



पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

## **M.A. Economics Syllabus**

**Session 2022-24**

# SYLLABUS FOR UNIVERSITY TEACHING DEPARTMENT AND AFFILIATED COLLEGES IN POST GRADUATE (PG) CLASSES

## M.A. in Economics: Semester Examination 2020-21

At post graduate level, candidates are required to study 15 papers in First, Second and Third semester (5 papers in each semester) and 04 papers in fourth semester examination. This is to be treated as the nineteen papers of the course structure. So there shall be 19 papers in the post graduate examination in Economics. Viva - voce examination be treated as a compulsory paper for M.A. fourth semester examination. Each paper shall carry 100 marks out of which 80 marks will be for theory paper and 20 marks for internal assessment. There shall be 2000 marks in M.A. in economics and students shall have secure 36 percent marks in aggregate of all papers in order to pass the M.A. Examination. Examination and result shall be treated according to rules and regulations of ordinance no. 13.

<b>M. A. I and II SEMESTER</b>						
<b>Paper</b>	<b>Semester-I</b>	<b>Marks</b>		<b>Semester-II</b>	<b>Marks</b>	
		<b>Theory</b>	<b>Internal</b>		<b>Theory</b>	<b>Internal</b>
<b>I</b>	Micro Economics-I	80	20	Micro Economics-II	80	20
<b>II</b>	Macro Economics-I	80	20	Macro Economics-II	80	20
<b>III</b>	Quantitative Methods	80	20	Research Methods & Computer Application	80	20
<b>IV</b>	Indian Economy	80	20	Indian Economic Policy	80	20
<b>V</b>	Industrial Economics	80	20	Labour Economics	80	20
<b>M. A. III and IV SEMESTER</b>						
<b>I</b>	Economics of Growth	80	20	Economics of Development & Planning	80	20
<b>II</b>	International Trade	80	20	International Economics	80	20
<b>III</b>	Public Finance	80	20	Public Economics	80	20
<b>IV</b>	Environmental Economics	80	20	Economics of Social Sector	80	20
<b>V</b>	Demography	80	20	Viva-voce	100	--

**SEMESTER – I**  
**Micro Economics -1**  
**Paper - I**

- Unit - I Introduction: - Concept of Equilibrium, Economic Models, Neo Classical Demand Analysis. Elasticity of Demand (Price, Income & Cross), Elasticity of supply.
- Unit - II Indifference curve, Marginal Rate of Substitution, Income & substitution effect, Hicks and Slutsky theorem, Revealed preference theory, Hicks's Revision of Demand, Hicksian Consumer surplus.
- Unit – III Theory of Production – Production function, the short period & long period production function, the law of variable proportion (Iso-quant approach) Marginal rate of Technical Substitutions, Returns to a factor and returns to scale. Expansion path, Cobb Douglas Production function, CES production function.
- Unit - IV Theory of cost and Revenue analysis, Perfect Competition- equilibrium of firm in Perfect Competition. Monopoly- short run and long run equilibriums, price discrimination under monopoly competition, monopoly control and regulation. Comparison between monopoly and perfect competition.
- Unit – V Monopolistic Competition– price and output determination under monopolistic competition, Group equilibrium, theory of excess capacity. Oligopoly, non- collusive oligopoly model: The kinked demand curve. The collusive oligopoly – Cartels: joint profit maximization or perfect cartels, price leadership: the low cost price leadership model.

**Text Books**

1. Jhingan M. L. (2014), Advanced Economic Theory, Vrinda Publication, New Delhi
2. Jhingan M. L. (2014), Micro Economics , Vrinda Publication, New Delhi
3. Agarwal , A (2014), Micro Economic analysis , Sahitya Bhawan Publication, New Delhi

**Reference Books**

1. Kraps, David M. (1990) a course in micro economics theory, Princeton university press, Princeton.
2. Kout sayiannis; A (1979) modern Microeconomics (2nd Edition), macmillan press,London.
3. Layard, PRG and P.W. Watters (1978), Micro economic theory, McGraw Hill, New York.
4. San A (1999) Micro economics theory and Applications, Oxford University Press, New Delhi;
5. Stigler, G. (1996) theory of Price (4th edition), Princeton Hall of India, New Delhi.
6. Varian, H (2000) Micro economics Analysis, W.W. Norton, New York.
7. Baumol W.J., (1982) Economic theory and operations Analysis, Princeton Hall of India, New Delhi.
8. Handersan, J.M. and R.E. Quandt (1980) Micro economics theory - A Mathematical approach, Mc Graw Hill New Delhi.
9. Hirshleifer, J. And A Glazer (1997), Price theory and Application, Prentise Hall of India, New Delhi.

**SEMESTER – I**  
**MACRO ECONOMICS-I**  
**Paper – II**

- Unit - I      National Income and Accounts – Concept of National Income and National Product, Problems of Measurement, , Different forms of National Income Accounting – Social Accounting, Input Out-put Accounting, Flow of Funds, Balance of Payment – Accounting. Circular flow of Income – Two, Three and Four Sector Economy
- Unit - II      Classical Theory of Employment, Say's Law of Market , Principle of Effective Demand, Keynesian & Pigou Theory of Employment, Comparison of Classical and Keynesian Models. National Income Determination of Keynesian Model - Two, Three and Four Sector Economy.
- Unit – III    Consumption Function- Keynesian Psychological Law of Consumption, Short Run and Long Run Consumption Function. Theory of Consumption Function – Absolute Income Hypothesis, Duesenberry's Relative Hypothesis, Life Cycle and Permanent Income Hypothesis.
- Unit - IV    Investment Function,, Marginal Efficiency of Capital and Investment. Saving and Investment Equality, Multiplier and its working, Accelerator and its working, Super-Multiplier. Supply of Money, Determinants of Money Supply, Measurement of Money supply, Control of Money Supply. High Powered Money, Money Multiplier.
- Unit – V    Demand for Money –Fisher and Cash Balance (Cambridge) Approach, Fundamental Equation of Keynes. Friedman, re-formulation of the quantity theory of money, Post Keynesian Approach to Demand for Money- Patinkin, Bamuls, James Tobin, Friedman, and Gurley & Shaw's Approaches.

**Text books**

1. Sethi, T.T. (2008) Macro Economics, Laxminarayan Agrawal, Agra.
2. Jhingan, M.L. (2010) Monetary Economics, Vrinda Publications Pvt. Ltd.
3. Jhingan, M.L. (2000) Macro Economic theory, Vrinda Publications Pvt. Ltd.
4. Shinghai G.C. & Mishra J.P. (2013) Macroeconomic Analysis, Sahitya Bhawan Publication Agra.

**Reference**

1. Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 vol.) Oxford University Press, London.
2. Branson, W.A. (1989), Macroeconomics Theory and Policy, (3<sup>rd</sup> Edition), Harper and Row, New York.
3. Aornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, inc., New York
4. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W>Norton, New York.
5. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
6. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
7. Romer, D.L. (1996), Advanced macroeconomics, McGraw Hill Company Ltd., New York.
8. Scarte, B.L. (1997), Cycles, Growth and inflation, McGraw Hill, New York.
9. Markeley, G. (1978), Macroeconomics Theory and Policy, Macmillan, New York.

**SEMESTER- I**  
**QUANTITATIVE METHODS**  
**Paper – III**

- Unit - I      Skewness – Symmetrical and asymmetrical distribution, Measurement of skewness – Karl Pearson's coefficient of skewness, Bowley coefficient of skewness, Test of skewness. Coefficient of correlation : Types and degree of correlation, Simple correlation - Measurement of correlation by the methods of Karl Pearson's coefficient of correlation and Spearman's rank correlation, Calculation of coefficient of correlation in a bivariate frequency distribution, Coefficient of correlation by the method of least square, Probable error and standard error in correlation, Coefficient of determination of correlation. Multiple correlation
- Unit - II      Regression analysis – regression and correlation, types of regression, regression lines and correlation, Regression equations. Simple regression analysis, regression equation through least squares, Determination of correlation by regression coefficients, Multiple regression analysis (up to three variables only). Standard error of the estimates of simple and multiple regression analysis. Interpolation and extrapolation: Method of fitting a parabolic curve, Newton's advancing difference method, Direct binomial expansion method and Lagrange's method
- Unit – III      Association of Attributes – Meaning, classification and types of association, difference between association and correlation, Consistency of data, Methods of determining association – Method of comparison of proportion, Coefficient of association using Yule's method. Probability: Meaning and definition, Possibility chart, Permutation and combination, Types of events, Measurement of probability– Addition and multiplication theorem, Conditional probability
- Unit - IV      Index Number: Meaning and characteristics of Index number, Fisher's ideal index number, Reversibility Test – Time reversibility test & factor reversibility test. Time series Analysis – Components of time series, Measurement of long term trend- semi-average method, Moving average method and method of least squares.
- Unit – V      Functions: Meaning and types of functions, Differentiation: Meaning and rules of differentiation, Integration: Meaning and rules of integration, Problems related to differentiation and integration, Auto correlation.

**Reference:**

1. Shukla, S.M. and S.P. Sahay – "Quantitative Methods", Sahitya Bhawan Publications, Agra.
2. Agrawal, D.R., "Quantitative methods". Vrinda Publications (P) Ltd, Delhi.
3. Sancheti, D.C., "Quantitative methods" Sultanchand and Sons, New Delhi.
4. Gupta, S.P. and others, "Quantitative Techniques" Sultanchand and Sons, New Delhi.
5. मेहता एवं मदनानी, 'अर्थशास्त्र में प्रारंभिक गणित', लक्ष्मीनारायण अग्रवाल, आगरा-3.
6. Gujarati, Damodar N, "Basic Econometrics", McGraw Hill Education Pvt. Ltd. , Chennai.

**SEMESTER- I**  
**INDIAN ECONOMY**  
**Paper –IV**

- Unit - I     Indian Economy: Meaning, basic characteristics and major issues of development of Indian Economy, GDP and National Income of India – Components and Structure of GDP, Role of Primary, Secondary and Tertiary Sectors in GDP, National Income and Per Capita Income, Growth Rates of GDP and Per Capita Income
- Unit - II     Demographic Features of India – Size, Growth Rate, Sex Ratio, Age-Composition, Literacy and Density of Population, Migration, Rural-Urban Migration, Urbanization and Civic Amenities, Occupational Structure, National Population Policy, Demographic Features of Chhattisgarh State
- Unit – III    Agricultural Development in Indian Economy – Agricultural Growth and Productivity, Causes of Low Productivity and Measures to Increase it, Agricultural Marketing and Warehousing, Institutional Structure- Land Reforms in India, The Green Revolution, National Agricultural Policy and Food Security in India, Rural credit in India, NABARD and its role in rural credit
- Unit - IV     Industrial Development in India, Industrial Policies of 1956 and 1991, Public Sector Enterprises and their Performance, Privatization and Disinvestment, Small Scale Sector and Minor Medium Enterprises, Unorganized Sector and Informalisation of the Indian Economy and Knowledge Economy
- Unit – V     Infrastructure- Infrastructure and Economic Development, Energy, Power, Transportation- Road, Railway, Water and Civil Aviation in India, Private Investment in Infrastructure: Outlook and Prospect, Concept of Social Sector and Social Infrastructure, Education, Health and Family Welfare

**Reference:-**

1. Ahulwalia, I. J. and I. M. E. Little (Eds.) (1999): India's Economic Reforms and Development
2. (Essay honor of Manohar Singh), Oxford University Press, New Delhi
3. Bardhan, P. K. (9<sup>th</sup> Edition) (1998): The Political Economy of Development India, Oxford University Press, New Delhi.
4. Bawa, R.S. and Raikhy (Ed.) (1997): Structural Change in Indian Economy, Guru Nanak Dev University Press. Amritsar (PB).
5. Brahmananda, P. R. and V. R. Panchmukhi (9<sup>th</sup> Eds.) (2001): Development Experience in the
6. Indian Economy: Interstate Perspectives, Bookwell, Delhi.
7. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.
8. Dantwala, M. L. (1996): Dilemmas of Growth: the Indian Experience, Sage Publication, New Delhi.

**SEMESTER- I**  
**INDUSTRIAL ECONOMICS**  
**Paper –V**

- Unit - I      Concept and Organization of a Firm-Ownership, Control and Objectives of the Firm. Rationale of Industrialization: - Agriculture and Industrialization – patterns, process, speed, Implications of Industrialization. Theories of Industrial location, Alfred Weber and Sergeant Florence Theory. Factors Affecting Industrial Localization.
- Unit - II      Industrial Productivity, Efficiency and Capacity. Industrial Policy in India, Role of Public and Private Sector industries in India. Recent Trends in Industrial Growth. Strategies for Industrial Growth, Regional Development of Industries.
- Unit – III    Owned, External and Other Components of Funds, Nature, Volume and Types of Institutional Finance – IDBI, IFCI, SFCs, SIDC, Commercial Bank.
- Unit - IV    Structure of Industrial Labour, Employment Dimensions of Indian Industry. Industrial Legislation, Industrial Relations, Exit policy and Social Security.
- Unit – V    Large Scale Industries:- Iron and Steel, Cement, Jute, Sugar, paper industries, Development of Small Scale and Cottage Industries in India.

**Text books**

1. Ahluwalia, I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985) : Industrial Economics, Wiley Eastern Ltd., New Delhi.
3. Chernilam, F (1994) : Industrial Economics : Indian Perspective (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai.
4. Desai, B. (1999), Industrial Economic in India (3<sup>rd</sup> Edition), Himalaya Publishing house Mumbai.
5. Kuchhal .S.C , the industrial economy of India , Chaitanya publishing house.

**Reference**

1. Divine, P.J. and R.M. Jones et. At. (1976) : An Introduction to industrial economics, George Allen and Unwin Ltd., London.
2. Government of India, Economic Survey (Annual)
3. Hay, D. and D.J. Morries (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
4. Kuchhal, S.C. (1980) :Industrial Economy of India, Chaitanya Publishing House, Allahabad.
5. Reserve Bank of India Report on Currency and Finance (Annual).
6. Singh, A. and A. Sadhu (1988) : Industrial Economics, Himalaya Publishing House

**SEMESTER- II**  
**MICRO ECONOMICS-II**  
**Paper –I**

- Unit - I Sales maximization model: Baumol's model (price-output determination of a product without advertisement and optimal advertising outlay), Managerial theories of the firm: Williamson's model of managerial discretion, Marris theory of the firm. Theory of limit pricing: Bains model.
- Unit - II Theory of distribution: marginal productivity theory of distribution (Marshall– Hicks version), Product Exhaustion theorem. NEO-Classical Approach of Distribution: relative share of labor and capital, technological progress and factor shares in income, Determinants of rent, wages, interest and profit (Only modern Theory).
- Unit – III Linear programming & Game Theory - Linear programming Introduction, & meaning, Conditions and Generalization, Application to the theory of firm, Limitations of Linear Programming, Graphical & Mathematical Solution. Game Theory and Price Determination- Introduction, Two Person Zero Sum game, Non Constant sum game- Prisoner's Dilemma, Limitations of the Game Theory, importance of the Game Theory.
- Unit - IV Concept of Equilibrium: static and dynamic equilibrium, partial and general equilibrium, Excess Demand.
- Unit – V Welfare economics Walrasian– introduction, value judgment, classical welfare economics, Pigovian Welfare economics, Pareto optimal conditions. New welfare economics: compensation principle of Kaldor - Hicks. Social welfare function: Bergson – Samuelsons social welfare function, Arrow's impossibility theorem.

**Text Books**

1. Jhingan M. L. (2014), Advanced Economic Theory, Vrinda Publication, New Delhi
2. Jhingan M. L. (2014), Micro Economics, Vrinda Publication, New Delhi
3. Agarwal , A (2014), Micro Economic analysis, Sahitya Bhawan Publication, New Delhi

**Reference Books**

1. Mansfield, E. (1997), Microeconomics (9<sup>th</sup> Edition), W.W. Norton and Company, New York.
2. Ray, N.C. (1975), An Introduction to Microeconomics, Macmillan Company of India Ltd., Delhi.
3. Ryan, W.J.L. (1962), Price Theory, Macmillan and Co. Limited, London.
4. Samuelson, P.A. and W.D. Nordhaus (1998), Economics, Tata McGraw Hill, New Delhi.
5. Stonier, A.W. and D.C. Hague (1972), A Textbook of Economic Theory, ELBS and Longman Group, London.



**SEMESTER- II**  
**MACRO ECONOMICS-II**  
**Paper –II**

- Unit - I      Theory of Inflation – Classical, Keynesian and Monetarist Approaches to Inflation, Semi And Full inflation, Theory of Structural Inflation, Stagflation, Control of Inflation. Philips Curve Analysis– Short Run and Long Run Philip’s Curve. The Natural Rate of Unemployment Hypothesis, Tobin’s Modified Philip Curve.
- Unit - II      Business Cycles, Main Features of Business Cycles, Types of Business Cycle, measures to control business cycle. Theories of Business Cycles - Hawtrey’s Monetary Theory of Trade Cycle, Schumpeter’s, Keynes, Hicks, Samuelson’s, Friedman, Kaldor Model of Trade Cycle.
- Unit – III    Monetary Policy-Meaning of Monetary Policy, Instrument of Monetary Policy, Objective of Monetary policy, Limitations of Monetary Policy, Monetary Policy and Economic Development. Fiscal Policy– Meaning of Fiscal Policy, Instruments of Fiscal Policy, Objectives of Fiscal Policy, Fiscal Policy and Economic Growth, Effectiveness of Fiscal Policy, Monetarism Vs Fiscalism– The Debate, Similarities between Monetary Policies and Fiscal Policies.
- Unit - IV    IS-LM Model, The Product Market Equilibrium, The Money Market Equilibrium, Equilibrium of Product and Money Market, Merits and Demerits of IS-LM Curve, Extension of IS-LM Models With Flexible Prices and Labour Market.
- Unit – V    Banking, meaning and function of commercial bank, Credit creation of Commercial bank, Organisation and Structure of Commercial banking ,Policies and Principles of Commercial bank ,Central banking, Function and Credit Control.

**Text books**

1. Sethi, T.T. (2009-10) Macro economics ,Laxminarayan Agrawal ,Agra.
2. Jhingan, M. L. (2008) Monetary Economics,vrinda publications pvt.ltd.
3. Jhingan, M. L. (2010) Macroeconomic theory,vrinda publications pvt ltd.
4. Singhai, G. C. & Mishra J. P. (2013) Macro Economic Analysis, Sahitya Bhawan Publication Agra.

**Reference**

1. Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 vols) Oxford University Press, London.
2. Branson, W.A. (1989), Macroeconomics Theory and Policy, (3<sup>rd</sup> Edition), Harper and Row, New York.
3. Aornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, inc., New York
4. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W>Norton, New York.
5. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
6. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
7. Romer, DL. (1996), Advanced macroeconomics, McGraw Hill Company Ltd., New York.
8. Scarte, B.L. (1997), Cycles, Growth and inflation, McGraw Hill, New York.
9. Markeley, G. (1978), Macroeconomics Theory and Policy, macmillan, New York.

**SEMESTER - II**  
**RESEARCH METHODOLOGY AND COMPUTER APPLICATION**  
**Paper –III**

- Unit - I      Research methodology and research methods, Research : meaning and motivational factors of research, Types of research: Census and sample research, qualitative and quantitative research, Descriptive and analytical research, Open and confidential research and Original and repetitive research. Main stages of statistical research, Primary and secondary data, Different methods of collecting primary data, secondary data -different sources, precautions while constructing questionnaire/schedule, Difference between schedule and questionnaire.
- Unit - II      Sampling- Meaning and need for sampling, size of sampling- What should be the size of sample, Slovin's Formula for determining the size of sample, Merits and limitations of sampling, Sampling and non- sampling errors, Sampling frame, how to judge the reliability of samples. Methods of sampling : different methods of Probability sampling and non-probability sampling.
- Unit – III      Hypothesis- Meaning types and characteristics of hypothesis, Basic concepts concerning testing of hypothesis, Procedure for test of significance. Test of significance of large samples: Test of significance in attributes- standard error of the number of successor, standard error and size of sample, standard error of the difference between proportion of two samples. Test of significance in variables: Standard error of the mean.
- Unit - IV      Test of significance of small samples: Test of significance based on t-distribution- Student's T- test, Paired T- test, F- ratio test and Fisher's Z test. Practical problems related to student's t test, Chi-square test, F ratio test, paired T test and Fisher's Z test. Test of significance of correlation coefficient.
- Unit – V      Computer- Meaning and important characteristics of a computer, History of computer, Different parts of a computer, Various types of computer, Elementary knowledge of INTERNET, Role of computer in economic research.

**Reference Books**

1. Kothari, C.R. "Research Methodology- Methods and Techniques", New Age International (P) Ltd. Publication, New Delhi.
2. Sharma, Dr. Ramnath, " Methods and Techniques of Social Survey and Research," A Rajhans Publication.
3. Bajpai, Dr. S.R., "Methods of Social Survey and Research," Kitab Ghar, Kanpur-3
4. मुखर्जी, रविन्द्रनाथ, सामाजिक शोध एवं सांख्यिकी, विवेक प्रकाशन, जवाहर नगर, दिल्ली – 7
5. शुक्ला एवं सहाय, सांख्यिकीय, साहित्य भवन पब्लिकेशंस, आगरा.

**SEMESTER- II**  
**INDIAN ECONOMIC POLICY**  
**Paper – IV**

- Unit - I      Planning in India– Objectives and Strategies of Planning, Development Strategy, LPG Model of Development, NITI Ayog, PURA- a Neo Gandhian Approach to Development, Developing Grass-root Organization: Panchayats, NGO'S.
- Unit - II      Problem of Poverty and Inequality – The Concept of Poverty, Measurement and Estimation of Poverty in India, International Comparison of Poverty and Inequality of Incomes, Poverty Eradication Programmes, Causes of Failure to Remove Poverty. Problem of Unemployment in India- Nature of Unemployment, Various Schemes to Reduce the Unemployment, Balanced Regional Development- Indicators, Causes, Changing Scenario and Policy Measures to remove Regional Disparity.
- Unit – III    Indian Finance System – An overview, Functions of the Reserve Bank of India, Commercial Banking system, Progress of Banking since 1969, RRBs, DFIs and NBFCs, Financial Sector Reforms in India, Stock Exchange in India, Composition of Indian Capital Market, SEBI and Capital market reform.
- Unit - IV      Foreign Trade of India- Importance of Foreign Trade for a developing Economy, Foreign Trade since 1991, Structure and Direction of Foreign Trade, Balance of Payments of India, Issues in Export Import Policies, External value of the Rupee and Foreign Exchange Reserves, FEMA, SEZs, Trade Reforms in India.
- Unit – V      WTO and its Impact on the Different Sector of Economy, Economic Reforms – Rational of Internal and External Reforms, Cooperative movement in India- Organization, Structure and Development of different types of Cooperatives in India.

**Reference:-**

1. Ahulwalia, I. J. and I. M. E. Little (Eds.) 1999): India's Economic Reforms and Development (Essay honor of Manohar Singh), Oxford University Press, New Delhi,.
2. Bardhan, P. K. (9<sup>th</sup> Edition) (1998): The Political Economy of Development India, Oxford University Press, New Delhi.
3. Bawa, R.S. and Raikhy (Ed.) (1997): Structural Change in Indian Economy, Guru Nanak Dev University Press. Amritsar (PB).
4. Brahmananda, P. R. and V. R. Panchmukhi (9<sup>th</sup> Eds.) (2001): Development Experience in the Indian Economy : Interstate Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M. L. (1996): Dilemmas of Growth: the Indian Experience, Sage Publication, New Delhi.

**SEMESTER- II**  
**LABOUR ECONOMICS**  
**Paper – V**

- Unit - I     Labour Economics - Definition, Nature, Scope & Importance, Labour Market – Nature and Characteristics of Labour Markets in India .Supply of Labour - Labour force, Factors affecting Law of Labour Supply. Demand for Labour – Labour productivity, Demand for Labour by Industrialist.
- Unit - II     Theories of labour market: - Classical Theory of labour, Marginal productivity theory of Labour Concept of wages – Real Wages , Nominal Wages, Factors Affecting Real wages , Theories of Wage Determination - Classical Theory, New Theory, The theory of Collective Bargaining.
- Unit – III    Theories of Labour Movement - Labour Unions in India, Rise and Growth of Labour Union, Achievements of Labour Unions. Structure and Pattern of Trade Union - Objectives, Growth, Achievements and Failures.
- Unit - IV    Labour Legislation in Indian Labour, Laws and Practices in Relation to International Labour Standards. State and Labour , State and Social Security of Labour, Concept of Social Security and its Evolution.
- Unit – V     Labour Welfare in India, Rural and Agricultural Labour in India, Child Labour, Female Labour, Concept of Industrial Peace, Settlement of Industrial Dispute, Second National Labour Commission.

**Text books**

1. Goyal, Sunil & Goyal, M. L. (2008): Labour Economics, R.B.S.A. Publications, Jaipur.
2. Saxsena, R.C. (2010): Labour Problems & Social Welfare, K. Nath and Company Publication, Meret.
3. Singh, Dilip Kumar, (2008): Workers Participation in Management and Industrial Relation, Rawat Publication, Jaipur & Delhi.
4. Singh, Usha & Singh, H. P. (2011): Child Labour in India : Problem and Solutions, Classical Publication, New Delhi
5. Gupta, P. K., Labour Economics, Vrinda publications, New Delhi.

**SEMESTER – III**  
**ECONOMICS OF GROWTH**  
**PAPER – I**

- Unit - I      Economic Growth: Economic Growth and Development, Measurement of Economic Growth, Vicious Circle of poverty, Pre Condition of Economic Development, Factors of Economic Growth: Economic and Non Economic, Meaning and characteristics of an Underdeveloped Country, Obstacles of Economic Development.
- Unit - II      Meaning and Characteristics of Modern Economic Growth, Structural Changes under Development, Human development Index, Gender Development index, Gender empowerment measure, UNDP - Human Development Report 2015, Multidimensional index.
- Unit – III    Theories of Growth: Classical Theory .Adam Smith Theory of growth, The Ricardian Theory of growth, Mills theory of growth, Malthysian theory of development, Harrod - Domar model of growth.
- Unit - IV    Meads Neo-Classical Model of growth, Solow Long- Run model growth, Approaches to Growth: -. Kaldor model of Growth, The Models of Technical Chang, Joan Robinson model of growth.
- Unit – V    The Mahalanobis Four Sector Model. The Concept of Capital Output Ratio, Input-Output Analysis, Project Evaluation and its methods and Cost-Benefit Analysis, Economic Growth and Income Distribution: The Kuznets Hypothesis.

**Text Books**

1. Jhingan, M. L. (2008), 31<sup>st</sup> edition, The economics of development and planning, vrinda publication pvt.Ltd.
2. Shinghai, G. C. & Mishra J. P. (2013) Macroeconomic Analysis, Sahitya bhawan publication Agra.
3. Mishra, J. P. (2012) Economics of Growth and development, Sahitya bhawan publication, Agra.

**Reference Books**

1. Hajela P. D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, , Common wealth Publishers, New Delhi.
2. Jhabvala, R. and R.K. Subrahmanya (Eds.) (2000). The Unorganized Sector : Work Security and Social Protection. Sage Publication, New Delhi.
3. Lester, R.A. (1964). Economics of Labour. (2<sup>nd</sup> Edition), Macmilan, New York.
4. Mc Connell, C.R. and S.L. Brue (1986). Contemporary Labour Economics, Mc Graw-Hill New York.
5. Papola, T.S.P.P. Ghosh and A.N. Sharma (Eds.) 1993, Labour, Employment and industrial Relations in India, B.R. Publishing Corporation New Delhi.
6. Rosenberh M.R. (1998), Labour Markets I Low Income Countries in Chenery, H.B. and T.N. Srinivasan, (Eds.) The Handbook of Development Economics, North-Holland, New York.
7. Venkata Ratnam, C.S. (2001), Globlization and Labour- Management Relations Dynamics of change, Sage publications/ Response Books, New Delhi.

**SEMESTER- III**  
**INTERNATIONAL TRADE**  
**Paper – II**

- Unit - I    Theory of International Trade – Meaning and Distinguishing Features of Inter- regional and International Trade, The Comparative Cost Theory, Refinements of the Comparative Cost Theory, Opportunity Cost Theory, Theory of Reciprocal Demand.
- Unit - II    Modern Theory of International Trade, Factor Price Equalization, Theorem of International Trade, Stopler Samuelson and Rybezynski Theorems. The Terms of Trade – Concepts, Determination of Terms of Trade, Factors Affecting Terms of Trade, Terms of Trade & Economic Development, Its Empirical Relevance and Policy Implications for Less Developed Countries, Terms of Trade & Welfare Implications.
- Unit - III    The Theory of Intervention – Tariffs, Quotas, and Non-tariff Barriers, Economic Effects of Tariff and Quotas on National Income, Output, Consumption, Price, Employment, Terms of Trade & Income Distribution, The Stopler – Samuelson Theorem of Tariff on Income Distribution, The Learner's Paradox.
- Unit - IV    Balance of Payments – Meaning and components, Equilibrium and Disequilibrium in the BoP, Measures to Correct the Adverse BoP, Adjustment Mechanisms of BoP, Devaluation- The J-curve effect, Marshall-Lerner's Conditions under Devaluation, Expenditure Reducing and Expenditure Switching Policies and Direct Control.
- Unit - V    Income Adjustment- Foreign Trade Multiplier, Foreign Repercussion or Back-Wash Effect, Foreign Exchange Rate-Spot and Forward Exchanges Rates, Fixed and Flexible Exchange Rates, their Merits and Demerits, Hybrid Exchange Rate, Floating Rate of Exchange, Managed Floating System.

**Reference:-**

1. Bhagwati, J. (Ed). (1981): International Trade, Selected readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dana, D. S. (2000), International Economics: Study Guide and Work Book, (5<sup>th</sup> Edition), Routledge Publishers, London.
5. Dunn, R. M., and J. H. Mutti (2000), International Economics, Routledge, London.
6. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
7. Kindleberger, C. P. (1973), International Economics and International Economic Policy A Ready, McGraw Hill International, Singapore.
8. Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

**SEMESTER- III**  
**PUBLIC FINANCE**  
**Paper – III**

- Unit - I      Definition, Nature and scope of Public Finance, Role of Public Finance in Developing Countries, Principles of Maximum Social Advantages. Taxation – features of good tax system, Objectives of Taxation, Principles of Taxation, canons of Taxation, Shifting, Effects and Incidence of Taxation. Impact of Tax under Laws of Returns and Perfect Competition.
- Unit - II      Public Expenditure: - Meaning and Scope, Different Forms of Expenditure, Canons of Public expenditure, Structure and Growth of Public Expenditure in India. Trends in Central Government Expenditure. Economic Effects of Public Expenditure on Production and Distribution. Public Expenditure and Economic Growth.
- Unit – III    Public Revenue: - Meaning, classification, sources, principles and effects of public revenue. Classification of taxation: - Indirect & Direct Tax, Goods and Service Tax (GST) New Direct tax, Central Excise, Custom Duties, Taxes on Land and Agriculture, Value Added Tax, Modvat, Service Tax, Taxable Capacity.
- Unit - IV    Public Debt – Meaning and Objectives of public debt, Different Sources of Public Debt, Redemption of Public Debt. Principle of Public Debt Management, Growth of Public Debt in India, Burden of Public Debt.
- Unit – V    Budget – Meaning, Objectives , Different forms of Budget, Budgetary Process in India, Kinds of Budget – traditional Budget, Performance Budget, Zero Based Budget, Outcome Budget, Gender Budget. Budget Theory – Classical Viewpoint (Balance Budget), Modern View Point (Imbalanced Budget.)

**Text Book**

1. Lekhi, R.K.,(2014), Public Finance, Kalyani Publication Ludhiana New Delhi
2. S.K., Singh, (2013) Principal of Public Finance Sahitya Bhavan Publication, Agra.
3. Pant, K.C., (2012) Public Finance
4. Sinha, V.C.,(2013) Public Finance and Economic, Sahitya Bhavan Publication.

**Reference Books**

1. Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
2. Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chairman: Raja J. Chelliah).
3. Chelliah, Raja J. et. Al (1981), Trends and issues in India"s Federal Finance, NIPFP. New Delhi.
4. Peacock, A. and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Alen and Unwin, London.
5. Sahni, B.S. (Ed.) (1972), Public Expenditure Analysis: Selected Readings, Rotherdam University Press.
6. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, Mcgraw Hill, Kogakusha, Tokyo.
7. 14th Finance commission Report-2015
8. Central Govt. and Stat Govt. Budget.

**SEMESTER- III**  
**ENVIRONMENTAL ECONOMICS**  
**Paper – IV**

- Unit - I     The Economics of Environment - Environmental Micro Economics and Macro Economics, The Circular Flow Model. Theory of Resources Environment and Economic Development - Economic Growth and The Environment, Future of Economic Growth and The Environment. Criterion of Social Welfare- Bentham Criteria, Pareto Optimality Criteria, Kaldor-Hicks Compensation Criterion.
- Unit - II     Economic Theory of Environmental Issues - The Theory of Environmental Externalities, Accounting for Environmental Cost, Internalizing Environmental Cost, Positive Externalities. Welfare Analysis of Externalities - Property Rights and The Environment. Common Property Resources and Public Goods - Common Property, Open Excess and Property Rights, Market Failure and Public Goods, Social choice of optimum pollution, Pigovian Taxes and subsidies, Maximization of Social Welfare Under Perfect Competition.
- Unit – III    Population, Agriculture and The Environment - Population and the Environment- Demographic Transition and Environment, Population Growth and Economic Growth, Population Policy for the 21st Century, Agriculture, Food and Environment, Sustainable Agriculture for the Future, Environment and Neo-Classical Model of Natural Resources, Energy and Resources.
- Unit - IV     Ecological Economics, National Income and Environmental Accounting - Ecological Economics Basic Concept, Natural Capital and Accounting for Changes in Natural Capital, Macro Economic Scale, Model of Economic and Ecological System. National Income and Accounting - Natural Capital, System of Environment and Economic Accounts (SEEA).
- Unit – V     Environmental Value and Methods - Use Value, Option Value and Non Use Value, Cost Benefit Analysis, Methods of environmental valuation- Hedonic Pricing. Household Production Function, Travel Cost Method, Averting Behavior Approach, Contingent Valuation Method, International Carbon Tax. Environment and W.T.O.

**Reference**

1. Madhu Raj – Environmental Economics.
2. Steve Baker – Environmental Economics.
3. D.W. Pearce – Environmental Economics.
4. Bauriol, W.J. and W.E. Oates. (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
5. Thomas and Callan (2009): Environmental Economics.
6. Charles D. Kolstad (2005): Environmental Economics, Oxford University Press.
7. Brian Roach, Jonathan M. Harries and Anne Marie codur (2015): Microeconomics and the environment, Global Development and Environment Institute, Tufts University, Medford.
8. Jonathan M. Harries and Anne-Marie codur (2004): Macroeconomics and the environment, Global Development and Environment Institute, Tufts University, Medford.



## SEMESTER-III

## DEMOGRAPHY

### Paper-v

Code no. ECO-0204-15

(with effect from 2022-23)

**Unit -I** Demography –Meaning and Importance, Scope and Nature Techniques of Demographic Analysis, ,Tools of Demographic Analysis, Population Education, Population Growth and Economic Development, population policy.

**Unit –II** Theories of Population-Pre Malthusian theories of Population, Malthusian theory of Population, Theory of Optimum Population and Theory of Demographic Transition- C.P. Blacker theory, Karl Sax's theory, Donald Olen Cowgills theory.

**Unit –III** Migration-Meaning and Importance, Classification of Migration ,Factors Affecting Migration, Hurdles in Migration, Measurement of Migration, Effects of Migration, Theories of Migration, Pull and Push theory of Migration, Ravenstein theory of Migration, Stepwise Movement theory, Lee's theory of Migration, Urbanization ,Causes and Effects of Urbanization, Methods to Measure Urbanization.

**Unit –IV** Fertility- Meaning and Importance ,Factors Affecting Fertility ,Causes of high birth rate in India, Measurement of Fertility –Crude birth rate, General Fertility rate, Age specific Fertility rate, Total Fertility rate, Gross Reproduction rate and Net Reproduction rate.

**Unit V-** Mortality Meaning and Importance ,Factors Affecting Mortality ,Causes of high death rate in India, Measurement of Mortality, Crude death, Specific death rate, Infant Mortality rate, Standardized death rate, Child Mortality rate, Maternal Mortality rate, Life table.

19.07.22

19.07.2022

### Text Books

1. Agrawal, S. N. „India's population Problems, Tata Mc-Graw Hill co. Bombay.
2. Bogue, D. J. Principles of Demography, Honwiley, New York.
3. Sinha, V. C. and Pushpa Sinha, Principles of Demography, Mayur Paper backs.
4. Mishra, Jai Prakash, Demography, Sahitya Bhawan Publications, Agra.
5. Pathak, K. B. and F. Ram,, Techniques of Demographic Analysis“, Himalaya Publishing House.
6. Jhingan, M. L. and others, „Demography, Vrinda Publications (P) Ltd.
7. Srinivasan, K., Basic Demographic Techniques and Applications, Sage Publication.

### Reference Books

1. Census India SRS Bulletins, Registrar General of India, Govt. of India, 2011
2. Rural-Urban distribution *Census of India: Census Data 2001: India at a glance >> Rural-Urban Distribution*. Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.
3. Number of Villages *Census of India: Number of Villages* Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.

4. Urban Agglomerations and Towns *Census of India: Urban Agglomerations and Towns*. Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.
5. Preston, S.H. (1976). Family Sizes of Children and Family Sizes of Women. *Demography* 13(1): 105-114.
6. Pritchett, L.H. (1994). Desired Fertility and the Impact of Population Policies. *Population and Development Review* 20(1): 1-55.

## SEMESTER - IV

### ECONOMICS OF DEVELOPMENT AND PLANNING

#### Paper – I

- Unit - I      Achievement and failures of Indian Plans, Resource Mobilization in Indian Plans, Strategy of Indian Plan. Saving, Capital Formation and Overall Growth Rate, Twelfth Five Year Plan (2012-17) Achievement of Eleventh Five Year Plan, NITI Aayog.
- Unit - II      Theories of Development: - The Marxian Model, The Schumpeterian Model, Keynesian Theory of Development, Rostow's Stages of Economic Growth. Marx Stages of Growth, Disguised unemployment as saving potential.
- Unit – III    Approaches to Development- Arther Lewis Model of Unlimited Supply of Labour, Ranis & Fie Model, Leibenstein's Critical Minimum Effort thesis , The Big push theory, Nelson's theory of low level of equilibrium.
- Unit - IV    Development Models: - Theory of Balanced Growth, External Economics, Industrialization and Balanced Growth ,The concept of Unbalanced Growth, Dualistic Theory , The Limits to Growth Model, Myrdal's Theory of Circular Causation.
- Unit – V    Investment Criteria in Economic Development; The social Marginal Productivity Criteria, The capital Turnover Criteria, The Re-investment Criterion, Time Series Criterion, the Choice of Techniques, The Harris –Todaro model of Migration and Unemployment.

#### Text books

1. Jhingan, M.L. (2003), *The Economics of development and planning*, vrinda publication pvt. Ltd.
2. Shinghai ,G.C. & Mishra ,J.P. (2013) *Macro Economic Analysis*, Sahitya bhawan publication Agra.
3. Mishra, J.P. (2012) *Economics of Growth and Development*, Sahitya bhawan publication Agra.

#### Reference Books

1. Todaro, M.P. (1996) (6<sup>th</sup> edition) *Economic Development*, Longman London.
2. Solow, R.M. (2000), *Growth Theory An Exposition*, Oxford University Press, Oxford.

3. United Nations, Human development Department report 2005.
4. Behrman, S. and T.N. Shrinivasan (1995), Hand book of Development Economics, Vol 1, 2 & 3, Elsevier; Amsterdam.
5. Ghatak,s (1986), An introduction to development Economics, Allen & elnein, London.
6. Sen, A.K. (Ed.) 1990 growth Economics, Penguin, Harmondsworth.
7. Dasgupta, P.A.K. Sen and S. Marglin (1972), Guidelines for project Evaluation, UNIDO, Vienna,
8. Mehrotra, S. and J. Richard (1998), Development with a Human Face, Oxford University Press New Delhi.

**SEMESTER- IV**  
**INTERNATIONAL ECONOMICS**  
**Paper – II**

- Unit - I Foreign Trade and Economic Development, The Theory of Regional Blocks- Customs Union, Static and Dynamic Effects of a Customs Union and Free Trade Area, Rational of Economic Progress of SAARC, ASEAN, IBSA and BRICS.
- Unit - II Regionalism of European Union, The Euro-Dollar Market, NIEO, WTO- Functions of WTO, Multilateralism and WTO, TRIPS, TRIMS, Agriculture, Market- Access, Textile Clothing, Patent Rights, Ministerial Conferences of WTO, UNCTAD.
- Unit – III Theory of Short Term & Long Term Capital Movement and International Trade– Port Folio Investment and International trade, FDI and International Trade, Merits & Demerits of Long Term Capital Movement in International Trade, Factors Affecting International Capital Movement, The Transfer Problem, Optimum Currency Area, Global Financial Crises.
- Unit - IV International Monetary System, International Liquidity, IMF, World Bank, The World Bank Group, ADB, Foreign Capital in India.
- Unit – V International Organisations- G-20, G-15, BIMSTEC, OPEC, NAFTA, OECD, Working and Regulations of MNCs in India.

**Reference:-**

1. Bhagwati, J. (Ed). (1981): International Trade, Selected Readings, Cambridge, University press, Massachusetts.
2. Carbough, R. J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dana, M.S. (2000), International Economics: Study Guide and Work Book, (5<sup>th</sup> Edition), Routledge Publishers, London.
5. Dunn, R. M. And J. H. Mutti (2000), International Economics, Routledge, London.
6. Kenen, P. B. (1994), The International Economy, Cambridge University Press, London.
7. Kindleberger, C. P. (1973), International Economics and International Economic Policy A Reader, McGraw Hill International, Singapore.
8. Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

**SEMESTER- IV**  
**PUBLIC ECONOMICS**  
**Paper – III**

- Unit - I      Role of Public Finance in Economic Development, Major Fiscal Function, Concept of Social Goods. Fiscal Federalism in India, Principles of Fiscal Federalism, Vertical and Horizontal Imbalances.
- Unit - II      Federal Finance – Principle of Federal Finance in India, Centre – State Financial Relation, Resource Transfer From Centre to States, Godgil's Formula. Fourteen Finance Commission.
- Unit – III    Indian Tax System: - Salient Features, Merits, Demerits, Measures for improvement of Indian Tax system Government measures for improvement: - Taxation enquiry Commission (1953-54), Wanchoo committee, Jha Committee, Kelkar Committee Report , Chelliah Committee Recommendations for reforming the taxation system.
- Unit - IV    Analysis of Centre & Chhattisgarh Govt. Budget, taxable and non taxable income of Chhattisgarh. Performance of the Chhattisgarh government budget.
- Unit – V    Financial Responsibilities and Budget Management Act, Structure and growth of public expenditure in Chhattisgarh, Revenue Expenditure and Capital Expenditure, Plan & Non Plan expenditure in Chhattisgarh.

**Text Books**

1. Lekhi, R.K.,(2014), Public Finance, Kalyani Publication, Ludhiana New Delhi.
2. S.K., Sing, (2013) Principal of Public Finance Sahitya Bhavan Publication, Agra.
3. Pant, K.C., (2012) Public Finance
4. Sinha, V.C., (2013) Public Finance and Economic, Sahitya Bhavan Publication.

**Reference Books**

1. Government of India (1992), reports of the Tax Reforms Committee – Interim and Final (Chairman : Raja J. Chelliah).
2. Chelliah, Raja J. et. Al (1981)., trends and issues in India's Federal Finance, NIPFP. New Delhi.
3. Peacock, A and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Allen and Unwin, London.
4. Sahni, B.S. (Ed.) (1972), Public Expenditure Analysis : Selected Readings, Rotherdam University Press.
5. Jha, R. (1998), Modern Public Economics, Routledge, London.
6. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
7. Cornes, R. and T. Sandler (1986). The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press. Cambridge.
8. Economic Survey Centre and State (2014-15)
9. 14<sup>th</sup> Finance commission Report- 2015
10. Central Govt. and Stat Govt. Budget- 2015

**SEMESTER- IV**  
**ECONOMICS OF SOCIAL SECTOR**  
**Paper – IV**

- Unit - I      Pollution- classification of pollution, Air, Water and Land Pollution, Cause & Effects of pollutant. Problem of solid waste management, Pollution control strategies, Equi-Marginal law of pollution, Global environmental issues- Climate change, Global warming, Green House Effect, Ozone depletion.
- Unit - II      Development and Environment: Relation between development & environmental stress, The Environmental Kuznets Curve, The concept of Sustainable Development, Indicators of sustainability, Measuring sustainable development, Green Economy.
- Unit – III    Economics of Resources- Classification of resources, Renewable & Non-renewable resources, Optimum use of resources. Land resources, Forest resources, Social forestry, Peoples participation in the management of Common & forest land. Energy- Sources of energy, energy efficiency & environment, Alternative sources of energy.
- Unit - IV    Economics of Education- Expenditure on education, Productive expenditure on education, Productivity of education, the return of education, Human capital, Human capital Vs Physical capital, Educational reforms and Right to Education Act.
- Unit – V    Health Economics- Determinants of health care, Malnutrition. The concept of Human life, Inequalities in health- class & gender, Perspective HDI, GDI, GEM and HPI.

**Reference**

1. Bauriol, W.J. and W.E. Oates (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
2. Berman, P. (Ed.) (1995): Health Sector reform in Developing Countries: Making health development sustainable, Boston: Harvard Series on Population and International health.
3. Blaug, M. (1972) : Introduction to Economics of Education J 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): resource 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. Thomas and Callan (2009): Environmental Economics.