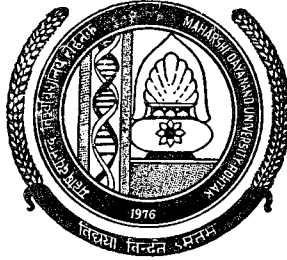


**Maharshi Dayanand University
Rohtak**



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**Ordinances, Syllabus and Courses of
Reading for
M.A. (Prev.) Economics
Examination**

Session—2002-2003

Available from :

**Deputy Registrar (Publication)
Maharshi Dayanand University
Rohtak-124 001 (Haryana)**

Price :

**At the Counter : Rs. 50/-
By Regd. Parcel : Rs. 75/-
By Ordinary Post : Rs. 60/-**

ORDINANCE : MASTER OF ARTS EXAMINATION

1. The Master of Arts Examination shall be held in two Parts, Part-I examination shall be held at the end of the first year and Part-II examination at the end of second year.
2. The examination in Part-I and Part-II shall be held once a year ordinarily in the month of April/May, on such dates as may be fixed by the Vice-Chancellor.

A supplementary examination in Part-II of M.A. will be held in December or on such dates as may be fixed by the Vice-Chancellor for those candidates who have passed all the Papers of Part-I exam, but have got 're-appear' or have failed or want to improve their number of chances will not exceed as given in the Ordinance.

3. The last date for the receipt of admission form and fee without late fee as fixed by the Vice-Chancellor, shall be notified to the Heads of the University Teaching Departments, P.G. Regional Centre and the colleges concerned.
4. A candidate's admission form and fee may be accepted after the last date on Payment of late fee of Rs. 105/- upto the date notified by the University.

Note : No late fee shall be charged if the admission form and fee are received within three working days of grace after the last date for the receipt of the same without late fee

5. A person who has passed one of the following Examinations, shall be eligible to join the first year (Part-I) class of Master of Arts course; (except Master of Physical Education).
 - (i) B.A./B.Sc./B.Com. (Hons.) Examination in the subject of Postgraduate Course.
 - (ii) B.A./B.Sc./B.Com. (Hons.) in a subject other than the subject of Post-graduate Course with atleast 50% marks in the aggregate.
 - (iii) 1st Bachelor's degree with atleast 50% marks in aggregate or 45% marks in the subject of P.G. Course in which the candidate wishes to seek admission.
 - (iv) Shastri Examination (New Scheme) of this University in the manner prescribed in (i) and (ii) above.
 - (v) Master's degree examination in another subject.

(vi) The B.A. degree obtained through English only etc. shall be considered for admission to M.A. in various subjects at par with B.A. degree.

(vii) An examination of any other University recognised by this University as equivalent to (i) or (ii) or (iii) or (iv) or (v) or (vi) above.

Provide that

- a) A candidate who has passed B.Com. Examination with atleast 45% marks in the subject(s)/paper (s) related to Economics including Statistics shall also be eligible to take up M.A. Economics course.
- b) A candidate who has passed B.Sc. (Agri.) with Agricultures Economics as one of the paper/subject shall also be eligible to take up M.A. Economic course.
- c) A candidates who has passed B.A. examination with atleast 45% marks in Public Administration or Sociology shall be eligible to thake up M.A. Political Science.
- d) A candidate getting atleast 55% makrs in Hindi (Compulsory) subject may also be considered eligible for admission to M.A. Hindi.
- e) A candidate who has passed B.A. (Hons.) in Sanskrit with atleast 45% in Sanskri (Elective) may also be considered eligible to tade up M.A. (Hindi), if the candidates who have passed B.A. (Hons.) Hindi or B.A. with Hindi (Elective) obtaining 45% marks are not avabile
- f) A candidate who has passed Bachelors Degree Examination in Music (B.Mus. from any Indian University shall be eligible for admission to M.A. course without any condition of minimum percentage of but no one who did not take up Music as one of his subject for the B.A. Examination shall be eligible to take up M.A. Music provided he is working as a teacher of Music in a college admitted to the Privileges of this University or in a recognised Higher Secondary School within the jurisdiction of the University or in addition to passing B.A./B.Sc. he has passed one of the following examination :

Sangeet Visharad : From Bhatkhade Sangeet Vidyapeeth
Lucknow or from Gandharya
Mahavidyalaya, Bombay.

Sangeet Prabhakar : From Prayag Sangeet Smiti, Allahabad
or
from Rajsthan Sangeet Sansthan,
Jaipur.

Sangeet Visharad : From Prachin Kala Kender
Chandigarh.

- g) A candidate who has passed B.A. Examination with Sociology or an allied subject such as Psychology, Political Science, Economics, History and Geography as one of the subjects with 45% marks in aggregate and 45% marks in Sociology or allied subject mentioned above shall be eligible to take up M.A. Sociology.
- h) A candidate who has passed B.A. Examination with History or in any other subject listed in the Faculty of Social Sciences (i.e. Political Science, Sociology, Public Administration, Geography, Psychology etc.) obtaining at least 45% marks in the subject shall be eligible to take up M.A. History.
- i) A candidate who has not passed B.A./B.Sc. (Pass or Hons.) with Mathematics as one of the subjects shall not be eligible to join M.A. Mathematics Course.
- j) A candidate who has studied the subject of Sanskrit at B.A. level, whether elective or compulsory, for a full span of three years shall be eligible to seek admission to M.A. Sanskrit Course. The minimum percentage of marks for those who have studied Sanskrit compulsory should be 55 % in the subject.
- k) For admission to M.A. (Rural Development) a candidate must have passed Sc. (Agriculture) with Agricultural Economics as one of the papers/subjects 50% marks in aggregate or B.A. with 45% marks in any subject of Social Science.

For M.A. Physical Education

Eligibility condition for admission to M.A. Physical Education :

Note : A person who has passed one of the following examinations shall be eligible to join the 1st year (Part-I) of the Master of Arts (Physical Education) course :-

- A i) A Bachelor's Degree examination in Humanities of the M.D. University, Rohtak or an examination recognised as equivalent thereto with at least 45% marks in the aggregate with English as one of the subjects at the under-graduate level or B.Com./B.Sc./B.Sc. (Home Science) B.Sc. (Agri.) with 50% marks.
- ii) B.P.Ed./D.P. Ed. one year course after graduation with at least 50% marks.

- iii) Bachelor of Physical Education (B.P.F.), three year degree course with atleast 50% marks.
- iv) B.S.H. and P.E. five years course with atleast 50% marks.

AND

- B The candidate has taken part in the Inter-University Zonal or All India Inter-University Tournaments in the game and sports recognised by the Inter-University Sports Board.

OR

After having won position at the University, Inter-College Tournaments he/she has represented the State at Inter-State or National Tournaments in the game and sports recognised by T.U.S.B. Such candidates will, however, have to submit additional certificates as mentioned in the note of Appendix of the Hand Book of Information.

M.A. (Fine Arts) Drawing and Painting (Previous)

A candidate who has passed B.A. or an equivalent examination with Fine Arts as open of the subjects obtaining atleast 50% marks in aggregate and 45% marks in the subject of Fine Arts.

Important Note

A person who has passed Post-graduate examination shall not ordinarily be allowed to seek admission to P.G. Course in another subject as a regular student.

- 6. A candidate who is placed under compartment in the qualifying exam. shall not be allowed to join M.A. Course.
- 7. A candidate who has failed in one or more paper(s) or fails to appear in M.A. Examination shall be allowed two additional subsequent chances only to pass the M.A. examination. This is however, subjects to the provision in Clause-8 below.
- 8. A candidate who fails to pass the M.A. Examination within a period of four years of his admission to the course shall be deemed to be unfit for Post-graduate Studies in the subject concerned.
- 9. A person who has passed the following Examinations shall be eligible to join the M.A. Part-II.
 - a) M.A. Part-II Examination from M.D. University, in the subject concerned. This is however, subject to Clause-7. However, the candidates who have passed atleast two theory papers out not four or five theory papers or atleast three theory papers out of six or seven theory papers of Part-I exam. of the University will be promoted to Part-II class, provisionally.

OR

- b) M.A. Part-I Examination of the subject offered from the Kurukshetra University or Panjab University or Punjabi University, or Guru Nanak Dev University or Himachal Pradesh University, provided that the Head of the University Departments/Principal of the college concerned is satisfied that the contents of papers already passed by him are almost the same as in the M.A. Part-I Examination this University; in this case the marks obtained in M.A. Part-I of course at any of these Universities shall be counted towards division of successful candidates by increasing or reducing the marks obtained in accordance with maximum marks prescribed for M.A. Part-II Examination of this University.
10. The M.A. Examination in Part-I/Part-II shall be open to a student who :-
- a) has passed the requisite qualifying Exam. or is covered under Clause-5 and 8 and.
 - b) has name submitted to the Controller of Examinations by the Head of the University Dept./Principal of the college he has most recently attended and produces the following certificates, signed by him:-
 - i) of possessing good character
 - ii) of having/remained on the rolls of Department/College during the year preceding the Examination and of having attended not less than 65% of the full course of lectures and tutorials separately and 75% of practicals (the courses to be counted upto the last day when the classes break up for the preparatory holidays).
11. Every candidate shall be examined according to the scheme of examination and syllabus as approved by the Academic Council from time to time.
12. The amount of Examination fee to be paid by a candidate for each year shall be as follows :

Regular	Ex-Student
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Rs. 100/- (Plus Rs. 20/- per practical)	Rs. 110/- Subject)
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13. A candidate who re-appears in one more paper(s) Practical(s) for the purpose of passing/improvement of score of marks/result shall pay fee as for the whole Examination.

- i) The medium of instructions shall be :-
 - a) Hindi in case of Hindi and English in case of English.
 - b) English or Hindi or Sanskrit in case of Sanskrit and
 - c) English/Hindi in case of other subjects.
 - ii) The question papers will be set :
 - a) in Hindi in case of Hindi, Sanskrit and Music and
 - b) in English and Hindi in case of other subjects.
 - iii) The candidate shall write their answer as under :-
 - a) in Hindi in case of Hindi;
 - b) in English or Hindi or Sanskrit in case of Sanskrit
 - c) in English in case of English and Mathematics and
 - d) in English/Hindi in case of other subject.
- 14 The minimum number of marks required to pass the Examination shall be as under :
- A) In all subjects except Physical Education
 - i) 33% in each paper (written and practical separately);
 - ii) 40% in each practical in the case of Music;
 - iii) 40% in Dissertation/Viva-Voce, where prescribed;
 - B) In Physical Education
 - i) 35% in each theory paper;
 - ii) 40% in practical; and
 - iii) 40% in aggregate
15. A candidate who has completed the prescribed course of instructions in College/University Teaching Department for previous/ final examination but has not appeared in it or recommendation of the Principal of the College/Head of University Teaching Department concerned to appear in the subsequent year in the examination paper(s) as the case may reappearing in the examinations the candidate shall be exempted from reappearing in paper(s) and/or practical(s) in which he has obtained atleast 40% marks.
- 16.1. A candidate who has passed M.A. Part-I Examination obtaining at least 55% marks in aggregate may offer dissertation wherever prescribed in the Scheme of Examination for the course. The subject of the dissertation shall be approved by the Head of the Department

concerned. A candidate shall submit to the Head of the Department an application for the approval of the topic for the dissertation alongwith a synopsis within one month of his admission to M.A. Part-II.

16.2. Every candidate who offers dissertation shall be required to submit three copies of his dissertation alongwith a brief abstract of the same giving an account of the investigation/research conducted and its main findings (which will not exceed 500 words). The dissertation shall be examined by one external Examiner only.

16.3. The last date for receipt of the dissertation in the office of the Controller of Examinations shall be one month before the commencement of the Theory Examination, provided that in exceptional, cases, Vice-Chancellor shall have the power, to extend, on the recommendation of the Head of the Department, the last date for receipt of the dissertation upto three months. If a candidate fails to submit his dissertation even during the extended period he will be considered to have absented in the dissertation paper and his result shall be declared accordingly.

16.4. A candidate who has submitted a dissertation as part of the Examination may withdraw the same before it has been examined but once is examined and candidate obtains the minimum pass marks he shall not be permitted to withdraw it or submit another dissertation in lieu thereof. The marks obtained by him for the dissertation shall be taken in to account when he appears in any future examination for the purpose of passing therein or for improving the score of marks/result.

17. As soon as possible, after the termination of the examination the Registrar/Controller of Examinations shall publish the result of candidates and issue Detailed Marks Card.

18. The result of candidates who have passed the M.A. examination shall be classified into division as under, the division obtained by the candidate will be stated in his degree :-

- a) Those who obtain 60 percent or more marks First Division
- b) Those who obtain 50 percent or more
but less than 60 percent marks Second Divison
- c) All below 50 percent Third Diviosn

19. A candidate who has already passed the Master of Arts Examination from this University, in a subject in which different optional papers are permitted, may appear in one or more other optional papers of that subject, at any subsequent examination when held, without attending a regular course of study on payment of fee as prescribed for the whole exam. Provided that if there is any corresponding practical work involved he must attend the prescribed number of practicals etc. in the Department. Such a candidate shall, in order to pass, be required to obtain at least 40 percent marks in each paper.
20. A candidate who has passed Part-II of M.A. Examination of this University will be allowed to appear for improvement of his result as an ex-student in one more theory paper(s) of the M.A. Part-II. Examination once within a period of two years of his passing the Part-II Examination.

The result of such a candidate shall be declared only if he improves his score of marks by taking into account the marks obtained by him in the paper(s) in which he reappeared and the marks obtained by his earlier in the remaining paper(s) etc. The fact that the candidate has improved shall be mentioned in the Detailed -Marks Card.

Provided further that the candidate will take the Examination according to syllabus in force for the regular student for that examination.

21. Notwithstanding the integrated nature of this course which is spread over more than one academic year, the Ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of the academic year and nothing in this Ordinance shall be deemed to debar the University from amending the ordinance and the amended Ordinance, if any shall apply to all students, whether old or new.

M.A. (Previous) Economics for 2002-2003

Outlines of Test

Paper-I Micro Economic Analysis 100 Marks, 3hrs.

Paper-II Macro Economic Analysis 100 Marks, 3hrs.

Paper-III Economics of Growth and Development 100 Marks, 3hrs.

Paper-IV Either of the following papers;

IV(i) Quantitative Methods-I 100 Marks, 3hrs.

IV(ii) Quantitative Methods-II 100 Marks, 3hrs.

Note: Paper IV(i) can opted by those candidates who have not studied mathematics at +2 level or beyond.

Paper-V Any one of the following papers;

V(i) Alternative Economic Systems 100 Marks, 3hrs.

V(ii) Financial Institutions and Markets 100 Marks, 3hrs.

V(iii) Urban Economics 100 Marks, 3hrs.

V(iv) Economics of Social Sector and Environment 100 Marks, 3hrs.

V(v) Mathematical Economics 100 Marks, 3hrs.

V(vi) Demography 100 Marks, 3hrs.

Syllabus & Courses of Reading

Paper-I MICRO ECONOMIC ANALYSIS

Maximum Marks : 100

Time : 3hrs.

Unit-I

Nature and scope of Micro Economics. Role and significance of assumptions in economic analysis and appraisal of economic theories. Concepts of equilibrium, partial and general, static, comparative static and dynamic.

Analysis of consumer behaviour, demand function, law of demand-Cardinal, Ordinal and Revealed preference approaches. Meaning, types and measurement of elasticity of demand; elementary idea of consumer's surplus. Bandwagon, snob and veblen effect. Consumer behaviour under conditions of uncertainty. Intertemporal consumption choice.

Production function. Laws of Production: short period and long period; Internal and External economies and diseconomies. Concept of cost of production. Derivation of short and long run cost curves and their interrelationship. Optimum input combinations. Multiproduct firm. Technical progress and production function; Hick's classification. Concepts of elasticity of substitution. Properties of CD and CES production functions. Empirical evidence on cost curves.

Unit-II

Pricing process and equilibrium of firm and industry under perfect competition, monopoly (including discriminating monopoly and bilateral monopoly); monopolistic competition, oligopoly (including non-collusive oligopoly, duopoly models of Cournot and Bertrand and collusive models dealing with joint profit maximization, market sharing and leadership phenomena). Kinked demand model and price rigidity. Welfare effects of price control, price support and production quotas.

Marginalist debate. Average cost pricing principle. Bain's limit pricing model. Baumol's sales revenue maximisation hypothesis (Simple Static model). Behavioural approach (Cyert and March model).

Economics of search for information. Markets with asymmetric information.

Unit-III

Neoclassical Theory of factor pricing: under competitive conditions, in case of monopolistic power in product the factor market, bilateral monopoly and in case of monopoly union. Product Exhaustion problem. Rent and quasi rent, interest and profits. Technical process and factor shares.

Issues in General equilibrium analysis. Welfare economics.

Concept of social welfare-some early criteria-pareto optimality criterion and efficiency conditions-Kaldor-Hicks compensation criterion-Bergson's Social Welfare Function. Idea of theory of second best and Arrow's Impossibility theorem. Perfect competition and welfare maximisation, imperfect competition. Market failure and ways of correcting it.

- Note:**
- i) *Question paper will consist of two sections A and B*
 - ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*
 - iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

PRESCRIBED READING LIST

1. Koutsoyiannis, A. "Modern Microeconomics"
2. Lipsey, R.G. "An Introduction to Positive Economics"
3. Salvatore, D. "Theory and Problems of Microeconomic Theory" (Schaum's Outline Series).
4. Pindyck, Robert S. and Rubinfeld, Daniel "Microeconomics" (Macmillan N.Y.).

Paper-II MACRO ECONOMIC ANALYSIS

Maximum Marks : 100

Time : 3hrs.

Unit-I

Determination of Output and Employment : Classical Approach; Keynesian Approach (Two Sector Model Three Sector Model, and Four Sector Model); Kicks-Hanson Synthesis (Extended Model with Fixed Price Level); Equilibrium income and the interest rate in the product market and Money market; Fiscal Policy effects on demand, Monetary Policy effect on demand, the Interaction of Monetary and fiscal policies. Extended model with Variable Price Level; Derivation Aggregate Demand Curve and Determination of Equilibrium Price and Output Level; Wage price flexibility and the Full Employment Equilibrium; Monetary - Fiscal Policies and the Full Employment Equilibrium.

Unit-II

Behavioural Foundation:

Theories of Consumption : The Absolute Income Hypothesis; Relative Income Hypothesis, The Permanent Income Theory of Consumption; The Life cycle Theory of Consumption; Theories of Investment: The Present Value Criterion for Investment; The Marginal Efficiency of Capital and Investment; The Accelerator Theory; The Financial Theory of Investment; The Demand for and Supply of Money: Classical Approach to Demand for Money - Quantity Theory Approach, Fisher's Equilibrium; Cambridge Quantity Theory; Keynes's Liquidity Approach - Transaction, Precautionary and Speculative Demand for Money - Aggregate Demand for Money. Friedman. Pstinkin, Baumal and Money Multiplier.

Unit-III

Inflation, Unemployment, Economic Growth and International Adjustment: Effects of Inflation; Demand side and Supply Side Theories of inflation. Inflation and Unemployment: Pressure Curve, Trade Offs (Trade off and Non Trade Off between Inflation and Unemployment). Adaptive Expeclation and Rational Expeclations.

Economic Growth : Harrod Domar Model, Neo-Classical Model with money and without money. International Adjustment: The

Determination of National Income in open Economy; The International Transmission of disturbances :Transmission under Fixed Exchange Rates, Transmission under Floating Exchange Rates. Mundell-Elmings Model. Issue in Agriculture Price Policy, Its role and functions, Price determination, Evolution of Agriculture.

- Note:**
- i) *Question paper will consist of two sections A and B*
 - ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*
 - iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

READING LIST

1. Ackley, G. (1978), Macroeconomics : Theory and Policy, Macmillan, New York.
2. Banson, W.A. (1989), Macroeconomic Theory and policy, (3rd Edition), Harper and Row, New York.
3. Dorn Busch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc. New York.
4. Heijdra, B.J. and V.P. Fredericck (2001), Foundation of Modern Macroeconomics, Oxford University Press, New Delhi.
5. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
6. Shapiro, E. (1996), Macroeconomic Analysis, Galgolia Publication, New Delhi.
7. Survey, M.J.C.(Ed.) (1976), Macroeconomic Themes, Bo and Reed Geoffrey (1994), International Economics, Macmillan Press Ltd.

Paper-III**ECONOMICS OF GROWTH AND DEVELOPMENT****Maximum Marks : 100****Time : 3hrs.****Unit-I**

Economic growth, Economic development and sustainable development; Importance/Role of institutions- government and markets.

Perpetuation of underdevelopment - vicious circle of poverty, circular causation, structural view of underdevelopment.

Measurement of development - conventional, Human Development Index and quality of life indices.

Factors affecting economic growth and development - natural resources, capital, labour, technology, human resources development and infrastructure.

Theories of development: Classical, Marx, Schumpeter and structural analysis of development, Imperfect market paradigm, Lewis model of development, Ranis-Fei model, Dependency theory of development.

Unit-II

Approaches to development: Balanced growth, Critical minimum effort, big push, unbalanced growth, low income equilibrium trap.

Theories of economic growth: Model of growth of John Robinson and Kaldor; Harrod Domar model, instability of equilibrium, Neo-classical growth Solow's model, steady state growth.

Technical progress-Hicks, Harrod and learning by doing, production function approach to the determinants of growth.

Cambridge criticism of neo-classical analysis of growth; The Capital controversy.

Unit-III

Sectoral aspects of development : Importance of agriculture and industry in economic development; Trade and development: trade as an engine of growth, two-gap analysis, Prebisch, Singer and Murdall views, gains from trade and LDCs. Choice of techniques and appropriate technology; Investment criteria; cost - benefit analysis.

SYLLABUS M.A. (PREVIOUS) ECONOMICS

Objects and role of monetary and fiscal policies in economic development; Indicators and measurement of poverty; Techniques of planning; Plan models in India; Planning in a market-oriented economy.

Endogenous growth : role of education, research and knowledge - explanation of cross country differentials in economic development and growth.

Note: i) Question paper will consist of two sections A and B

ii) Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.

iii) Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.

BASIC READING LIST

1. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Sanford.
2. Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics, Vol.-3, Elsevier, Amsterdam.
3. Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Mass.
4. Chenery, H.B. et. Al. (Eds.) (1974), Redistribution with Growth, Oxford University Press, Oxford.
5. Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols.- 1&2, Elsevier, Amsterdam.
6. Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
7. Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.

8. Gills, M.D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
9. Gimmell, N. (1987), Survey in Development Economics, Blackwell, Oxford.
10. Higgins, B. (1959), Economic Development, W.W. Norton, New York.
11. Hogendorn, J. (1996), Economic Development, Addison, Wesley, New York.
12. Kahkonen, S. and M. Olson (2000), A New Institutional Approach to Economic Development, Vistaar.
13. Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
14. Meier, G.M. (1995), Leading Issues in Economic Development, (6th Edition), Oxford University Press, New Delhi.
15. Myint, Hla (1965), The Economics of Underdevelopment Countries, Preager, New York.
16. Myint, H. (1971), Economic Theory and Underdeveloped Countries, Oxford University Press, New York.
17. Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London.
18. Thiwal, A.P. (1999), (6thth Edition), Growth and Development, Macmillan, U.K.

Paper-IV(i)

QUANTITATIVE METHODS-I

Maximum Marks : 100

Time : 3hrs,

Unit-I

Concept of a function and types of functions. Solution of linear equation system (2-equations only) and quadratic equation and their simple application in economics:

Differentiation- Meaning and economic interpretation - derivative and slope. Rule of differentiation; Partial and total derivatives; Homogeneous functions, Euler's Theorem (upto 2 independent variables).

Maxima and Minima: of function of one and two variables, constrained Maxima and Minima of functions of two variables. (equality constraints only) Lagrange's method.

Integration: meaning and economic interpretation definite and indefinite integration of one independent variable functions (only simple cases).

Simple Economic Applications: Interpretation of marginal, average and elasticity concepts. Deriving their inter-relations by using calculus. Calculation of these values and from these finding the original function. Partial derivatives and nature of commodities optimization problems relating to revenue, cost, profit utility and production. Consumer's surplus and producer's surplus.

Note:- More emphasis on Applications

Unit-II

Matrices- Types and simple operations on matrices - multiplication, transpose, trace, adjoint, inverse and rank of matrices. Determinants and their basic properties. Solution of a system of two and three equations by Matrix inverse method and Cramer's rule.

Input - Output Analysis: Input-Output transactions table, assumptions, the technological - coefficient matrix, solution of open input-output model, Heontief Matrix, Hawkins - Simon Conditions.

Index Numbers: Problems and methods of construction of various types of indices namely Haspeyre's Passche's and Fisher's ideal index number. Chain-base indices, base shifting, splicing and deflating the index numbers. Cost of living index numbers and consumer's price index numbers.

Measure of Central Tendency - Arithmetic and Geometric Mean, Median and Mode. (Emphasis on use of the appropriate average and its interpretation).

Dispersion : (Emphasis on case of appropriate measure of dispersion and its interpretation).

Unit-III

Profitability and probability Distribution: Types of events; Classical empirical and Axiomatic Profitability, Additive and Multiplicative rule of Profitability, Concept of a random variable, extended value and variance. Profitability Distribution - properties of normal and distributions.

Correlation and Regression Analysis: Simple Correlation, Pearson's Spearman's rank Correlation coefficients, specification of a simple linear regression model with one explanatory variables. Least square estimation of the regression co-efficient. Interpretation of R^2 .

Elements of Statistical Inference : Parameters and estimates; Concepts of sampling distribution of a statistic, standard error, the distribution of the sample mean. Concept of Hypothesis testing and test of significance; and tests of regression coefficient using "t" test.

Note: i) *Question paper will consist of two sections A and B*

ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*

iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

BASIC READING LIST

1. Dowling, E.I. "Mathematical for Economists" Sahaum's Outline Series. McGraw Hill. (1986).
2. Chaing, A.C. "Fundamental Methods of Mathematical Economics", McGraw Hill, (1986)
3. Allen, R.G.D. "Mathematical Analysis for Economists" Macmillan and E.Bs.(1974).
4. Nagar, A.L. and Das Basic Statistics, Oxford University Press, New Delhi (1993).
5. Special, M.R. "Theory and Problems of Statistics". McGraw Hill. (1992).
6. Gupta, S.C. "Fundamentals of Applied Statistics", S. Chand & Sons, New Delhi (1993).
7. Gupta S.P. "Statistical Methods". (1994)

Paper-IV(ii)**QUANTITATIVE METHODS-II****Maximum Marks : 100****Time : 3hrs.****Unit-I**

Optimisation with langrangian method with upto 2 equality constraints.

Differential equations, first order linear equations with variable coefficient and variable term, non-linear equation, of variable separable type and exact differential type only. Second order linear differential equations with constant coefficient and constant term. First and second order linear difference equations with constant coefficient and constant term.

Review of Matrix Algebra. Input-Output Analysis. The static open and closed models, viability conditions.

Linear Programming. The simplex method. The dual and its economic interpretation.

Game Theory, two person Zero-sum game; pure and mixed strategies saddle point solution.

Nash equilibrium. Repeated and Sequential games.

Unit-II

Probability and distributions.

Classical and axiomatic approaches to probability. Basic results on probability and conditional probability. Independent Events. Baye's Theorem (Application only). Random variables and probability, mass and density functions, marginal and conditional distributions.

Mathematical Expectations, Skewness and Kurtosis, moment generating functions, Law of large numbers and Central Limit Theorem (Proof not required).

Study of Bionomial, Poisson & normal distributions-conditions, properties and inter-relationships. (Derivations not required).

Small and large sample properties of good estimator. OLS and ML estimators of regression parameters. Sampling methods. Concepts of point and interval estimation.

Unit-III

Simple, multiple and partial correlation analysis. Testing of hypothesis. Type I and Type II errors, Levels of significance and power of a test, Neyman Person Lemma. Tests of significance (z, t, chisquare and F test)

Index numbers-Problems and methods of construction of various types of indices, namely Paasche's Lespyars, Fishers chain base index. Shifting base, splicing deflating of index numbers. Fisher's ideal index numbers.

Time series analysis. Components of time series and their decomposition. Methods of measuring trends, linear and seasonal variations.

Note: This course is compulsory for those who have studied mathematics at +2 level or beyond. In this course emphasis is on applications with under standing. Proofs and derivations are to be avoided.

Numerical should not be of level higher than that of prescribed books.

- Note:**
- i) *Question paper will consist of two sections A and B*
 - ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*
 - iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type-carrying 20 marks each.*

Prescribed Book

1. Dowling, E.T. "Mathematics for Economists" (Schaum's Outline Series).

2. Chiang, A.C. "Fundamental Methods of Mathematical Economics" (McGraw Hill, 1984).
3. Nagar, A.L. and Das "Basic Statistic"
4. Baumol, W.J. "Economic Theory and Operational Analysis" (Prentice Hall of India) (For Game Theory).
5. Spiegel, Murry R. "Theory and Problems of Statistic" (Schau's Out-line series, McGraw Hill).

Paper-V(i) ALTERNATIVE ECONOMIC SYSTEMS

Maximum Marks : 100

Time : 3hrs.

Unit-I

Economy and Society-various view points. Explanation of economic change. Features of some pre-capitalist economic systems-tribal, slavery, feudalism, Asiatic:

Capitalism-Evolution and Essentials as a National and World System. Non-Marxian Critique. Challenges ahead.

Unit-II

Marxist critique of capitalism. Socialist economic system-centrally planned model and market socialism. Theoretical critique. Soviet Experience-some view points.

Unit-III

Other Alternative-mixed economy, communitarian socialism, Gandhian, Scandinavian. Ecological sustainability and economic system : Issues and Approaches-for developed countries and developing countries.

- Note:**
- i) Question paper will consist of two sections A and B
 - ii) Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.

iii) Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.

Suggested Reading

1. Huberman, Leo "Man's Worldly Goods"
2. Heilbroner, Robert "21st Century Capitalism"
3. Heilbroner, Robert "The Limits of American Capitalism"
4. Schumacher, E.F. "Small is Beautiful"
5. Galbraith, J.K. "Galbraith Reader"
6. Barnstein, Morris(ed.) "Comparative Economic Systems"
7. Dalton, George "Economic System and Society"
8. Mohan, Radhey(ed.) "Gandhian Economic Systems-A necessity or Utopia?"
9. Bottomore, T. "Theories of Modern Capitalism"
10. Pillai, PKC and "Economic Systems"
11. Sarangadharan Mishra, Grish "Economic Systems"
12. Carson, R.L. "Comparative Economic Systems-Vol. I Market and State in Economic Systems"
13. Meadows, D.H. et.al. "The Limits of Growth."
14. Doper, Kurt and K.F. Raible (ed.) "The Evolution of Economic Systems".

**Paper-V(ii) - FINANCIAL INSTITUTIONS AND
MARKETS**

Maximum Marks : 100

Time : 3hrs.

Unit-I

Nature and Role of Financial System and Structure of Interest Rates - Money and finance- Money and near-money-Different approaches to money supply; Money Supply: Components and determinants; money multiplier - Financial intermediation and financial intermediaries - The structure of the 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, Risk - Return trade off - Valuation of securities. Theories of interest rate determination - Level of Interest rates - Long period and Short period rates - Term Structure of Interest rates - Theories of interest rates structure - Expectational theory - Segmentation theory: Administered interest rates - Appropriate interest rate policy.

Unit-II

Banks, Monetary Policy and Non-Bank Financial Intermediaries: Functions of Central Bank - The aims and objectives of the monetary policy in developed and developing countries - Investments of monetary policy - Proliferation of banking and non-bank financial intermediaries - Effectiveness monetary Policy - Credit creation and its control: Profitability and efficiency of banks: Development banks - role and functions: Investment and banking and merchant banking; Financial sector reforms in India - Definition and types of non-bank financial institutions: Their growth and impact on India's economic development. Measures taken to control their operations.

Unit-III

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 - Market for derivation: future and options, and other derivatives: types, uses and pricing of derivation - Primary and secondary market for securities; SEBI: its impact on the working of capital market in India; IRDA and its role in financial

markets.- Theory of optimum currency areas - Euro - dollar and Euro-Currency markets - Their development role at international level.

- Note:**
- i) Question paper will consist of two sections A and B
 - ii) Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.
 - iii) Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.

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, Market and Management, McGraw Hill, New York.
4. Goldsmith, R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S. Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
6. Karker, P.T. and S.A. Zenios (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.
7. Johnson, H.J. (1993), Financial Institutions and Markets, McGraw Hill, New York.
8. Khan M.Y. (1996), Indian Financial Systems, Tata McGraw Hill, New Delhi.

9. Machiraju, M.R. (1999), Indian Financial System, Vikash Publishing House, New Delhi.
10. Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
11. Prasad, K.N. (2001), Development of india's Financial System, Sarup & Sons, New Delhi.
12. Robinson, R.I. and D. Wrightman (1981), Financial Markets, McGraw Hill, London.
13. Smith, P.F. (1978), Money and Financial Intermediation : The Theory and Structure of Financial System, Prentice Hall, Englewood-Cliffs, New Jersey.

Paper-V(iii)**URBAN ECONOMICS****Maximum Marks : 100****Time : 3hrs.****Unit-I**

Analytical and historical perspective of evolution of towns and patterns of urbanisation. Urban transition. Components of Urban Growth, Urban Policy and economic development.

Unit-II

Rural-Urban relationship, theory of urban bias, terms of trade and resource flow; the over-urbanisation debate.

Migration and urbanisation-causes and consequences of migration; informal sector and urban labour market.

Unit-III

Location theory-growth pole analysis and central place theory, urban land market and land use.

Urban productivity and poverty in the cities of developing countries; issues relating to urban environment, infrastructure and governance.

Note: i) *Question paper will consist of two sections A and B*

ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*

iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

READING LIST

1. Suchanan, D.H. 1966. *The Development of Capitalistic Enterprises, in India*. Frank Cass. and Co., London.
2. Byres, T.J. (1979), "Of Neo-Populist pipe dreams Deadalus in the third world and the myth of urban bias:.", *The Journal of peasant studies*, 6/2, January pp 210-44.
3. Crook, Nigel (1993), *India's Industrial Cities : Essays in economy and demography*, Oxford University Press, Delhi.
4. Gregory, Peter (1986) *Myth of market failure: employment and labour market in Mexico*, World Bank.
5. Harris, Nigel (1990), *Urbanisation, Economic development and policy in developing; Habitat international* 14 no. 4, pp 3-42.
6. Harris, Nigel (1991), *City Class and trade, Social and Economic Change in the Third World*, Development Planning Unity T.B. Tauris, London.
7. Harris, Nigel (1992), *Cities in the 1990s :The Challenge for developing countries; UCL Press London*, (Indian, edition by Research Press, New Delhi).
8. Hoselitz, Bert. (1962) :*The role of urbanisation in economic development. Some International Comparisons in Roy Truner (ed.), India's Urban Future, University of California Press, Berkeley, PP 157-81.*
9. Kannapan, S. (1985) "Urban employment and labour markets in developing nations", *Economic development and Cultural change*, 33/4, pp.699-730.
10. Keyfitz, N. (1980), "Do cities grow by natural increase or by migration?" *Geographical analysis*, 12:142-56.
11. Kundu, Amitabh (1993), *In the name of Urban poor access Rohtak basic amenities*, Sage, New Delhi.
12. Linn Johannes F, (1982) "The costs of urbanisation in developing countries", *Economic Development and cultural Change* 30/3 Chicago, pp. 625-48.
13. Little, I.M.D., Skitovsky and Scott, Maurice (1970) *Industry and trade in some developing countries*, Oxford University Press, London.

14. Marx, K. (1965), Pre-capitalist economic formations. (Translated by Jack Cohen and introduced by E.O. Hobsbawm), Lawrence and Wishart, London.
15. Marx, Karl (1977), "General law of Capitalistic Accumulation" in capital : a critique of political economy, Vol. 1 Book one, the process of production of capital, Progress, Moscow pp 574-665.
16. Mitra, Ashok (1977) Terms of Trade and class relations. Frank Cass, London.
17. Piore M.J. (1979), Birds of passage. Migrant labour and industrial Societies. Cambridge University Press, Cambridge.
18. Sinclair S.W. (1978) Urbanisation and Labour Market in developing countries, Croom Helm, London.
19. Stark, Oded (1991), The Migration of labour, basic Blackwell.
20. Todaro, M.P. (1980) "Internal Migration in developing countries; : a survey" in Richard A. Easterlin (ed.) Population and economic change in developing countries. University of Chicago Press.
21. Williamson, J.G. (1988) "Migration and Urbanisation" in Chenery and Srinivasan (ed.) Handbook of Development Economics, Vol. 1, 425-465.
22. World Bank (1981) Accelerated development in Sub-saharan African World Bank Washington.

Paper-V(iv) ECONOMICS OF SOCIAL SECTOR AND ENVIRONMENT

Maximum Marks : 100

Time : 3hrs.

Unit-I

Pareto optimality and competitive equilibrium; Fundamental theorems of welfare economics; Externalities and market inefficiency - externalities as missing markets; Poverty rights and externalities, non convexities, Pareto optimal provision of public goods - Lindahl's equilibrium, preference revelation problems and impure and mixed public goods, common poverty resources. Use values; Option values and non-use values; Valuation methods - Methods based on observed 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

Environmental externalities - Pigouvian taxes and subsidies, marketable pollution permits and mixed instruments (the charges and standards approach), Coase's bargaining solution and collective action; informal regulation and the new model of pollution control, Monitoring and enforcement of environment regulation, Environmental institutions and grass root movements; Global environmental externalities and climatic change - Tradable pollution and international carbon tax, Trade and environment in WTO regime. Theories of optimal use of exhaustible and renewable resources; Environment and development trade off and concept of sustainable development; Integrated environment 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 forestry policy; People's participation in the management of common and forest lands; The institutions of joint forest management and the joint protect area management and the joint protected area management; Social forestry - rationale and benefits.

Unit-III

Education as an instrument for economic growth; Human capital - 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 & subsidies & effects of educational financing on income distribution; Education 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 of India. 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 resources constraints: The concepts of human life value; Theory and empirical studies of production of health care; Inequalities in health - class and gender perspectives; Institutional issues in health care delivery.

- Note:*
- i) *Question paper will consist of two sections A and B*
 - ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*
 - iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

BASIC READING LIST

1. Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
2. Berman, P. (Ed.) (1955), Health Sector Reforms in Developing Countries: Making Health Developing Sustainable, Boston : Harvard Series on Population and International Health.
3. Blaug, M. (1972), Introduction to Economics of Education, Penguin, London.
4. Bromely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Blackwell, London.
5. Cohn, E. and T. Gaske (1989), Economics of Education, Pergamon Press, London.
6. Fisher, A.C. (1981), Resources and Environmental Economics, Cambridge University Press, Cambridge.
7. Hanley, N., J.F. Shogern and B.White (1997), Environmental Economics in Theory and Practice, Macmillan.
8. Hussen, A.M. (1999), Principles of Environmental Economics, Routledge, London.
9. Jeroen, C.J.M. van den Bergh (1999), Handbook of Environmental and Resource Economics, Edward Elgar Publishing Ltd., U.K.
10. Klarman, H.E. (1965) The Economics of Health, Columbia University Press, New York.
11. Kolstad, C.D (1999) Environmental Economics, Oxford University Press, New Delhi.
12. Pearce, D.W. and R. Truner (1991), Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.
13. Perman, R.Ma and J. Mc Gilvary (1996), Natural Resources and Environmental Economics, Longman, London.
14. Sankar, U.(Ed.) (2001). Environmental Economics, Oxford University Press, New Delhi.
15. Schultz, T.W.(1971), Investment in Human Capital, Free Press, New York.
16. Tietenberg, T. (1994), Environmental Economics and Policy, Harper Collins, New York

Paper-V(v) MATHEMATICAL ECONOMICS**Maximum Marks : 100****Time : 3hrs.****Unit-I**

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

Unit-II

Production function - homogeneous and non-homogeneous; Properties of Cobb-Douglas production function; CES; VES and trans-log production; Simple derivation of short and long run cost function; Modern approach to theory cost; Costs function; Producer's equilibrium - Laws of return and returns of scale; Constrained optimization of a producer; Generalization of n variable case; Input demand function; 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 perfect competition monopoly, monopolistic competition, duopoly, oligopoly; Pricing of factors of production; Bilateral monopoly; Single market equilibrium - Marshallian and Walrasian equilibrium conditions; Lagged market equilibrium; Multi-market equilibrium system of Walras; Classical and Keynes' macro system; Static and dynamic multiplier; Determinants of investment; Accelerator; trade cycle model of Samuelson and Hicks; Harrod problem; Neoclassical model of growth; Solow and Meade growth models with technical progress; Optimal growth; and golden rule of accumulation.

- Note:**
- i) *Question paper will consist of two sections A and B*
 - ii) *Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.*
 - iii) *Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.*

BASIC READING LIST

1. Allen, R.G.D. (1976), Mathematical Economics, Macmillan, London.
2. Arrow, K.J. and M. Intrilligator (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. Ferguson, C.E. (1976), Neo-Classical Theory of Production and Distribution

Paper-V(vi)**DEMOGRAPHY****Maximum Marks : 100****Time : 3hrs.****Unit-I**

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- Views of Medows, Enke and Simon; Population and development. Population trends in the twentieth century; Population explosion 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 going and population aging; Population, economy and environment linkages - Population, health, nutrition, productivity nexus; Population and human development issues; Culture and fertility; Education and fertility, Demography and household economic behaviour,

Unit-II

Importance of study of fertility - Total fertility rate, Gross reproduction rate and net production rate; Levels and trends of fertility in more and less developed countries; Factors affecting fertility - Socio-economic factor, 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; 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; Urbanisation - Growth and distribution of rural-urban population in developed and developing countries.

Unit-III

Study of census in India - Methodology and characteristics of census; Nature of information collected in 1971, 1981, 1991 and 2001 census in India; National Family Health Survey 1 and 2 and Rapid Household 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 Kerala Model; Pattern of Migration and Urbanisation in India; Evolution of population 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; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and their regulation; The new population policy; Tasks before the National Population Commission.

- Note:**
- i) Question paper will consist of two sections A and B
 - ii) Section A will consist of two compulsory questions spread over the whole of syllabus. The first question will consist of 7 parts and the candidate will be required to attempt 5 parts. Answers will be very short type about 35 words carrying 4 marks each. The second question will consist of 3 parts and the candidate will be required to attempt 2 parts. Answer will be short type of about 200 words carrying 10 marks each.
 - iii) Section B of the paper will consist of 6 questions taking two from each unit, and the candidate will be required to attempt 3 questions selecting one from each unit. The answers will be full length essay type carrying 20 marks each.

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 (Eds.) (1989), Handbook of Development Economic, Vol. 1 & 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 Income Countries : A Case Study of India's Prospects, Princeton University Press, Princeton.
7. Gulati S.C. (1998), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.
8. Simon, J.L. (1992), Population and Development in Poor Countries, Princeton University, Press.
9. Srinivasan, K. (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.
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11. Stryock, H.et. Al (1973), The Methods and Meterials of Demography, US Department of Commerce, Washington, D.C.
12. United Nations (1973), The Determinants and Consequences of Population Tends, Vol. 1, UNO, Publications, New York.