

UNIVERSITY DEPARTMENT OF ECONOMICS

VINOBA BHAVE UNIVERSITY, HAZARIBAGH



Syllabus and Scheme for Examination

For

M.A. Economics

Under

UGC-CHOICE BASED CREDIT SYSTEM

Approved by Board of Studies on 07/04/2018

Effective from July 2018

MEMBERS BOARD OF STUDIES

External Experts

Dr. U.P. Sinha
Professor,
Dept. of Economics
T.M. Bhagalpur, University

Dr. Rakesh Raman
Professor,
Dept. of Economics
B.H.U., Varanasi

Dr. Rajarshi Majumdar
Professor,
Burdwan University

Internal Experts


Dr. Rani Asthana
Dean, Social Science,
VBU

Dr. K. Upadhyay
Dept. of Economics,
VBU

Dr. Prakash Ch. Deogharia
Dept. of Economics
VBU

Dr. Sajal Mukherjee
Dept. of Economics, VBU

Syllabus improved/ corrected by Department Council, Department of Economics, VBU and adopted for M.A. Secessions (2020-22), (2021-23), (2022-24) and onwards.


Head
Department of Economics
Vinoba Bhave University
Hazaribagh

**UNIVERSITY DEPARTMENT OF ECONOMICS
VINOBA BHAVE UNIVERSITY, HAZARIBAG**

COURSE OUTLINE OF M.A. ECONOMICS

<p>Semester- I</p> <p>ECN-F01–Foundationof Quantitative Economics</p> <p>ECN-C02–MicroEconomicAnalysis-I ECN-C03-MacroEconomicAnalysis ECN-C04- Environmental Economics& Economics of Social Sectors</p>	<p>Semester-II</p> <p>ECN-S05—TheoryofStatistics ECN-C06—MoneyandFinancialMarkets ECN-C07—IndianEconomicPolicy ECN-C08—Theoryof Development and Growth Models</p>
<p>Semester- III</p> <p>ECN-A09–ChoiceBase(Elective) ECN-C10–MicroEconomicAnalysis–II ECN-C11–PublicFinance ECN-C12–InternationalEconomics</p>	<p>Semester-IV (E-13, E-14& E15)</p> <p><i>Students can opt for one of the optional groups, Consisting of three papers</i></p> <p>Group–A MATHEMATICALECONOMICS &ECONOMETRICS</p> <p>Group–B AGRICULTURE&LABOURECONOMICS</p> <p>ECN-D16–Research&Projectwork</p>

SEMESTER-I

ECN-F01

FOUNDATION OF QUANTITATIVE ECONOMICS

Full Marks-70, Pass Marks 28

Time-3 Hrs.

Candidates will have to answer five questions out of total of nine questions. At least one question from each module will be set. Question no.1 will be compulsory, which will contain 7 short answer questions carrying 2 marks each.

Module-I Elementary Analytical Geometry

- 1.1 Solution of Equation in one Variable and Simultaneous equation in two variables, Equation of Straight line and parabola
- 1.2 Set Theory and its operations.
- 1.3 Econometrics: Definition and Scope, Specification of model
- 1.4 Simple Regression model, Stochastic term and its assumptions.

Module-II Introduction to Differential Calculus

- 2.1 Functions and graphs, Exponential and logarithmic function, Limit and Continuity
- 2.2 Derivatives, Partial Differentiation and their application in Economics
- 2.3 Elasticity of Economic Functions, Relation Between AR, MR and Elasticity of Demand
- 2.4 Production function, Young's Theorem, Homogenous function and Euler's Theorem

Module-III Differential Calculus and Extreme Values (Optimization)

- 3.1 Maxima and Minima, Point of Inflexion & their uses in Economics
- 3.2 Pricing under Perfect Competition, Monopoly, Duopoly, Taxation in Monopoly Market
- 3.3 Unconstrained Optimization of a function of several variables
- 3.4 Constrained Optimization: Equality Constrained Optimization

Module-IV Integral Calculus and Economic Dynamics

- 4.1 Indefinite integrals and inverse differentiation
- 4.2 Technique of integration, Integration by substitution-integration by parts, definite integration
- 4.3 Integration and Application to Economic Dynamics (Consumer Surplus, Producer's Surplus)
- 4.4 Definite integrals and approximate integration

Module-V Determinant & Matrix Algebra

- 5.1 Determinant and its properties, Solution of Equation by determinant
- 5.2 Matrix and Matrix Operations Inverse of matrix, Rank of Matrix
- 5.3 Input Output Analysis-Leontief Open Model
- 5.4 Linear Programming: Solution by Graphical Method.

BASIC READING LIST

- Allen, R.G.D. (1974) Mathematical analysis for Economics, Macmillan press & ELBS London.
(Chapters:2,3,4,5,6,7,8,9,10,11,12,13,14,15,18)
- Chiang,A.C.(1986) Fundamental Methods of Mathematical Economics, McGrawHillCo.Ltd.,New York.
- HandryA.T.(1999) Operations Research, Prentice Hall of India, New Delhi.
- Taha, H.A.(1997) Operations Research: An Introduction (6thEdition) Prentice Hall of India (p) Ltd., New Delhi.
- Yamane, Taro (1975) Mathematics for Economics Prentice Hall of India, New Delhi
- A.C Chiang & K Wainwright (2013) Fundamental Method of Mathematical Economics, Mc Graw Hill
- E.T. Dowling (2001) Introduction to Mathemeatical economics, Mc Graw Hill
- K Sydaster& P J Hammond (2015) Mathematics for economic Analysis, Pearson.

SEMESTER-I

ECN–C02

MICRO ECONOMIC ANALYSIS

Full Marks–70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module–I Fundamentals of Consumption & Production

- 1.1 Economic models: Basics of model building, Characteristics of equilibrium System
- 1.2 Consumer Behaviour: Indifference Curve Analysis, Derivation of Demand Curve from Indifference Curve; Revealed Preference approach, Revision of Demand Theory by Hicks
- 1.3 Iso-quant, Marginal Rate of technical substitution, Elasticity of substitution-Least cost combination of inputs
- 1.4 Return to scale, change in scale and factors proportion.

Module–II Production & Distribution

- 2.1 Production function: Cobb-Douglas Production Function and Its Properties
- 2.2 Marginal productivity theory under different Market condition and Modern theory of distribution; Product exhaustion theorem;
- 2.3 Factor pricing in perfect and imperfect factor markets; Classical and Modern theories of Wage, Keynesian and modern theory of Interest, Risk, uncertainty & innovation theory of profit
- 2.4 Macro theories of distribution—Ricardian and Marxian, Neo–Classical theories of Micro-distribution (Kaldor)

Module–III Advance Theories (Theory of Demand an Alternative Approach)

- 3.1 Consumer Choice involving Risk,
- 3.2 Indirect Utility function and Duality theorem
- 3.3 Recent Developments of demand theory
- 3.4 Modern Theory of Consumer Surplus

Module–IV Welfare Economics-I

- 4.1 Definition, scope and purpose of Welfare Economics, Concept of Social welfare; Measurement of Welfare;
- 4.2 Role of Value Judgments in Welfare Economics, Pigou’s Welfare Economics;
- 4.3 Pareto optimality -Optimum exchange conditions; The production optimum;
- 4.4 The consumption optimum; Concept of contract curve;

Module–V Welfare Economics-II

- 5.1 Compensation criteria Contributions of Kaldor and Hicks
- 5.2 Scitovsky double criterion,
- 5.3 Bergson's, Samuelson social welfare function,
- 5.4 Arrow's possibility theorem, A.K. Sen’s contribution to welfare economics

BASIC READING LIST

- Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
- Koutsoyiannis, A. (1979), Modern Microeconomic (second edition) Macmillan Press, London. Layard, P.R.G. and A.W. Walters (1978), Microeconomy Theory, McGraw Hill, New York.
- Sen, A. (1999), Microeconomics Theory and Applications Oxford University Press, New Delhi
- Stigler, G. (1995), Theory of Price (4" edition) Printice Hall of India, New Delhi.
- Varjan, H. (2000), Microeconomic Analysis, W.W. Norton, New York.
- Case KE, Fair RC Osters, (2009) Principles of Economics (9" edition), Pearson
- Myint, H. (1948), Theories of Welfare Economics, Longmans, London.
- Ng Y.K. (1979), Welfare Economics, Macmillan, London. Nicholas, B. (Ed.) (2001), Economic Theory and the Welfare State, Edward Elgar Publishing Ltd, UK
- Pigou, A.C. (1962), The Economics of Welfare (4th Edition), Macmillan.
- Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.
- Samuelson, P.A. (1947), Foundations of Economic Analysis, Harvard University Press, Cambridge, Mass N Gregory Mankiw (2007) Economics: Principles and Applications, Learning India private limited.
- Joseph's Stiglitz and CE Walsh (2007) Economics, W.W Norton and Co.

SEMESTER 1

MACHO ECONOMIC ANALYSIS

ECN-C03

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-1, Consumption Function

- 1.1 Keynes Psychological law of consumption, Income-Consumption relationship,
- 1.2 Absolute income, Relative income, Life Cycle and Permanent Income Hypothesis
- 1.3 Consumption and Asset Price
- 1.4 Consumption under Uncertainty-Modern Approach

Module-II, investment Function

- 2.1 Marginal Efficiency of capital and Investment-long run and short run, Factors affecting Investment Function, Derivation of MEC
- 2.2 Investment Multiplier,
- 2.3 Acceleration Principle, Investment Behaviour,
- 2.4 Super Multiplier, Tobin's 'q' of Investment

Module-III, Macro Economic models

- 3.1 Classical Macro Economic Model
- 3.2 Neo-Classical Macro Economic Model
- 3.3 Keynesian Macro Economic Model
- 3.4 Post Keynesian Macro Economic Model-Rational and Adaptive Expectation Model, Mundell Fleming Model

Module-IV Theories of Inflation

- 4.1 Classical, Keynesian and Monetarist approaches to Inflation, Structuralist theory of inflation.
- 4.2 Inflationary Gap, Measures to remove the gap, Demand Pull and Cost Push theory of inflation
- 4.3 Phillips curve Short-run and long-run: The Natural rate of Unemployment Hypothesis; Tobin's modified Philips Curve
- 4.4 Control of Inflation by Monetary Non-Monetary and fiscal measures

Module-V, Economic Fluctuation

- 5.1 Business cycle- Nature Scope, Phases, Monetary and Non-Monetary Theory
- 5.2 Trade Cycle of Hawtrey and Hayek and their Companion
- 5.3 Traditional Theories of business Cycle (Schumpeter's and Kaldor)
- 5.4 Business Cycle Theories of Hicks and Samuelson

BASIC READING LIST

- Ackley, G.(1997), Macroeconomics, Theory and policy Macmillan, New York.
- Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World; [2 volumes) Oxford University Press, London.
- Branson, W.A. (1989), Macroeconomics Theory and Policy (3rd edition) Harper & Row, New York.
- Hall, R.E. and J.B. Taylor (1986), Macroeconomics W.E. Norton, New York.
- Heljdra, B.J. and V.P. Fredrick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
- Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
- Romer, D.L. (1996) Advanced Macroeconomics, McGraw Hill Co. Ltd., New York.
- Scarfe, B.L. (1997) Cycles Growth and Inflation McGraw Hill, New York,
- Shapiro, E (1996) Macroeconomics Analysis, Gigotia Publications, New Delhi
- Errol Desuza (2009): Macro Economic Analysis, Pearson
- Dornbuseh Fischer and Startz(2010) Macroeconomics, McGrawHiall
- N Gregory mankiw(2010) Macroeconomics, Worth Publisher
- Oliver Blanchard (2009) Macroeconomics, pearson

SEMESTER-1

ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR

ECN-C04

Full Marks-70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-1 Basics of Environmental Economics

- 1.1 Economic Development and Environment- Inter-relationship between Economic Development and Environment
- 1.2 Sustainable Development- Concept, Characteristics and Sustainable Development Goals (SDGs)
- 1.3 Concept of Externalities, Types and Measures to control Negative Environmental Externalities- Pigovian tax, Property Rights and Coase theorem, Carbon tax.
- 1.4 Properties of Environmental goods-Public goods/ private goods.

Module-II Environmental Issues

2. Environmental Management- Concept, Types and Methods of Environmental Management, Environmental management and people's participation (PPP).
- 2.2 Environmental Degradation- Land forest and natural resource degradation.
- 2.3 Problems of Pollution-Air Pollution and Water Pollution; National Environmental Policy.
- 2.4 Social Forestry-Rationale and Benefits.

Module III: Environmental Valuation & Accounting

- 3.1 Concept of Environmental Values- Use Value, Non-use Value and Option Value Basics of the valuation of environment- Contingent Valuation Method, Travel Cost Method, Hedonic Price Method.
- 3.2 Environmental Accounting Objectives forms, functions & importance, Financial Performance and Environmental function.
- 3.3 Natural Resource Management, Introduction to Natural resource accounting, Salient features of System of Environment and Economic Accounting,
- 3.4 Green Accounting, Natural Resource Policies of India.

Module-IV Economics of Social Sector-1

- 4.1 Social Sector - Importance of Social Sector, Education and Health,
- 4.2 Human Capital Vs Physical Capital, Education as Instrument of Economic Growth
- 4.3 Human Capital Formation-Concept and Role in Social Sector Development
- 4.4 Cost of Education-Expenditure on Education, Education Sector- Status, Problems, Solutions and Financing of education In India, Benefit of Education

Module-V Economics of Social Sector-II

- 5.1 Health Sector- Status, Problems, Determinants of health
- 5.2 Poverty, malnutrition and environmental issues,
- 5.3 Solutions and Financing of Health Sector
- 5.4 Health Policy, National Health Policy 2017

BASIC READING LIST

- Chenery H. and TN. Srinivasan (Eds.) (1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.
- Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
- Bramely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Blackwell, London. Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, - Cambridge.
- Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.
- Hussen, A.M. (1999), Principles of Environmental Economics, Routledge, London..
- Sinha U.P (2007), Economics of social sector and development, Concept Publishing company, New Delhi.
- United Nations-Human Development Report (various issues)
- Blaug, M (1972)-Introduction to Economics of Education (Penguin)
- Cohen, E and T. Gaske (1989) - Economics of Education. Pergamon Press, London
- Schultz, T. W(1971) - Investment in Human Capital, Free Press, New York.
- Tilak, J.B.G. (1994) - Education for Development in Asia, Sage Publications, New Delhi.
- World Bank (1993) - The World Development Report, 1993: Investing in Health, Oxford University Press, New York.
- Bhattacharya, R.N. (2001), "Environmental Economics An Indian Perspective', Oxford University Press, Delhi.
- Singh, K. and A. Shishodia, (2007), "Environmental Economics: Theory and Applications", Sage Publications, New Delhi
- Charles Kolstad (2010) Intermediate Environmental Economics, Oxford University Press.
- Robert N. Stavins (ed) (2005) Economics of Environment: Selected Readings
- Robert, Yue Ma, James McGilvray and Micle C (2003) Natural Resource and Environment Economics, Pearson Education.

SEMESTER-II

THEORY OF STATISTICS

ECN-S05

Full Marks-70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-1 Statistical Method -I

- 1.1 Simple Correlation: Karl Pearson's and Product Moment Method, Rank Correlation,
- 1.2 Standard Error of Estimates and Probable Errors estimates; Partial and Multiple Correlation
- 1.3 Regression Analysis: Regression Coefficients and its properties, Estimation of lines of Regression
- 1.4 Time series analysis: Importance and components, Estimation of trend value by least square method.
- 1.5 Application of Statistics by Excel: Measures of Central Tendency and Measures of Dispersion

Module-II Statistical Methods-I

- 2.1 Classical and empirical definition of Probability: Theorem of Probability (Addition Theorem).
- 2.2 Conditional probability, Multiplication theorem, Extension of multiplication theorem, Bayes theorem
- 2.3 Random variables and distribution function, Probability density function, Marginal density function
- 2.4 Mathematical Expectations

Module-II Theoretical Probability Distribution

- 3.1 Discrete and Continuous Probability Distribution
- 3.2 Binomial, Poisson Distribution (Constants, Mode and fitting of distribution)
- 3.3 Normal Distribution, properties of Normal Distribution and equation of Normal Probability curve.
- 3.4 Relation between Binomial and Normal Distribution.

Module-IV Sampling Theory

- 4.1 Sampling Theory, Basic Concept, Types, Census Vs Sampling
- 4.2 Principle of Sampling, Types, Limitation and Errors in Sampling
- 4.3 Sampling Distributions, Sampling Distribution of Means
- 4.4 Sampling Distribution of Proportion, Sampling Distribution of differences of Sums

Module V Statistical Decision Theory

- 5.1 Statistical Hypothesis, Hypothesis Testing Type I and Type-II errors. Error in hypothesis testing
- 5.2 Null and Alternate Hypothesis, Formulation of Hypothesis, level of Significance
- 5.3 Significance of tests in small sample: Test of significance based on t, F and a distribution.
- 5.4 Definition of Chi-Square (χ^2), Chi square test for degree of freedom, Contingency table

BASIC READING LIST

- Spiegel, M.R. (1992). Theory and problems of Statistics, McGraw Hill Co. Ltd, New York
- Chou, Y. (1975), Statistical Analysis, Holt, Reinhart and Winston, New York.
- Croxtion, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi
- Millar, I. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
- Nagar, A.L. and R.K. Das (1993) Basic Statistics, Oxford University Press, New Delhi
- S. P. Gupta: Statistics
- S. C. Gupta: Fundamental of Statistics, Himalaya Publishing house
- D. N. Elhance: Fundamental of Statistics
- Spiegel M.R (2015) Theory of Statistics
- W.G. Cochran (2007) Sampling Techniques, J Willey
- Goon Am, Gupta M K and Dasgupta B (2002) Fundamental of Statistics, (Vol 18 111 World press
- Jay L Devore (2010) Probability and statistics for Engineer, CLearning
- John E Freund (1992) Mathematical Statistics, Prentice Hall
- Mood, AM, Gray Bill F.A & Bose DC (2007): Introduction to the theory of statistics, TaTa McGraw Hill.

SEMESTER-II

Money & Financial Markets

ECN-CO6

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module 1 Supply of Money

- 1.1 Approaches towards determination of money supply- Traditional Approach, Sukhmoy Chakarbartty Committee approach, RBI Approach to Money Supply& Recent changes
- 1.2 Determinants of Money supply- High Powered Money and Money Multiplier.
- 1.3 Money Supply and Liquidity, Derivation of Money Multiplier
- 1.4 Control of Money Supply-Policy Rates and Reserve Ratio.

Module-II Demand for Money

- 2.1 Classical Approach to Demand for Money, Transaction Vs Cash balance approach
- 2.2 Keynes's demand for money, Keynes's Reformation of Quantity theory of money
- 2.3 Post Keynesian Approach to Demand for Money-Patinkin and Real Balance Effect, Friedman
- 2.4 Modern Approaches of Demand for Money-Baumol and Tobin's (Introduction to Portfolio balance effect)

Module-III Money and Capital Markets

- 3.1 Role and structure of money market in India, Instruments of money market
- 3.2 Sub Market-Call money market, Treasury bill market, Discount market,
- 3.3 Securities market Markets for derivatives; Future and options and other derivatives; Primary and secondary market for securities
- 3.4 SEBI-Its impact on working of capital market in India, IRDA and its role in financial markets.

Module-IV Foreign Exchange Markets

- 4.1 Foreign Exchange Market: Structure of Foreign Exchange Market, Methods of Foreign payment, Spot market and Forward market, Interest arbitrage,
- 4.2 Exchange rate- meaning, types determination of equilibrium exchange rates
- 4.3 Foreign exchange market: causes of changes in foreign exchange rate, exposure and management
- 4.4 Devaluation, Meaning, Effects, Conditions for success of Devaluation

Module-V Portfolio Analysis and Mutual funds

- 5.1 Risk and returns of individual security (Insurance)
- 5.2 Portfolio risk and returns
- 5.3 Concept of efficient portfolio
- 5.4 Venture Capital and Mutual funds

BASIC READING LIST

- Ackley, G. (1978), *Macroeconomics: Theory and Policy* Macmillan, New York
- Blackhouse, R and A. Salansı (Eds.) (2000) *Macroeconomics and the real world (Volumes)*, Oxford University Press, London.
- Branson, W.A. (1989) *Macroeconomics Theory and Policy* (3rd edition), Harper & Row, New York.
- Dornbusch R and F, Stanley (1997), *macroeconomics*, McGraw Hill Inc., New York.
- Hall, R.E. and J.B. Taylor (1986), *Macroeconomics*, W.E. Norton, New York.
- Heijdra, B.J. and V.P. Fredrick (2001) *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi.
- Jha, R. (1999), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- Romer, D.L. (1996) *Advanced Macroeconomics*. McGraw Hill Co. Ltd., New York.
- Scarfe, B.L. (1977) *Cycles Growth and Inflation* McGraw Hill, New York.
- Shapiro, E. (1996) *Macroeconomics Analysis*, Gigotia Publications, New Delhi.
- Surrey, N.J.C. (Ed.), (1976) *Macroeconomics themes*. Oxford University Press, Oxford.
- Sinha, U.P (2010) *Monetary and Fiscal actions in India*, Concept Publishing Company New Delhi.
- F.S Mishkin & S G Eakins (2009) *Financial Markets and Institutions*, Pearson
- F.J Fabozzi, F Modigliani, FJ Jones, M G Ferri(2009) *Foundations of Financial Market and Institutions*, Pearson
- MR Baye and D W Jansen (1996) *Money Banking and Financial Market*, AITBS
- MY Khan (2011) *Indian Financial System*, Tata McGraw Hill

SEMESTER-II

INDIAN ECONOMIC POLICY

ECN-CO7

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Framework and Challenges of Indian Economy

- 1.1 Trends and Growth of Indian Economy
- 1.2 Indicators of Development, PCI, POLI, HDI, GDI
- 1.3 Poverty: Causes, Remedies and measurement, multi-dimensional poverty index, Deprivation Index
- 1.4 Employment: Problems, Solutions and Government Initiatives
- 1.5 Gender issues: Gender discrimination and Women empowerment

Module-II Development Strategies in India

- 2.1 Planning in India: Objectives, strategies and evaluation,
- 2.2 NITI Aayog and its role in planning in India
- 2.3 Planning and Decentralization (Panchayati Raj Institutions)
- 2.4 Economic Reforms in India

Module-III Agriculture and Allied Sector

- 3.1 Issues and Concerns in Indian Agriculture and Allied Sector (fisheries, Horticulture, Dairy, and Poultry)
- 3.2 Agriculture Finance, Agricultural Marketing
- 3.3 Cropping pattern in India - factor determining cropping pattern, Dry land farming, Contract Farming
- 3.4 Agricultural holdings in India - Subdivision and fragmentation of holdings, Organic farming in India

Module-IV Sectoral Performance-II

- 4.1 Industrial Sector in pre-Reform Period
- 4.2 Industrial Sector In Post reform period with emphasis on small-scale Sector
- 4.3 Infrastructure: Transport, Energy and communication
- 4.4 Social Infrastructure, components, assessments and policies

Module-V India and Foreign Trade

- 5.1 India's Foreign Trade: Direction and Composition and Balance of Payment of India
- 5.2 New Trade policy (EXIM Policy) FERA, FEMA
- 5.3 India and International institutions, Regional Blocks, BRICS, SAFTA, EU
- 5.4 Multinational Corporations and Foreign Capital

BASIC READING LIST

- Ahluwalia, I. J. and M.D. Little (Eds.) (1999), Indian's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, OxfordUniversity Press, New Delhi,
- Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in India Economy, Guru Nanak Dev University Press, Amritsar.
- Brahmananda, PR and V.R. Panchmukhi (Eds.) (2001), Development Experience in theIndian Economy: Inter-State Perspectives, Bookwell, Delhi
- Chakravarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
- Dantwala, M.L. (1996), Dilemmas of Growth: The Indian Experience, Sage Publications, NewDelhi.
- Dutt R. and Sundram: Indian Economy Mishra and Puri: Indian Economics
- Goyal, Ashima (2015) A Concise Handbook of Indian Economy in the 21" Century
- Uma Kapila, 2008) Indian Economy Since Independence (latest edition)
- Bhagwati, J (2012) Reforms and Economic Transformation in India
- Kaushik Basu and A Maertens eds (2013) The New Oxford Companion to economics, Oxford University Press
- Himanshu (2010) Towards New Poverty Lines for India, EPW, Jan 2010
- Jean Dreze and Amartya Sen (2013) An Uncertain Glory: India and its Contradictions, Princeton University Press.
- PulpureBalkrishnan(2010) Economic growth in India: History and Prospects, Oxford Press.

SEMESTER-II

ECONOMICS OF GROWTH AND DEVELOPMENT

ECN-CO8

Full Marks - 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Theories of Development

- 1.1 Economic Growth and Development Concept, measurement and Indicators of Economic
- 1.2 Factor affecting Economic growth-Capital, Labour and Technology Growth
- 1.3 Schumpeter and Capitalistic development, Innovation: Role of credit, Profit and degeneration of capitalism
- 1.4 Marxian Theory of Development

Module-II Economic Growth-I

- 2.1 Harrod - Domar Growth Model, Knife edge problem
- 2.2 Neo-Classical growth Models- -*Solow, Kaldor, Lucas
- 2.3 Sectoral Models of Economic growth-Mahalanobis growth models
- 2.4 Feldman's Growth Model

Module-III Economic Growth-II

- 3.1 Technological progress-embodied and disembodied; Production function approach to economic growth
- 3.2 Growth models of Hicks and Golden Rule of accumulation; Intellectual capital;
- 3.3 Explanation of cross-country differentials in economic growth.
- 3.4 A. K. Sen Growth Model

Module-IV Social and Institutional Aspects of Development

- 4.1 Development and Underdevelopment-perpetuation of underdevelopment
- 4.2 Poverty-Absolute and Relative; Measurement, Causes and alleviation of poverty, Dependency Theory
- 4.3 Inequality and development Inter-linkages: Kuznets
- 4.4 Mrs. Joan Robinson's growth model

Module-V Partial theories of Growth and Development

- 5.1 Vicious circle of poverty; Circular Causation
- 5.2 Unlimited supply of labour (Lewis), Ranis and Fei model, Big push Theory
- 5.3 Balanced and unbalanced growth, Leibenstein's Critical minimum-effort thesis
- 5.4 Harris - Todaro model, Stiglitz labour turnover model

BASIC READING LIST

- Adelman, I. (1961). Theories of Economic growth and Development, Stanford University Press, Stanford.
- Behrman, S. and T.N. Srinivasan (1995) Hand book of Development Economics, Vol. 3, Elsevier, Amsterdam
- Brown M. (1966) On the Theory and Measurement of Technical change Cambridge University Press, Cambridge Mass.
- Chenery, H.B. and TN Srinivasan (Eds) (1989) Hand Book of Development Economics, Vol. I and II Elsevier, Amsterdam.
- Ghatak, S. (1986) An Introduction to Development Economics, George Allen & Unwin, London.
- Todaro, M and Smith (2011) Economic Development, Pearson. Economic Development
- Ray, Debraj, Development Economics, Oxford University Press
- Meir, G.M.-Leading Issues in Economic Development
- Thirlwall, A.P.- Growth and Development
- Basu, K.-Analytical Development Economics
- Bhattacharya, Debesh-Political Economy of Development
- World Bank-World Development Report (various issues)
- Anand, S. and R. Kanbur (1993) "The Kuznets Process and the Inequality-Development Relationship", Journal of Development Economics, Vol. 40
- Anand, S. and R. Kanbur (1993a) - "Inequality and Development: A Critique", Journal of Development Economics, Vol. 41
- Kuznets, S. (1955) "Economic Growth and Economic Inequality, American Economic Review, Vol. 45,
- Kuznets, S. (1963)- "Quantitative Aspects of Economic Growth of Nations: VIII, Distribution of Income by Size", Economic Development and Cultural Change, Vol. 12.
- Ranis, G. and J. Fel'dman 'A Theory of Economic Development', American Economic Review, Vol. 51, 1961, Reprinted In Eicher and Witt (ed.) Agriculture in Economic Development

Semester III

Choice Base

ECN-A09

Open Elective For Other Than Economics Students

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Full Marks-70, Pass Marks 28

Time 3 hrs.

Module-1 Micro Economics

- 1.1 Law of demand and supply, Elasticity of demand,
- 1.2 Consumer's equilibrium,
- 1.3 indifference curve Income, Substitution and price effect,
- 1.4 Derivation of demand curve from indifference curves,
- 1.5 Consumers Surplus.

Module- II Macro Economics

- 2.1 Concept and measurement of national Income
- 2.2 Keynesian psychological law of consumption
- 2.3 Investment function and its determinants
- 2.4 Theory of the multiplier
- 2.5 Inflation and its control.

Module-III Public Finance

- 3.1 Theory of maximum social advantage,
- 3.2 Ability to pay approach,
- 3.3 Incidence of taxation,
- 3.4 Wagner's law of increasing state activities, Effects of taxation and public expenditure,
- 3.5 Taxable capacity types of taxation, GST, 15th finance commission.

Module-IV International Trade

- 4.1 Classical theory of international trade,- Theories of comparative cost
- 4.2 Theory meaning and components of BOP, equilibrium and disequilibrium in balance of payment, Factors causing disequilibrium in balance of payment and its correction,
- 4.3 Fixed and flexible exchange rates, demand and supply theory of exchange rate determination,
- 4.4 Functions of IMF and World Bank.

Module-V Basic Concept of Economic Development and Growth

- 5.1 Definition Concept and Determinants of Development, Recent Trends of Economic development In India
- 5.2 Sustainable Development indicators of economic development and Distribution
- 5.3 Development indices in India, HDI, GDI, MPI, HPI(I), HPI(II)

BASIC READINGS

- H.L. Ahuja Advance Economics Theory
- H. L. Ahuja Macro Economics Analysis
- Vais MC Money Banking and International Trade
- B.P. Tyagi Public Finance
- M.L. Jhingan Economic Development & Planning

SEMESTER III

ECN-C-10

MICRO ECONOMIC ANALYSIS-II

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Theory of Market-I

- 1.1 Equilibrium of firm & industry under perfect competition, Supply curve of an Industry
- 1.2 Monopoly: Monopoly Power, Profit Maximization and output choice, Monopoly and product quality, Price Discrimination
- 1.3 Monopolistic Competition: General and Chamberlin Approach of equilibrium, Excess capacity, Product differentiation, selling cost
- 1.4 Bilateral Monopoly: Price and Output determination under Bilateral Monopoly

Module-II Theory of Market-II

- 2.1 Price and Output Determination under Oligopoly
- 2.2 Oligopoly with fixed number of firms, Traditional model of oligopoly-Cournot, Edgeworth
- 2.3 Kinked Demand curve and Collusive-Cartels and Mergers, Price Rigidity
- 2.4 Price leadership at basin point price system

Module -III Alternative Theory of Firms-I

- 3.1 Critical evaluation of marginal Analysis, Baumol's Sales revenue Maximization Model
- 3.2 Williamson's Model of Managerial Discretion
- 3.3 Marris Model of Managerial Enterprise, full cost pricing rule behaviour model
- 3.4 Bains limit pricing theory

Module-IV Alternative Theory of Firms-II

- 4.1 Behavioural Model of Cyert and March
- 4.2 Goals of firm: Sacrificing Behaviour, Process of Decision Making
- 4.3 Simple Model of Behaviourism
- 4.4 Game Theory Model

Module-V Market Equilibrium

- 5.1 Cobb- Web Model
- 5.2 Partial and General equilibrium analysis
- 5.3 Walrasian excess demand and input-output approaches to general equilibrium
- 5.4 Existence, stability and uniqueness of equilibrium

BASIC READING LIST

- Amartya Sen Collective Choice and Social Welfare
- Arrow, K.J. (1951) Social Chance and Individual Values, Yale University Press, New Haven
- Duesenberry, 15 (1949), Income, Saving and the Theory of Consumer Behaviour, Harvard University Press, Cambridge, Mass.
- Maishall, A. (1946), Principles of Economics: Macmillan, London Kreps, David M. (1990), A Course in Microeconomic Theory. Princeton University Press, Princeton.
- Koutsoyiannis, A. (1979), Modern Microeconomic (second edition) Macmillan Press, London.
- Layard, P.R.G, and A.W. Walters (1978), Microeconomic Theory, McGraw Hill, New York
- Sen, A. (1999), Microeconomics Theory and Applications Oxford University Press, New Delhi
- Stigler, G. (1996). Theory of Price (4 edition) Printice Hall of India, New Delhi
- Varlan, H. (2000), Microeconomic Analysis, W.W. Norton, New York
- Case KE, Fair RC Osters, (2009) Principles of Economics (9th edition), Pearson
- Samuelson, P.A. (1947), Foundations of Economic Analysis, Harvard University Press, Cambridge, Mass
- N Gregory Mank/w (2007) Economics: Principles and Applications, Learning India private limited.
- Joseph's Stiglitz and CE Walsh (2007) Economics, W.W Norton and Co.

SEMESTER-III

ECN-C11

PUBLIC FINANCE

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Public Expenditure

- 1.1 Theories of the Growth of Public Expenditure- Wagner's law of increasing state activities and Wiseman Peacock Hypothesis
- 1.2 Structure and Growth of Public expenditure in India,
- 1.3 Effects of public expenditure on Production, Distribution and Economic Stability.
- 1.4 Budgeting Systems- Performance Budgeting, PPBS and Zero-based budgeting,

Module-II Taxation

- 2.1 Theory of Incidence; Dalton's and Musgrave's concepts of incidence- Taxable Capacity
- 2.2 Benefit and Ability to pay approaches, theory of optimal taxation
- 2.3 Indian Tax system, revenue of the Union, States and Local bodies; Major taxes in India
- 2.4 Reforms in direct taxes, taxes on services, GST, Non tax revenue of Central, State and Local Bodies

Module-III Public Debt and Public Sector Pricing

- 3.1 Classical View of Public Debt: Compensatory aspect of debt policy
- 3.2 Sources; effect and burden of public debt; Public debt and economic growth
- 3.3 Public debt and inflation, Public debt as a means of regulating economy
- 3.4 Principles of debt management and repayment.

Module -IV Fiscal and Monetary Policies

- 4.1 Objectives of Fiscal Policy- full employment, anti-inflation, economic growth, redistribution of income and wealth
- 4.2 Interdependence of Fiscal and Monetary policies;
- 4.3 Budgetary deficits, fiscal deficit, Revenue deficit and Monetary deficit its implications
- 4.4 Fiscal policy for stabilization-automatic V/s discretionary stabilization

Module-V Fiscal Federalism in India

- 5.1 State financial relation in Indian union budget, Expenditure pattern
- 5.2 Analysis of Union budget, Lack of flexibility in budget
- 5.3 Resource transfer from union to state and role of Finance commission
- 5.4 Fiscal crisis and fiscal sector reform in India

BASIC READING LIST

- Atkinson, A.B. and J.E. Stiglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York:
- Allen & Browne: Theory of Public Finance
- Auerbach, A.J. and M. Feldstern (Eds) (1985) Handbook of Public Economics, Vol. I, North-Holland Amsterdam.
- Huchanan, J.M. (1970) The public Finance, Richard D. Irwin, Homewood Goode, R. (1860), Lectures on Public Economics, Tata McGraw Hill, New Delhi.
- Menutt, P. (1996), The Economics of Public Choice, Edward Elgar, U.K.
- Musgrave, R.C. (1959), The Theory of Public Finance, McGraw Hill Kogakusha, Tokyo.
- Suoup, C.S. (1970), Public Finance, Aldine, Chicago. Shome, P. (Ed.) Tax policy: Handbook, Tax Division, Fiscal Affairs Department International Monetary Fund. Washington, D.C.
- Dalton H: Public Finance
- Taylor: Public Finance
- Musgrave and Musgrave (1989) Public Finance Theory and practice, McGraw Hill
- J Hindricks, G Myles (2006) Intermediate Public Economics, MIT Press
- Rosen T. Gayer (2009) Public Finance, McGraw Hill
- Rangrajan and D K Srivastava (2005) Fiscal Deficit and Govt. Debt, EPW
- M Govind rao (2011): A Study of Budgets, RBI (Latest)

SEMESTER-III

ECN-C12

INTERNATIONAL ECONOMICS

Full Marks 70, Pass Marks 28

Time-3 Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Theory of International Trade

- 1.1 The theory of international trade- theories of comparative cost advantage and opportunity costs.
- 1.2 Heckscher -Ohlin theory of trade, Leontief Paradox.
- 1.3 Samuelson's Factor Price Equalization Theorem, Stolper Samuelson's Theorem
- 1.4 Modern Theories of Trade: Strategic trade theory, N. N Trade Theory

Module-II Theory of Interventions and Gains from Trade

- 2.1 Economic effects of tariffs and quotas on national income, output, employment, Nominal, effective and optimum rates of tariffs- their measurement and Impact.
- 2.2 Concept of Terms of trade, Theory of reciprocal demand, Factors affecting terms of trade
- 2.3 Nature of Gains, Sources of gains, Factor determining Gains
- 2.4 Criteria for measuring Gains from International Trade.

Module-III Monetary aspects of International Trade

- 3.1 Meaning and Components of Balance of Payments; Equilibrium and disequilibrium of Balance of Payments
- 3.2 Theory of Balance of Payment: Monetary and Absorption Theory, Elasticity Approach
- 3.3 Factors causing disequilibrium in balance of payments and its correction
- 3:4 Foreign Trade Multiplier

Module-IV Exchange Rate

- 4.1 Concept of Foreign exchange rate, Fixed and flexible exchange rates, Convertibility of currency
- 4.2 Price adjustment mechanism Fixed and flexible exchange rate, effect of exchange rate on Domestic price and Terms of Trade
- 4.3 Devaluation- The elasticity approach, Absorption approach effect of devaluation on national Income
- 4.4 Theories of exchange rate determination: Purchasing Power Parity, Monetary approach to balance of payment and exchange rate

Module-V-International Economic Co-operation & Organisation

- 5.1 Forms of economic cooperation; Static and dynamic effects of a custom union and free trade areas
- 5.2 Rationale and economic progress of SAARC regions, Asian Development bank - their achievements and shortcomings.
- 5.3 Reforms of the International monetary system, India and developing countries
- 5.4 Functions of WTO, IMF, World Bank

BASIC REDING LIST

- Bhagwati, IN. (ed), International Trade: Selected Readings Cambridge University Press,Cambridge.
- Carbough, R.J. (1999), International Economics, International Thomson Publishing, New York
- Chacholiades, M. (1990), International Trade Theory and Policy, McGraw Hill, Kohaku,Tokyo, Japan.
- Dana, M/s (2000), International Economics: Study, Guide and Workbook (Ed) RoutledgePub, London.
- Dunn, R.M. and JH. Mutto (2000), International Economics, Routledge, London
- Kenen, P.B. (1994), International Economy; Cambridge University Press, London:
- King, P.O. (1995), International Economics and International Economic Policy: A Reader McGraw Hill International, Singapore.
- Salvatore, D. (1997), International Economics, Prentice Gall, Upper Saddle River, NJ. NewYork.
- D Salvatore (2011) International Economics: Trade and Finance John Wiley
- Soderston, Bo (1991), International Economics, Macmillan Press, London.
- R.Findlay in Jones, R.W. and Kenen (ed)-"Handbook of International Economics", vol. I andvol. 11, North 1984,
- Amrita Narlikar (2005): The World Trade Organization-A very short introduction.
- Krugman, P-Rethinking International Trade. MIT Press, 1990
- Paul Krugman, Maurice Obetfeld and Mare Melitz (2012) international economics: Theory andpolicy, Addison-Wesley

SEMESTER-IV

GROUP-A

ECN-E13

MATHEMATICAL ECONOMICS & OPERATION RESEARCH

Full Marks-70, Pass Marks 28

Time-3 Hrs.

Candidates will have to answer five questions out of total of nine questions. At least one question from each module will be set. Question no.1 will be compulsory, which will contain 7 short answer questions carrying 2 marks each.

Module-I Micro Economics Application

- 1.1 Cardinal and Ordinal utility maximization, Indirect Utility Function and Duality theorem, Substitution Effect and Slutsky equation, Compensated and normal demand function;
- 1.2 Homogeneous production function; Properties of Cobb-Douglas production function, Euler's Theorem, Production possibility curve, Technical progress through production function.
- 1.3: Unconstrained and constrained optimisations, Lagrange Multiplier, economic application of unconstrained optimisation (maximisation of tax revenue, discriminating monopoly), and constrained optimisation (utility maximisation)
- 1.4 Cobweb model: (Supply lag and Demand Lag) Simple Continuous Cob-web Model and Model with stocks, Market equilibrium - Marshallian and Wairasian equilibrium conditions

Module-II Macro Economic Application

- 2.1 Difference Equations: Distributed and Lagged, First and second order difference equation.
- 2.2 Differential Equations: First order and second order differential equation (general and particular solution) with economic application (trade cycle theory Samuelson and Hicks)
- 2.3 Dynamic monetary model, Classical & Keynes macro system; Static and dynamic multiplier, Determinants of Investment; Accelerator, Multiplier - Accelerator model of Philips
- 2.4 Harrod Problem, Harrod-Domar growth model, neo-classical model of growth (Solow)

Module-III Theory of Matrix and Linear Programming

- 3.1 Matrix: Symmetric and Skew-Symmetric; Orthogonal matrix, Characteristics roots and vectors; Idempotent matrix; Quadratic forms, Solution of equations by matrix method
- 3.2 Linear Programming, Primal and Dual, Steps in construction of dual duality theorem
- 3.3 Solution of linear programming by graphical method.
- 3.4 Solving linear programming by simplex method

Module-IV Game Theory and Input Output Analysis

- 4.1. Concept of Game theory; Pure and Mixed strategies; Maximum and Mini-max solution: Saddle point; Solution of Games by pure and mixed strategy, Prisoners dilemma
- 4.2 Graphical solution of Games 2x2 Pay off matrix, Nash Equilibrium theory
- 4.3 Economic application of Game Theory
- 4.4 Input Output Analysis Open and Closed systems static and dynamic models; Hawkins-Siman Conditions; Solution under three industries.

BASIC READING LIST

- Allen R.G.D. (1976) *Mathematical, Economics*, Macmillan
- Arrow, K.J. and M. Intriligator (Eds.) (1982) *Hand book of Mathematical Economics*, Vol. 1, 2 and 3 North Holland, Amsterdam.
- Henderson, J.M. and R.E. Quandt (1980) *Micro Economic Theory: A Mathematical approach* McGraw Hill, New Delhi.
- C Chiang & K Wainwright (2013) *Fundamental Method of Mathematical Economics*,
- McGraw Hill E. T. Dowling (2001) *Introduction to Mathematical economics*, McGraw Hill
- K Sydaster & PJ Hammond (2015) *Mathematics for economic Analysis*, Pearson,

SEMESTER-IV

GROUP-'A'

ECN-E14

ADVANCED ECONOMETRICS-1

Full Marks-70, Pass Marks 28

Time-3 Hrs.

Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.

Module-I: Introduction to Econometrics

- 1.1 Nature, Meaning scope and importance of econometrics
- 1.2 Stochastic term and its Importance, Assumptions of error terms
- 1.3 Simple Regression Model, Estimation of Parameters and properties of Least square estimates
- 1.4 Gauss Markov theorem; Concept and derivation of R and Adjusted R²;

Basic Reading List

Koutsoyiannis, A. (1977), Theory of Econometrics (2 ed.) The Macmillan Press Ltd., London.

J.Jhanston 2016 Econometric model

D.N Gujrati & d C Porter (2009) Essential of econometrics McGraw hill

Module-II Econometric Problems in Regression Analysis

- 2.1 Nature, Test and Consequence of Multicollinearity and Heteroscedasticity and Transformation of Heteroscedasticity into Homoscedasticity, Method of Generalized least Square (GLS)
- 2.2 Transformation of non-linear into linear ones; logarithmic, reciprocal and logarithmic reciprocal.
- 2.3 Auto correlation, Firstorder Auto regressive scheme, Mean, variance and co-variance of auto correlated U's, Durbin Watson test and graphical test.
- 2.4 Problems of Auto-correlation-Application, Almond Approach to distributive lag model.

Basic Reading List

Koutsoyiannis, A. (1977), Theory of Econometrics (2 ed.) The Macmillan Press Ltd., London: D.N

Gujrati & d C Porter (2009) Essential of econometrics McGraw hill

William H Green (2006) Econometric Analysis, Pearson.

Module-III Regression with Qualitative Independent variables

- 3.1 Nature and use of Dummy variables, ANOVA models with two qualitative variates
- 3.2 ANCOVA models with a mixture of qualitative and quantitative regression.
- 3.3 Use of Dummy Variable in seasonal analysis, Piece-wise linear regression, Panel Data Regression model
- 3.4 Qualitative response regression model: LPM and its application, the LOGIT model and its estimation, PROBIT model and the TOBIT mode.

Basic Reading List

DN Gujrati & dC Porter (2009) Essential of econometrics McGraw hill

William H Green (2006) Econometric Analysis, Pearson

Module-IV Dynamic Econometric model: Auto regressive and Distributed Lag Models

4.1 Role of time or lag in economics, reasons for logs.

4.2 Estimation of Distributed lag models, The KOYCK Approach to distributed lag model

4.3 Partial adjustment model (PAM)

4.4 Error correction mechanism, causality test, Granger test

Basic Reading List

D.N Gujrati & dC Porter (2009) Essential of econometrics McGraw hill

William H Green (2006) Econometric Analysis, Pearson.

READING LIST

- Chung, J. W. (1993) Utility and production: Theory and application, Basil Blackwell, Landon.
- Ferguson, H. (1976) Neo Classical Production and distribution.
- Anemilys, T. (1985), Advanced Econometrics, Harvard Univ. Press, Cambridge, Mass
- Baltagi, B.H., (19) Econometrics. Springer, NY
- Doherty, C. (1992) Introduction to Econometrics, Oxford University Press, New York
- Goldberger, AS (1998) Introductory Econometrics, Harvard University Press Cambridge Mass.
- Gujarati, D.N. (1995) Basic Econometrics (2nd Edition) McGraw Hill, New Delhi:
- Hill, R..C, EG. William and GG Judge (1997), Undergraduate Econometrics, willey, New York
- Kennedy, P. (1998). A Guide to Econometrics (4thEdn), MIT Press, New York
- Kmenta, J. (2008), Elements of Econometrics (Reprint Ed) Khosla Publishing House, New York
- Koutanyiannis, A. (1977). Theory of Econometrics (2 ed.) The Macmillan Press Ltd. London.
- Krishna, KL. (Ed) (1977) Econometrics Applications In India OUP. New Delhi.
- Maddala, GS. (Ed.) (1993), Econometrics Methods and Applications (2 Vols) Aldershot, U.K
- Theil, H. (1981), Introduction to Econometrics, Prentice Hall of India, New Delhi
- Stock, James H. and Mark W. Watson (2007), Introduction to Econometrics, 2/E, Pearson
- J. Jhonston 2016 Econometric model
- DN Gujarati & D C Porter (2009) Essential of econometrics McGraw hill
- Christopher Dougherty (2007) Introduction to Econometrics, Oxford University Press
- Nachanee econometrics
- William H Green (2006) Econometric Analysis, Pearson

SEMESTER-IV

GROUP-'A'

ECN-E15

ADVANCED ECONOMETRICS-II

Full Marks-70, Pass Marks 28

Time-3 Hrs.

Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.

Module-I Simultaneous Equation Model

- 1.1 The nature of simultaneous equation model and examples of simultaneous equation model
- 1.2 The Simultaneous equation-Bias and inconsistency of OLS estimators
- 1.3 Structural form and reduced form models;
- 1.4 Methods of estimating simultaneous equation system, recursive methods and OLS

Basic Reading List

Koutsoylannis, A. (1977), Theory of Econometrics (2 ed.) The Macmillan Press Ltd, London.
J. Jhanston 2016 Econometric model
D.N Gujrati & C Porter (2009) Essential of econometrics McGraw hill
William H Green (2006) Econometric Analysis, Pearson.

Module-II Identification Problem

- 2.1 Notations and Definitions, Identification problems
- 2.2 Rules of identification; Order and Rank Condition
- 2.3 Estimation of Just identified equation: The method of Indirect Least Square (ILS)
- 2.4 Estimation of Over Identified equation: The method of Two Stage Least Square (2SLS)

Basic Reading List

Koutsoylannis, A. (1977), Theory of Econometrics (2 ed.) The Macmillan Press Ltd, London.
J. Jhanston 2016 Econometric model
D.N Gujrati & C Porter (2009) Essential of econometrics McGraw hill

Module-III Time Series Analysis

- 3.1 Stationary and Non-stationary Time series and Unit roots co-integration-Spurious regression,
- 3.2 Dickey Fuller Test, Engle Garner test, Random Walk Model
- 3.3 AR, MA and ARIMA Modeling of Time series data, estimation of ARIMA model and Forecasting
- 3.4 Vector Auto Regression (VAR), Problem with VAR Modeling, Box Jenkins Method

Basic Reading List

D.N Gujrati & C Porter (2009) Essential of econometrics McGraw hill
William H Green (2006) Econometric Analysis, Pearson,

Module-IV Multivariate Analysis

- 4.1 Probability distribution of disturbance U_i , The normality assumptions of U_i , properties of OLS estimator under normality assumptions
- 4.2 Maximum Likelihood (M-L) method,
- 4.3 General linear model (GLM)
- 4.4 Panel data and its uses, Panel data regression model

Basic Reading List

D.N Gujrati & dC Porter (2009) Essential of econometrics McGraw

William H Green (2006) Econometric Analysis, Pearson.

READING LIST:

- Amemiya, T. (1985), Advanced Econometrics, Harvard Univ. Press, Cambridge, Mass
- Baltagi, B.H. (1998) Econometrics, Springer, New York
- Goldberger, A.S. (1998), introductory Econometrics, Harvard University Press, CambridgeMass
- Gujarati, D.N. (1995) Basic Econometrics (2ndEdn) McGraw Hill, New Delhi.
- Gujarati D.N., Dawn C Porter, Sangeetha Gunasekar (2012) Basic Econometrics (5thEdtr.)McGraw Hill, New Delhi
- Kmenta, J. (1997), Elements of Econometrics (Reprint Ed) University of Michigan Press, New York.
- Koutsoylannis, A. (1977), Theory of Econometrics (2 ed.) The Macmillan Press Ltd., London.
- Maddala, G.S. (Ed) (1993), Econometrics Methods and Applications (2 Vols) Aldershot, U.K.
- Franses, P.H. (1998), Time series models for business and Economic Forecasting, CambridgeUnit Press, Cambridge.
- Intrilligator, M.D. (1978), Econometric Methods techniques and application Prentice Hall, Englewood cliffs, New Jersey.
- Anderson, T.W. (1958) Introduction to multivariate statistical Analysis, Chapman and Hall,London
- Chatfield, C and AJ, Collins, (1980), introduction to Multivariate Analysis, Chapman and Hell, Landon
- Nachana Econometrics

**SEMESTER-IV
GROUP-B**

ECN-E13

AGRICULTURE & LABOUR ECONOMICS

AGRICULTURE ECONOMICS-I

Full Marks-70, Pass Marks 28

Time-3Hrs.

Candidates will have to answer five questions out of total of nine questions. At least one question from each module will be set. Question no.1 will be compulsory, which will contain 7 short answer questions carrying 2 marks each.

Module-I Agriculture and Economic Development

- 1.1 Nature and scope of agriculture and rural economics: Traditional agriculture and its modernization;
- 1.2 Role of Agriculture in Economic Development; Sustainable Agriculture.
- 1.3 Problems of Inputs in Indian Agriculture: Irrigation, Power, Seeds, Fertilizer
- 1.4 Agricultural Development in India, Recent trends in agriculture growth in India

Module-II Diversification of Rural Economic Activities

- 2.1 Diversification of Agriculture
- 2.2 Livestock economics—livestocks sources and their productivity; Problems of Livestock marketing;
- 2.2 White revolution; Fishery and poultry development;
- 2.3 Development of Forestry, and horticulture for Agriculture Development
- 2.4 Rural Non-Farm Sector (RNFS) uses and challenges

Module-III Agricultural Productivity and Marketing

- 3.1 Agricultural production: Resource use and efficiency production function analyses in agriculture.
- 3.2 Factor combination and resource substitution cost and supply curves size of farm and Productivity debate in India, laws of returns
- 3.3 Resource use efficiency in traditional agriculture; Technical change, labour absorption, Feminization of Agriculture
- 3.4 Marketing and state policy, Agricultural Markets and marketing efficiency—marketing functions and costs

Module-IV Land Reform, Land Policy & Co-operation in India

- 4.1 Land Reform measure and performance; Recent Changes in Land Policies
- 4.2 Land utilization; Land distribution structure and trends; Rent; Land tenures and Farming systems—collective and state farming; Tenancy and crops haring—forms, with special reference to India.
- 4.3 Co-operative movement in India; Genesis and growth of co-operative sector; agricultural cooperation in India;
- 4.4 Problem and prospect of cooperative institutions.

Module-V Rural Labour Market

- 5.1 Rural Labour Supply, Inter locking of factor markets; Mobility and Productivity of labour

5.2 Wage Determination: Classical, Neo-classical and bargaining theories of wage determination; Concept of minimum wage, leaving wage and fair wage in theory and practice; National wage policy; Bonus systems and profit sharing.

5.3 Nature extend and trends in rural unemployment, Agricultural wages in India, Male female wage differences

5.4 Non-Agricultural rural employment–trends and determinants.

BASIC READING LIST

- Bhaduri, A. (1984), *The Economic Structure of Backward Agriculture*, Macmillan, Delhi
- Bilgrami, S.A.R. (1996), *Agriculture Economics*, Himalaya Publishing House, Delhi.
- Dantwala, M.L. et al. (1991), *Indian Agricultural Developments since Independence*, Oxford and IBH, New Delhi.
- Deogharia, P.C. (2008) *Rural Credit in India*, Satyam Publication, New Delhi.
- Government of India (1976), *Report to the National Commission on Agriculture*, New Delhi.
- Government of India, *Economic Survey (Annual)*
- Gulati, A and T. Kelly (1999), *Trade Liberalization and Indian Agriculture*, O.U.P. New Delhi
- Joshi, P.C. (1975) *Land Reforms in India: Trends and Prospects*. Allied Publishers, Bombay
- Kahlon, A.S. and D.S. Tyagi (1983), *Agriculture Price Policy in India*, Allied Publishers, Bombay
- Barbara Harriss-White- *Rural Commercial Capital- Agricultural Markets in West Bengal*
- *Agricultural Markets From Theory To Practice: Field Experience In Developing Countries* by Barbara Harriss-White
- Terence J. Byres *Paths of capitalist Agrarian transition in the past and in the contemporary world*.
- V.K. Ramachandran and Madhura Swaminathan *Agrarian Studies: Essay on*
- *Agrarian Relations in Less-Developed Countries* Edited, New Delhi: Tulika Books. 2002. ISBN 81-85229-57-0
- Utsa Pattnaik, *Indian agriculture in the world economy*

**SEMESTER-IV
GROUP-B**

ECN-E14

AGRICULTURE ECONOMICS & RURAL LABOUR-II

FullMarks-70, Pass Marks 28

Time-3Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module-I Economic of Rural Infrastructure

- 1.1 Problems of Rural Economy—Economic, social and others, Modes and problems of rural electrification
- 1.2 Use of Land, water and energy; rural transport, communication
- 1.3 Problems of Rural finance; Rural credit, Financial inclusion
- 1.4 Rural social infrastructure—education and health and information dissemination

Module-II Agricultural & Rural Finance

- 2.1 Need of agriculture finance, Role of capital and rural credit; rural saving and capital formation
- 2.2 Rural Indebtedness causes & nature, Measures to reduce rural indebtedness
- 2.3 Characteristics and sources of rural credit—Institutional and non-institutional; reorganization of rural credit—cooperatives banks Regional rural banks
- 2.4 , Land Development Banks, commercial banks and Lead Bank Scheme, NABARD and its role in agriculture credit

Module-III Agricultural Prices

- 3.1 Marketing and State Policy: Agricultural markets and marketing efficiency, Regulated marketed and marketable surplus, Behaviour of agricultural price—Cobweb model
- 3.2 Price and income stability; State policy with respect to agricultural marketing, ware housing; Prices, Taxation and crop insurance;
- 3.3 Terms of trade between agriculture and non-agricultural Prices; Need for state intervention
- 3.4 Objectives of agricultural Price policy; instruments, Food security in India and public distribution system.

Module-IV Agricultural Growth in India

- 4.1 Cropping patterns, Crops shifting
- 4.2 Pricing of inputs and role of subsidies
- 4.3 Distribution of gains from technological change, Role of public investment and capital formation in Indian agriculture strategy of agricultural development and technological progress
- 4.4 Sustainable agriculture—indigenous practices; Bio-technological practices and growth potential, Need of Second Green Revolution, Climate change and its impacts

Module–V Agriculture and External Sector

5.1 International Trade in agricultural commodities

5.2 Commodity agreements–Role of World Trade Organization

5.3 International Trade in agriculture, Role of MNCs.

5.4 Globalization of Indian Economy and problems and prospects of Indian agriculture, Impact of World Trade Organization on Indian Agriculture

BASIC READING LIST

- Bhaduri, A. (1984) *The Economic Structure of backward Agriculture*, Macmillan, Delhi
- Bilgrami, S.A.R. (1996), *Agricultural Economics*, Himalaya Publishing House, Delhi.
- Dantwala, M.L. et. Al (1991), *Indian Agricultural Development Since Independence*, Oxford & IBH, New Delhi.
- Deogharia P.C. (2008) *Rural credit in India*, Satyam Publication, New Delhi.
- Government of India (1976), *Report of the National Commission on Agriculture*, New Delhi.
- Government of India, *Economic Survey (Annual)*, New Delhi.
- Gulati, A. and T. Kelly (1999), *Trade Liberalisation and Indian Agriculture*, Oxford University Press, New Delhi.
- Joshi, P.C. (1975) *Land Reforms in India: Trends and prospects*, Allied Publishers, Bombay.
- Kahlon, A.S. and Tyagid. S. (1983), *Agriculture price Policy in India*, Allied Publishers, New Delhi.
- Rao, C.H. Hanumantha (1975), *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press, New Delhi.
- Reserve bank of India, *Report on Currency and Finance (Annual)*, Mumbai.
- Rudra, A. (1982), *Indian Agricultural Economics: Myths and Reality*, Allied Publishers, New Delhi.
- Saini, G.R. (1979), *Farm Size, Resource Use Efficiency and Income Distribution*, Allied Publishers, New Delhi.
- Datt, G. (1996), *Bargaining Power, Wages and Employment: An Analysis of Agricultural Labour Markets in India*, Sage Publications, New Delhi.
- Hajela, P.d. (1998), *Labour Restructuring in India: A Critique of the New Economic Policies*, Commonwealth Publishers, New Delhi.
- Jhabvala, R. and R.K. Subramanya (Eds) (2000). *The Unorganized Sector: Work Security and Social Protection*, Sage Publication, New Delhi.
- Lester, R.A. (1960), *Economics of Labour* (2nd Edition), Macmillan, New Delhi.
- Rosenberg, M.R. (1988), *Labour Markets in Low Income Countries* in Chenery, H.B. and T. N. Srinivasan (Eds), *The handbook of Development Economics*, North–Holland, New York.
- Venkata Ratnam, C.S. (2001), *Globalization and Labor-Management Relations: Dynamics of Change*, Sage Publication/Response Books, New Delhi.

SEMESTER-IV

GROUP-B

ECN–E15

INDUSTRIAL & LABOUR ECONOMICS-III

Full Marks-70, Pass Marks 28

Time-3Hrs.

*Candidates will have to answer **five** questions out of total of **nine** questions. At least one question from each module will be set. **Question no.1 will be compulsory**, which will contain 7 short answer questions carrying 2 marks each.*

Module–I Framework and Problems of Industrial Economics

- 1.1 Concept and organization of a firm, Classification of firm on the basis of Ownership structure (Public, Private, Joint and Cooperative Sectors); Objectives of firm, behavioural model of firm
- 1.2 Location of Industries-Weber, Sargent Florence, Factors Influencing Location of Industries
- 1.3 Industrial Sickness-Symptoms, Causes and Remedial Measures.

Module–II State of labour

- 2.1 Social security of labour-Concepts of Social Security, Social assistance and social insurance; Policies with special respect to social security
- 2.2 labour welfare in India-Special Problems of labour, female labour, Child labour, need for safety nets.
- 2.3 Labour Reforms-Second National Commission on labour; labour marketer forms; exit policy.
- 2.4 Labour Market Policies: Mobility of Labour

Module–III Industrial Relations

- 3.1 Theories of Labour movement growth; pattern and structure of labour unions in India.
- 3.2 Causes of industrial disputes and their settlement and prevention.
- 3.3 Current trends in collective bargaining.
- 3.4 Labour legislation in India.

Module–IV Industrial Productivity and Finance

- 4.1 Productivity—Measurement, Factors affecting Productivity, Importance of Productivity in the Competitive Environment
- 4.2 National Production Movement in India.
- 4.3 Industrial Finance-Owned, external and other components of funds, Major funding agencies IDBI, IFCI, SFCs, SIDBI and Commercial banks.
- 4.4 Role of FDIs in Industrial development.

Module–V Indian Industrial Growth and Pattern

- 5.1 Industrial Policy in India—Role of Public and Private Sector.
- 5.2 Problems of MSME in India, Role of MNC's in India.
- 5.3 Recent trends in Indian Industrial growth, Regional Industrial growth in India.
- 5.4 Industrial Development and Environmental Preservation-Pollution control policies of industries.

BASIC READING LIST

- Ahluwalia, I.J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi.
- Barthwal, R.R. (1985), *Industrial Economics*, Wiley Eastern Ltd., New Delhi.
- Cherunilam, F. (1994), *Industrial Economics: Indian Perspective* (3rd Edition) Himalaya Publishing House, Mumbai.
- Desai, B. (1999), *Industrial Economy in India* (3rd Edition), Himalaya Publishing House, Mumbai.
- Divine, P.J. and R.M. Jones et al. (1976) *An Introduction to Industrial Economics*, George Allen and Unwin Ltd., London.
- Government of India, *Economics Survey* (Annual)
- Hay, D. and D.J. Morris (1979) *Industrial Economics: Theory and Evidence*, Oxford University Press, New Delhi.
- Kuchhal, S.S. (1980), *Industrial Economy of India* (5th Edition), Chaitanya Publishing House, Allahabad.
- Reserve Bank of India, *Report on Currency and Finance* (annual).
- Singh, A. and A.N. Sadhu (1988), *Industrial Economics* Himalaya Publishing House, Bombay.
- Weber, Alfred. 1929. (translated by Carl J. Friedrich from Weber's 1909 book). *Theory of the Location of Industries*. Chicago: The University of Chicago Press
- Isard, Walter. 1956. *Location and Space-economy; a General Theory Relating to Industrial Location, Market Areas, Land Use, Trade, and Urban Structure*. Cambridge:

SEMESTER-IV

ECN-D16

RESEARCH&PROJECT

Part-1-ResearchMethodology

1.1 Major concepts of Research Methodology

1.2 Component of Research Proposal, Preparation of Research Proposal/ Synopsis.

Formatting, title page, Abstract introduction body, procedures, results, conclusion

1.3 References, Citations, Bibliographic contents, Appendices

Part-2-Project/Dissertation

Students will have to do an individual project work as assigned by the Department under the Supervision of a teacher of the department. Under this segment students will do following assignments:

- i) Preparation of Research proposal/Synopsis in Economics
- ii) Preparation of project work, Report writing and presentation of Dissertation

At the end of the semester the candidate will have to present his project report/ dissertation

The project work will be of 100 marks:

Project work(report): 70 marks

and Viva-voce : 30 marks.

The viva voce for the project work/ dissertation will be conducted at the university department of Economics. There will be one internal and one external examiner for viva-voce. The university head will be the internal examiner and external examiner will be from outside university.

Basic Readings

Blange M., Research Methodology in Economics

Good WS and Hatt PK (1992): Methods in Social Science Research, McGraw Hill

Kothari, Research Methodology

PannerselvamR.(2004), Research Methodology, Prentice Hall, India

Wilkinson & Bhendarkar, Methodology and Techniques of Social Research