

M.A.Part -I, 2011  
and  
M.A.Part-II, 2011 } Economics

Prospectus No.2011187

संत गाडगे बाबा अमरावती विद्यापीठ  
SANT GADGE BABA AMRAVATI UNIVERSITY

समाजविज्ञान विद्याशाखा

(FACULTY OF SOCIAL SCIENCES)

अभ्यासक्रमिका

वाङ्मय पारंगत परीक्षा

भाग-१ २०११ व भाग-२, २०११

अर्थशास्त्र

**PROSPECTUS**

OF

M.A. Examinations of Part-I 2011 & Part-II of 2011

in

**ECONOMICS**



2010

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**Dineshkumar Joshi**

Registrar

Sant Gadge Baba

Amravati University

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SANT GADGE BABA AMRAVATI UNIVERSITY  
**SPECIAL NOTE FOR INFORMATION OF THE STUDENTS**

(1) Notwithstanding anything to the contrary, it is notified for general information and guidance of all concerned that a person, who has passed the qualifying examination and is eligible for admission only to the corresponding next higher examination as an ex-student or an external candidate, shall be examined in accordance with the syllabus of such next higher examination in force at the time of such examination in such subjects papers or combination of papers in which students from University Departments or Colleges are to be examined by the University.

(2) Be it known to all the students desirous to take examination/s for which this prospectus has been prescribed should, if found necessary for any other information regarding examinations etc., refer the University Ordinances Booklet the various conditions/ provisions pertaining to examinations as prescribed in the following Ordinances -

- Ordinances No.1 : Enrolment of Students.
- Ordinances No.2 : Admission of Students
- Ordinances No.4 : National Cadet Corps
- Ordinances No.6 : Examination in General (relevant extracts)
- Ordinance No. 9 : Conduct of Examinations (Relevant Extracts)
- Ordinance No. 18 : An Ordinance to provide grace Marks for passing in a Head of passing and Improvement of Division (Higher Class) and getting Distinction in the subject and condonation of deficiency of Marks in a subject in all the faculties prescribed by the statute no. 18 Ordinance, 2001
- Ordinance no.10 : Providing for Exemptions and Compartments.
- Ordinance No.19 : Admission of Candidates to Degrees
- Ordinance No.109 : Recording of a change of name of a University Student in the records of the University.

Ordinance No.6 of 2008: Improvement of Division.

Ordinance No.159 : Prescribed rules for Reevaluation of Answer Books of Examinees at University Examinations.

**Dineshkumar Joshi**  
Registrar  
Sant Gadge Baba Amravati University.

**PATTERN OF QUESTION PAPER ON THE UNIT SYSTEM.**

The pattern of question paper as per unit system will be broadly based on the following pattern

- (1) Syllabus has been divided into units equal to the number of question to be answered in the paper. On each unit there will be a question either a long answer type or a short answer type.
- (2) Number of question will be in accordance with the unit prescribed in the syllabi for each paper i.e. there will be one question on each unit.
- (3) For every question long answer type or short answer type there will be an alternative choice from the same unit. However, there will be no internal choice in a question.
- (4) Division of marks between long answer and short answer type question will be in the ratio of 40 and 60
- (5) Each short answer type question shall contain 4 to 8 short sub question with no internal choice.

**For Improvement of Division /Grade**

1. Notwithstanding anything contained in the relevant Ordinance, a person who has passed the M.A. /M.Com. /M.Sc. /M.Lib. & I.Sc./M.P.Ed./LL.M. Examination of the Amravati University in Third Division or who do not have Higher Second Class (B+) at the said qualifying examination shall be eligible to take the examination in the same subject or Group of subjects ,as the case may be, again for improving his division as hereinafter provided.

2. A person eligible to take the examination under these provisions shall-

a) take the Part-I and Part-II (and Part-III where applicable) but shall not be eligible to take the Part-II (or Part-III where applicable) Examination unless he is declared successful at the lower examination:

b) no person shall be eligible to take the higher examination unless at least one academic year is elapsed after passing the qualifying examination;

c) be examined according to the scheme of examination and syllabi prescribed for the year in which he takes the examination. He shall not be entitled to any concessions in respect of the syllabi or scheme of Examinations.

d) be examined in all the papers prescribed for the Part-I/Part-II (and Part-III Where applicable) Examinations;

Note- In case of examination in a subject which includes practical examination, the applicant shall have attended a full course of instruction in Practicals in that subject in a College/Department admitted to the privileges of the University. He will not be admitted to the examination unless he produces a certificate from the Principal/Head of the Department that the applicant has attended the full course of laboratory instruction in that subject :

e) be entitled for award of the division on the basis of the fresh marks obtained by him at Part-I and Part-II (and Part-III where applicable) Examinations taken together, but shall not be entitled to a place in Merit List or for any award or medal or Scholarship on the basis of his Performance at these examinations nor shall be entitled to take advantage of the provisions of Ordinance No.7-A relating to Condonation of Deficiency or of Ordinance No.10 relating toward of exemptions and compartments :

f) Pass the entire examination within 5 years from the date he first applies for re- admission to the Part-I Examination No further chances will be given to him.

g) Submit to the University alongwith his application for Part-I Examination his marks - list at the Part-I and Part-II (and Part-III where applicable) Examinations as also the original degrees awarded to him at the previous examination.

h) be eligible for a fresh marks- list and fresh degrees if he improves his division on passing these examinations and such a fresh degree shall specifically mention.

“Under the provisions of Ordinance No.138 for Improvement of Division Grade” and on award of a fresh degrees under this scheme his previous mark-list and degree shall be treated as cancelled. If, however, he fails to improve his division/grade his original degree and the mark-list shall be returned to him;

i) give an undertaking while applying for admission to the Part-I Examination under these provisions, that he has not previously taken advantage of these provisions.

j) Such candidates shall be treated as External Candidates.

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\* As made by the Executive Council Dated 15/16-2-77, item No. 3/- Ac 39, to be effective from the Part-I Examination of March/April, 1978. Further amended by Ordinance No.5 of 1983, and 4 of 1997 Executive Council Dated 4/5-1983, 10/1999, 14/2004.

**SYLLABUS****PRESCRIBED FOR****M.A.PART-I EXAMINATION****ECONOMICS****Group A : Compulsory Papers**

Paper I Micro Economics Analysis

Paper II Macro Economics Analysis

**Group B : Optional Papers (Any Two of the Following)**

1. Public Economics
2. Industrial Economics
3. Agricultural Economics
4. Economics of Gender and Development
5. Economics of Infrastructure
6. Welfare Economics
7. Economics and Law
8. Quantitative Methods-I (Economic Statistics)
9. Quantitative Methods-II (Econometrics-I)
10. History of Economic Thought.

**M.A.Part-II Examination****Group - A : Compulsory Paper.**

Paper-I: Economics of Growth and Development

Paper-II: International Trade and Finance.

**Group-B: Optional Papers (Any two of the following)**

- i) Indian Economic Policy
- ii) Economics of Social Sector and Environment
- iii) Labour Economics.3
- iv) Mathematical Economics.
- v) Econometrics-II
- vi) Demography
- vii) Financial Institutions and Markets
- viii) Computer Application in Economic Analysis
- ix) History of Modern Economic Analysis
- x) Economics of Insurance
- xi) Business Cycles.

**GROUP-A: COMPULSORY****PAPER-I****MICRO ECONOMIC ANALYSIS****Unit-I : Introduction, Basic Concepts and General Equilibrium:-**

Basic Economic Problem —Choice and Scarcity, Deductive and Inductive Methods of Analysis; Positive and Normative Economics; Characteristics of Equilibrium and Disequilibrium Systems. Partial and general equilibrium, Walrasian Excess demand and input-output approaches to general equilibrium.

**Unit-II : Demand Analysis and Economics of Uncertainty:-**

Elasticities (price, cross, income) of demand- theoretical aspects and empirical estimation; elasticity of supply, Theories of demand- utility, Indifference curve (income and substitution effects Slutsky theorem, compensated demand curve) and their applications; Revealed preference theory, Revision of demand theory by Hicks; Characteristics of goods approach; consumer's choice involving risk; indirect utility functions (duality theory), Recent developments in demand analysis (pragmatic approach and linear expenditure systems) Consumer's surplus; Recent developments in demand; elementary theory of price formation-demand and supply equilibrium, cobweb theorem; lagged adjustment in interrelated markets, Individual behaviour towards risk, expected utility and certainty equivalence approaches, risk and risk aversion - sensitivity analysis, gambling and insurance, the economics of insurance and the economics of information.

**Unit-III : Theory of Production and Costs:**

Production function-short period and long period, law of variable proportions and returns to scale, Isoquants Least cost combination of inputs; Returns to factors, Economics of scale; Multi-product firm, Elasticity of substitution, Euler's theorem; Technical progress and production function; Cobb-Douglas, CES; Traditional and modern theories of costs- Empirical evidence; Derivation of cost functions from production functions; derived demand for factors.

**Unit-IV : Price and Output Determination, Alternative Theories of the Firm:**

Marginal analysis as an approach to price and output determination; perfect competition-short run and long run equilibrium of the firm and industry, price and output

determinations, supply curve,; Monopoly -short run and long run equilibrium, price discrimination, welfare aspects, monopoly control and regulation; Monopolistic competition-general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group with product differentiation and selling costs, excess capacity under monopolistic and imperfect competition, criticism of monopolistic competition; Oligopoly-Non collusive (Curnot, Bertrand, Edgeworth, Chamberlin Kinked demand curve) and collusive (Charels and mergers, price leadership and basing point price system) models, Price and output determination under monopsony and bilateral monopoly, Workable competition-structure, conduct and performance norms.

Critical evaluation of marginal analysis, Baumol's sales revenue maximization model, Williamson's model of managerial discretion, Marris model of managerial enterprise; Full cost pricing rule, Bain's limit pricing theory and its recent developments including Sylos-Labini's model; Behavioural model of the firm, Game theoretic models.

**Unit-V : Distribution and Welfare Economics:**

Neo-classical approach Marginal productivity theory; Product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; Theory of distribution in imperfect product and factor markets; Determination of rent, wages, interest and profit; Macro theories of distribution- Recardian, Marxian, Kalecki and Kaldor's.

Pigovian welfare economics, Pareto optimal conditions, Value judgement; Social welfare function, Compensation principle; Inability to obtain optimum welfare-Inperfections, markets failure, decreasing costs, uncertainty and non-existent and incomplete markets; Theory of Second Best Arrow's impossibility theorem; Rawl's theory of justice, equity-efficiency trade off.

**Books Recommended:**

1. Kreps, David M (1990), A course in Microeconomic Theory, Princeton University Press, Preiceton.
2. Koutsoyiannis, A (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
3. Layard, P.R.G. and A.W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.

4. Sen A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
5. Stigler, G. (1996) Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.
6. Varian, H. (2000), Microeconomics Analysis, W.W. Norton, New York.
7. Baumol, W.J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
8. Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.
9. Henderson, J.M. and R.E. Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
10. Da Costa, G.C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
11. Bain, J. (1958), Barriers to New Competition, Harvard University Press Harvard.
12. Bronfenbrenner, M. (1979), Income Distribution Theory, Macmillan, London.
13. Graff, J. De V. (1957) Theoretical Welfare Economics. Cambridge Uni. Cambridge
14. Mishan, E.J. (1969), Welfare Economics : An Assessment, North Holland Amsterdam.
15. Green, H and V. Walsh (1975) Classical and Neo-Classical Theories of General Equilibrium, Oxford University Press, London.
16. Weintrub, E.R. (1974) General Equilibrium Theory, Macmillan, London.
17. Arrow, K.J. and M.D. Intrilligator (Eds.) (1981), Handbook of Mathematical Economics VI. North Holland, Amsterdam.
18. Ahuja, H.L. Advanced Economic Theory
19. Bilas, Richard A., Microeconomics Theory.
20. Breil, W & Mochman, H., Readings in Microeconomics.
21. Friedman, Milton, Price Theory.
22. Hibdon, J.E. Price & Welfare Theory.
23. Hicks, J.R. A Revision of Demand Theory.
24. Joshi, J.M. Rajendra Joshi, Micro Economic Theory: An Analysis Approach
25. Kennedy, M.M.J. Advanced Micro Economic Theory : An Analysis Approach.
26. Misra, S.K. & Puri, V.K. Modern Micro Economics
27. Myint, Hla, Theories of Welfare Economics
28. Pindyck & Rubinfeld, Micro Economics
29. Ray, N.C., An Introduction to Microeconomics
30. Roychowdhary, K.C. Micro Economics
31. Ryan, W.J.L. Price Theory Hibdon, J.E. Price & Welfare Theory.
32. Seth, M.L. Micro Economics

33. Sundharam, K.P.M.& Vaish,M.C.Micro Economic Theory,
34. Zingan, M.N. Microeconomics.
35. पिपरकर, ग.प्र.-मुल्य व वितरण : सैध्दातिक विवेचन
36. केळकर - भावे - मुल्य सिध्दांत
37. खांदेवाले - किंमत सिध्दांत
38. पाटील, कृ.ए. - उच्चतर आर्थीक सिध्दांत

### Paper-II

#### MACROECONOMIC ANALYSIS-II

##### Unit-I : National Income and Consumption Function

Circular Flow of Income in two, three and four-sector economy; different forms of national Income accounting- social accounting, input- output accounting, flow of funds accounting and balance of payments accounting.

Keynes' Psychological law of consumption-implications of the law, short run and long-run consumption function, Empirical evidence on consumption function, Income consumption relationship-absolute income, relative income, life cycle and permanent income hypotheses.

##### Unit-II : Investment Function and Supply of Money.

Marginal efficiency of investment and level of investment, Marginal efficiency of capital and investment- long run and short run; The accelerator and investment behaviour- impact of inflation, influence of policy measures on investment.

RBI approach to money supply; High Powered money and money multiplier, budget deficits and money supply; money supply and open economy, control of money supply.

##### Unit-III : Demand for Money, Neo-classical and Keynesian Synthesis

Classical approach to demand for money-Quantity theory approach, Fisher's Equation, Cambridge quantity theory, Keynes's liquidity preference approach, transaction, precautionary and speculative demand for money aggregate demand for money, Derivation of LM curve.

Neo-classical and Keynesian views on interest; The IS-LM model; Extension of IS-LM model with Government sector, Relative effectiveness of the monetary and fiscal policies. Extension of IS-LM model with labour market and flexible prices.

##### Unit-IV : Post-Keynesian Demand for Money and Macroeconomics in an open Economy:-

Post-Keynesian approaches to demand for money -Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin, Friedman and the modern quantity theory, Crisis in Keynesian economics and the revival of monetarism.

Mundell-Fleming model-Asset Markets, expectations and exchange rates, Monetary approach to balance of payments.

##### Unit-V : Theories of Inflation and Business Cycles:

Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation, Philips curve analysis- Short run and long run Philips curve, Samuelson and Solow-the natural rate of unemployment hypothesis, Policies to control inflation.

Business Cycle theories of Schumpeter, Kaldor, Samuelson and Hicks, Goodwin's model, Control of business cycles- relative efficacy of monetary and fiscal policies.

##### Books Recommended :-

1. Ackley, G (1978), Macroeconomics: Theory and Policy; Macmillan, New York
2. Blackhouse, R and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols), Oxford University Press, London.
3. Branson, W.A., (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
4. Dornbusch, R and F Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York.
5. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.
6. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics. Oxford University Press, New Delhi.
7. Jha, R. (1991), Contemporary Macroeconomics, Theory and Policy, Wiley Eastern Ltd. New Delhi.
8. Romer, D.L. (1996) Advanced Macroeconomics, McGraw Hill Company, Ltd. New York.
9. Scarfe, B.L. (1977) Cycles, Growth and Inflation, McGraw Hill, New York
10. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications New Delhi.
11. Surrey, M.J.C. (Ed.) (1976), Macroeconomic Themes, Oxford University, Press Oxford.
12. Ahija, H.L., Macro Economics for Business & Management

13. Aiyar,P.R.K.Monetary & Fiscal Economics.
14. Balanchard & Fischer, Lectures on Macroeconomics
15. Dillard, D. Economics of J.M.Keynes.
16. Eric Schneider, Money,Income & Employment
17. Ghosh,B.N. & Ghosh,Rama,Modern Macro Economics.
18. Halm .G.N.,Monetary Theory.
19. Hanson, A,Monetary Theory & Fiscal Policy.
20. Henderson, National Income (Satic & Dynamic)
21. Keynes, J.M. General Theory of Employment, Interest & Money
22. Lindauer, Macroeconomic Reading.
23. Mithani, D.M. Money,Banking, International Trade & Public Finance.
24. Rana & Verma Macro Economic Analysis.
25. Seth,M.L. , An Introduction to Keynesian Economics.
26. Shukla, D.K.(1968) : Business Cycle Analysis.
27. Hamberg(1971) Business Cycles,Macmillan Co.New York.
28. Turnovsky, Methods of Macroeconomic Dynamics.
29. सिन्हा व्हि.सी. : मुल्य, आय व रोजगार सिद्धांत
30. देसाई : आर्थिक धोरण
31. देशपांडे, श्री. आ. : मुद्रा सिद्धांत आणि धोरण
32. भोयर, साबळे : समष्टि अर्थशास्त्र
33. वैश्य, एम.सी. : मौद्रीक अर्थशास्त्र
34. सुंदरम एवं वैश्य : उच्चतर समष्टि अर्थशास्त्र
35. माहोरे, रा.य. : व्यापार चक्राचे सिद्धांत

### GROUP-B

#### OPTIONAL PAPER-I

#### PUBLIC ECONOMICS

##### Unit-I : Introduction

Role of Government in organized society; changing perspective- government in a mixed economy, public and private sector, cooperation or competition; Governments as an agent for economic planning and development Government as a tool for operationalizing the planning process, private goods,public goods; and merit goods, Market failure-imperfections, decreasing cost, externalities, public goods, Uncertainty and non-existence of futures markets

##### Unit-II : Public Choice, Rationale for Public Policy

Private and public mechanism for allocating resources,

Problems for allocating resources; Problems of preference revelation and aggregation of preferences; Voting systems; Arrow impossibility theorem; An economic theory of democracy; Politico-eco-bureaucracy, Rent seeking and directly unproductive profit seeking (DUP) activities.

Allocation of resources-provision of public goods, Voluntary exchange models; Impossibility of decentralized provision of public goods (contributions of Samuelson and Masgrave) Stabilization Policy-Keynesian case for stabilization policy, Uncertainty and expectations, Failure of inter-temporal markets; Liquidity preference; Social goals; Poverty alleviation, Provision of infrastructural facilities, removing distributional inequalities and regional imbalances.

##### Unit-III : Public Expenditure, Taxation and Public Debt.:-

Wagner's law of increasing state activities, Wiesman-Peacock hypothesis, Pure theory of public expenditure, Structure and growth of public expenditure; Criteria for public investment, Social cost-benefit analysis- Project evaluation, Estimation of costs, discount rate, Reforms in expenditure budgeting,Programming budgeting and zero base budgeting.

Theory of incidence; Alternative concepts of incidence-Allocative and equity aspects of individual taxes Benefit and ability to pay approaches, Theory of optimal taxation, Excess burden of taxes, Trade off between equity and efficiency; Theory of measurement of dead weight losses; The problem of double taxation.

Classical view of public debt; Compensatory aspect of debt policy; Burden of public debt; Sources of public debt; Debt through created money, Public borrowings and price level, Crowding out of private investment and activity; principles of debt Management and repayment.

##### Unit-IV Fiscal Policy and Fiscal Federalism

Objectives of fiscal policy-full employment, anti-inflation,economic growth, redistribution of income and wealth; interdependence of fiscal and monetary policies, Budgetary deficits and its implications; Fiscal policy for stabilization-automatic vs discretionary stabilization, Alternative measures of resource mobilization and their impact on growth, distribution and prices Balanced budget multiplier.

Principles of multi-unit finance, Fiscal federalism in India, Vertical and horizontal imbalance; Assignment of function and sources of revenue; Constitutional provisions; Finance Commission and Planning Commission; Devolution of resources and grants, Theory of grants; Resource transfer from Union to State-Criteria for transfer of resources, Centre-State financial relations in India, Problems of states' resources and indebtedness; Transfer of resources from Union and States to local bodies.

**Unit-V : Indian Public Finance**

Indian tax system; Revenue of the Union, States and local bodies; Major taxes in India: base of taxes, direct and indirect taxes, taxation of agriculture, expenditure tax, reforms in direct and indirect taxes, taxes on services; Non-tax revenue of Centre, State and local bodies, Analysis of Central and state government budgets; Lack of flexibility in Central and State budgets, shrinking size of development finance through budgets; Trends in public expenditure and public debt; Fiscal crisis and fiscal sector reforms in India, Reports of Finance Commissions in India.

**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.I, North Holland, Amsterdam,
3. Buchanan, J.M. (1970) The Public Finance, Richard D.Irwin, Homewood.
4. Goode R (1986) Government Finance in Developing Countries, Tata McGraw Hill, New York.
5. Houghton, J.M.(1970), The Public Finance; Selected Readings, Penguin, Harmondsworth.
6. Jha.R. (1998) Modern Public Economics, Routledge, London.
7. Menutt.P. (1996) The Economics of Public Choice, Edward Elgar U.K.
8. Musgrave,R.A.(1959), The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo.
9. Musgrave R.A. and P.B.Musgrave (1976), Public Finance in Theory and Practice. McGraw Hill, Kogakhusa, Tokyo.
10. Shoup, C.S. (1970), Public Finance, Aldine, Chicago.
11. Shome,P (Ed.) (1995), Tax Policy : Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.
12. Bhatia, R.L., Public Finance.

13. Chelliah, Raja, Fiscal Policy in Underdeveloped Countries
14. Dalton, H., Principles of Public Finance
15. Govt. of India, Reports of the Finance Commission
16. Hicks, Ursula, Development Finance
17. Misra, B Economics of Public Finance
18. Saxena & Mathur, Public Finance
19. Singh S.K. Public Finance in Theory & Practice
20. Taylor, Economics of Public Finance
21. Tyagi, B.P. Public Finance
22. Williams, A., Public Finance & Budgetary Policy
23. ओसरकर, सु.रा. : राजस्व
24. देव आणि झामरे : राजस्व

**OPTIONAL PAPER-II  
INDUSTRIAL ECONOMICS**

**Unit-I : Framework and Problems of Industrial Economics-Market Structure.**

Concept and organization of a firm - ownership, control and objectives of the firm, Passive and active behaviour of the firm.

Sellers concentration; Product differentiation, Entry conditions; Economies of scale, Market structure and profitability; Market structure and innovation; Theories of industrial location- Weber and Sargent Florence; Factors affecting location.

**Unit-II : Market Conduct and Market Performance**

Product pricing-Theories and evidence; Investment expenditure- Methods of evaluating investment expenditure; Theories and empirical evidence on Mergers and acquisitions (M & As) and diversification.

Growth of the firm-Size and growth of a firm; Growth and profitability of the firm; Constraints on growth; Productivity, efficiency and capacity utilization-Concept and measurement, Indian situation.

**Unit-III : Indian Industrial Growth and Pattern**

Classification of industries; Industrial policy in India-Role of Public and private sector; Recent trends in Indian industrial growth; MNCs and transfer of technology, Liberalization and privatization; Regional industrial growth in India; Industrial economic concentration and remedial measures; Issues in

industrial proliferation and environmental preservation, Pollution control policies.

**Unit-IV : Industrial Finance and Project Appraisal**

Owned, external and other components of funds, Role, nature volume and types of institutional finance-IDBI, IFCI, SFCs, SIDC, commercial bank, etc; Financial statement-Balance sheet, Profit and loss account; assessment of financial soundness, ratio analysis.

Cost-benefit analysis-Net Present Value (NPV) and internal rate of return (IRR) criteria-balancing private and social returns.

**Unit-V : Industrial Labour and Current problems of Selected Industries**

Structure of Industrial labour, Employment dimensions of Indian industry; Industrial legislation, Industrial relations; Exit policy and social security; Wages and problem of bonus-labour market reforms.

Iron and Steel, Cotton textiles; jute; Sugar; Coal; Cement and engineering goods, Development of small-scale and cottage industries in India.

**Books Recommended:**

1. Ahluwalia, I.J. (1985), Industrial Growth in India, Oxford University Press New Delhi.
2. Bartwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi
3. Cherunilam, F. (1994), Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai
4. Desai, B. (1999), Industrial Economy in India (3rd Edition), Himalaya Publishing House, Mumbai.
5. Divine, P.J. and R.M. Jones et.al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6. Government of India, Economic Survey (Annual)
7. Hay, D. and D.J. Morris (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
8. Kuchhal, S.C. (1980), Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
9. Reserve Bank of India, Report on Currency and Finance (Annual)
10. Singh, A and A.N. Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay.
11. Bain, Industrial Organisation
12. Chamberlin, The Firm, Microeconomic Planning & Activities
13. Desai, S.S.M. & Bhalerao, N., Industrial Economy of India

14. Govt. of India, Reports of the Monopolies Enquiry Commission
15. Govt of India, Report of Industrial Licensing Policy Inquiry Commission
16. Hanson, Public enterprises
17. Mason, Economic Concentration and Monopoly Problems
18. Nigam & Choudhari, The Corporate Sector in India
19. Ramchandran, V.V., The Corporate Sector in India
20. Rooley, C.K., Readings in Industrial Economics
21. Sargent Florence, P., The Logic of British & American Industries
22. Shivayya & Das, Indian Industrial Economy.

**OPTIONAL PAPER-III**

**AGRICULTURAL ECONOMICS**

**Unit-I : Agriculture, Economic Development, and Diversification of Rural Economic Activities.**

Nature and scope of agricultural and rural economics; Traditional agriculture and its modernization; Role of agriculture in economic development; Interdependence between agriculture and industry- some empirical evidence, Models of interaction between agriculture and the rest of the economy; Agricultural development, poverty and environment.

Livestock economics- Livestock resources and their productivity; Problems of marketing; White revolution, Fishery and poultry development, Forestry, horticulture and floriculture, Issues and problems in rural industrialization and development of agro-based industries.

**Unit-II : Economics of Rural Infrastructure. Agricultural Production and Productivity.**

Use of land, water and energy, Rural transport, communication banking, extension services, role, modes and problems of rural electrification, Rural social infrastructure, - education and health and information dissemination.

Agricultural production- Resource use and efficiency, Production function analysis in agriculture, Factor combination and resource substitution; Cost and supply curves; Size of farm and laws of returns. Theoretical and empirical findings; Farm budgeting and cost concepts, Supply response of individual crops and aggregate supply; Resource use efficiency in traditional agriculture; Technical change, labour absorption and gender issues in agricultural services.

**Unit-III : Land Reforms, Land Policy and Rural Labour Market**

Principles of land utilization; Land distribution- Structure and trends Land values and rent; Land tenures and farming systems- Peasant, capitalist, collective and state farming; Tenancy and crop sharing- Forms, incidence and effects, Land reform measures and performance; Women and land reforms, Problems of marginal and small farmers.

Rural labour supply; Interlocking of factor markets; Mobility of labour and segmentation in labour markets; marginalisation of rural labour; Nature, extent and trends in rural unemployment; Agricultural wages in India, Male-female wage differences; Non-agricultural rural employment- Trends and determinants.

**Unit-IV : Rural Finance, Co-operation in India and Agricultural Prices**

Role of capital and rural credit, Organized and unorganized capital market, Rural savings and capital formation, Characteristics and sources of rural credit- Institutional and non-institutional, Reorganization of rural credit cooperatives, commercial banks, regional rural banks; Role of NABARD.

Cooperative movement; Genesis and growth of cooperative sector, Agricultural cooperation in India, Problems and prospects of cooperative institutions.

Marketing and state policy; Agricultural markets and marketing efficiency- Marketing functions and costs, Market structure and imperfections, Regulated markets, Marketed and marketable surplus; Behaviour of agricultural prices- Cobweb model, Price and income stability; State policy with respect to agricultural marketing; Warehousing; Prices; Taxation and crop insurance; Terms of trade between agricultural and non-agricultural prices; Need for state intervention; Objectives of agricultural price policy- Instruments and evaluation, Food security in India and public distribution system.

**Unit-V : Agricultural Growth in India, Agriculture and External Sector**

Recent trends in agricultural growth in India; Inter regional variations in growth of output and productivity; Cropping pattern shifts; Supply of inputs- Irrigation, power, seed and fertilizers; Pricing of inputs and role of subsidies; Distribution of gains from technological change, Role of Public investment and capital formation in Indian agriculture; Strategy of

agricultural development and technological progress ; sustainable agriculture indigenous practices; Bio-technological practices and growth potential.

International trade in agricultural commodities; Commodity agreements -Role of World Trade Organization; Issues in Liberalization of domestic and international trade in agriculture- Nature and features of agrobusiness, Role of MNCs, Globalization of Indian economy and problems and prospects of Indian agriculture; Impact of World Trade Organisation on Indian agriculture.

**Books Recommended:**

1. Bhaduri, A. (1984). The Economic Structure of Backward Agriculture, Macmillan, Delhi.
2. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Dantwala, M.L. et.al. (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.
4. Government of India (1976), Report of the National Commission on Agriculture, New Delhi.
5. Government of India, Economic Survey (Annual) New Delhi
6. Gulati, A and T Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi
7. Joshi, P.C. (1975) Land Reforms in India: Trends and Prospects Allied Publishers, Bombay.
8. Kahlon, A.S. and Tyagi D.S. (1983) Agriculture Price Policy in India, Allied Publishers, New Delhi.
9. Rao, C.H. Hanumantha (1975) Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
10. Reserve Bank of India, Report on Currency and Finance (Annual), Mumbai.
11. Rudra A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
12. Saini, G.R. (1979), Farm Size, Resource Use Efficiency and Income Distribution, Allied Publishers, New Delhi.
13. Bilgrami, S.A.R., An Introduction to Agricultural Economics
14. Benjamin, R.E., et.al., Economics of Agriculture
15. Black, J.D., Introduction to Economics of Agriculture
16. Desai, Agricultural Economics
17. Efferson, T.N. Principles of Farm Management
18. Heady. E.O. & Jensen, Farm Management Economics

19. Leager, M.C. & Froster, Elements of Agricultural Economics.
20. Mamoria, C.B., Agricultural Problems of India.
21. Sandhu, A.N. & Singh Amarjit, Fundamentals of Agricultural Economics.
22. Satya Sudaram, I., Rural Development.
23. Taylor, H.C. Outline of Agricultural Economics.
24. शांता पाटील व लीला पाटील : कृषी अर्थशास्त्राची मुलतत्त्वे

#### OPTIONAL PAPER-IV

#### ECONOMICS OF GENDER AND DEVELOPMENT

##### Unit-I : Introduction to Gender Studies

Importance and concepts of women studies- Women in patriarchal and matriarchal societies and structures, patrilineal and matrilineal systems and their relevance to present day society in India; Economic basis and functioning of patriarchy in developed and LDCs, particularly India, Gender bias in the theories of value, distribution, and population.

##### Unit-II : Demographic Aspects

Demography of female population, Age structure, mortality rates, and sex ratio - Causes of declining sex ratios and fertility rates in LDCs and particularly in India, Theories and measurement of fertility and its control; Women and their access to nutrition, health, education and social and community resources, and their impact on female mortality and fertility, economic status, and in work participation rate.

##### Unit-III : Women in Decision Making and conceptualization of women's work

Factors affecting decision making by women; rights, access to and control over economic resources, assets, Power of decision making at household, class, community level, Economic status of women and its effect on work-participation rate. income level, health, and education in developing countries and India, Role of kinship in allocating domestic and social resources.

Concept and analysis of women's work: Valuation of

Productive and unproductive work, visible and invisible work, paid and unpaid work economically productive and socially productive work-Economic status, private property, and participation of women in pre-industrial and industrial societies- Female contribution to National Income.

##### Unit-IV : Women, Labour Markets, Technology and Environment

Factors affecting female entry in labour market; Supply and demand for female labour in developed and developing countries, particularly India, Studies of female work

participation in agriculture, non-agricultural rural activities, informal sector, cottage and small scale industries, organized industry, and services sector; Wage differentials in female activities, Determinants of wage differentials, gender, education, skill, productivity, efficiency opportunity; Structures of wages across regions and economic sectors.

Impact of technological development and modernization on women's work participation in general and in various sectors such as agriculture, non-agricultural rural activities, small and cottage industries and organized industry-Female activities and ecological and environmental concerns, the two way relationship- Role of new technologies for helping women Provision of information and training for simple harvesting of economic services.

##### Unit-V : Social Security and Social Protection for Women, Gender Planning Development Policies and Governance.

Social security of women entitlements, ensuring economic independence and risk coverage, access to credit and insurance markets, Role of voluntary organizations, self help groups in providing social security, Labour market; biases and gender discrimination, effectiveness of collective bargaining; Review of legislation for women's entitlements, protection of property rights, social security- Schemes for safety net for women, Need for female labour unions; affirmative action for women and improvement in their economic and social status.

Gender and development indices; Mainstreaming gender into development policies; Gender-planning techniques; Gender sensitive governance, Paradigm shifts from women's well being to women's empowerment; Democratic decentralization (panchayats) and women's empowerment in India.

##### Books Recommended:

1. Boserup E. (1970), Women's Role in Economic Development, George Allen and Unwin, London.
2. Desai, N. and M.K.Raj. (Eds.) (1979), Women and Society in India, Research Centre for Women Studies, SNDT University, Bombay.

3. Government of India (1974), Towards equality-Report of the Committee on the Status of Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
4. Krishnaraj, M., R.M. Sudarshan and A. Shariff (1999), Gender, Population and Development, Oxford University Press, New Delhi.
5. Seth, M. (2000), Women and Development; The Indian Experience, Sage Publications, New Delhi.
6. Srinivasan K. and A. Shroff (1998), India; Towards Population and Development Goals Oxford University Press, New Delhi.
7. Venkateswaran, S. (1995), Environment and the Gender Gap, Sage Publications, New Delhi.
8. Wazir, R (2000), The Gender Gap in Basic Education: NGOs as Change Agents, Sage Publications, New Delhi.
9. Amsden, A.H. The Economics of Women and work.
10. Bosorup, E., Women's Role in Economic Development
11. Desai, Neera & Krishnaraj, Women and Society in India
12. Kasturi, Leena & Others, Women Workers in India (ed.) Mazumdar Vina.
13. Mazumdar, Ashok, The Status of Women, Literacy and Employment
14. Mitra, Ashok, Implications of Declining Sex-ratio in India.
15. Row, B. Sheela, Women's Consciousness, Man's World.
16. Tilly, Charles, Historical Studies of Changing Fertility
17. Verma, Binita, Exploitation of Women Labour in India.
18. Winter, E.L. Women at Work.

### OPTIONAL PAPER-V

#### ECONOMICS OF INFRASTRUCTURE

##### Unit-I : Introduction

Infrastructure and economic development- Infrastructure as a public good; Social and physical infrastructure; Special characteristics of public utilities. The peak-load, Off-Load Problem, Dual Principle Controversy; Economies of scale of joint supply ; Marginal cost Pricing vs. other methods of pricing in public utilities; Cross- subsidization-free prices, equity and efficiency.

##### Unit-II : Transport Economics and Communications

The structure of Transport Costs and Location of Economic Activities, Demand for Transport Models of Freight and Passenger Demand. Model Choice, Cost Functions in the Transport Sector, Principle of Pricing. Special Problems of Individual Modes of Transport, Inter-modal condition in the Indian situation.

Rate-making in Telephone Utilities, Principles of Decreasing Costs in Telephone Industry, Characteristics of Postal Services, Criteria for Fixation of Postal Rates. Measurement of Standards of Service in Telephone and Postal Utilities.

##### Unit-III : Energy Economics

Primacy of Energy in the Process of Economic Development. Factors Determining Demand for Energy, Effects of Energy Shortages. Energy Conservation. Renewable and Non-Conventional Sources of Energy. Energy Modeling. The Search for an Optimal Energy Policy in the Indian Context.

##### Unit-IV : Electricity, Gas and Water Supply

Bulk supply and Pricing of Electricity, The Relative Economics of Thermal, Hydel and Nuclear Power Plants. The case for a National Power Grid Financing Water Utilities. Urban and Rural Water Supply. The Exploitation of Natural Gas. Pricing Problem.

##### Unit-V : Social Infrastructure, Education and Health

Organization and Financing of Supply of Social Services of Private vs. Public Sector Financing; Recent debate about the fixation of prices of social services. Development of social services in the successive Indian Plans.

Education and Economic Growth Approaches to Educational Planning. Social Demand . Rate of Return and Manpower Planning Approaches. The Case for Universal, Free, Primary Education, Structure of higher. education and problems of its financing in India; Human Resources and Human Capital Development . The issues in education policy ; Health dimensions of development , Determinants of Health- poverty, malnutrition, illiteracy and lack of information, Economic dimensions of health care- Demand and supply of health care; Financing of health care; and resource constraints, Inequalities in health-class and gender perspectives; Institutional issues in health care delivery.

##### Books Recommended:-

1. Crew, M.A. and P.R. Kleindorfer (1979), Public Utility Economics Macmillan, London.
2. Indian Council of Social Science Research (ICSSR) (1976), Economics of Infrastructure, Vol. VI, New Delhi.
3. National Council of Applied Economics Research (NCAER) (1996), Indian Infrastructure Report ; Policy Implications for Growth and Welfare, NCAER, New Delhi.

4. Parikh, K.S. (Ed.) (1997), India Development Report 1997, Oxford N. Delhi.
5. Parikh, K.S. (Ed.) (1999), India Development Report- 1999-2000, Oxford New Delhi.
6. Turvey, R.(Ed.) (1968), Public Enterprises, Penguin, Harmondsworth.
7. Agrawal, Atul & Others, The Fight for Survival- A People's Action for Environment.
8. Aronofsky, J.Rao, A, & Shakum, M. Energy Power.
9. Eckstein, O. Water Resource Development.
10. Garfield, P.J. & Lovely, W., Public Utility Economics
11. GOI, Report of P & T Enquiry Committee.
12. Kneafsey, J.T. Transportation Economic Analysis.
13. Macrakis, M.S. (ed), Demand Conservation & Institution Problems
14. Nelson, J.R. Marginal cost Pricing in Practice
15. Norton, M.S. Modern Transport Economics
16. Pauchri, R.K. (ed) Energy Policy for India
17. Prest, A.R. Transport Economics in Developing Countries.
18. Sastri, Satish, Pollution and The Environmental Law
19. Singh, Shekar, Environmental Policy in India
20. Sapru, R.K. Environmental Management in India
21. Turvey, R & Anderson, D., Electricity Economics
22. Vakil, A.C. Economic Aspects of Environmental Pollution in India

#### **OPTIONAL PAPER-VI**

#### **WELFARE ECONOMICS**

##### **Unit-I : Pre-Paretian Welfare Economics -I**

Benthamite Approach to Aggregate Welfare. Optimum Resource Allocation and Welfare Maximization. Assumption of Uniform Income-Utility Function of Individuals, Question of Income Distribution, Issue of Interpersonal Comparisons of Utility.

##### **Unit-II : Pre-Paretian Welfare Economics- II**

Marshallian Welfare Economics, Consumer's Surplus; Measurement of Consumer's Surplus-Difficulties involved, Criticism, Principle of Compensating Variation; Hick's Consumer's Surpluses; Consumer's Surplus and Tax-Bounty Analysis.

##### **Unit-III : Paretian Welfare Economics- I**

Pareto optimality- Optimum exchange conditions, The production optimum, The consumption optimum. Concept of contract curve; Top level optimum, Infinite number of non-

comparable optima vs. unique social optimum, Compensation criteria - Contributions of Barone, Kaldor and Hicks;

##### **Unit-IV : Paretian Welfare Economics-II**

The Scitovsky double criterion; Concept of community indifference map. Samuelsons; utility possibility curve, Value judgements and welfare economics, Bergson's social welfare function, Arrow's Impossibility theorem.

##### **Unit-V : Some Later Developments**

Divergence between private and social costs; Problems of non-market interdependence; Externalities of production and consumption, External economies and diseconomies, Problem of public goods; Pigovian welfare economics; Second best optima, Marginal cost pricing, Cost-benefit analysis, Interdependent utilities; Attempts to develop dynamic welfare analysis.

##### **Book Recommended:**

1. Arrow K.J. (1951), Social Choice and individual values, Yale University Press, New Haven
2. Baumol W.J.(1965), Welfare Economics and the Theory of the State (Second Edition) Longmans, London.
3. Baumol W.J. (ed)(2001), Welfare Economics, Edward Elgar Publishing Ltd., U.K.
4. Broadway, R.W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, Oxford.
5. Duesenberry, J.S. (1949) Income. Saving and the Theory of consumer Behaviour Harvard University Press, Cambridge, Mass.
6. Feldman, A.M. (1980), Welfare, Economics and Social Choice Theory, Martinus Nijhoff. Boston.
7. Graaff J. de V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
8. Little, I.M.D. (1939), A Critique of Welfare Economics (2nd Edition), Oxford University Press, Oxford.
9. Marshall, A. (1946), Principles of Economics, Macmillan, London.
10. Myint, H. (1948), Theories of Welfare Economics, Longmans,
11. Ng Y.K. (1979), Welfare Economics, Macmillan, London.
12. Nicholas, B. (Ed.) (2001), Economic Theory and the Welfare state, Edward Elgar Publishing Ltd. U.K.
13. Pigou, A.C. (1962), The Economics of Welfare (4th Edition), Macmillan.
14. Quirk, J. and R Saposnik (1968) Introduction to General Equilibrium Theory and Welfare Economics McGraw Hill, New York.

15. Samuelson, P.A.(1947),Foundations of Economic Analysis, Harvard University Press, Cambridge, Mass.
16. Baumol, W.J. & Oates, W.E.Economics, Environmental Policy & the Quality of Life.
17. Broadway, R.W. & Bruce N., Welfare Economics
18. Dasgupta, R.: The Control of Resources.
19. Deaton, A. & Muellbauer, Economics and Consumer Behaviour.
20. Doel,H, Democracy & Welfare Economics.
21. Feldman, A.M., Welfare Economics & Social Choice Theory.
22. Graf. J.D.V.Economics of Welfare.
23. Mishan,E.J.,Welfare Economics : An Assessment.
24. Pigou, A.C.,Welfare Economics.
25. Quirk, J & Saposnik, Introduction to General Equilibrium. Theory & Welfare Economics.
26. Sen, A.K., Collective Choice and Social Welfare
27. Stiglitz,J.E., Economics of Public Sector
28. Turvey,R., Economic Analysis and Public Enterprises.
29. Hassan, R.F., Welfare Economics.

**OPTIONAL PAPER-VII**  
**ECONOMICS AND LAW**

**Unit-I : Introduction**

Economic analysis of law- Introduction to legal reasoning, Efficiency,

Markets and efficiency, Market failure; Coase theorem and related ideas, welfare economics, Compensation principles; social welfare function; Maximization problem; Nature of economic reasoning; Economic approach to law- History and criticism.

**Unit-II : An Introduction to Law, Legal Institutions and Laws relating to Consumer Activities.**

The Civil Laws and the Common Law Traditions, The institutions of the federal and State Court systems, The nature of legal dispute, how legal rules evolve.

Bargain theory, Economic role of contract; Economic theory of contract, Remedies as incentives, formation, defences and performance excuses; Duress; Bargaining power and unconscious ability, Defining Tort law, economics, of Tort Liability, Tort Liability and economic models, Economics of accidents fault, victim, fault and strict liability ; Function of damages; Consumer protection; Consumer courts.

**Unit-III : Laws of Business Organizations**

Structure of firm-Kinds, Corporations, Corporate vest, Capital, Shares, Debentures, Insiders trading, Antitrust, RBI, IRDA, MRTP, Role of SEBI, Economics of mergers, Amalgamations and takeovers.

**Unit-IV : Economic Theory of Crime and Punishment, Macro Economics and Law**

The traditional theory of criminal law; Economic theory of crime and punishment, Does punishment deter crime? Efficient punishment; Efficacy of capital sentence; Addictive drugs and crime; Plea bargaining; Reforms of criminal procedure and Futility Thesis, Law relating to economic offences, corruption and human rights.

Law and distribution of income and wealth; Inequality; Contract theory of Distributive justice; Economic and social costs of poverty; Wealth distribution by Liability Rules; Taxation and efficiency; Personal and corporate taxation; Progressive principle; Economics of federalism; Freedom of Inter-state trade and commerce; National and global environmental problems and international environmental agreements-their legal and economic implications; Economics of social sector, disinvestment in PSUs.

**Unit-V : International Aspects**

GATT/WTO -TRIPS and TRIMS; Export-import policy, Custom duties; MNCs and Direct foreign investment; FEMA.

**Books Recommended:**

1. Bouckaert, B and G De Geest (Ed.) (1999), Encyclopaedia of Law and Economics, (Volume I to V), Edward Elgar Publishing Ltd., U.K.
2. Cooter, R.D. and T.S Ulen, (2000), Law and Economics, Addison Wesley, New York.
3. Dan-Schmidt, K.G. and T.S. Ulen, (Ed) (2000), Law and Economic Anthology, (3rd Edition), Addison Wesley, New York.
4. Newman, P. (Ed.) (1998), The New Palgrave Dictionary of Economics and Law, Stockton Press, New York.
5. Oliver, J.M. (1997), Law and Economics, George Allen and Unwin, London.
6. Posner, R.A. (1998), Economic Analysis of Law, (5th Edition), Little Brown, Boston.
7. Posner, R.A. and F. Parisi (Eds) (1997), Law and Economics, Edward Elgar Publishing Ltd. U.K.

8. Massey, I.P.(1995), Administrative Law, Eastern Book, Company, Lucknow.
9. India Law Institute, Annual Survey of Indian Law, Indian Law Institute N. Delhi.

**OPTIONAL PAPER - VIII**  
**QUANTITATIVE METHODS-I**  
**(Economic Statistics)**

**Unit-I : Statistical Methods -I**

Scope uses and limitations of statistics, Methods of data collection. tabulation. graphs, measures of Central Tendency, measures of Dispersion and Skewness.

**Unit-II : Statistical Methods -II**

Meaning, assumptions and limitations of simple correlation and regression analysis; Pearson's product moment and spearman's rank correlation coefficients and their properties; Concept of the least squares and the lines of regression; Standard error of estimate; Partial and multiple correlation and regression (applications only), Methods of estimation of non-linear equations- parabolic, exponential, geometric, modified exponential, Gompertz and logistic relationships.

**Unit-III : Statistical Methods-III**

Deterministic and non-deterministic experiments, Various types of events classical and empirical definitions of probability, Laws of addition and multiplication; Elementary concept of random variables, Probability, mass and density functions; Expectations, moments and moment generating functions; Properties (without derivations) of Binomial, Poisson and Normal distributions.

Indian Statistics- CSO, NSSO, Recent Population Census, Agricultural and Industrial Statistics.

**Unit-IV : Statistical Methods- IV**

Basic concept of sampling-random and non-random sampling; Simple random; stratified random and p.p.s sampling; Concepts of an estimator and its sampling distribution; Desirable properties of an estimator, formulation of statistical hypotheses- Null and alternative ; Goodness of fit;

Confidence intervals and level of significance; Hypothesis testing based on Z, t,  $\chi^2$  (Chi-square) and F tests; Type 1 and Type 2 errors.

**Unit-V : Statistical Methods -V**

Time Series: Characteristics behaviour of Time Series, Measurement of Trends, Fitting and Interpretation of trend, Measurement of seasonal and cyclical variations.

Index Numbers: The concept of an Index Number, Price Index Numbers: Average and Aggregate types, Construction of a cost of Living Index Number.

**Books Recommended:-**

1. Allen, R.G.D.(1974), Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C.(1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
3. Gupta, S.C.(1993), Fundamentals of Applied Statistics, S.Chand & Sons, New Delhi.
4. Handry, A.T.(1999), Operations Research, Prentice Hall of India, N.Delhi
5. Speigal, M.R.(1992), Theory and Problems of Statistics, McGraw. Hill Book Co., London.
6. Taha, H.A. (1997), Operations Research. An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd. New Delhi.
7. Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India New Delhi.
8. Baumol, W.J.(1984), Economic Theory and Operations Analysis, Prentice Hall, Englewood Cliffs, New Jersey.
9. Monga, G.S.(1972), Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.
10. Mathur, P.N. and R. Bharadwaj (Eds.) (1967), Economic Analysis in Input Output Research input-output Research Associating of India, Pune.
11. Kothari, C.R. (1992), An Introduction to Operations Research, Vikas Publishing House, New Delhi.
12. Goon, A.M., M.K.Gupta and B Dasgupta (1993), Fundamentals of Statistics, Vol. I, The World Press Ltd. Calcutta.
13. Govt. of India, Guide to Current Official Statistics, Vol.I & Vol.II
14. Govt. of India, Publications of C.S.O.
15. Gupta C.B., An Introduction to Statistical Methods
16. Gupta, S.P., Statistical Methods
17. Karmel, Applied Statistics for Economics

18. Mills, F.C., Statistical Methods
19. Taro Yamane: Statistics- An Introductory Analysis
20. Hooda, R.P., Statistics- An Introductory Analysis
21. Elhance, D.N. Fundamentals for Business and Economics.
22. Elhance, D.N. Practical Problems in Statistics
23. Elhance, D.N. Indian Statistics
24. Gupta & Gupta, Practical Statistics
25. Sancheti & Kapoor, Statistics.

### OPTIONAL PAPER-IX

#### QUANTITATIVE METHODS-II

##### (Econometrics-I)

#### Unit-I : Introduction.

Definition and scope of econometrics, Importance of Econometrics. The Methodology of econometric research, Econometric Model; Basic concepts of estimation.

#### Unit-II : Algebra

Indices, Quadratic Equations, Arithmetic & Geometric Progressions, Binomial Theorem; Sets, Operations on sets; Equation of a straight line; Slope of line; Intercepts.

#### Unit-III : Mathematical Methods-I

Concept of function and types of functions, Limit, continuity and derivatives; Rules of differentiation, Interpretation of revenue, cost, demand, supply functions; Rules of partial differentiation and interpretation of partial derivatives; Problems of maxima and minima, Unconstrained and constrained Optimization in simple economic problems, Simple problems in market equilibrium, concept of integration; Simple rules of integration, Application to Consumer's surplus; Growth rates and simple properties of time path of continuous variables.

#### Unit-IV : Mathematical Methods-II

Determinants and their basic properties; Solution of simultaneous equations through Cramer's rule; Concept of matrix-their types, simple operations on matrices, matrix inversion and rank of a matrix, Introduction to input-output analysis, Difference equations- solution of first order and second order Difference equations; Applications in trade cycle models; lagged market. Equilibrium models.

#### Unit-V : Mathematical Methods-III

Linear Programming Basic concept; Formulation of a linear programming problem- It's structure and variables; Nature of feasible, basic and optimal solution; solution of linear programming through graphical and simplex method, Formulation of the dual of a programme and its interpretation; Shadow prices and their uses; Concept of duality and statement of duality theorems, Concept of a game; Strategies-simple and mixed, value of a game, saddle point solution, simple applications.

#### Books Recommended:

1. Gujarati, Damodar : Basic Econometrics.
2. Intriligator: Econometric Models, Techniques & Applications
3. Johnston, J.: Econometric Methods.
4. Koutsoyannis, A : Theory of Econometrics
5. Maddala: Econometric Methods
6. Mehata & Mehta: Fundamentals of Econometrics
7. Singh, S.P., Parashar, A.K. & Singh H.P. Econometrics and Mathematical Economics.
8. Theil, H : Introduction to Econometrics.
9. Yamane, Taro : Mathematics of Economics.

### OPTIONAL PAPER-X

#### HISTORY OF ECONOMIC THOUGHT

**Unit-I** : Mercantalism and Physiocracy.

**Unit-II** : Classical Economics : Adam Smith, Bentham and Utilitarianism, Ricardo, Malthus, J.B. Say and J.S. Mill.

**Unit-III** : Sismondi, St. Simon, Robert Owen, Proudhon, Nationalists, Historical School & Socialistic School of Thought.

**Unit-IV** : Development of Subjective Economics, Marxism, Fabianism, Guild Socialism, Marshall, Keynes.

**Unit-V** : Economic Thought in India : Kautilya, Dadabhai Naoroji, R.C. Dutta, M.G. Ranade, C.N. Vakil, V.K.R.V. Rao, B.R. Ambedkar, M.K. Gandhi, Jawaharlal Nehru, 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. Chamberlin: The Firm, Microeconomic Planning & Activities.

6. Datta, Bhabatosh: Indian Economic thought (Twentieth Century Perspective)
7. Desai, S.S.M.: Development of Indian Economic thought
8. Desai, S.S.M. & Bhalerao, N. : Industrial Economy of India
9. Ghosh B.N.: Indian Economic Thought (Nineteenth Century Perspective)
10. Ghosh B.N. & Ghosh Rama : Concise History of Economic Thought
11. Gide & Rist : History of Economic Thought
12. Gray, Alexander: A History of Economic Thought
13. Haney, L.H.: History of Economic Thought
14. IEA(1997): Conference Volume : Economic Thought of VKRV Rao
15. Kasare, M.L.: Economic thought of Dr. B.R. Ambedkar.
16. Kuber W.N.: Dr. Ambedkar- A critical study.
17. Loknathan : History of Economic Thought
18. Massani, R.P.: Dadabhai Naoroji- Builders of Modern India.
19. Mithani D.M.: History of Economic Thought
20. Paul, R.R.: A History of Economic thought
21. Roll, Eric : History of Economic Thought.
22. Srivastava S.K.: History of Economic Thought.
23. सहस्रबुद्धे, व्ही.जी. : अर्थशास्त्राचा इतिहास
24. देसाई, येवळेकर : आर्थिक विचारांचा इतिहास
25. कुबरे, वा.ना. : डॉ.आंबेडकर विचार मंथन
26. खांदेवाले व नेरुळकर : अर्थशास्त्रिय मतप्रणालीचा इतिहास
27. वैश्य, एम.सी. : आर्थिक विचारोंका इतिहास

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**M.A.Part-II**

**GROUP-A : COMPULSORY PAPERS**

**PAPER-I : ECONOMICS OF GROWTH AND DEVELOPMENT**

- Unit-I Economic Growth**
- Economic growth and development - Factors affecting economic growth capital labour and technology Growth models- Harrod and Domar, instability of equilibrium Neo-classical growth models-solow and Meade, Mrs. Joan Robinson's growth model Cambridge criticism of Neo-classical analysis of growth. The capital controversy.
- Technological progress -embodied and disembodied technical progress; Hicks, Harrod learning by doing production function approach to the economic growth Total factor productivity and growth accounting, Growth models of Kaldor, golden rule of accumulation, Two-sector model Stability of equilibrium. money in economic growth Tobin, Patinkin and Johnson, Endogenous growth-Intellectual capital role of learning education and research A.K. model Explanations of cross country differentials in economic growth.
- Unit-II : Social and Institutional Aspects of Development**
- Development and underdevelopment - Perpetuation of underdevelopment Poverty- Absolute and relative : Measuring development and development gap — Per capita income, inequality of income, Human development index and other indices of development and quality of life- Food security, education, health and nutrition; Human resource development- Population problem and growth pattern of population- Theory of demographic transition; Population as limits to growth and as ultimate source Population, poverty and environment, Economic development and institutions markets and market failure, state and state failure, issues of good governance
- Unit-III : Theories of Development and Approaches to Development**
- Classical Theory of development- contributions of Adam Smith, Ricardo, Malthus and James Mill, Karl Marx and development of capitalistic economy theory of social change surplus value and profit, Immutability laws of capitalist development Crisis in capitalism, Schumpeter and capitalistic development, innovation-role of credit, profit and degeneration of capitalism, Structural analysis of development, Imperfect market paradigm.

Partial theories of growth and development- vicious circle of poverty, circular causation, unlimited supply of labour, bit push, balanced growth unbalanced growth, critical minimum effort thesis, low-income equilibrium trap; Dualism - technical, behavioural and social; Dependency theory of development Structural view of development.

**Unit-IV : Sectaral Aspects of Development, Trade and Economic Development**

Role of agriculture in economic development Efficiency and productivity in agriculture New technology and sustainable agriculture, Globalization and agricultural growth Rationale and pattern of industrialization in developing countries, The choice of techniques and appropriate technology and employment Efficiency of small scale vs. large-scale production, Terms of trade between agriculture and industry, infrastructure and its importance Labour markets and their functioning in developing countries. International trade as engine of growth, Static and dynamic gains from trade Prebisch, Singer and Myrdal thesis vs. free trade; Export led growth Balance of payments Tariffs and effective protection, Post-GATT international economic order, WTO and developing countries.

**Unit-V : Macroeconomic Policies and Development Allocation of Resources Planning and Development.**

Role of monetary and fiscal policies in developing countries - Prior savings inflation and growth - Empirical evidence External resources - FDI and vs. trade technology inflow, MNC activity in developing countries. Borrowings domestic and external Burden of borrowing IMF and World Bank policies in developing countries.

Need for investment, criteria in developing countries present vs, future Alternative investment criteria Cost benefit analysis, Shadow prices, Project evaluation and UNIDO guidelines.

Need for planning, democratic, decentralized and indicative planning, microlevel planning Review of Indian Plan models and planning.

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49. कविमंडन, विकासाचे अर्थशास्त्र व नियोजन.
50. सिंह, एस.पी. : आर्थिक विकास एवं नियोजन, एस.चन्द, नई दिल्ली.

## PAPER-II INTERNATIONAL TRADE AND FINANCE

### Unit-I **Theory of International Trade.**

The pure theory of international trade- Theories of absolute advantage comparative advantage and opportunity costs. Modern theory of international trade, Theorem of factor price equalization, Empirical testing of theory of absolute cost and

comparative cost Heckscher- Ohlin theory of trade role of dynamic factors, i.e. changes in tastes. technology and measurement of intra industry trade and its impact on developing economics.

### Unit-II : **Measurement of Gains and Theory of Interventions.**

Measurement of gains from trade and their distribution Concepts of terms of trade, their uses and limitations, Hypothesis of secular deterioration of terms of trade its empirical relevance and policy implications for less developed countries Trade as an engine of economic growth Welfare implications- Empirical evidence and policy issues The theory of Interventions (Tariffs, Quotas and non-tariff barriers) Economic effects of tariffs and quotas on national income, output employment terms of trade income distribution Balance of payments on trading partners both in partial and general equilibrium analysis, The political economy of non-tariff barriers and their implications, nominal, effective and optimum rates of tariffs-their measurement, impact and welfare implications, Trade under imperfectly competitive market.

### Unit-III **Balance of Payments.**

Meaning and components of balance of payments, Equilibrium and disequilibrium in the balance of payments, The Process of adjustment under systems of gold standard, fixed exchange rates and flexible exchange rates, Expenditure-reducing and expenditure-switching policies and direct controls for adjustment Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes. A critical review of the monetary approach to the theory of balance of payments adjustment Foreign trade multiplier with and without foreign repercussions and determination of national income and output Relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in developing countries.

### Unit-IV : **The Theory of Regional Blocks.**

Forms of economic cooperation, Reforms for the emergence of trading blocks at the global level Static and Dynamic effects of a customs union and free trade areas Rationale and economic progress of SAARC / SAPTA and ASEAN regions, Problems and Prospects of forming a customs union in the Asian region Regionalism (EUNAFTA), Multilateralism and WTO, Rise and fall of gold standard and Bretton- woods

system Need, adequacy and determinants of international reserves, Conditionality clause of IMF Emerging International Monetary System with special reference to Post Maastricht developments and developing countries, Reform of the International Monetary System, India and developing countries, Reform of the International Monetary System, India and developing countries, Theory of short-term capital movements and East-Asian Crisis and lessons for developing countries, International trade and financial institutions - Functions of GATT/WTO (TRIPS, TRIMS), UNCTAD, IMF, World Bank and Asian Development Bank-Thier achievements and failures WTO and World Bank from the point of view of India.

Unit-V: **Trade Policies in India.**

Trade problems and trade policies in India during the last five decades, Recent changes in the direction and composition of trade and their implications, Rationale and impact of trade reforms since 1991 on balance of payments, employment and growth Problems of India's international debts, Working and regulations of MNCs in India Instruments of export promotion and recent import and export policies and agenda for future.

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1. Bhagwati J. (Ed) (1981) International Trade Selected Reading Cambridge, University Press, Massachusetts.
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2. Chacholiades, M. (1990) International Trade : Theory and Policy, McGraw Hill, Kogakusha Japan.
3. Dana. M.S. (2000) International Economics Study, Guide and Work Book, (5th Ed) Routledge Publishers London.
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29. Joshi, V. and I.M.D. Little (1998) India's Economic Reforms, 1999-2000, Oxford University Press, New Delhi.
30. Patel, S.J. (1995) Indian Economy Towards the 21st Century, University Press Ltd. India.
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36. Gottfried V.& Haberler, The Theory of International Trade.
37. Harrod, R.F. International Economics
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39. बापट, भ.ग., आंतरराष्ट्रीय अर्थशास्त्र.
40. मोडक, शं.के., आंतरराष्ट्रीय अर्थशास्त्र.

### Group-B : Optional Papers

#### Paper-I : Indian Economic Policy

- Unit-I **Economic Development its Determinants and Planning in India.**  
Approaches to economic development and its measurement - sustainable development, Role of State, market and other institutions, Indicators of development PQLI, Human Development Index (HDI) gender development indices, Objectives and strategy of planning Failures and achievements of Plans Developing grass- root organizations for development-Panchayats, NGOs and pressure groups.
- Unit-II **Demographic Features, Poverty, Inequality, Resource Base and Infrastructure**  
Broad demographic features of Indian population, Rural-urban migration Urbanization and civic amenities, Poverty and Inequality. Energy; Social infrastructure- education and health, Environment; Regional imbalance, issues and policies in financing infrastructural development.
- Unit-III **The Agricultural Sector and The Industrial Sector.**  
Institutional Structure- land reforms in India, Technological change in agriculture- pricing of agricultural inputs and output; Terms of trade between agriculture and industry, Agricultural finance policy, Agricultural Marketing and Warehousing Issues in food security- policies for sustainable agriculture. Industrial policy Public Sector enterprises and their performance, Problem of sick units in India; in India Privatisation and disinvestments debate, Growth and patterns of industrialization Small-scale sector, Productivity in industrial sector, Exit policy - issues in labour market reforms; Approaches for employment generation.

#### Unit-IV **Public Finances, Money, Banking and Prices**

Fiscal federalism - Centre-state financial relations, Finances of central government Finances of State governments, Parallel economy, Problems relating to fiscal policy, Fiscal sector reforms in India.

Analysis of price behaviour in India, Financial sector reforms, Interest rate policy Review of policy of RBE Money and capital markets, Working of SEBI in India.

#### Unit-V **External Sector and Economic Reforms.**

Structure and direction of foreign trade; Balance of payments; issues in export-import policy and FEMA; Exchange rate policy Foreign capital, and MNCs in India, The progress of trade reforms in India.

Rationale of internal and external reforms; Globalisation of Indian economy, W.T.O. and its impact on the different sectors of the economy, Need for and issues in good governance, Issues in competition and safety nets in Indian economy.

#### BASIC READING LIST.

- 1) Ahluwalia I.J. and I.M.D. Little (Eds) (1999) India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- 2) Bardhan, P.K. (9th.Ed.) (1999) The Political Economy of Development in India, Oxford University Press, New Delhi.
- 3) Bawa, R.S. and P.S. Raikhy (Ed) (1997) Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
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- 5) Chakravarty, S (1987) Development Planning; The Indian Experience, Oxford University Press, New Delhi.
- 6) Dantwala, M.L. (1996) Dilemmas of Growth The Indian Experience, Sage Publications, New Delhi.
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- 53) रुद्रदत्त एवं सुंदरम, भारतीय अर्थव्यवस्था, एस.चंद, नई दिल्ली.

**Paper-II : Economics of Social Sector And Environment**

- Unit-I: Welfare Economics, Social Sectors, Environment and Measurement of Environmental Values.
- Pareto optimality and competitive equilibrium; Fundamental theorems of welfare economics, Externalities and market inefficiency- externalities as missing markets property rights and externalities, non-convexities and externalities Pareto optimal provision of public goods, preference revelation problem and impure and mixed public goods, common property resources.
- Use values, Option values and non-use values; Valuation methods - Methods based on market behaviour Hedonic property values and household production models (travel cost method and household health production function) , Methods based on response to hypothetical markets, contingent valuation methods.
- Unit-II: **The Theory of Environmental Policy.**
- Environmental externalities - Pigouvian taxes and subsidies, marketable pollution permits and mixed instruments (the changes and standards approach) Coase's bargaining solution and collective action; informal regulation and the new model of pollution control, Monitoring and enforcement of environmental regulation, Environmental institutions and grass root movements, Global environmental externalities and climatic change - Tradable pollution permits and international carbon tax, Trade and environment in WTO regime.
- Unit-III **Economics of Environment, Natural Resource Management and Sustainable Development.**
- Theories of optimal use of exhaustible and renewable resources, Environmental and development trade off and the concept of sustainable development, integrated environmental and economic accounting and the measurement of environmentally corrected GDP; Macroeconomic policies and environment.
- Mechanism for environment regulation in India, Environmental laws and their implementation; Policy instruments for controlling water and air pollution and forest policy People's participation in the management of common and forest lands. The institutions of joint forest management and the joint protected area management, Social forestry - rationale and benefits.

**Unit-IV Economics of Education**

Education as an instrument for economic growth, Human capital vs. Physical capital, components of human capital, Demand for education- private demand and social demand, Determinants of demand, Cost of Education - Expenditure on education, private costs and social costs and wastage and stagnation- Benefits of education - Direct and indirect benefits, private and social benefits, Educational planning and economic growth - Cost benefit analysis, production function models, growth accounting equations of Schultz and Denison, Manpower requirements approach, programming and input output models, Educational financing - Resource mobilization and utilization, pricing and subsidies and effects of educational financing on income distribution; Educational and labour market - Effects of education ability and family background on earnings, poverty and income distribution, education and employment, Economics of educational planning in developing countries with special emphasis on India.

**Unit-V Health Economics**

Health dimensions of development Determinants of health poverty malnutrition and environmental issues, Economic dimensions of health care - demand and supply of health care Financing of health care and resource constraints, The concept of human life value, Theory and empirical studies of reduction of health care, Inequalities in health care and gender perspectives, Institutional issues in health care delivery.

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### **Paper-III : LOBOURECONOMICS**

#### **Unit - I**

#### **Labour Markets**

Nature and characteristics of labour makets in developing countrics like India Paradigms of labour market analysis - Classical, New-classical and dualistic economy Demand for labour in relation to size and pattern of investment Choice of technologies and labour policies, Supply of labour in relation to growth orf labour force, Labour market policies, Mobility and productivity of labour Rationalization, Methods of

recruitment and placement, Employment service organisation in India.

**Unit-II Employment**

Employment and development relationship - Poverty and unemployment in developing countries, Unemployment - Concept, Types, and Measurement, particularly in India, Impact of rationalization, technological change and modernization on employment in organized private industry, Public sector and employment in agricultural sector, Analysis of educated unemployment, Employment policy in Five Year Plans and its evaluation.

**Unit-III Wage Determination.**

Classical, Neo-classical and bargaining theories of wage determination; Concepts of minimum wage, living wage and fair wage in theory and practice-Discrimination in labour markets, Wage determination in various Sectors - rural, urban, organized, unorganized and in informal sectors, Nonwage Component of labour remuneration Inflation wage relationship at micro and macro levels, Productivity and wage relationship, National wage policy, Wages and Wage Boards in India, Bonus system and profit sharing.

**Unit-IV Industrial Relations.**

Theories of labour movement - Growth, pattern and structure of labour unions in India, Achievements of labour unions, Causes of industrial disputes and their settlement and prevention mechanism, Role of tripartism, Current trends in collective bargaining Labour legislation in India, Indian labour Laws and practices in relation to international labour standards.

**Unit-V State and Labour.**

State and social security of labour - Concept of social security and its evolution, Social assistance and Social insurance Review and appraisal of state policies with respect to social security and labour welfare in India, Special problems of labour Child labour, female labour, Discrimination and gender bias in treatment of labour, Receding state and its effect on working of labour markets, Labour market reforms- Exit policy, need for safety nets, measures imparting flexibility in labour markets, Second National Commission on Labour, Globalization and labour markets.

**BASIC READING LIST**

1. Datt. G (1996) Bargaining Power, Wages and Employment, An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
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3. Jhabbala. R. and R.K. Subrahmanya (Eds.) (2000) The unorganized Sector- Work Security and Social Protection, Sage Publications, New Delhi.
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12. Papola, T.S. and Sharma. A.N. (Eds) (1999), Gender and Employment in India Vikas, Publishing House, New Delhi.
13. Sharma A.N. and A Kundu (Ed.) (2001) Informal Sector in India Emerging perspectives, Institute for Human Development, New Delhi.
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22. Misra L. (2000) Child Labour in India, Oxford University Press, New Delhi.
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28. Johri, Issues in Indian Labour Policy.
29. Mathur, A.S. Labour Policy & Industrial Relations in India.
30. कर्णिक, व.भ., कामगार संघ आणि औद्योगिक संबंध
31. Dr.S.N.Bodhankar, Dr.S.N.Chavan-Labour Eco. Sainath Pub. Nagpur.

#### **Paper-IV MATHEMATICAL ECONOMICS**

##### **Unit-I Theory of Consumer Behaviour**

Cardinal and ordinal utility, Ordinal utility maximization, Slutsky equation, functions compensated demand functions, income, substitution and price effects, Concept of elasticities-generalizations to variable case, Separable and additive utility functions homogeneous and homothetic utility functions; constant elasticity of substitution (CES) an transcendental logarithmic utility functions, indirect utility functions duality theorem; consumer's surplus, Theory of revealed preference and index numbers; Treatment of demand for durable goods; Empirical demand functions, Consumer behaviour under risk and Uncertainty.

##### **Unit-II Theory of production**

production function - homogeneous and non-homogeneous Properties of Cobb-Douglas production function CES, Simple derivation of short and long run cost functions, Modern approach to theory of costs; Costs Cost function, producer's equilibrium- Laws of return and returns to scale, Constrained Optimization of a producer's generalization to a variable case, Input demand functions; Adding up theorem Technical progress through production function; Analysis of joint profit maximization and multi-product firm, Production possibility curve: Empirical uses of production function analysis.

##### **Unit-III Price Determination in Various Markets and Market Equilibrium**

Price determination in perfect competition, monopoly, monopolistic competition, duopoly, oligopoly and monopsony, Pricing of factors of production, Bilateral monopoly.

Single market equilibrium - Marshallian and Walrasian equilibrium conditions; Lagged market equilibrium, Multi-market equilibrium - General equilibrium system of Walras, Conditions of stability of equilibrium.

##### **Unit-IV Determination of Income. Fluctuations in Income and Growth Models.**

Classical and Keynes' macro system, Static and dynamic multiplier, Determinants of investment, Accelerator, Trade cycle model of Samuelson and Hicks, Goodwin and Kalecki Stabilization policy, Rational expectations and economic policy, Lucas's model Harrod model, Neoclassical model of growth, Solow and Meade growth models with technical progress Optimal growth, and golden rule of accumulation, (Tumpike theorem, Endogenous growth.)

##### **Unit-V Game Theory and Linear Programming and Input-output Analysis.**

Concept of game - Two-person zero-sum game, Pay-off matrix strategies, Maximum and minimax solutions, Saddle point solution Non-constant sum game, Prisoner's dilemma, Linear programming Primal and dual problem, Simplex method, transport and storage problems and other applications of linear programming in economics, Input-output analysis - Open and closed systems, Hawking-simon conditions, Leontief's dynamic system Testing consistency of planning models.

#### **BASIC READING LIST**

1. Allen, R.G.D. (1976) Mathematical Economics, Macmillan London.
2. Arrow, K.J. and M. Intriligator (Eds) (1982) Handbook of Mathematical Economics, Volumes I, II and III North Holland Amsterdam.
3. Henderson, J.M. and R.E. Quandt. (1980) Microeconomic Theory A Mathematical Approach, McGraw Hill, New Delhi.
4. Chung J.W. (1993) Utility and Production : Theory and Applications, Basil Blackwell, London.
5. Allen, R.G.D. (1974) Mathematical Analysis for Economicists, Macmillan Press and ELBS, London.

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8. Barro, R.J. and H. Grossman (1976) Money Employment and Inflation, Oxford University Press, Oxford.
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11. Kothari C.R. (1992), An Introduction to Operations Research, Vikas Publishing House, New Delhi.
12. Kuhn. Herold W. (Ed.) (1997) Classics in Game Theory, Princeton University Press Princeton.
13. Mustafi, C.K. (1992), Operations Research : Methods and Practice, Wiley Bastern, New Delhi.
14. Nash J.F. (1996), Essays on Game Theory, Cheltenham, U.K.
15. Singh S.P. et al (2002), Econometrics and Mathematical Economics S. Chand.

### Paper V : ECONOMETRICS - II

- Unit-I Basic Econometrics**
- Simple and general linear regression, model - Assumptions, Estimation (through) OLS approach and properties of estimators, Gauss-Markov theorem; Concepts and derivation of R<sup>2</sup> and adjusted R<sup>2</sup> Concept and analysis variance approach and its application in regression analysis.
- Unit-II Problems in Regression Analysis and Regressions with Qualitative Independent Variables .**
- Nature, test, consequences and remedial steps of problems of hetero- scedasticity Multicollinearity and auto-correlation, Problems of specification error, Errors of measurement.
- Dummy variable technique - Testing structural stability of regression models comparing to regression, interaction effects, seasonal analysis, piecewise linear regression, use of dummy variables, regression with dummy dependent variables.
- Unit-III Dynamic Econometric Model**
- Autoregressive and distributed lag models - Koak Model, Partial adjustment model, adaptive expectations, Instrumental variables Problem of auto-correlation Application.

### Unit-IV Simultaneous Equation Models and Time Series Analysis.

Introduction and examples: The simultaneous Equation bias and inconsistency of OLS estimators, The identification problem; Rules of identification - order and rank conditions; Methods of estimating simultaneous equation system, Recursive methods and OLS Indirect least squares (ILS) 2SLS, and 3SLS - Applications Stationarity unit roots, co-integration-spurious regression.

### Unit-V Panel Data Techniques and Multivariate Analysis.

Panel data techniques - Random coefficients model, Fixed effects model, Random effect model.

Multivariate probability distribution, multivariate normal distribution and its properties.

### BASIC READING LIST

1. Amemiya, T. (1985) Advanced Econometrics, Harvard University Press Cambridge, Mass.
2. Baltagi, B.H. (1998), Econometrics, Springer, New York.
3. Dongherty C. (1992) Introduction to Econometrics, Oxford University Press, New York.
4. Goldberger, A.S. (1998), Introductory econometrics, Harvard University Press, Cambridge Mass.
5. Gujarati, D.N. (1995) Basic Econometrics (2nd Ed.) McGraw Hill, New Delhi.
6. Hill R.C. E.G. William and G.G. Judge (1997) Undergraduate Econometrics Wiley, New York.
7. Kennedy. P. (1998), A Guide to Econometrics (4th Ed.) MLT Press. New York.
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9. Koutsoyiannis, A (1977), Theory of Econometrics (2nd Ed) The MacMillan Press Ltd. London.
10. Krishna K.L. (Ed) (1997) Econometric Applications in India, Oxford University Press, New Delhi.
11. Maddala, G.S. (Ed.) (1993) Econometrics Methods and Application (2 Vols), Albershot, U.K.
12. Theil, H. (1981) Introduction to Econometrics, Prentice Hall of India New Delhi.
13. Croxton, F.E. D.J. Cowden and S. Klein (1973) Applied General Statistics, Prentice Hall new Delhi.

14. Intrilligator, M.D. (1978), Time Series Models for Business and Economic Methods, Techniques and Applications, Prentice Hall, Englewood Clifts, New Jersey.
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18. Dharmas, P.J. (1970) Ecpon, etrocs - Statistical Foundations and applications, Harper and Row Publishers New York.
19. Draper, N.R. and H. Smith (1966) Applied Regression Analysis, John Wiley, New Delhi.
20. Anderson, T.W. (1958) Introduction to Multivariate Statistical Analysis, Chapman and Hall, London.
21. Chatfield C. and A.J. Collins (1980), Introduction to Multivariate Analysis, Chapman and Hall, London.

### **Paper-VI: DEMOGRAPHY**

#### **Unit-I Population, Development and Structure of Population.**

Meaning and scope of demography; Components of population growth and their inter-dependence, Measures of population change; Structure, distribution and sources of population data: Theories of population - Malthus, Optimum theory of population, Theory of demographic transition- Population and development.

Population trends in the twentieth century, Population explosion - Threatened or real, distant or imminent, International aspects of population growth and distribution, Pattern of age and sex structure in more developed and less developed Countries, Determinants of age and sex structure Demographic effects of sex and age structure, economic and social implications : Age pyramids and projections - individual aging and population aging.

#### **Unit-II Fertility, Nuptiality and Mortality.**

Importance of study of fertility - Total fertility rate, Gross reproduction rate and net reproduction rate : Levels and trends of fertility in more and less developed Countries Factors affecting fertility - Socio-economic factors, economic status, health, education nutrition, caste, religion, race, region, rural-urban and status of husband and wife, Nuptiality - Concept and analysis of marital status, single mean age at marriage, synthetic cohort methods, Trends in age at marriage, Mortality - Death rates, crude and age-specific,

Mortality at birth and infant mortality rate Levels and trends in more and less developed countries, Sex and age pattern of mortality, Factors for decline in mortality in recent past, Life table - Construction and uses, Concepts of stable population: Methods of population projection.

#### **Unit-III Migration and Urbanization.**

Concept and types- Temporary, internal and international; International migration, Its effect on population growth and pattern Factors affecting migration, Theories of migration related to internal migration, Urbanization - Growth and distribution of rural-urban Population in developed and developing countries, Pattern of Migration and Urbanisation in India.

#### **Unit-IV Demographic Data Base in India.**

Study of census in India - Methodology and characteristics of census, Nature of information collected in 1991 and 2001 census in India, national Family Health Survey Changing characteristics of population in India, Population growth rates, trends and regional variations in sex ratio, Age structure of population, foetal, infant and child mortality rates, Maternal mortality rates, Life expectancy, Appraisal of Derala model Pattern of Migration and Urbanization in India.

#### **Unit-V Population and Development with Reference to India and Population Policy in India.**

Population, economy and environmental linkages- Population, health, nutrition, productivity nexus, Population and human development issues, Culture and fertility Education and fertility, Demography and household economic behaviour.

Evaluation of population policy in India - The shift in policy from population control to family welfare, to women empowerment, Family planning strategies and their outcomes, Reproductive health, maternal nutrition and child health policies, The new population policy, Tasks before the National Population Commission.

#### **BASIC READING LIST**

1. Agarwala, S.N. (1972). India's Population Problem, Tata McGraw Hill Co-Bombay.
2. Bose, A (1996) India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.

3. Bogue, D.J. (1971), Principles of Demography, John Wiley, New York.
4. Chenery H. and T.N. Srinivasan (Ed.) (1998) HandBook of Development Economics, Vol I & 2 Elsevier, Amsterdam.
5. Choubey P.K (2000) Population Policy in India, Kanishka Publications, New Delhi.
6. Coale, A.J. and E.M Hoover (1958), Population Growth and Economic Development in Low Indome Countries A case Study of India's Prospes is Princeton University Press, Princeton
7. Gulati, S.C. (1988) Fertility in India, An Econometric Study of a Metropolis, Sage, New Delhi.
8. Smion J.L (1992), Population and Development in Poor Countries, Princeton Universiy Press.
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11. Sryrock, H, et. at. (1973) The Methods and Consequences of Demography US Department of Commerce. Washington D.C.
12. United Nation (1973) The Determinants and Consequences of Population Trends, VOI/ol UNO Publicationsm, New York.
13. Chiang. C.L. (1974) Life Tables and Mortality Analysis, W.H.O Geneva.
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18. Boserup, E. (1970), Women's Role in Economic Development, George Allen and Unwin London.
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20. Krishnaji, M. R.M. Sudarshan and A shariff (1999) Gender Population and Development, Oxford University Press; New Delhi.
21. Sudarchan and A Shariff (1999) Gender Population and Development, Oxford University Press, New Delhi.
22. Gupta J.A (2000) New Reproductive Technologicis, Women's Health imi Autonomy, Indo-Dutch Studics on Development Alternatives, Sage, New Delhi.
23. Mishra S (2000) Voluntary Action in Health and Population : The Dynamics of Social Transition, Sage, New Delhi.
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27. Bhende A.A. and Kanitkar, T. (2000) "Principles of Population studies". Himalaya Publishing House, Mumbai.
28. श्रीवास्तव एस.सी.(१९९९) , "जनंकिकीय अध्ययन के प्रारूप", हिमालया पब्लिशिंग हाऊस.

### **Paper-VII : FINANCIAL INSTITUTIONS AND MARKETS**

- |          |   |
|----------|---|
| Unit-I   | <p><b>Nature and Role of Financial System</b></p> <p>Money and finance - Money and near-money - Financial intermediation and financial intermediaries - The structure of the financial system -Functions of the financial sector Indicators of financial development - Equilibrium in Financial Markets - Financial System and Economic Development - Criteria to evaluate assets : Risk and financial assets, types of risk, return on assets.</p>   |
| Unit-II  | <p><b>Structure of Interest Rates</b></p> <p>Theories of interest rate determination - Level of interest rates - Long period and Short period rates - Term Structure of Infereest rates - Spread between lending and deposit rates- Administered interest rates.</p>  |
| Unit-III | <p><b>The Central Bank. Commercial Banks and Monetary Policy</b></p> <p>Functions of Central Bank - The aims and objectives of the monetary policy in developed and developing countries - instruments of monetary policy - Proliferation of banking and non-bank financial intermediaries - Effectiveness of monetary policy Credit creation and its control, Profitability and efficiency of banks Development banks role and functions - Investment banking and merchant banking, Financial sector reforms in India.</p> |
| Unit-IV  | <p><b>Non-bank Financial Intermediaries and Financial Markets.</b></p> <p>Definition and types of non-bank financial institutions, Their growth and impact on India's economic development, Measures taken to control their operations. Role and structure of money market and capital market - Call money market Treasury bill market, Commercial bill market including commercial paper and certificate of deposits, Discount market - Government securities market - Primary and secondary</p>                           |

market for securities, SEBI its impact on the working of capital market in India, IRDA and its role in financial markets.

Unit-V

**International Financial Markets.**

Nature, organization and participants - Exchange rates - devaluation, and depreciation - Working of Floating exchange rates since 1973 - Risk bedging and futures in exchange retes International Financial Flows, forms and volume - Rise and fall of Brettomwood Institutions - International Liquidity - Post Mastricht developments Reforms in International monetary system for developing countries - Lending operation of World Bank and its affiliates - Working of IDA and IFO, Growth of Regional financial institutions, Asian Development Bank and its lending activities, Asian Development Bank and India Uuro-dollar and Euro-Curency markets; their developmental role and regulation at the International level.

**BASIC READING LIST**

1. Bhole, L.M. (1999) Financial Institutions and Markets, Tata McGraw Hill Company Ltd. New Delhi.
2. Bhole L.M. (2000) Indian Financial System, Chugh Publications, Allahabad
3. Edminster, R.O. (1986) Financial Institutions, Markets and Management McGraw Hill, New York.
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9. Machiraju, M.R. (1999) Indian Financial System, Vikas Publishing House, New Delhi.
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11. Prasad, K.N. (2001) Development of India's Financial System, Sarup & Sons, New Delhi.
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15. Farrell, J.L (1997) Portfolio Management, (2nd Edition) McGraw Hill, New York.
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28. Brahmananda, PR (1982) MF Loan and India's Economic Future, Himalaya Publishing Hourse, Bombay.
29. Kindleberger, C.P. (1996) A History of Financial Crisis, Manias, Panics and Crashes, John Wiley & Sons, New York.
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38. Paredh, H.T. The Bombay Money Market.

39. Rao S.R. The Indian Money Market.  
 40. देशपांडे, एस.ए., अधिकोषण व नाणे बाजार  
 41. पाटील कृ.ए., अधिकोषण व मुद्रा बाजार

### **Paper-VIII : COMPUTER APPLICATION IN ECONOMIC ANALYSIS**

#### **Unit-I Introduction in Computers and Peripherals**

Basic Components of computer - CPU input-output devices, keyboard, mouse and scanner, video display, printers and plotters, data storage and retrieval, hard disk floppy disk and CD ROM Types of computers and their applications, computer networking and resource sharing, hardware, software and firmware, examples and techniques in programming languages like C, C. Visual Basic Java.

#### **Unit-II Data Processing Techniques and Algorithms**

Concept of data, record and file, Types of data and data structures, data analysis File handling and operations like opening appending and cascading, closing and attribute control Data storage and retrieval Data operations, Algorithms like sorting merging joining and bifurcation Database concepts and operation on database, DBMS and RDBMS.

#### **Unit-III Statistical Processing Techniques and Methods**

Series, groups, tables graphs and objects, Time and frequency series, regression methods and Techniques, Regression analysis, Data validation. Trends and cyclicity forecasting, system modelling and description, System equation Specification Error and correction strategies, Statistical modelling and descriptive statistical Distribution functions, Regression statistics.

#### **Unit-IV IT Application to Finance.**

On line banking ATM's Electronic stock exchange, Electronic trading. Data sharing and decimation, Electronic transaction, Document delivery, Authentication and validation transaction processing.

#### **Unit-V IT Application to Commerce.**

Electronic trading and marketing On line shopping and malls, B2B, B2C C2B. and G2B models and their applications Document and transaction security and digital signature Integrated transaction on mobile platforme.

### **BASIC READING LIST**

1. Rajasekaran, S (1986) Numerical Methods in Serence and Engineering All Wheeier, Allahabad.
2. Sandera, D.H. (1988) Computers Today, McGraw Hill (3rd Ed.) New York
3. Sinha, P.K. (1992) Computer Fundamentals, BPB Publications New Delhi.
4. Rajaraman, V (1996) Fundamentals of Computers Prentics Hall of India, New Delhi.
5. Lipschultz M.M. and S Lipachultz (1982) Theory and Problems of Data Precessing Sobtun's Outline Serics, McGraw Hill New York.
6. Schildi. H. (1987) C Made Easy, MCGraw Hill Co. New York.
7. Levin. R.I and C.A. Kirkpatrick (1975) Qantitative Approaches o Managemen (3rd Ed.) McGraw Hill.
8. Miraky I (1955) Introduction to Linear Algebra, Oxford University Press.
9. Intrilligator, M.D. (1978) Econometric Models. Techniques and applications prentice Hall, Engleword Cliffs, N.J.
10. Wood, M.E. (1983) Introducing Computer Security Broadrman Associates Delhi.

### **Paper-IX**

#### **HISTORY OF MODERN ECONOMIC ANALYSIS**

(Contribution of Nobel Laursates in Economics)

#### **Unit-I Theory of Value, General Equilibrii, Ga,e Theory Welfare**

Samuclson Paul & Hicks John R  
 Arrow, Kenneth J DEbren Gerard G  
 Allars, Maurice Coase, Ronald H.  
 Nash, John F Harsatiyl, John C.  
 Selten Reinhard.

#### **Unit-II Staties Dynamics Mocramadels, Econometeics. Macraeconomics, Maonetary Economics and Financial Economics.**

Frisch. Ragner  
 Tinbergen, Jap  
 Klem, Lawrence R.  
 Haavelmo, Trygve  
 Friedman, Milton  
 Tobin, James  
 Modigliani, Franco  
 Markowitz, Hary M.

Sharpe, William F.

Miller, Merton H.

Scholes, Myron

Merton, Robert C.

Unit-III **Economic Development, Economic Growth, Input-Output Analysis Programming social Accounts, Economic and social Systems**

Kuznets, Simon

Schultz, Theodore W

Lewis Sir W. Arthur

Solow, Robert M.

Leontief, Wassily W.

Kantorovich, Leonid

Koopmans C. Tjalling

Stone, Sir Richard

Hayek Fredricch

Myrdal, Gunnar.

Unit-IV **International Trade, Capital Movement and Quantitative Economic History**

Meade, James E.

Ohlir, Bertil

Mundell, Robert A.

North, Douglas C.

Fogel, Robert W.

Unit-V **Others**

Simon, Herbert A - Decision making within Economic organisation

Stigler, George, J - Industrial Economics

Buchanan, James M. - Theory of Public Choice

Backer, Gary S. - Extension of Economic Rationality to Sister Sciences social

Lucas, Robert J - Rational Expectations Approach to Macro economics

Vickery, Willam J - Asymmetric Information and Auction Theory.

Mirrlees, James - Asymmetric Information and Tax Theory.

Sen, Amartya K. - Applied Welfare Economics.

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2. Allais, M.(1978) Contribution to Economic Science.
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7. Coase, R. (1988) The Firm, the Market and the Law, Chicago University Press, Chicogo.
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15. Nash, J.F. (1953), Two-Person Cooperative Games, Econometrica, Vol, XXI.
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38. Sharpe W.F. (1970) *Porttolio Theory and Capital Markets*, McGraw-Hill, New York.
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43. Kuznets, S. (1979) *Growth, Population, Income Distribution Selected Essays*, W.W. Norton, New York.
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53. Hayck, F. (1967) *Studies in Philosophy Politics and Economics*, University of Chicago Press , Chicago.
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74. Buchanan. J.M. (1986) The Constitution of Economic Policy Nobel Lecture..
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### **Paper-X : ECONOMICS OF INSURANCE**

Unit-I

#### **Introduction**

Economic security: Human quest for economic security through time Exposure to losses, Role of insurance Definition of insurance Risk pooling and risk transfer Economic and legal perspectives, Social vs. private insurance Life vs. non-life insurance Classification of life,health and general insurance policies.

Unit-II

#### **Risk Risk Management, Insurance and Economic Development**

Fundamentals of uncertainty and risk; Pure risk and speculative risk, Expected utility and decesion-making under uncertainty; Expected utilit and the demand for insurance,

Moral hazard and insurance demand, Concept of risk management; Essentials of risk management Elements of risk management - Risk assessment, Risk control and risk financing World wide risk sharing - Concept of reinsurance, Fundamentals of reinsurance, Types of reinsurance distribtion systems, Reinsurance markets in developing countries. Risk management and insurance in economic development, insurance institutions as financial intermediaries, Insurance institutions as investment institutions Insurance institutions in Indian capital market; Regulation governing investments of insurance institutions in India, IRDA rules in this regard.

Unit-III

#### **Essentials of Life and Health Insurance.**

Fundamentals of life and health insurance; Functions of life and health insurance; Mathematical basis of life insurance Plans of life insurance Ligal aspects of life insurance Provisions of policies Selection and classification of risks Basics of premium construction,Valuation and distribution of surplus Individual health insurance,Uses. Types of evaluation, Principles of underwriting of life and health insurance Group insurance and super-annuation (pension) schemes; Set-up and management of insurance companies.

Unit-IV

#### **Essentials of General Insurance**

Defination of general insurance Types of general insurance, Importance of general insurance Importance of general insurance in a country's economic development, Concept of short-term risk Fundamentals of the folliowing concepts Common Law, Equity, Proposal/Accedence, Indemnify, Inasurable interest,Contribution subrogation, Representation, Ulmost good faith, Material fact, Phsical hazard, Moral hazard, Policy endorsements conditions/warranties, Selection of risks, Inspection of risks Rating and calculation of premiums : Tariffs and non-tariffs; Marketing of general insurance, Technology development and general insurance.

Unit-V

#### **Planning for Wealth Accumulation, Retirement Needs and Regulation of Insurance.**

Wealth accumulation planning, Life cycle planning; Planing for accumulation objectives, Purchase of insurance and accumulation planning Investments Tax-advantaged and tax non-advantaged; Essentials of individual retirement, planning analysis of retirement, Income needs, Retirement planning strategies, investing for retirement, Pension plans, Basic principles of pension plans, Pension plans in India Estate

Planning Process of estate planning, Estate planning tools, Life insurance for estate liquidity.

Regulation of insurance, Purpose of government intervention in markets, Theories of regulation Insurance regulation in India Insurance Regulation and Development Authority (IRDA)

### BASIC READING LIST

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8. Mishra M.N. (2003) Insurance principles and practice S chand, New Delhi.
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20. Ourevile, J.F. (1990) The Economic Significance of Insurance Markets in Developing Countries, The Journal of Risk and Insurance, Volme 57, No.3.
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22. Insurance Institute of India, Life Assurance Underwriting (IC-22) Mumbai.
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25. Insurance Institute of India, General Insurance (IC-34) Mumbai.
26. Casner, A.J. (1995) Estate Planning Little Brown, Boston.
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28. Iyers, J.I. III and E.T. Johnson (Eds) (1991) Readings in Wealth Accumulaion Planning The American College, Bryn Mawr. Pa.
29. Insurance Regulation and Development Authority (2001), IRDA Regulations, New Delhi.
30. Klein, R.W. (1995) Insurance Regulation in Transition, Journal of Risk and Insurance. Volume. No.3

### Paper - XI BUSINESS CYCLES

- Unit-I Meaning of economic fluctuations, Main types of economic fluctuations Seasonal, cyclical, secular and random, Definition and Nature of Busines Cycles, Types of Business cycles, Kitchin, Juglar, Kondratieff, Kuznets, Schumpeter's three cycle scheme, Building cycles and concept of sub-cycle scheme.
- Unit-II **Theories of Business Cycles. I :**
- (a) Early contributions Marx and Malthus to the theory of cyclical fluctuations
  - (b) Underemployment Theories: J. A. Hobson.
  - (c) Monetary Theory R.G. Hawtrey
  - (d) Over Investment Theory A Spethoff
  - (e) Monetary Over Investment Theory F.A. Hayek
  - (f) Hansen's Secular Stagnation thesis.

**Unit-III Theories of Business Cycles II :**

- (a) J.M. Keynes and Business cycles: Mitchell's Theory, the Cob-web theory
- (b) Modern Theories of Business cycle M. Kelecki, Metzler, Ragnar Frisch Exogenous theory.
- (c) General features of Econometric models of Business cycle : Objective, technique and limitations of models with special reference to J. Tinbergen.

**Unit-IV** Business Cycles History : Nature of Business cycles in 19th century , General features of cycles in 20th century Broad features of the Great Depression (1929-33) Nature of Business cycles after the Second World War, Recession of 1990s, International transmission of cyclical disturbances, Developing countries and Business cycles, Business cycles in a planned economy, South East Asian Crisis and India, Business cycles in India during 20th Century.

**Unit-V** Methods of measurements of cyclical fluctuations, Policies for controlling or eliminating cycles, Monetary, Fiscal Policies Direct controls, Monetarism and fiscalism, Business cycle forecasting.

**Books Recommended.**

1. Estey L.A. Business Cycles- Their Nature Causes & Control
2. Gordon, R.A. Business Fluctuations.
3. Harberler, G. Prosperity and Depression.
4. Hicks, J.R. Business Cycles and National Income
5. Kalecki J.R. A Contribution to the Theory of Trade Cycle
6. Ludberg Eric: he Business Cycles in the Post world War.
7. Shukla D.K. Business Cycle analysis.
8. World Bank (1993) East Asian Miracle World Bank Report Washington D.C.
9. Goldstein, M.(1998) The Asian Financial Crisis Cesis, Cacre and Systematic Implication Institute for International Economics Washington D.C.
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11. Bhargava P.K. (1991) India's Fiscal crisis, Ashish Publishing House, New Delhi.
12. Vaidyanathan A, (1995) The Indian Economy crisis Response and Prospects. Onent Longmans New Delhi.
13. माहारे रा.य., व्यापारचक्राचे सिध्दांत.

**FACULTY OF ARTS****% ORDINANCE NO. 36****Examinations Leadings to the Degree of**

वाङ्मय पारंगत

(Master of Arts)

1. The examination for the degree of वाङ्मय पारंगत (Master of Arts) shall consists of two parts, namely :-
  - i) The वाङ्मय पारंगत भाग -१ (M.A. Part I) Examination and
  - (ii) The वाङ्मय पारंगत भाग -२ (M.A. Part II) Examination
2. The duration of the course shall be of two academic years with the वाङ्मय पारंगत भाग -१ (M.A. Part I) Examination at the end of the first academic year and the वाङ्मय पारंगत भाग -२ (M.A. Part II) Examination at the end of the second academic year.
3. The examination for each of the two parts shall be held once a year at such places and on such dates as may be appointed by the Board of Examination.
 

Provided that the examination in the following subjects shall be held twice a year, namely ; English, History, Economics, Political Science, Sociology, Marathi, Hindi, Gujarati, Telugu, Mathematics, Statistics, Geography, Sanskrit, Indian Music and Translation Hindi.

Provided further that the number of candidates appearing at the winter Examination shall not be less than Ten for each subject.
4. Subject to his compliance with the provisions of this ordinance and of other Ordinances in force from time to time ,an applicant for admission to:-
  - A) The वाङ्मय पारंगत भाग -१ (M.A. Part I) Examination shall have (i) passed the examination for the Degree of वाङ्मय स्नातक (Bachelor of Arts) not less than one academic year previously:

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% As amended vide Ordinance Nos. 8/1979,21/1979,48/1981,72/1981,83/1981,89/1981,19/1983, 36/1983,11/1984,9/1987, 7/1991,11/1992,19/1992.,20/1994, 3/1998,20/1998,12/1999, 3/2001,14/2001, 6/2005.

Provided that,an applicant who has been admitted to the Bachelor Degree of the University or of any other statutory university in any other faculty and has subsequently passed the examination in an additional subject, may be admitted to the Part -I of the वाङ्मय पारंगत (M.A.) Examination in that subject after a period of one academic year has elapsed since his passing the examination in that subject.

(ii) attended, in the case of a subject in which laboratory work is prescribed ,a full course of laboratory instruction in that subject in an affiliated college supported by a certificate to this effect signed by the Principal of the College.

Provided firstly ,that in the case of practical work in Indian Music, an external candidate who has obtained a Post-Graduate Degree in Indian Music from any of the Institutions recognised by the University shall be exempted from attending the full course of practical instruction in Music.

Provided secondly, that an external applicant offering Sociology shall produce a certificate from the Head of the Department of Sociology at least six months before the commencement of the Part-II Examination in Sociology ,to the effect that he has conducted the necessary field work for the research essay under his guidance or under a person approved by him for a period of not less than fifty days:

Provided thirdly, that a teacher \* or a woman candidate who is eligible for admission to the Part-I Examination as an external candidate shall ,at his /her option be permitted to take the examination in any subject wheather or not offered for the वाङ्मय स्नातक (B.A.) Examination or an equivalent examination:

Provided fourthly, that a person holding the शिक्षण पारंगत (M.Ed.) Degree of the University or of any other Statutory University shall be eligible for admission to the वाङ्मय पारंगत (M.A.) Examination in Psychology on production of a certificate from the Head of the Institution regarding completion of the prescribed practical work:

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\* A teacher means a whole- time salarised teacher in an Educational Institution recognised by, affiliated to or maintained by the Government of Maharashtra and situated within the jurisdiction of the University

Provided fifthly, that persons holding degree in the Faculty of Arts and of Social Sciences shall irrespective of the subjects offered at the वाङ्मय स्नातक (B.A.) Examination and the aggregate marks obtained at the वाङ्मय स्नातक (B.A.) Examination be eligible for admission to the वाङ्मय पारंगत (M.A.) Examination in Public Administration and Linguistics. Persons holding degree in Faculties other than the Faculty of Arts and of Social Sciences and securing not less than 45% marks in the aggregate shall also be eligible for admission to the वाङ्मय पारंगत (M.A.) Examination in Public Administration and Linguistics:

Provided sixthly, that the persons holding Master's Degree in Faculties other than the Faculties of Arts and Social Sciences and securing not less than 45% marks in the aggregate shall also be eligible for the admission to the M.A. Examination in Public Administration:

Provided seventhly, that those who have passed the Post-Graduate Diploma Examination in Linguistics of this University held under Ordinance No.120 shall be eligible for admission to Part II of the M.A. Examination in the Linguistics and that these candidates be allowed at their discretion to appear for M.A. Part II Examination in Linguistics and that they be allowed to offer Paper IV of M.A.Part-I(Socio- Linguistics)in place of Paper V (Language Teaching Methods ) or Paper VIII(Field Methods)whichever subject they had offered at the examination for Post-Graduate Diploma in Linguistics.;

Provided eighthly, that persons holding the Degree of B.Sc.(Home Science)(Special) or the Degree of B.A. with Home Economics /Home Science as one of their subjects shall be eligible for admission to M.A.Examination in Home Economics .

Provided ninthly, that persons holding Bachelors Degree in the Faculty of Science, shall be eligible for admission to the वाङ्मय पारंगत भाग-१ (M.A.Part-I) Examination in "Ancient Indian History, Culture and Archaeology and Psychology":

Provided tenthly, that an applicant desirous of taking admission at M.A.Part-I,Part-II in the subject Home -Economics shall not be permitted to appear at the Examination as an external candidates.

Provided eleventhly, that persons holding the Degree of Bachelor of Social Work shall be eligible for admission to M.A.. Examination in Sociology,Economics and Psychology.

Provided twelfthly, that persons holding the Degree of B.Sc. (Home Science ),B.Ed.& M.B.B.S. Examination shall be eligible for admission to M.A. in Psychology.

Provided thirteenthly, that persons holding the Degree of B.Sc. (Home Science) Examination shall be eligible for admission to M.A. in Economics.

Provided fourteenthly that persons holding the Degree of Bachelor of Performing Arts(प्रादर्शिक कला स्नातक) shall be eligible for admission to M.A.in Hindi, English, Marathi, Urdu, Sanskrit, and Pali & Prakrit.

Provided fifteenthly, that persons holding the Degree of Bachelor of Performing Arts (प्रादर्शिक कला स्नातक) with Music as an art at the said degree level shall be eligible for admission to M.A. in Music.

#### Explanations:

- i) The Degree of वाङ्मय स्नातक (Bachelor of Arts )mentioned in Paragraph 4(A) (i) includes:-  
The Degree of Bachelor of Arts of any Statutory University in India, recognised as equivalent to the वाङ्मय स्नातक (B.A.)Degree of the University
- ii) The वाणिज्य स्नातक (B.Com) विज्ञान कृषी स्नातक(B.Sc.) (Agriculture) of the University or degree recognised as equivalent thereto of other Statutory Universities for purposes of admission to the वाङ्मय पारंगत भाग-१ (M.A.Part I) Examination in Economics only;
- iii) The विज्ञान स्नातक (B.Sc.) Degree of the University of Kerala for admission to the वाङ्मय पारंगत भाग -१(M.A.Part I) Examination in English only;
- iv) The Shastri Degree of Kashi Vidyapeeth for the following subjects only namely :-  
History, Political Science, Sanskrit, Philosophy, Hindi, English and Public Administration.

- v) Rural Services Diploma of the Government of India for admission to the वाङ्मय पारंगत भाग -१(M.A.Part I) Examination in the following subjects, namely:-  
Economics, History, Political Science, Sociology and Public Administration .
- vi) B.A./B.Sc. Degree with Mathematics for admission to M.A. course in Statistics .

(B) The वाङ्मय पारंगत भाग-२ (M.A.Part-II)Examination shall have passed the वाङ्मय पारंगत भाग-१ (M.A.Part-I)Examination of the University.

5. Provided that:

- (i) A candidate who is admitted to or is unsuccessful at the वाङ्मय पारंगत (M.A.) Examination when only one examination was being held, in the year 1956 or earlier, shall be eligible for admission to the Part-I of the Examination under this ordinance;
- (ii) An examinee taking the वाङ्मय पारंगत भाग-१ किंवा भाग-२ (M.A. Part -I or Part-II) Examination in a subject shall not be permitted simultaneously to take that same examination in any other subject or with any other examination unless otherwise specifically provided;
- (iii) Any person who has obtained a Third Division at the M.A. Examination of this University shall be eligible to take the Examination again under this Ordinance in the same subject or Group of subjects as the case may be for improving his division. In such a case the provisions of Ordinance No. 138 relating to Improvement of Division shall apply.

6. Without prejudice to the other provisions of Ordinance No.6 relating to the Examinations in General, the provisions of Paragraphs 5,8,10, 27, and 32 of the said Ordinance shall apply to every Collegiate candidate.

7. The fee for each part of the examination shall be Rs .57/-, and for each practical examination, Rs.20/-.

8. Every applicant for admission to the examination shall offer one of the following subjects, namely:-

(1) English (2) Marathi (3) Hindi (4) Sanskrit , (5) Urdu \* (6) Gujarathi (7) Pali and Prakrit, (8) Persian , (9) Arabic (10) Linguistics, (11) History, (12) Economics, (13) Political Science, (14) Philosophy, (15) Ancient Indian History , Culture and Archaeology, (16) Public Administration, (17) Geography, (18) Home Economics , (19) Indian Music (20) Psychology , (21) Sociology, (22) Statistics , (23) Mathematics , (24) Telugu, (25) Translation Hindi.

9. An examinee who has passed the वाङ्मय पारंगत (M.A) Examination of the University in one of the above subjects may present himself in any subsequent year for Part-I of the Examination , and after a period of one year has elapsed since his passing Part-I of the Examination , for Part-II of the Examination without necessarily prosecuting a further course of study:-

- (a) in any other subject not offered at the वाङ्मय स्नातक (B.A.) Examination.
- (b) in a new paper or combination of papers in the subject in which he has passed the examination:

Provided firstly , that an examinee successful under Clause (a) Paragraph 9 shall not be eligible for any scholarship, Medal or Prize of the University:

Provided secondly , that an examinee successful under Subclause (b) of Paragraph 9 shall not be placed in any division, nor shall he be eligible for any scholarship, Medal or Prize of the University.

Provided thirdly, that an examinee who has passed the M.A. examination of the university in Public Administration may present himself in any other subject for the M.A. Degree Examination, not offered by him at the Graduate Examination

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\* Subject to teaching of M.A. Literature in Gujarathi is started in any of the colleges within the jurisdiction of the University with prior approval of the University and Government.

9A. Subject to the provisions of this Ordinance and other Ordinances in force from time to time ,a candidate who has obtained the Degree of Master of Mathematics Education (M.M.Ed.) of the University shall be eligible to supplicate for the Degree of Master of Arts /Science(M.A./M.Sc.)in Mathematics by successfully completing four compulsory papers other than those included in the syllabi of B.M.Ed. and M.M.Ed. Mathematics papers and required as per the syllabus for M.A. / M.Sc.Part-II in Mathematics.

Such a candidate shall be admitted to M.A./M.Sc.Part-II Examination as an External candidate in those papers on payment of examination fees and such other fees as prescribed. A candidate passing in those papers shall be awarded Division as per rules on the basis of marks obtained in those four papers and in the six papers in Mathematics obtained at the M.M. Ed. (Part-I and Part II) Examinations ,but he shall not be eligible for any Scholarship Medal or Prize of the University.

10. In order to be successful in Part-I or Part-II of the Examination in Indian Music, an examinee shall obtain not less than 25 percent of the maximum marks assigned to each of the theory papers and not less than 36% of maximum marks (in both practicals)and shall also obtain not less than 36 percent of the aggregate marks in that part of the examination.

11. An examinee of the वाङ्मय पारंगत भाग-१ किंवा भाग-२ (M.A. Part I or Part II) Examination shall have the option of not being declared successful at the examination in case he does not secure a minimum of second Division marks/Higher Second Division Marks (55%) at the examination .The option shall be exercised everytime an application is submitted for either of the two examinations and shall be on the proforma printed on the application form itself . Once exercised ,option shall be binding upon the examinee and shall not be revoked under any circumstances.

12. The scope of the subjects shall be as indicated in the syllabus..

13. The number of papers and the maximum marks assigned to each paper and the minimum marks an examinee shall obtain in order to pass the examinations shall be as indicated in Appendix- A.

14. Examinees successful in Part-II of the examination, obtaining 60% or more marks in the aggregate in Part-I and Part-II of the examination taken together shall be placed in the First Division.Those obtaining less than 60% but not less than 55% marks in the Higher Second Division.Those obtaining less than 55% but not less than 48% marks in the Second Division and all other successful examinees in the Subjects in the Third Division:

Provided that those who take the M.A. Part II Examination in Linguistics after having obtained the Post Graduate Diploma in Linguistics (as provided in the seventh proviso to para 4(A)(ii) of this Ordinance) shall be awarded division on the basis of marks obtained by them at the M.A. Part-II Examination only and that they will not be entitled to a place in the merit list.

15. There shall be no classification of successful examinees at the Part-I Examination.

16. Persons admitted of the Degree of वाङ्मय स्नातक (Bachelor of Arts) with Honours of Nagpur University under Ordinance No 39 (Since repealed) are without any further examination, eligible for admission to the Degree of वाङ्मय पारंगत (Master of Arts) at or after the convocation of the University at which candidates successful at the examination for the degree of वाङ्मय पारंगत (Master of Arts ) held next after such admission to the Honours Degree are eligible for the Degree.

Provided that, the persons admitted to the degree of वाङ्मय स्नातक (Bachelor of Arts ) with honours shall, on application and on fulfilling the requirements in this behalf,be admitted to the degree of वाङ्मय पारंगत (Master of Arts ), if not already admitted thereto, with the same division as in their honours Examination.

17. Provisions of Ordinance No. 7-A relating to the Condonation of Deficiency of Marks for passing an examination and of Ordinance No.10 relating to Exemptions and Compartments shall apply to the examinations under this Ordinance.

18. As soon as possible after the examination ,but not later than 30th June next following, in case of examinations held in March/ April and 28th February next following, in case of Examinations held in October/November , the Executive Council shall publish a list of successful examinees at the Part-I and Part-II Examinations. The names of the examinees passing the Examination as a whole in the minimum prescribed period and obtaining the prescribed number of places in each subject in the First or Second Division shall be arranged in Order of Merit, as provided in the Examinations General Ordinance No.6:

Provided that, the merit list shall only be published for Summer Examination.

19. Save as expressly provided in this ordinance , no person shall be admitted to the वाङ्मय पारंगत (M.A.) Examination in a subject in which he has already passed an examination of this University or an equivalent examination of any other Statutory University.
20. Successful examinees at the Part-II examination shall on payment of the prescribed fees receive a Degree in the Prescribed form signed by the Vice Chancellor.
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Note:-

Subject No. 5,6 8,9,10,15,16 and 17 as shown in appendix-A are not taught to at any of colleges and hence external students should not offer these subjects..

## Statement of Papers of Part-I and Part-II of the M.A. Examination

| Subject  | PART-I   |               |                    | PART-II   |                 |                    | Aggregate Marks in Part I & Part-II | Minimum Pass Marks in Part-I & Part-II |     |
|--|--|---------------|--------------------|---|-----------------|--------------------|-------------------------------------|--|-----|
|  | Papers and Practicals  | Maximum Marks | Minimum Pass Marks | Paper and Practicals  | Maximum Marks   | Minimum Pass Marks |                                     |  |     |
| 1)English,2)Marathi,<br>3) Hindi,4) Sanskrit<br>5)Urdu,6)Gujarathi,<br>7) Pali and Prakrit,<br>8)Persian,9)Arabic,<br>10) Linguistics 11)History,<br>12)Economics, 13)Political<br>Science,14)Philosophy,<br>15) Ancient Indian History,<br>Culture and Archeology<br>16)Public administration<br>17)Telugu. | Four papers<br>of 100<br>marks<br>each                           | 400           | 144                | Four papers<br>of 100<br>marks<br>each  | 400             | 144                | 800                                 | 288                                    |     |
| <b>Other Subjects:</b><br><b>18)Geography</b><br>A)Papers I,II & III<br>100 marks each<br>B) Practicals I & II<br>of 100 marks each  | 300<br> <br>200  | 500           | 180                | A)Papers I,II &III<br>of 100 marks each<br>B)Practical-I 100<br>Practical-II 100<br>i)Reseach Paper Field Work<br>Report and Viva on Record<br>OR<br>(ii)Dissertation and Viva on Disseration<br><br>(A) Two Compulsory Papers<br>(i) Paper -I.....100<br>(ii)Papers-II 100<br>Theory 75<br>Practical 25   ...100<br>(B)Two Optional Papers III&IV<br>Any Two of optional papers,<br>each of 75 marks for Theory and<br>25 marks for Practical<br>OR.....100<br>Any one of the Optional papers<br>with dissertation of 75 marks).100<br>and Viva-voce of 25 marks.) | 300<br> <br>200 | 500                | 180                                 | 1000                                   | 360 |
| <b>19) Home Economics</b><br>Four Papers<br>Paper-I<br>Theory<br>Sessional<br>Paper-II<br>Theory<br>Sessional<br>Paper-III<br>Theory<br>Sessional<br>Paper -IV   | 75<br>25...100<br>75<br>25...100<br>75<br>25.....100<br>.....100 | 400           | 144                | (A) Two Compulsory Papers<br>(i) Paper -I.....100<br>(ii)Papers-II 100<br>Theory 75<br>Practical 25   ...100<br>(B)Two Optional Papers III&IV<br>Any Two of optional papers,<br>each of 75 marks for Theory and<br>25 marks for Practical<br>OR.....100<br>Any one of the Optional papers<br>with dissertation of 75 marks).100<br>and Viva-voce of 25 marks.)  | 400             | 144                | 800                                 | 288                                    |     |
| <b>20) Indian Music</b><br>A)Papers I&II....200<br>(100 marks each)<br>B)Two Practicals-<br>(i) Practical Test.....100<br>(ii) Majlis Performance.100  | 400  | 400           | 144                | A)Paper I&II(100 marks each)200<br>B)Two Practicals-<br>I.Practical Text.....100<br>II.Majlis Performance.....100   | 400             | 144                | 800                                 | 288                                    |     |

| Subject               | PART-I  |               |                    | PART-II  |               |                    | Aggregate Marks in Part-I & Part II | Minimum Pass Marks in Part-I & Part II |
|-----------------------|---|---------------|--------------------|--|---------------|--------------------|-------------------------------------|--|
|                       | Papers and Practicals   | Maximum Marks | Minimum Pass Marks | Paper and Practicals   | Maximum Marks | Minimum Pass Marks |                                     |  |
| 21. Psychology        | A) Papers I to IV (75 marks each )300<br>B) Practical.....100                     | 400           | 144                | A) Papers I to IV (75 Marks each)300<br>B) Practical..... 100  | 400           | 144                | 800                                 | 288                                    |
| 22. Sociology         | Four Papers of 100 marks each   | 400           | 144                | A) Four papers of 100 marks each<br>B) Obligatory for Paper IV Monographs Research Essay.  | 400           | 144                | 800                                 | 288                                    |
| 23. Statistics        | (A) Paper I to IV (each... of 100 marks)<br>(B) Practical I&II... (each 50 marks) | 400<br>500    | 180                | (A)(i) Compulsory Paper I & II.....400<br>(ii) Optional Papers III & IV (each of 100 marks )<br>(B)(i) Practicals I&II 50 marks each).....100<br>(ii) Dissertation in lieu of Practical II | 500           | 180                | 1000                                | 360                                    |
| 24. Mathematics       | I to V Papers of 100 marks each   | 500           | 180                | (A) Four Compulsory Paper -400<br>(B) One optional paper....100  | 500           | 180                | 1000                                | 360                                    |
| 25. Translation Hindi | Four Papers of 100 Marks each   | 400           | 144                | a) Papers I, II & III of 100 Mrks each<br>b) Dissertation including Viva-Voce of 100 Marks   | 400           | 144                | 800                                 | 288                                    |

Notes :

- 1) Every examinee to be successful at the examination shall be required to obtain not less than 25% of the maximum marks prescribed for each Theory Paper. This requirement of obtaining not less than 25% in each paper shall be in addition to the other conditions prescribed.
- 2) In order to be successful in Part-I or Part-II of the examination
  - (i) examinees shall obtain not less than thirty-six percent of the aggregate marks in that part of the examination and
  - (ii) examinees are required to pass separately in the theory and the practical part of the examination in subjects where practical examination forms part of a subject and the minimum percentage required for passing the practical part and theory part separately shall be 36% of the maximum marks assigned thereto.

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Master of Arts (Economics)

वाङ्मय पारंगत (अर्थशास्त्र)

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