

Gondwana University, Gadchiroli



Syllabus for M.A. (Economics)

**Course under Choice Based Credit System &
Credit Based Semester System**

Session : 2022~23 onwards

Scheme of Examination for

M.A. (Economics) Sem I & II

Gondwana University, Gadchiroli
Syllabus for M. A. - I (Economics) Semester I & II
Session: 2022 - 2023 Onwards
Board of Studies in Economics
Syllabus Committee

1	Dr. S. S. Kawale	Dean
2	Dr. P. B. Titre	Chairman
3	Dr. J. M. Kakde	Member
4	Dr. M. G. Umate	Member
5	Dr. A. K. Mahatale	Member
6	Dr. R. P. Kamble	Member
7	Dr. C. K. Dongre	Member
8	Dr. M. K. Kayarkaer	Member
9	Dr. Sharayu Potnurwar	Member
10	Dr. S. B. Ambhore	Member
11	Dr. S. R. Jagtap	Member
12	Dr. K. K. Patil	Member
13	Dr. R. K. Chimankar	Member
14	N. A. Bodele	Member
15	R. S. Kolhe	Member

libie
- SSC
hug
gaurav
by
...

DEPARTMENT OF ECONOMICS
Gondwana University, Gadchiroli

M. A. Economics - SEMESTER Ist

Sr. No.	Course Code	Title of Course
CORE COURSES		
1	EC - 101	Micro Economic Analysis- I
2	EC - 102	Macro Economic Analysis-I
OPTIONAL PAPERS		
1	EO - 103	Agricultural Economics -I
2	EO - 104	Statistics for Economics- I
3	EO - 105	History of Economics Thought
4	EO - 106	Econometrics -I
5	EO- 107	Public Economics

M. A. Economics - SEMESTER IInd

Sr. No.	Course Code	Title of Course
CORE COURSES		
1	EC - 201	Micro Economic Analysis- II
2	EC - 202	Macro Economic Analysis -II
OPTIONAL PAPERS		
1	EO - 203	Agricultural Economics -II
2	EO - 204	Statistics for Economics- II
3	EO - 205	Industrial Economics
4	EO - 206	Environmental Economics
5	EO - 207	Econometrics -II

huf
huf

huf
huf

huf
huf

M.A. (Economics)

(Nature of Internal Assessment)

SEMESTER PATTERN (CBCS)

1. Assignment to students by respective paper teachers - 05 marks.

2. Attendance of the students - 05 marks.

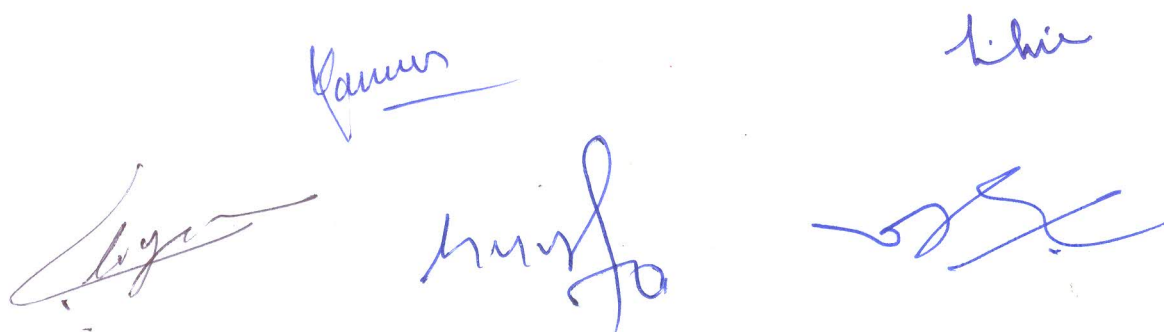
3. Seminar/Presentation of the student to the respective paper

(by respective paper teacher)

-10 marks.

Total

- 20 marks



CBCS SEMESTER PATTERN EXAMINATION

M.A (ECONOMICS)

Time: Three Hours.

Max Marks: 80

Instructions -

- i) All questions are compulsory.
- ii) All question carry equal marks.
- iii) Draw neat diagrams wherever necessary.
- iv) Give correct question number to the answer.

1. Broad question Any One internal choice. 16 Marks each -16
2. Broad question any one internal choice. 16 Marks each -16
3. Write Any Two question (Out of 4- ABCD) 8 Marks each -16
4. Write Any Two question (Out of 4- ABCD) 8 Marks each -16
5. Write short Answers (Four) 4 Marks each -16

Note: Question pattern from 01 to 05 shall be from any four units. For example, question no 01 can be from any Module or unit of 01 to n04 from the syllabus. Similarly question No. 02, 03, 04 shall be from any module or unit of 01 to 04. And question no 05 will be from all module or all unit 01 to 04.

Model Question Paper

Model Que. Paper-1		Model Que. Paper-2		Model Que. Paper-3		Model Que. Paper-4
Q. 1 Module or Unit No. 3		Q. 1 Module or Unit No. 1		Q. 1 Module or Unit No. 2		Q. 1 Module or Unit No. 4
Q.2 Module or Unit No.1		Q.2 Module or Unit No.2		Q.2 Module or Unit No.4		Q.2 Module or Unit No.3
Q.3 Module or Unit No. 2		Q.3 Module or Unit No. 4		Q.3 Module or Unit No. 3		Q.3 Module or Unit No. 1
Q.4 Module or Unit No. 4		Q.4 Module or Unit No. 3		Q.4 Module or Unit No. 1		Q.4 Module or Unit No. 2
Q.5 Module or Unit No 1,2,3,4		Q.5 Module or Unit No 1,2,3,4		Q.5 Module or Unit No 1,2,3,4		Q.5 Module or Unit 1,2,3,4

huylo

huylo

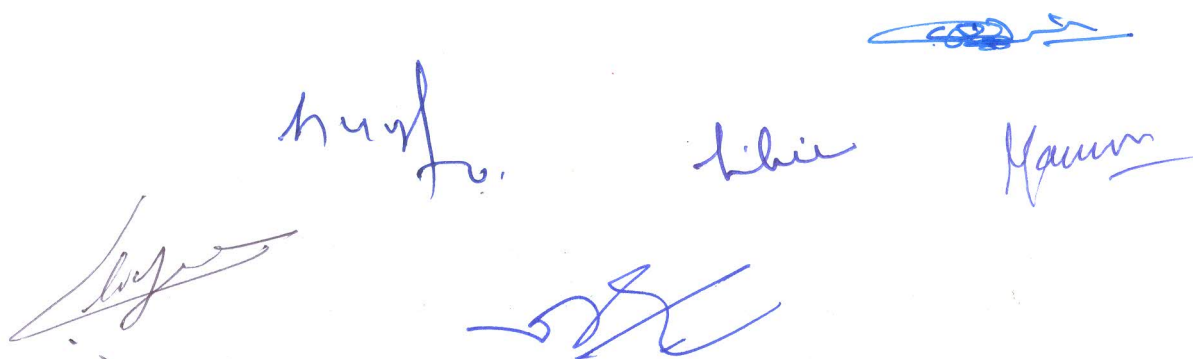
huylo

huylo

huylo

Notes:

- a) EC-101 to EC-102, EC-201 to EC-202, EC-301 to EC-302, EC-401 to EC-402, papers (8 Papers) are Compulsory.
- b) Student can select any two papers from Optional category for I & II semester.
- c) Student can select any two papers from Optional category or one paper from Optional category and one paper from credit by choice category for III & IV semester.
- d) Each paper will be of 100 marks. (Semester Examination 80 Marks, CIE 20 Marks)
- e) The syllabi of each paper per semester is spread over 60 instructional hours.



Handwritten signatures in blue ink, including a large signature on the left, a signature in the center, and a signature on the right, along with a small signature above the right one.

**SYLLABUS PRESCRIBED FOR
M.A. ECONOMICS PART – I Semester - I
Compulsory Paper**

EC – 101 : Micro Economic Analysis – I

Module 1 : Introduction and Basic Concepts.

- 1.1 Basic Economic Problem- Choice and Scarcity.,
- 1.2 Methodology of Economics : Deductive and Inductive, Static and Dynamic
- 1.3 Equilibrium Analysis : Concepts and Types of equilibrium
- 1.4 Functions and Limitations of market mechanism

Module 2 : Demand Analysis - I

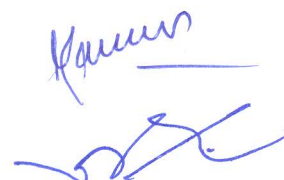
- 2.1 Cardinal Utility Approach : Meaning, Characteristics, Kinds of Utility, Law of marginal utility, Law of equi-marginal utility and significance of equi-marginal utility
- 2.2 Ordinal Utility Approach : Indifference curve, Rate of marginal substitution, Properties, Consumer's equilibrium and changes in income and price
- 2.3 Substitution Effects : Hicksian view point and Slutsky, Giffen Goods, Engel's curve, Derivation of demand curve from indifference curve
- 2.4 Revealed Preference Theory

Module 3 : Consumer Surplus and Elasticity of Demand

- 3.1 Consumer's Surplus : Meaning, Marshallian and Hicksian View Point, Criticism of consumer surplus and significance
- 3.2 Elasticity of Demand : Meaning, Price Elasticity of Demand, Measurement of Price Elasticity, Income Elasticity of Demand and Cross Elasticity of Demand and Importance
- 3.3 Demand Theory of Logical Ordering,
- 3.4 Consumer Behavior under conditions of uncertainty

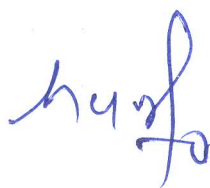
Module 4 : Theory of Production and Costs

- 4.1 Production Function : Law of Variable Proportions, Returns to Scale.
- 4.2 Iso-quants : Properties, Producer's equilibrium
- 4.3 Linear Homogenous Production Function and Cobb-Douglas Production Function, Euler's Theorem
- 4.4 Cost Concepts : Accounting and Economic Cost, Opportunity Cost, Fixed and Variable Cost, Average, Marginal and Total Cost, Short Run and Long Run Cost Curve.



Books Recommended :

1. Ahuja H. L., Advanced Economic Theory : Microeconomics Analysis, 13th Edition, S. Chand and Co. Ltd., New Delhi.
2. Bain J. (1958) Barriers to New Competition, Harrard University Press, Harvard.
3. Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
4. Baumol, W.J. 91982), Economics Theory and Operations Analysis, Prentice Hall of India, New Delhi.
5. Chaturvedi, Gupta and Pal (2002) Business Economics: Text and Cases Galgotia Publishing Company, New Delhi.
6. Dewett K. K., Modern Economic Theory, S. Chand & Company Ltd., Revised Edition, 2005.
7. Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
8. Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
9. Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
10. Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
11. Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
12. Varian, H. (2000): Microeconomic Analysis, W.W. Norton, New York.



M.A. ECONOMICS PART – I Semester - I
Compulsory Paper

EC – 102 : Macro Economic Analysis – I

Module 1 : National Income and macro economic analysis

- 1.1 Macro Economics : Meaning, Concepts, Importance and Limitations
- 1.2 Concepts of National Income, Importance and difficulties in measurement of National Income
- 1.3 Circular Flow of Income and National Income Identities
- 1.4 National Income and Economic welfare
- 1.5 National Income Accounting: Meaning, Characteristics, Classifications and Importance

Module 2 : Supply of Money

- 2.1 Composition of money supply and determinants of money supply
- 2.2 RBI Approach to Money Supply
- 2.3 High Powered Money and Money Multiplier
- 2.4 RBI's money measures
- 2.5 Money supply determination in an open economy, Control of money supply

Module 3 : Demand for Money

- 3.1 Classical Approach to Demand For Money : Fisher and Cambridge
- 3.2 Keynesian Approach : Transaction Demand, Precautionary Demand and Speculative Demand for Money
- 3.3 Milton Friedman's Approach : Wealth theory
- 3.4 Don Patinkin's Theory of Real Balance effects
- 3.5 Prof. Tobin's Approach of portfolio Balance

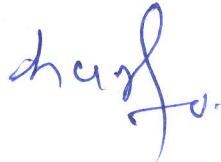
Module 4 : Consumption Function

- 4.1 Consumption Function: Meaning, concept & Types, Psychological Law of Consumption
- 4.2 Short Run and Long Run Consumption
- 4.3 Factors Determining Consumption Function
- 4.4 Main Theories of Consumption Function : The Absolute Income Hypothesis, The Relative Income Hypothesis, The Permanent Income and The Life Cycle Hypothesis



Books Recommended :

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



M.A. Economics Part – I Semester - I
Optional Paper
EO – 103 : Agricultural Economics - I

Module 1: Agricultural and Economic Development:

- 1.1 Nature and scope of agricultural economics, Traditional Agriculture and its modernization
- 1.2 Role of agriculture in economic development, Agricultural development Vs. Industrialization
- 1.3 Agricultural Income and National Income
- 1.4 Recent Trends in agricultural development in India.
- 1.5 Tourism of Agriculture : Meaning, scope of Tourism and Importance, benefits, challenges and measures to development of agriculture Tourism.

Module 2 : Rural Economic Activities and Rural Infrastructure :

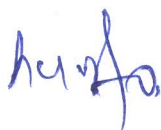
- 2.1 Livestock resources and productivity, White revaluation, Fishery and Poultry development
- 2.2 Organic farming: Present status & future scope, Use of Hybrid Seeds
- 2.3 Development of agro based industries, Forest product base industry
- 2.4 Rural transport, communication, banking and problems of rural electrification
- 2.5 Rural social infrastructure: Education and health.

Module 3 : Agriculture production and productivity :

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

Module 4 : Land Reforms and land Policy

- 4.1 Land reform in India
- 4.2 Evaluation of land reform programmes
- 4.3 Problems of marginal and small farmers
- 4.4 Mechanizations of agricultural in India



Books Recommended :

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

- 18 Hanumantha Rao, C.H. (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 19 Jodhar, N. (Eds.) (1996). Challenges to Indian Bankings, Macmillan, New Delhi.
- 20 Joshi, P.C. (1975), Land Reforms in India Trends and Prospects, Allied Publishers, Bombay.
- 21 Kahlan A.S., Tyagi D.S. (1983), "Agricultural Price Policy in India, Allied Publishers, Bombay.
- 22 Kaur, R. (1975), Agricultural Price Policy in Economic Development with stability, National Publishing House, Delhi.
- 23 M.V. Nadkarni (1973) : Agricultural Price Policy in Economic Development Kalyan Publishers, new Delhi.
- 24 Mamoria C.B. Agricultural Problems of India Kitab Mahal Pub. 2005.
- 25 Rao, C.H. Hanumantha (1975). Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 26 Rudra A. (1982), Indian Agricultural Economics, Myths and Reality, Allied Publishers, New Delhi.
- 27 Rudra, A. (1982). Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
- 28 Singh Acharya, Sagar - Sustainable Agricultural Poverty and Food Securities, Rawat Publication Jaypur Vol- I & II
- 29 Subba Rao, K, and Ajain De January (1986), Agricultural Price Policy and Income Distribution in India, Oxford University Press, New Delhi.
- 30 Subbarao, K. and De Janvry (1986). Agricultural Price Policy and Income Distribution in India, Hansra, B. S. and Vijayaragavan, K (2003): Agribusiness and Extension Management
- 31 मिश्र जय प्रकाश, कृषि अर्थशास्त्र, साहित्य भवन पब्लिकेशन, आगरा
- 32 दत्त रुद्र, सुंदरम, भारतीय अर्थव्यवस्था, एस. चंद एन्ड कम्पनी, लि. नई दिल्ली.
- 33 देसाई व भालेराव, कृषि अर्थशास्त्र आणि भारतातील शेती व्यवसाय, निराली प्रकाशन, पुणे.
- 34 काविमंडन विजय, कृषि अर्थशास्त्र, श्री मंगेश प्रकाशन, नागपूर.



Handwritten signatures in blue ink, including a large signature on the left and several smaller ones on the right.

M.A. Economics Part – I Semester - I
Optional Paper

EO – 104 : Statistics for Economics – I

Module 1 : Introduction to Statistics :

- 1.1 Meaning, Nature, Scope & Significance in Economics
- 1.2 Indian Statistics : CSO, NSSO, Recent Population Census, Agricultural and Industrial Statistics
- 1.3 Types of Measures of Central Tendency : Arithmetic Mean, Median, Mode, Harmonic Mean and Geometric Mean
- 1.4 Methods of measuring Dispersion & Skewness

Module 2 : Correlation & Regression Analysis :

- 2.1 Correlation Analysis : Karl Pearson's Co-efficient of Correlation, Calculation of Correlation for Grouped and Ungrouped Data
- 2.2 Coefficient of Determination, Correlation by Concurrent Deviation methods, Probable Error & Standard Error, Spearman's Rank Difference method of Correlation
- 2.3 Regression Analysis : Meaning, Importance & Use of Regression Analysis, Regression Line & Equations
- 2.4 Calculation of Regression Coefficients : Direct Method, Deviation Method & Least Squares Method

Module 3 : Index Numbers :

- 3.1 Index Numbers : Meaning, Characteristics, Importance and Limitations
- 3.2 Types of Index Numbers : Simple & Weighted
- 3.3 Cost of Living Index Numbers : Meaning, Importance, Type & Computation
- 3.4 Price Index Numbers : Types - Wholesale And Retail Price Index Numbers, Laspeyre's, Paasche's & Bowely's Index Numbers, Fisher's Idle Index Number, Time & Factor Reversal test of Fisher Formula

Module 4 : Time Series Analysis

- 4.1 Time Series Analysis : Meaning, Components & Importance
- 4.2 Components & Measurement of Secular, Regular, Seasonal, Cyclical & Random Fluctuations
- 4.3 Measurement of Long Term Trend : Free Hand Curve, Semi Average, Moving Average & Least Square Methods
- 4.4 Fitting Trend Curves (Line) & Measuring

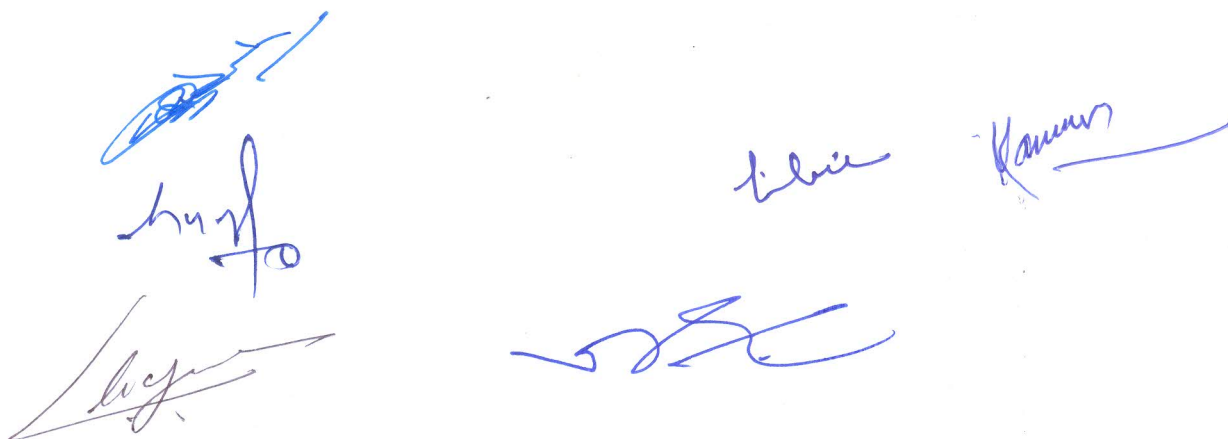
Handwritten signatures and marks at the bottom of the page.

Handwritten signature and marks at the bottom of the page.

Handwritten signature at the bottom of the page.

Books Recommended :

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



Handwritten signatures in blue ink, including a large signature on the left, a signature in the center, and a signature on the right.

M.A. Economics Part – I Semester - I
Optional Paper

EO – 105 : History of Economic Thought

Module 1 : Introduction and Basic Concepts

- 1.1 Nature, Definition and Importance of History of Economic Thoughts.
- 1.2 Development of classical Economics
- 1.3 Mercantilism
- 1.4 Physiocracy

Module 2 : Classical Thinkers

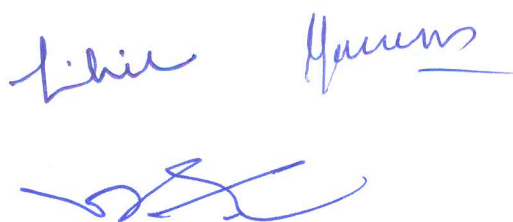
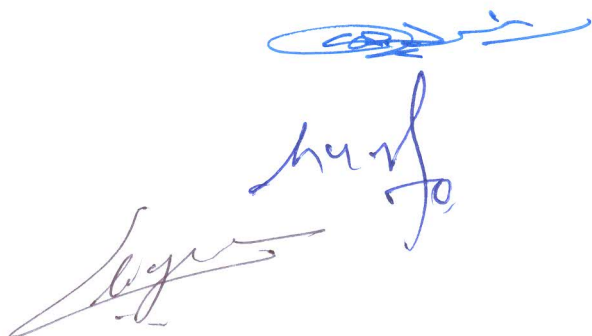
- 2.1 Adam Smith
- 2.2 Alfred Marshal
- 2.3 Devid Ricardo
- 2.4 Thomas Malthas
- 2.5 J.B. Say and J.S. Mill

Module 3 : New-Classical and Modern Thinkers

- 3.1 Sismondi
- 3.2 Karl Marx
- 3.3 J.M. Keynes
- 3.4 Robert Owen
- 3.5 St. Simon

Module 4 : Indian Thinkers

- 4.1 Kautilya
- 4.2 Dr. B.R. Ambedkar
- 4.3 M.K. Gandhi
- 4.4 Amartya Sen



Books Recommended:

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



M.A. Economics Part – I Semester - I
Optional Paper

EO – 106 : Econometrics – I

Module 1 : Basic Econometrics

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

Module 2 : Problems in Regression Analysis

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

Module 3 : Regressions with Qualitative Independent Variables

- 3.1 Dummy variable technique – Testing structural stability of regression models
- 3.2 Comparing two regressions, interaction effects, seasonal analysis, piecewise linear regression, use of dummy variables,
- 3.3 Regression with dummy dependent variables.
- 3.4 The LPM, Logit, Probit and Tobit models – Applications

Module 4 : Dynamic Econometric Models

- 4.1 Autoregressive and distributed lag models – Koyak model, Partial adjustment model, adaptive expectations;
- 4.2 Instrumental variables; Problem of auto-correlation – Application; Almon approach to distributed-lag models; Error correction models,
- 4.3 Causality test, Granger test and Sim's test.
- 4.4 Error correction mechanism and models

Handwritten signature: harjo, legu, hihie

Handwritten signature: [unclear]
Handwritten signature: [unclear]

Books Recommended :

1. Gujarati D.N., Basic Econometrics, McGraw Hill, New Delhi.
2. Dongherty C (1992), Introduction to Econometrics, oxford University Press, New York.
3. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed), The Macmillan Press Ltd.,
London
4. Maddala, G.S. (Ed) (1993), Econometric Methods and Application (2 Vols), Aldershot,
U.K.
5. Krishna K.L. (Ed) (1997), Econometric Applications in India, Oxford University Press,
New Delhi.





M.A. Economics Part – I Semester - I
Optional Paper

EO – 107: Public Economics

Module 1 : Introduction

- 1.1 The Role and function of the Government in an economy
- 1.2 Public Goods, Private Goods, Merit Goods
- 1.3 The Principle of Maximum Social Advantages, Distribution of public expenditure and Distribution of Tax Burden
- 1.4 Markets Failure and Role of Government : Economic Function and role of modern, Causes of the expansion of state's pole, Functions of State, objectives of price policy in developing economy

Module 2 : Public Expenditure and Taxation

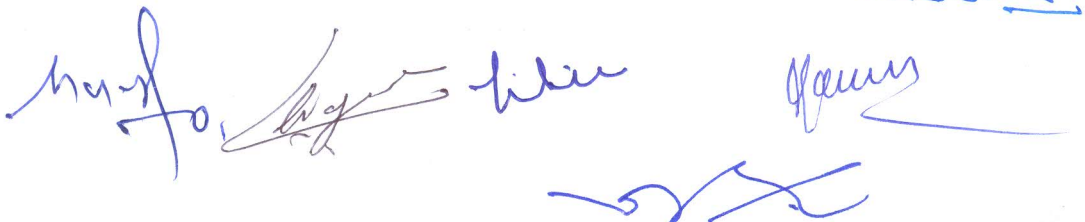
- 2.1 Public Expenditure : Meaning, Classification and Principles
- 2.2 Taxation : Nature, Objectives and Structure (Classification)
- 2.3 Benefit and Ability to pay principles of Taxation
- 2.4 GST : Meaning, Objectives and Effects

Module 3 : Government Budget and Revenue

- 3.1 Budget – Meaning, Objectives and Kinds of Public Budget
- 3.2 Preparation, Passing of Budget of India
- 3.3 Sources of Revenue of Central Government
- 3.4 Sources of Revenue of State Government
- 3.5 Public Debts : Classification sources and effects

Module 4 : Fiscal Policy and Federal Finance

- 4.1 Fiscal Policy : Meaning, Objectives, Indian Fiscal Policy Since - 1991
- 4.2 Fiscal Policy and economic development
- 4.3 Public debt management : Need, Objectives and Principles
- 4.4 Fiscal Federalism in India and Finance Commission
- 4.5 Deficit Financing : Meaning and effects



Books Recommended :

- 1 Atkinson, A.B. and J.E. Siglitz (1980): Lectures on Public Economics, Tata McGraw Hill, New York.
- 2 Auerbach, A.J. and M. Feldstern (eds.) (1985): Handbook of Public Economics. Vol.1, North Holland, Amsterdam.
- 3 Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- 4 Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- 5 Bhargava, P.K. (1984): Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi
- 6 Bhargava, P.K. (1991), India's Fiscal Crisis. Ashish Publishing House, New Delhi.
- 7 Bhatia, H.L. (2000): Public Finance, Vikas Publishing House Pvt. Ltd. Delhi.
- 8 Chellai, Raja J.(eds,)(1997), Towards Sustainable Growth, Oxford University Press, New Delhi.
- 9 भोंग गौतम, दांगट पाटील (2013) सार्वजनिक अर्थशास्त्र, सक्सेस पब्लिकेशन, पूणे
- 10 सिन्हा वी. सी., आंतरराष्ट्रीय अर्थशास्त्र एवं राजस्व एस बी पी डी पब्लिकेशन, अगारा




M.A. ECONOMICS PART – I Semester - II
Compulsory Paper
EC – 201 : Micro Economic Analysis –II

Module 5 : Price and Output Determination –I

- 5.1. Perfect Competition : Features, Price determination and Equilibrium of the firm and industry, market price and Normal price
- 5.2 Monopoly : Features, causes of emergency of monopoly, Price determination in Monopoly
- 5.3 Price Discrimination Under Monopoly : Types of price discrimination, Determination of price and output under Discriminating monopoly, Price determination under Dumping
- 5.4 Control and Regulation of Monopoly.

Module 6 : Price and Output Determination-II

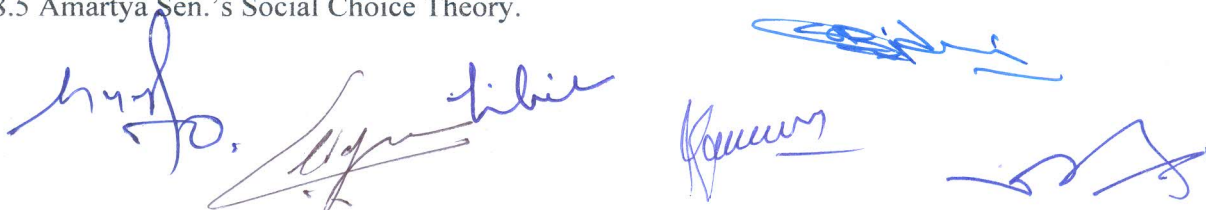
- 6.1 Monopolistic Competition : Features and Equilibrium of Firm, Determination of Group Equilibrium
- 6.2 Oligopoly : Concept, Characteristics, Classification, Price and output determination
- 6.3 Duopoly : Meaning, Price and output determination
- 6.4 Game Theory of Oligopoly, Bain's limit Pricing Theory
- 6.5 Nation of Controlled and Administered Price : Concept, Objectives of Administered Price, Form of Administered prices, methods of Determine the administered price

Module 7 : Theory of Distribution

- 7.1 Marginal Productivity Theory
- 7.2 Ricardian Theory of Rent, Modern Theory of Rent. Quasi Rent,
- 7.3 Modern Theory of Wages, Normal and Real Wages
- 7.4 Interest : Net and Gross interest, Modern Theory of interest, causes of Difference in rates of interest
- 7.5 Profit : Meaning, Innovation Theory of profit and Modern Theory of Profit

Module 8 : Welfare Economics

- 8.1 Pigou's Theory of Welfare Economics.
- 8.2 Pareto's Theory
- 8.3 Bergson – Samulson's social welfare Function
- 8.4 Arrow's Impossibility theorem
- 8.5 Amartya Sen.'s Social Choice Theory.



Books Recommended :

- 1 Ahuja H. L., Advanced Economic Theory : Microeconomics Analysis, 13th Edition, S. Chand and Co. Ltd., New Delhi.
- 1 Bain J. (1958) Barriers to New Competition, Harrard University Press, Harvard.
- 2 Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- 3 Baumol, W.J. 91982), Economics Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- 4 Chaturvedi, Gupta and Pal (2002) Business Economics: Text and Cases Galgotia Publishing Company, New Delhi.
- 1 Dewett K. K., Modern Economic Theory, S. Chand & Company Ltd., Revised Edition, 2005.
- 2 Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
- 3 Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
- 4 Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
- 5 Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
- 6 Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
- 7 Varian, H. (2000): Microeconomic Analysis, W.W. Norton, New York.



M.A. ECONOMICS PART – I Semester - II

Compulsory Paper

EC – 202 : Macro Economic Analysis - II

Module 5 : Saving and Investment Function

- 5.1 Different concepts of saving and saving Functions
- 5.2 Meaning and determinants of investment : Marginal efficiency of capital and investment, Long and Short Run Shifts in investment Functions
- 5.3 Theory of multiplier : Meaning, Working of the multiplier and income propagation Characteristics, Limitations, Leakages and Significance
- 5.4 Theory of Accelerator, Super Multiplier and Distinguish between accelerator and Multiplier

Module 6 : Theories of inflation

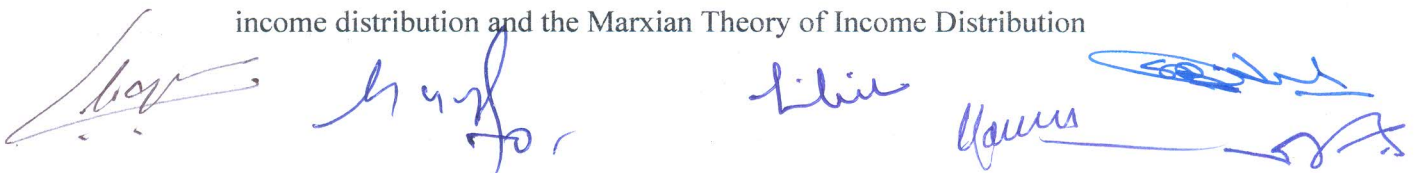
- 6.1 Keynesian Theory : Demand pull and Cost-push inflation
- 6.2 The Philips Curve : The relation between unemployment and inflation, Short Run and Long Run, Criticism of Philips curve
- 6.3 Stagflation : Meaning, Causes and Control
- 6.4 Friedman's expectation Modal
- 6.5 Tobin's modified Philips curve
- 6.6 Policies to control Deflation and causes of deflation

Module 7 : Trade cycle and Financial Markets

- 7.1 Trade cycle : Characteristics, Forms, phases of Trade cycle and Anti cyclical policy
- 7.2 Theories of Trade cycle : Hawtrey, Hayek, Schumpeter and Wicksell
- 7.3 Indian Money Market : Characteristics, Constituents, defects and suggestions to remove defects
- 7.4 Capital Market in India : Composition of capital Market, Development of Indian Capital Market, Recent Trends in Indian Capital Market

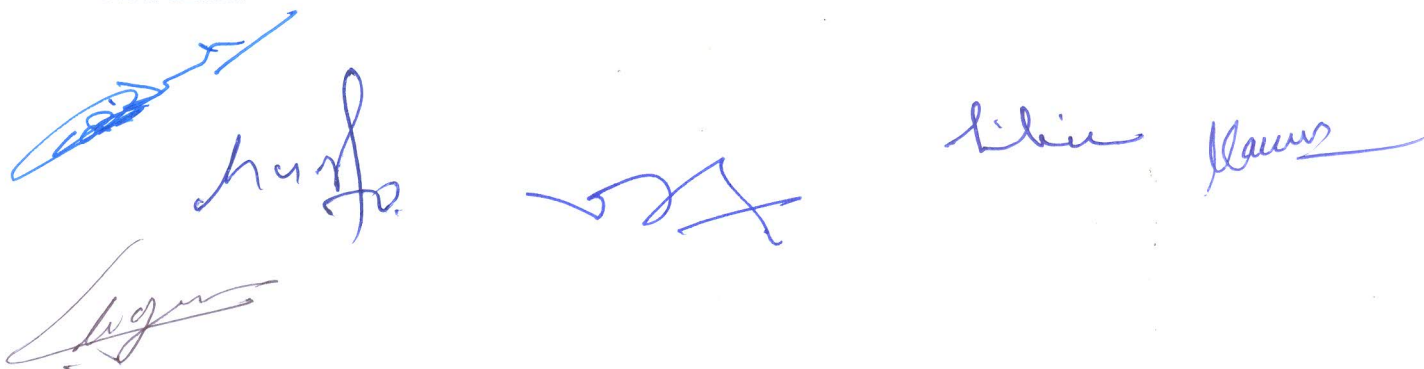
Module 8 : Indian Banking and Macro Economic Theories

- 8.1 Reserve Bank of India : Organization, Management and main functions
- 8.2 Reserve Bank and monetary control
- 8.3 Commercial Banking in India
- 8.4 Development Banking in India : definition, Structure, Characteristics and significance
- 8.5 Economics Theories of Distribution : The Recardian Theory or classical Theory of income distribution and the Marxian Theory of Income Distribution



Books Recommended :

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

The block contains five handwritten signatures in blue ink. From left to right: 1. A signature that appears to be 'Rakshit' with a large flourish. 2. A signature that appears to be 'Jhingan' with a large flourish. 3. A signature that appears to be 'Jha' with a large flourish. 4. A signature that appears to be 'D'Souza' with a large flourish. 5. A signature that appears to be 'Gupta' with a large flourish.

M.A. ECONOMICS PART – I Semester - II

Optional Paper

EO – 203 : Agricultural Economics – II

Module 5 : Agricultural Labour :

- 5.1 Labour supply, mobility of labour and segmentation in labour markets
- 5.2 Marginalization of agricultural labourers
- 5.3 Problems and difficulties of agricultural labours
- 5.4 Agriculture wages in India, male - female wage differences

Module 6 : Agricultural Finance & Agricultural Credit Institutions :

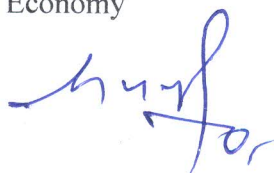
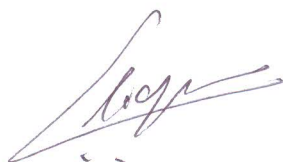
- 6.1 Need of agricultural finance
- 6.2 Source of agricultural finance & role of money lenders
- 6.3 Problem & causes of rural indebtedness
- 6.4 Rural credit institutions : Commercial Banks, Co-operatives Banks, Regional Rural Banks and NABARD

Module 7 : Agricultural Price, Policy & Insurance :

- 7.1 Methods of price determination of agricultural products, Cobweb Theory,
- 7.2 Risk & Uncertainty in Agricultural Production
- 7.3 Agricultural Price Policy in India, Minimum support Price Policy (MSP), State policy regarding agricultural marketing
- 7.4 Agricultural insurance scheme in India : Crop Insurance
- 7.5 Livestock Insurance

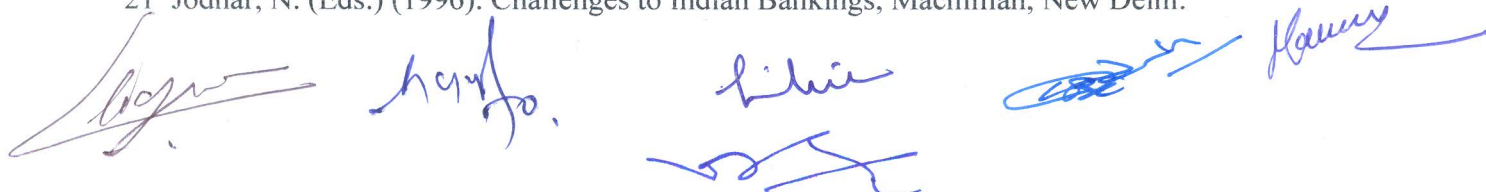
Module 8 : International Trade & Agriculture

- 8.1 Role of agriculture in India's International Trade
- 8.2 Recent trends in agricultural growth in India
- 8.3 Export of agricultural products & Import of agro related commodities
- 8.4 World Trade Organization (WTO) & Indian Agriculture Globalization of Indian Economy



Books Recommended :

- 1 Acharya S.S. and Agarwal N.L. (1994), Agricultural Prices-Analysis and Policy, Oxford and IBH Publishing Co., Pvt.Ltd., New Delhi.
- 2 Agrawal A.N. & Kundan K.L. Agricultural Problems of India, Vikas Pub. H, New Delhi
- 3 B.N.P. Singh. : Indian Economy Today Changing Contours. Deep and Deep Pub.
- 4 Belshaw, H, Agricultural Credit in Economically under Developed Countries, Rome.
- 5 Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, MacMillan, Delhi.
- 6 Bhalla, G.S. (1994). Economic Liberalisation and Indian Agriculture, Institute for Studies in Industrial Development, New Delhi.
- 7 Bhupat M. Desai, N.V.Namboodiri (2001), "Organisation and Management of Rural Financial Sector" Text, cases and Exercise, Oxford and IBH Publishing Pvt. Ltd., New Delhi, Calcutta.
- 8 Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
- 9 Chada, G.K. and A.N. Sharma (1997). Growth, Employment and Poverty: Change and Continuity in Rural India, Vikas Publishing House, New Delhi.
- 10 Dantwala, M.L. (1996). Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
- 11 Dantwala, M.L., et.al. (1991), Indian Agricultural Development Since Independence, Oxford & IBH., New Delhi.
- 12 Dewett Kewal : Indain Economy C.Chand & Co. Ltd. New Delhi.
- 13 E.O. Heady (1964), Economics of Agricultural Production and Resource Use, Prentice Hall of India Pvt.Ltd., New Delhi.
- 14 Government of India (1976), Report of the National Commission on Agriculture, New Delhi,
- 15 Government of India (1976). Report of the National Commission on Agriculture, New Delhi.
- 16 Government of India, Economic Survey (Annual), New Delhi.
- 17 Gulab Nath Singh, Dal Singer Singh and Ram Iqbal Singh (1987), Agricultural Marketing in India (Analysis, Planning and Development), chugh publications, 26 Allahabad.
- 18 Gulati and Kelly (1999). Trade Liberalisation and Indian Agriculture, Oxford Univ. Press, New Delhi.
- 19 Gulati, A. and Kelly, J. (1999), Trade Liberalization and Indian Agriculture, Oxford University Press, New Delhi.
- 20 Hanumantha Rao, C.H. (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 21 Jodhar, N. (Eds.) (1996). Challenges to Indian Bankings, Macmillan, New Delhi.



- 22 Joshi, P.C. (1975), Land Reforms in India Trends and Prospects, Allied Publishers, Bombay.
- 23 Kahlan A.S., Tyagi D.S.(1983) , "Agricultural Price Policy in India, Allied Publishers, Bombay.
- 24 Kapila Uma (ed) Indian Economy Since Independence. Academic Foundation
- 25 Kathuriamand, G.and Chandrasekhar, K. Elements of Agricultural Finance.
- 26 Kaur, R.(1975), Agricultural Price Policy in Economic Development with stability, National Publishing House, Delhi.
- 27 M.V.Nadkarni (1973) : Agricultural Price Policy in Economic Development Kalyan Publishers, new Delhi.
- 28 Mamoria C.B. Agricultural Problems of India Kitab Mahal Pub. 2005.
- 29 Mitra, A. (1977), Terms of Trade and Class Relations, Frank Cass Co.Ltd., London.
- 30 Rao, C.H. Hanumantha (1975). Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- 31 Rudra A. (1982), Indian Agricultural Economics, Myths and Reality, Allied Publishers, New Delhi.
- 32 Rudra, A. (1982). Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
- 33 Saint, G.R. (1979), Farm Size, Resources Use Efficiency and Income Distribution, Allied Publishers, New Delhi.
- 34 Singh Acharya, Sagar - Sustainable Agricultural Poverty and Food Securities, Rawat Publication Jaypur Vol- I & II
- 35 Subba Rao, K, and Ajain DeJanuary (1986), Agricultural Price Policy and Income Distribution in India, Oxford University Press, New Delhi.
- 36 मिश्र जय प्रकाश, कृषि अर्थशास्त्र, साहित्य भवन पब्लिकेशन, आगरा
- 37 दत्त रुद्र, सुंदरम, भारतीय अर्थव्यवस्था, एस. चंद एन्ड कम्पनी, लि. नई दिल्ली.
- 38 देसाई व डॉ. भालेराव, कृषि अर्थशास्त्र आणि भारतातील शेती व्यवसाय, निराली प्रकाशन, पुणे.
- 39 काविमंडन विजय, कृषि अर्थशास्त्र, श्री मंगेश प्रकाशन, नागपूर.

M.A. ECONOMICS PART – I Semester - II

Optional Paper

EO – 204 : Statistics for Economics – II

Module 5 : Sampling :

- 5.1 Meaning, Sample and Population, Methods of Sampling
- 5.2 Characteristics & Importance of Sampling, Sampling error type I & type II, Sample size
- 5.3 Sampling Distribution for sampling mean and proportion
- 5.4 t-Test, Z-Test & Standard error

Module 6 : Analysis of Variance

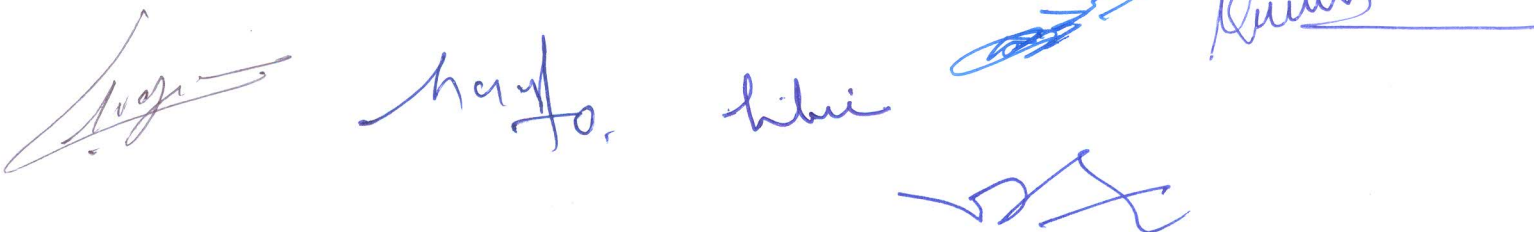
- 6.1 Meaning, Technique & Application of Analysis of Variance
- 6.2 Statistical Hypothesis, Level of significance & Level of confidence, Critical Region
- 6.3 F test : Critical Values & Application of F-distribution
- 6.4 Tests of significance & Hypothesis testing

Module 7 : Association of Attributes

- 7.1 Qualitative Classification & Notation, Consistence of Data, Determination of Unknown Class Frequencies
- 7.2 Yule's Coefficient of Association
- 7.3 Chi-Square (χ^2) Test : Degree of Freedom, Testing the Hypothesis
- 7.4 Test of Goodness of Fit, Test for Independence of Attributes, & Yates Correction for continuity

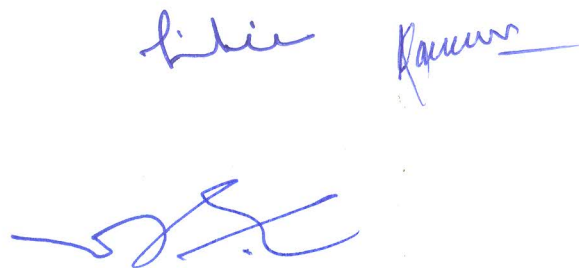
Module 8 : Probability

- 8.1 Probability : Meaning & Type of Event
- 8.2 Addition, Multiplication, Bernoulli's & Bayes's Theorem
- 8.3 Joint, Marginal, Conditional & Axiomatic Probability
- 8.4 Binomial, Poisson & Normal Frequency Distribution

The bottom of the page features several handwritten signatures and initials in blue ink. From left to right, there is a signature that appears to be 'Raj', followed by 'haryo', 'hbi', a signature that looks like 'Raj', and another signature that appears to be 'Raj'. There are also some other scribbles and marks.

Books Recommended :

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

A collection of handwritten signatures in blue ink, including a large signature on the left and a smaller one above it.A collection of handwritten signatures in blue ink, including a signature on the left and a longer one on the right.

M.A. ECONOMICS PART – I Semester - II

Optional Paper

EO – 205 : Industrial Economics

Module 1 : Introduction

- 1.1 Industry and Economic Development : Meaning, Need and importance of industries, Role of industries in economic development
- 1.2 Classification of industries : size based classification, use based classification, proprietary based classification
- 1.3 Industrial Integration : Meaning, Objectives, Causes, Advantages and Types

Module 2 : Pattern and Growth of Indian Industries

- 2.1 Role & pattern of Industrialization in India.
- 2.2 Industrial Growth and structure,
- 2.3 Problem of Regional imbalance, Strategy of industrial development of Vidarbha
- 2.4 Impact of Globalization, Privatization and Liberalizations.

Module 3 : Industrial Finance

- 3.1 Industrial Finance corporation of India
- 3.2 Industrial Development Bank of India
- 3.3 Small Industries Development Bank of India
- 3.4 Foreign Direct Investment Recent Trends
- 3.5 Sources of Industrial Finance

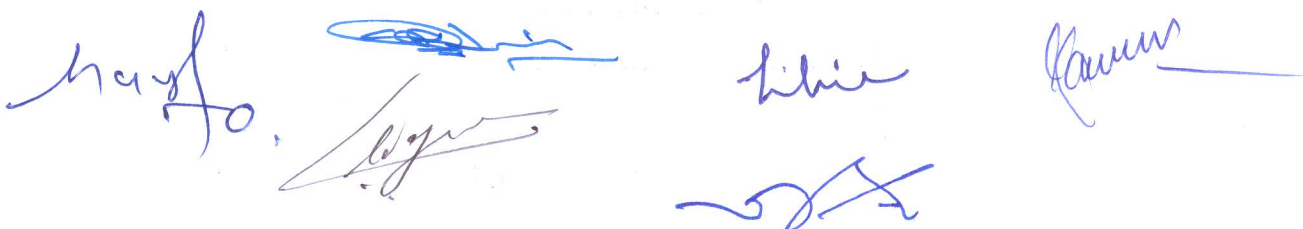
Module 4 : Industrial Policy and Industrial Labour

- 4.1 New Industrial Policy and Economic Reforms
- 4.2 Industrial Labour : Meaning, Structure, employment dimensions in Indian Industry
- 4.3 Industrial Disputes: Causes, Effects and measures for industrial peace
- 4.4 Social Security and wages: Meaning of social security, social security system in India, Meaning of wages, Money and Real wages, minimum wages, Living wages, Fair wages, Minimum wages Act 1948



Books Recommended

- 1 Ahluwalia I.J.(1985) : Industrial Growth in India, Oxford University Press , New Delhi.
- 2 Barthwal, R.R. (1985): Industrial Economics, Wiley Eastern Ltd., New Delhi.
- 3 Cherunilam, F.(1994): Industrial Economics, Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
- 4 Desai, B. (1999), Industrial economy in India (3rd Edition), Himalaya Publishing H,Mumbai.
- 5 Kuchhal, S.C. (1980):Industrial Economy of India (5th Edition),Chaitanya Publishing H, Allahabad.
- 6 Sai Singh, A. and A.N.Sadhu (1988) : Industrial Economics, Himalaya Publishing H,Bombay.
- 7 Kamien M.T. and N.L.Schwarz (1982) : Market Structure and Innovation, Cambridge University Press, Cambridge,
- 8 Brahmananda, ' P.R. and V.R. Panchanmukhi (Eds.)(1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
- 9 Chekravarthy, S. (1987): Development Planning : the Indian Experience, Oxford University Press, New Delhi.
- 10 Sandesara, J.C. (1999), Industrial Policy and Planning-1947-1991: Tendencies Interpretations and Issues, Sage Publications, New Delhi.
- 11 Sen R and B.Chatterji (2001) : Indian Economy : Agenda for the 21st Century, Essays in Honour of Professor PR.Brahmananda , Deep & Deep Publications Pvt. Ltd., New Delhi.
- 12 Ahluwalia, I.J. (1985) : Industrial Growth in India-Stagnation since the mix sixties-Oxford University Press, New Delhi.
- 13 Memoria and Memoria (2000), Dynamics of Industrial Relations in Indian (15th Eds.), Himalaya Publishing House, Mumbai.
- 14 Khan M. I. (1981). Indian Financial Systems. Allied publishers, New Delhi.
- 15 Sen , R. and B. Chatterjee (2001), Indian Economy : Agenda for the 21st Century (Essays in honour of Professor P.R. Brahmananda), Deep and Deep Publications Pvt. Ltd. New Delhi.
- 16 Mamoria and Mamoria (2000), Dynamics of Industrial Relations in India (15th Edition), Himalaya Publishing House, Mumbai.
- 17 रामखेलकर, डॉ. दामाजी (2011) औद्योगिक अर्थशास्त्र, विद्या बुक्स पब्लिशर्स, औरंगाबाद
- 18 भोंग, अवाड, दांगर (2015) औद्योगिक अर्थशास्त्र, सक्सेस प्रकशन, पूणे



M.A. ECONOMICS PART – I Semester - II

Optional Paper

EO – 206 : Environmental Economics

Module 1: Elements of Environmental Economics

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

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

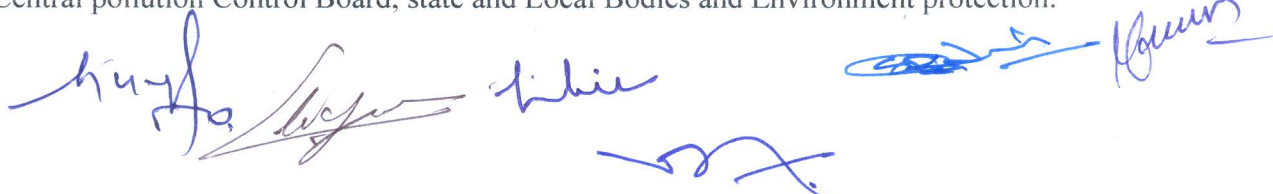
- 2.1 Concept of Sustainable, Rules of Sustainable Development- Indicators of sustainable development,
- 2.2 Mechanism for environment regulation in India; Environmental laws and their implementation-Policy instruments for controlling water and air pollution- Forestry policy;
- 2.3 Economics of Renewable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

Module 3 : Environmental Problems of Agricultural and Industrial Development:

- 3.1 Environmental Problems of Industrial development: Water Pollution, Air Pollution, Noise Pollution, Ozone Layer Deduction, Green House Gas Emissions
- 3.2 Special Economic Zones and the environment,
- 3.3 Environmental Problems of Agricultural development- Salinity, water logging, desertification of land, Excess use of water, fertilizers and pesticides,
- 3.4 Environment Problems in Vidarbha Region: Causes & Remedies

Module 4 : Environmental Problems and Environmental Policy in India:

- 4.1 Rural and Urban environmental problems – Population and the Environment
- 4.2 Housing and Slums and the environment, Rural Sanitation Scheme, Poverty and the Environment.
- 4.3 WTO and environment, issues of Climate Change, Environmental Policy in India- 32 Environment protection laws in India,
- 4.4 Central pollution Control Board, state and Local Bodies and Environment protection.



Books Recommended :

- 1 Ali, S. A. (1979), Resources for Future Economic Growth, Vikas Publishing House, New Delhi.
- 2 Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy (2nd edition), Cambridge University Press, Cambridge.
- 3 Bhattacharya, R.N. (Ed) (2001), Environmental Economics; An Indian Perspective, Oxford University Press, New Delhi.
- 4 Chopra, K. (1998), Valuation of Bio-diversity within Protected Areas: Alternative Approach and a case study, Institute of Economics Growth, Delhi.
- 5 Chopra, K., Kadekodi G.K. and M.N. Murthy : The Management of Common Property Resources, SAGE, New Delhi.
- 2 Garge, M. R. (Ed.) (1996), Environmental Pollution and Protection, Deep and Deep Publications, New Delhi.
- 3 Hanley, N., J.F. Shogren and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.
- 4 Kolstad C.D. (1999), Environmental Economics, Oxford University Press, New Delhi.
- 5 Lodha, S. L. (Ed.) (1991), Economics of Environment, RBSA Publishers, Jaipur.
- 6 Markandya, A. and M. N. Murty (2000), Cleaning up the Ganges: Cost-Benefit Analysis of Ganga Action Plan, Oxford University Press, New Delhi.
- 7 Mehta, S.S. Mundle and U. Sankar : Controlling pollution: Incentives and Regulation, SAGE, New Delhi – 1995





M.A. ECONOMICS PART – I Semester - II
Optional Paper

EO – 207 : Econometrics – II

Module 5 : Simultaneous Equation Models

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

Module 6 : Time Series Analysis

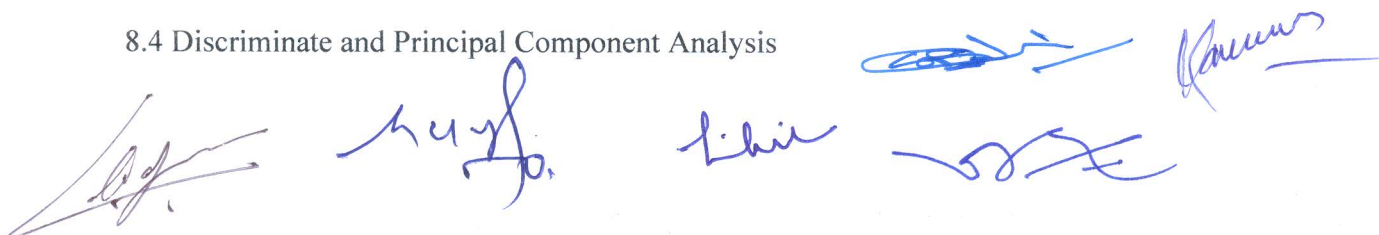
- 6.1 Stationarity, Unit roots, co-integration-spurious regression,
- 6.2 Dickey-Fuller test, Engle- Granger test, Random walk model,
- 6.3 Forecasting with ARIMA modeling Box-Jenkins methodology;
- 6.4 Vector auto regression; Problems with VAR modeling – Applications;

Module 7 : Panel Data Techniques

- 7.1 Panel data techniques.
- 7.2 Random coefficients model' fix effects model;
- 7.3 Random effect model.
- 7.4 Applications in Economic Analysis

Module 8 : Multivariate Analysis

- 8.1 Multivariate probability distribution, Properties and Uses
- 8.2 Marginal and conditional probability distribution,
- 8.3 Multivariate normal distribution and its properties; Hotelling T-scale;
- 8.4 Discriminate and Principal Component Analysis



Books Recommended :

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





Semester Pattern Scheme of Examinations for Economics

M.A. Economics Part I - Semester I

Sr. No.	Course Code	Title of Paper	Credits	Marks					
				Continuous Assessment (Internal)	Passing Marks	Semester End Examination (External)	Passing Marks	Total	Passing Marks
CORE COURSES									
1	EC - 101	Micro Economic Analysis– I	4	20	8	80	32	100	40
2	EC - 102	Macro Economic Analysis-I	4	20	8	80	32	100	40
ELECTIVE/OPTIONAL PAPERS (ANY TWO)									
1	EO - 103	Agricultural Economics –I	4	20	8	80	32	100	40
2	EO - 104	Statistics for Economics- I	4	20	8	80	32	100	40
3	EO - 105	History of Economics Thought	4	20	8	80	32	100	40
4	EO - 106	Econometrics –I	4	20	8	80	32	100	40
5	EO– 107	Public Economics	4	20	8	80	32	100	40

M.A. Economics Part I - Semester II

Sr. No.	Course Code	Title of Paper	Credits	Marks					
				Continuous Assessment (Internal)	Passing Marks	Semester End Examination (External)	Passing Marks	Total	Passing Marks
CORE COURSES									
1	EC - 201	Micro Economic Analysis– II	4	20	8	80	32	100	40
2	EC - 202	Macro Economic Analysis –II	4	20	8	80	32	100	40
ELECTIVE/OPTIONAL PAPERS (ANY TWO)									
1	EO - 203	Agricultural Economics –II	4	20	8	80	32	100	40
2	EO - 204	Statistics for Economics- II	4	20	8	80	32	100	40
3	EO - 205	Industrial Economics	4	20	8	80	32	100	40
4	EO - 206	Environmental Economics	4	20	8	80	32	100	40
5	EO - 207	Econometrics –II	4	20	8	80	32	100	40

Note : 1. One Period of 60 Minutes. 2. 15 periods = 01 Credit. 3. 04 credits =60 periods
 4. 60 periods are meant for classroom, Teaching and Internal Assessment of each paper

