public Expenditure: Theories of public expenditure, Wagner’s law of increasing state activities – Peacock Wisemans hypothesis – Principle of Maximum Social advantage – Growth and pattern of public expenditure, Effects of public expenditure – Cost benefit analysis – Project evaluation and role of CBA.

Module 5: Taxation: Approaches to taxation – Benefit approach, Ability to pay approach and Neutrality approach – Elasticity and buoyancy of taxation – Incidence and shifting of taxation – Types and classification of taxes and VAT.

Basic Reading List

1. Atkinson, A B and J.E Siglitz (1980), Lecturers on Public Economics, Tata McGraw Hill, New York.
2. Auerbach, A J and M. Feldson (Eds.) (1985), Handbook of Public Economics, Vol. 1, North Holland, Amsterdam.
3. Buchanan, J M (1970), The Public Finances, Richard D Irwin, Homewood.
4. Goode, R (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
5. Houghton, J M (1970) The Public Finance: Selected Readings, Penguin, Harmondsworth.
6. Jha, R (1998), Modern Public Economics, Routledge, London.
7. Menutt, P (1996), The Economics of Public Choice, Edward Elgar, U.K.
8. Musgrave, R A (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.
9. Musgrave, R A and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
10. Shoup, C S (1970), Public Finance, Aldine, Chicago.
11. Shome, P (Ed.) (1985), Tax Policy: Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

M.A. ECONOMICS, SEMESTER – III
(ELECTIVE PAPER)
ECO-304(A), ECONOMICS OF SOCIAL SECTOR

Module 1: Introduction to Economics of Education:

Definition and scope of Economics of Education, Education as Consumption and Investment goods; Human capital: the concept ;Components of Human capital; Historical developments in the human capital theory; Human Capital vs. Physical Capital,; Human capital and human development.

Module 2: Costs and Benefits of Education:

Cost of Education – Expenditure on Education, Private Costs and Social Costs; Direct and Indirect / opportunity costs; Benefits of Education – Direct and Indirect Benefits; Private and Social Benefits; Problems in the Measurement of Costs and Benefits. Cost-Benefit Analysis in Education, Employment and Income; Contribution of Education to economic growth; Education, Poverty and Income Distribution;

Module 3: Educational Planning and Financing:

Approaches to educational planning, Economics of Educational Planning in Developing Countries with special reference to India. Educational Planning and the problem of educated unemployment and brain drain. Role of financing in the development of education, Financing of education in India. Equity and Efficiency Effects of financing education in India. Implications of GATS on Indian Education and financing.

Module 4: Economics of Health, Health care and its financing: Definition and scope of Economics of Health; The concept of health and health care; Health as Consumption and an Investment goods; The role of health in economic development; Health as human capital; Determinants of Health- Poverty, Malnutrition; Economic Dimensions of Health Care – Demand and Supply of Health Care. Resource Mobilisation and Utilisation of health care in India; Pricing and subsidies to Health sector; Health Care and Resource Constraints; Inequalities in Health and health care in India; Institutional Issues in Health Care Delivery.

Basic Reading List:

1. Blaug, Mark (1972) Introduction to Economics of Education. Penguin, London.
2. Becker, G.S.(1974) Human Capital. 2nd Edn., NBER, New York
3. Berman, P and M.E.Khan (1989) Paying for India's Health Care. Sage Publications. New Delhi.
4. Cohn, E and T.Gaske (1989) Economics of Education, Pergamon Press, London.
5. Klarman, H.E. (1965) Economics of Health, Columbia University Press, New York.
6. Panchamukhi, P.R.(1980) Economics of Health: A Trend Report, ICSSR Survey, Allied, New Delhi.
7. Tilak. J.E.G.(1989) Economics of Inequality in Education, Sage, New Delhi.
8. World Bank (1983) The World Development Report: Investing in Health.
9. Oxford University Press, New York. Education for Development

M.A. ECONOMICS, SEMESTER – III
(ELECTIVE PAPER)
ECO-304(B), ECONOMICS OF INSURANCE-I

Module 1: Introduction to Insurance Economics: Economic Security; Human quest for economic security through time; Exposure to losses; Role and definition of insurance; Risk pooling and risk transfer; Economic and legal perspectives, Social vs. private insurance; Life vs. non-life insurance; Classification of life, health and general insurance policies.

Module 2: Fundamentals of life & health insurance: Functions of life & health insurance; Mathematical basis of life insurance; Plans of life insurance; Legal aspects of life insurance; Provisions of policies; Individual health insurance; Uses and types of evaluation; Principles of underwriting of life & health insurance; Group insurance and superannuation (pension) schemes.

Module 3: Fundamentals of uncertainty & risk: Pure risk & speculative risk; Expected utility and decision-making under uncertainty; Expected utility & demand for the insurance; Moral hazard and insurance demand Unit- Concept of risk management; Essentials of risk management; Elements of risk assessment; Risk control & risk financing. Worldwide risk sharing- concept of reinsurance, types of re-insurers; Reinsurance distribution systems, reinsurance markets in developing countries; Selection & classification of risks; Basics of premium construction; valuation and distribution of surplus.

Module 4: Definition, types and importance of general insurance: Concept of short term risk; Basics of the following concepts - Common law, equity, proposal/accidence, indemnity, insurable interest, contribution subrogation; representation; utmost good faith, material fact, physical hazard, moral hazard, policy endorsements conditions/warranties; selection and inspection of risks; rating and calculation of premiums; tariffs and non-tariffs; technology development and general insurance.

Basic Reading List

1. Black. K. Jr. and H.D. Skipper Jr.(2000), Life & Health Insurance, Prentice Hall, Upper Saddle River, New Jersey.
2. Dionne, G. and S.E. Harrington (eds.) (1997), Foundations of Insurance Economics, Kluwer academic Publishers, Boston.
3. Pteffer, I. And D.R. Klock (1974), Perspectives on Insurance, Prentice Hall Inc., Engleword Cliffs.
4. Williams Jr., C.A. M.L. Smith and P.C.Young (1995), Risk Management and Insurance, McGraw Hill, New York.
5. Skipper Jr., H.D.(ed.) (1998), International Risk & Insurance : An Environmental Managerial Approach, Irwin McGraw Hill, Boston.
6. United Nations Conference on Trade and Development (1987), The Promotion of Risk Management in Developing Countries, UNCTAD, Geneva.
7. Insurance Institute of India, Life Assurance Underwriting, (IC-22), Mumbai.
8. Insurance Institute of India, General Insurance Underwriting, (IC-22), Mumbai.
9. Government of India (1998), Old Age and Income Security (OASIS) Report (Dave Committee Report), New Delhi.
10. Ivers, J.I. III and E.T. Johnson (eds) (1991), Readings in Wealth Accumulation Planning, The American College, Bryn Mawr, Pa.
11. Insurance Regulation and Development Authority (2001), IRDA Regulations, New Delh.
12. Meier. K.J. (1998), The Political Economy of Regulation : The Case of Insurance, The State University of New York Press, Albany, N.Y

M.A. ECONOMICS, SEMESTER – III
(ELECTIVE PAPER)
ECO-305(A), DEMOGRAPHY

Module -I Meaning and scope of demography - components of population-growth and their interdependence-Theories of population– Malthus and Optimum theory of population - Theory of demographic transition – Population and Development.

Module-II Population trends in the twentieth century - population Explosion – International aspects of population growth and spatial distribution- Determinants of age and sex - structure- Aging of population – social economic implications.

Module-III Fertility – Trends in fertility rates in developed and less developed countries- Factors affecting fertility – Nuptiality – concept and analysis of marital status- single mean age at marriage – synthetic cohort methods - Mortality rates in more and less developed countries- Life table – construction and uses- concepts of stable population- Methods of population projection.

Module-IV Migration – Streams of migration - Factors affecting migration – Urbanization – trends in developed and developing countries – study of census in India- Trends in the rate of growth of Indian Population – Evolution of population policy – Population control to Family Welfare- Family Planning strategies in India- New Population policy in India.

Basic Reading List

1. S.N.Agarwal : India's population problem – Tata Mc Graw –Hill Co. Bombay.
2. Ahisha Bose : India's Basic Demographic statistics-B.R Publishing corporation, New-Delhi.
3. P.K. Chowbey : Population policy in India – Kanishka Publications, New Delhi.
4. S.C Gulati : Fertility in India an Econometric study of a metropolis-Sage, New Delhi.
5. K.Srinivsan : Basic Demographic techniques and applications.-Sage, New Delhi
6. D.J. Bogue : Principles of Demography-John Wiley, New York.
- 8.C.M. Chiang : Life tables and Mortality Analysis.-WHO, Geneva.
8. CEHI, : Dharmakumar (ed) Vol.2
9. Praveen Visaria, Population studies.
10. Dharma Kumar, Land and caste in south India.

M.A. ECONOMICS, SEMESTER – III
(ELECTIVE PAPER)
ECO-305(B) DEVELOPMENT ECONOMICS

Module 1: Classical Models of Growth: Adam Smith, Ricardo, Malthus and Karl Marx, Cambridge Growth Models, Harrod-Domar, Joan Robinson, Kaldor.

Module 2: Neo-Classical Growth Models: Solow, Meade, Uzawa, Endogenous, Growth models – Romer and Lucas.

Module 3; Development Models: Arthur Lewis, Fei-Rani's, Structuralist models, Rostow's stages, Nurkse and Hirschman.

Module 4: Development Strategies: Neumann's growth model and modifications. Active and passive variables, Choice of goods and Techniques, Mathur's Wage Goods, Light and Heavy Strategies.

Basic Reading List:

1. Walter Eltis : Classical Theories of Economic Growth
2. A K Sen : Growth Economics
3. Halin Mathews : Theories of Economic Growth. (Surveys in Economic Theory, Vol. 2, AEA)
4. Todara and Smith : Economic Development
5. Todara : Economic Development
6. Gautam Mathur : Planning for Steady Growth
7. Chakravarthy : Development Planning: The Indian experience.
8. P.N.Mathur, Bhalla and Agarwala & Singh : Investment Criteria

M.A. ECONOMICS, SEMESTER – IV
(CORE PAPER)
ECO- 401, ECONOMETRICS – II

Module 1 Simultaneous Equation Models: Simultaneous Equation Bias, and Inconsistency of Ordinary Least Squares estimators, Identification problem, Methods of estimating simultaneous equation system – Indirect least squares and Two-stage least squares.

Module 2 Dynamic Econometric Models: Auto-regressive and distributed lag models, Koyack Model. Partial adjustment model, Adaptive expectation model.

Module 3 Time Series Analysis: Stationarity, Test of stationarity, Dickey-Fuller test, Unit root, co integration, spurious regression, Engel – Granger test, Random walk model, Error correction mechanism, causality test, Granger and Sim's test.

Module 4 Applied Econometrics – I: Engel Function – Estimation of Engel elasticities, Consumption function – Estimation of MPC, Demand function for goods – Estimation of own-price, cross-price and income elasticities.

Module 5 Applied Econometrics – II: Demand for Money – Estimation of income and interest elasticities, Production function- Estimation of returns to scale in Cobb-Douglas production function and estimation of elasticity of substitution in CES production function, Supply response function – Estimation of short-run and long-run price elasticities.

Basic Reading List:

1. Johnston.J.(1991) Econometric Methods. McGraw Hill Book Co.London
2. Gupta, D.B. Consumption Pattern in India, TMGH.
3. Mahender Reddy, J.Applied Econometrics (Mimeo).
4. ICSSR (1977); Survey of Research in Economics, Vol. 7.
5. Krishna, K.L. (1999): Economic Application in India, OUP, Delhi.
6. Gujarati, D. (1999): Essentials of Econometrics, Second Edition, McGraw Hill.
7. Gujarati, D. (2002): Basic Econometrics, Third Edition, McGraw Hill.
8. Koutsoyiannis, A.(1977): Theory of Econometrics, 2nd Edition, McMillan, London.
9. Maddala, G.S.(2002): Introduction to Econometrics, McMillan, London.
10. Upender, M. (2008) Applied Econometrics, Vrinda Publications, Delhi

M.A.ECONOMICS, SEMESTER – IV
(CORE PAPER)
ECO – 402, INDIAN ECONOMY

Module- 1 Introduction: Indian Economy during British rule, Commercialization of Agriculture, Process of Industrialization. Composition of Foreign Trade, GNP and Occupation, Trends in NI Growth & Structure; Physical Quality Life Index (PQLI), Human Development Index (HDI): GEM Nature and Magnitude of Workforce and Unemployment, Poverty and Inequality.

Module – 2 Agriculture Sector and land Reforms, agriculture finance and marketing. Planning in India – Objectives and Strategy of Planning. Over – View of Indian Economy, Regional Planning in India; Role of Public Sector in Resource Mobilization.

Module -3 Industrial Sector- Industrial policies, Public and Private sector performance, Growth and pattern of industrialization, Small Scale sector, Privatization, Disinvestment and Exit Policy.

Module -4 Fiscal Federalism- Central state financial relations, finances of Central and state governments- Parallel economy, fiscal sector reforms in India, Monetary and Credit policies and financial sector reforms in India.

Module – 5 Economic Reforms: Changing Role of State; Globalization of Indian Economy, WTO and its Impact, National agenda for Governance. Issues in Export – Import Policy and Foreign Exchange Management Act (FEMA); Exchange Rate Policy, Foreign Capital and MNCs in India; Trade Reforms in India.

Basic Reading List

1. Ahluwalia, I.J. and I.M.D. Little (Eds.) 1999), India's Economic Reforms and Development (Essays in honor of Man Mohan Singh), Oxford University Press, New Delhi.
2. Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
3. Bawa, R.S. and P.S.Raikhy (Ed). (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Brahmananda, P.R. and V.R. Panchamukhi (Eds) (2001), Development Experience in the Indian Economy: Inter-State Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M.L.(1996): Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.

M.A. ECONOMICS, SEMESTER – IV
(CORE PAPER)
ECO-403 ENVIRONMENTAL ECONOMICS

Module 1 Meaning & definition of Environment Economics: Theory of Market Failure. Theories of Environmental Economics: Boulding's Spaceship Earth. Hardin's Tragedy of the Commons, Club of Rome Model, Schumacher's Small is Beautiful, Daly's Steady State Economics. Input-Output Models of the Environment.

Module 2 Theories of Natural Resource Management Material Balance and Entropy Law. Hostelling's Theory of Exhaustible Resources. Dasgupta and Heal, Optimal Depletion of Renewable Resources. Carrying Capacity of the Environment. Sustainable Development Theories of: Definition and Concept of Sustainable Development. Weak vs. Strong Sustainability Criteria. Theories of Sustainable Development:

Module 3 Theory and Policy of Pollution Control: Optimal Level of Pollution. Polluter Pays Principle – Pigovian Taxes and Subsidies. Pollution Permits. Charge and Standards approach. Coase Theorem. Role of Govt. in Environmental Regulation – Command and Control regime. WTO and Environmental impacts. Global environmental problems, International Environmental Conferences –Global Environmental regulations.

Module 4 Measurement of Environmental Degradation: Environmental Costs and Benefits: Under and Non-user Benefits. Direct and Indirect Valuation Methods: Contingent Valuation Method and Willingness to pay. Hedonic Property Values, Travel Cost, Averted Expenditure and Dose Response Methods. UN System of Integrated Economic and Environmental Accounts. Green National Income and Genuine Savings. Environmental Impact Assessment and Report. Environmental Audit.

Module 5 Environment Problems of India: State of India's Environment – Air, Water and Soil Pollution, Natural Resource Depletion, Deforestation, Industrial and Agricultural Pollution, Urbanization, Vehicular Pollution, Impact of Green Revolution Techniques. Functions of Ministry of Environment and Forest and Pollution Control Boards. Environmental Laws in India.

Basic Reading List

1. Baumol, W.J. and W.E.Oates(1988), *The Theory of Environmental Policy* (2nd Edition) CUP, Cambridge.
2. Bhattacharya, R.N. ed. (2001): *Environmental Economics, An Indian Perspective*, Oxford University Press, New Delhi.
3. Hanley, N.J.F.Shogren and B.White (1997) *Environmental Economics in Theory and Practice*. Macmillan.
4. Jarret H. ed. *Environmental Quality in a Growing Economy*, John Hopkins Press, Baltimore.
5. Kalpagam, (1998): *Environmental Economics*, Sterling Press.
6. Kolstrad, C.D. (1999): *Environmental Economics*, Oxford University Press, New Delhi.
7. Mehta, S, S. Mundle, and U.Sankar (1995): *Controlling Pollution: Incentives and Regulation*, Sage, New Delhi.

8. Murthy, M.N., A. James and S.Misra (1999): *The Economics of Water Pollution in India*. Oxford University Press, New Delhi.
9. Pearce, D.W and R. Turner (1991): *Economics of Natural Resource Use and Environment*. John Hopkins Press, Baltimore.
10. Rao, O.K. (2000): *Sustainable Development, Economics and Policy*, Blackwell Publishers, UK.
11. Sankar, U ed (2001): *Environmental Economics*, Oxford University Press, New Delhi.
12. Saxena, H.M. (2000): *Environmental Management*. Rawat Publishers, New Delhi.
13. Sengupta, R.P. (2000): *Ecology and Economics: An Approach to Sustainable Development* Oxford University Press, New Delhi.
14. *State of India's Environment*. The Hindu Annual Publications.
15. Tietenberg, T, ed. (1997): *Economics of Global Warming*, Edward Elgar, UK.
16. Blaug, Mark (1972) *Introduction to Economics of Education*, Penguin, London.
17. Becker, G.S. (1974) *Human Capital*. 2nd Edn., NBER, New York.
18. Berman, P and M.E. Khan (1993) *Paying for India's Health Care*, Sage Publications., New Delhi.
19. Cohn, E and T. Gaske (1989) *Economics of Education*, Pergamon Press, London.
20. Klarman, H.E. (1965) *Economics of Health*, Columbia University Press, New York.
21. Panchamukhi. P.R. (1980) *Economics of Health: A Trend Report*, ICSSR Survey, Allied, New Delhi.
22. Tilak, J.B.G. (1989) *Economics of Inequality in Education*. Sage, New Delhi.
23. World Bank (1993) *The World Development Report: Investing in Health*, Oxford University Press, New York.

M.A. ECONOMICS, SEMESTER – IV
(ELECTIVE PAPER)
ECO-404(A) RESEARCH METHODOLOGY

Module-1: Introduction: Aim, Objectives, and Scope of Research in Economics. Types of Research- Explanatory, Descriptive and Analytical- Importance of Review of Literature in Research.

Module-2: Research Problems: Identification of Research problems, Theoretical frame, Statement of the problem, Review of research. Formation of Objectives and Hypothesis. Defining the concepts in research design.

Module-3: Sampling and Data Collection: Need of sampling, stratified sampling, Multi-stage sampling, Systematic sampling, cluster sampling, size of sampling, uses of sampling, sampling and non-sampling errors- Observation methods, Participant and non-participant methods- Case study, Questionnaire and interview schedule, Projective indirect methods, Focus group study (FGD), Rapid appraisal survey (RAS).

Module-4. Interpretation and Report Writing: Meaning of Interpretation, Techniques of interpretation, precaution in interpretation. Significance of interpretation. Steps in Report writing, Types of Reports, Precautions in research report writing.

Basic Reading List:

1. C. R. Kothari, Research Methodology, Wiahwa Praksh.
2. A.N. Sadhu and Amarjit Singh, Reasearch Methodology in Social Research, Himalaya Publishing House.
3. Wilkinson and Bhandarkar, Methodology and Techniques of Social Sciences, Himalaya Publishing House.
4. O.R. Krishna Swamy and Ranganatham, Methodology of Research in Social Sciences, Himalaya Publishing House.
5. Ram Ahuja, Research Methods, Rawat Publications.
6. C.S.O. Guide to Official Statistics.

M.A. ECONOMICS, SEMESTER – IV
(ELECTIVE PAPER)
ECO-404(B) ECONOMICS OF INFRASTRUCTURE

Module 1: Introduction to Infrastructure Economics: Infrastructure – Physical & Social Infrastructure; Infrastructure as a public good; the peak load, off - load problem; Present status & progress of infrastructure in Indian economy; Role of infrastructure in economic development; Issues & policies in financing of infrastructure.

Module 2: Transport system: Modes, problems and importance of transport system; pricing principles; Present status and issues in transport infrastructure in Indian economy; Development of transport infrastructure in various plans.

Module 3: Importance of Energy Economic Development: Sources of energy: Renewable & Non Renewable; Energy Conservation; Effects of Energy Shortages; The search for an Optimal Energy Policy in the Indian Context.

Module 4: Social Infrastructure: Concept, scope and relevance of Human Resource Development (HRD); Domain of HRD; Educational infrastructure and Economic Growth; Approaches to Educational Planning- Social Demand, Rate of Return and Manpower Balance Approaches; The case for Universal, Free, Primary Education; The issues & challenges in Indian higher education.

Basic Reading List

1. Crew, M.A. P.R. Kleindorfer (1979), Public Utility Economics, Macmillan, London.
2. Indian Council of Social Sciences Research (ICSSR) (1976), Economics of Infrastructure, Vol. VI, New Delhi.
3. Goel, M.M. (2011), Economics of Human Resource Development in India, VK Global Publications Pvt. Ltd., New Delhi, ISBN 978- 93-5058-014-1.
4. Kneafsey J.T: Transportation - Economic Analysis (Lex ington, Torouts, 1975).
5. National Council of Applied Economic Research (NCAER) (1996), India Infrastructure Report; Policy Implications for Growth and Welfare, NCAER, New Delhi.
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M.A. ECONOMICS, SEMESTER – IV
(ELECTIVE PAPER)
ECO-405(A) ECONOMICS OF INSURANCE-II

Module-I: Wealth accumulation planning; Life cycle planning; Planning for accumulation, objectives; purchase of insurance and accumulation planning; Investments - tax advantaged and non-tax advantaged

Module-2: Essentials of individual retirement planning; Analysis of retirement; Income needs; Retirement planning strategies; Investing for retirement, pension plans; Basic principles of pension plans; Pension plans in India; Estate planning - process and tools; Life insurance for estate liquidity.

Module-3: Role of risk-management and insurance in economics development; Insurance institutions as financial intermediaries; Incurrence institutions as investment institutions; Insurance institutions in Indian capital market.

Module-4: Regulation of insurance; Purpose of government intervention in markets; Theories of regulation; Insurance regulation in India; Insurance regulation & Development Authority; Set up and management of insurance companies; Marketing of general insurance.

Basic Reading List

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M.A.ECONOMICS, SEMESTER – IV
(OPEN ELECTIVE)
ECO – 405(B), PROJECT WORK