

**UNIVERSITY OF MADRAS**  
**INSTITUTE OF DISTANCE EDUCATION**  
**MA ECONOMICS**

**Choice Based Credit System**

**(with effect from the academic year 2018 – 2019)**

**SCHEME OF EXAMINATION:**

<b>SEMESTER I</b>	<b>SUBJECTS</b>	<b>CREDIT</b>	<b>MAX MARKS</b>		<b>TOTAL</b>
<b>COURSE COMPONENT</b>			<b>INT</b>	<b>EXT</b>	
Core Paper-I	Micro Economics – I	4	20	80	100
Core Paper-II	Indian Economics – I	4	20	80	100
Core Paper-III	Statistics for Economists	4	20	80	100
Core Paper-IV	Environmental Economics - I	4	20	80	100
Elective Paper-I	Agriculture Economics	3	20	80	100

<b>SEMESTER II</b>	<b>SUBJECTS</b>	<b>CREDIT</b>	<b>MAX MARKS</b>		<b>TOTAL</b>
<b>COURSE COMPONENT</b>			<b>INT</b>	<b>EXT</b>	
Core Paper-V	Micro Economics – II	4	20	80	100
Core Paper-VI	Indian Economics – II	4	20	80	100
Core Paper-VII	Mathematics for Economics	4	20	80	100
Core Paper-VIII	Econometrics	4	20	80	100
Elective Paper-II	Industrial Economics	3	20	80	100

<b>SEMESTER III</b>	<b>SUBJECTS</b>	<b>CREDIT</b>	<b>MAX MARKS</b>		<b>TOTAL</b>
<b>COURSE COMPONENT</b>			<b>INT</b>	<b>EXT</b>	
Core Paper- IX	Macro Economics – I	4	20	80	100
Core Paper- X	Public Finance – I	4	20	80	100
Core Paper- XI	International Economics – I	4	20	80	100
Core Paper- XII	Development Economics - I	4	20	80	100
Elective Paper- III	Economics of Infrastructure	3	20	80	100

<b>SEMESTER IV</b>	<b>SUBJECTS</b>	<b>CREDIT</b>	<b>MAX MARKS</b>		<b>TOTAL</b>
<b>COURSE COMPONENT</b>			<b>INT</b>	<b>EXT</b>	
Core Paper- XIII	Macro Economics – II	4	20	80	100
Core Paper- XIV	Public Finance – II	4	20	80	100
Core Paper- XV	International Economics - II	4	20	80	100
Core Paper- XVI	Development Economics - II	4	20	80	100
Elective Paper-IV	Computer Application in Economic Analysis	3	20	80	100

### **CREDIT DISTRIBUTION**

		<b>CREDITS</b>
Core Paper	16 X 4	64
Elective	4 X 3	12
<b>TOTAL</b>		<b>76</b>

### **MA ECONOMICS**

#### **Choice Based Credit System**

**(To take effect from the academic year 2018 – 2019)**

#### **REVISED SYLLABUS**

#### **SEMESTER – I**

#### **CORE PAPER I-MICRO ECONOMICS – I**

##### **UNIT I: ADVANCES IN DEMAND THEORY**

Modern utility analysis of choices involving risk or uncertainty – Bernoulli, Neumann Morgenstern, Friedman Savage and Markowitz Hypotheses-Revealed preference theory and derivation of demand-indifference curve-Hicks revision of demand theory-Logical ordering.

##### **UNIT II: THEORY OF PRODUCTION**

The production Function – Production Function – short and long run – Relation between returns to scale and returns to factor – Cobb-Douglas and CES Production Functions –Single and Multi-product Firms.

##### **UNIT III: THEORY OF COSTS**

Total Revenue, Marginal Revenue. Cost Functions – The Traditional Theory of Cost: Short-Run Costs; Long-Run Costs-‘The Envelope Curve’ – Modern Theory of Costs: Short- Run Costs; Long-Run Costs-‘The L-Shaped’ Scale Curve – The Relevance of the Shape of Cost Curves in Decision-making.

##### **UNIT IV: THEORY OF THE FIRM: PERFECT COMPETITION/ MONOPOLY**

Market Structure – Perfect Competition – Assumptions – Short-Run Equilibrium – Long-Run Equilibrium – Dynamic Changes and Industry Equilibrium. Definition – Demand and Revenue – Equilibrium of the Monopolists: Short-Run Equilibrium – Long-Run Equilibrium – Comparison of Pure Competition and Monopoly – the Multi-plant Firm – Bilateral Monopoly – Price Discrimination.

##### **UNIT V: THEORY OF THE FIRM :MONOPOLISTIC COMPETITION AND OLIGOPOLY**

Monopolistic Competition – Equilibrium of the Firm – Excess Capacity – Selling Cost – Comparison with Pure Competition. Oligopoly: Non-Collusive Oligopoly – Cournot; The Kinked-Demand and Stackelberg Models. Collusive Oligopoly – Cartels – Price leadership.

##### **RECOMMENDED TEXT:**

1. Koutsoyiannis. A. : Modern Microeconomics 2<sup>nd</sup> edition, Macmillan
2. Hal. R. Varian :Intermediate Micro Economics- Modern Approach, 4<sup>th</sup>edn, W.W. Narton& Company.
3. W.J.Baumol and Alan Blinder – Micro Economics, Newyork University.

**BOOKS FOR REFERENCE:**

1. Baumol, W.J., (1978) : Economic Theory and Operations Analysis, Prentice Hall of India.
2. Green, H.A.J (1974) : Consumer Theory, 2nd Edition, Macmillan.
3. Jack Hirschleifer (1980) : Price Theory and Applications, 2nd Edition, Macmillan
4. Richard, H. Leftwich : The Price System and Resource Allocation.

**CORE PAPER II - INDIAN ECONOMICS – I****UNIT I**

Meaning of under development – Economic Development and Economic Growth – Major issues of Economic Development – Economic and Non-economic factors - Features of Indian Economy - National Income – concepts – measurement and problems – National income at factor cost and at Market price - National income of India- Trends in National income

**UNIT II**

Evolution of planning – success and failures of five year plans in India – Public sector and Indian planning – Disinvestment – twelfth five year plan – inclusive and sustainable growth – infrastructure and Economic development – Macro perspective – Impact – trends.

**UNIT III**

Human development – Measurement - Human development index – progress of human development in India – Poverty – Multidimensional poverty Index – reforms – causes of poverty – growth and inequality – poverty and inclusive growth - comparison of poverty in India and China – Poverty alleviation programmes in India- Inequality after economic reforms in 1991 – Economic development and population growth – India's demographic transition – Gender equity and Demographic transition – India's Demographic dividend and its impact of economy – Population policies of India.

**UNIT IV**

Unemployment and employment perspective – concepts and measurements – labour force and workforce participation rates – characteristics of Indian labour markets – trends and pattern of employment growth – growth in employment, GDP and employment elasticity - Employment and labour policy – Indian labour laws and labour markets – Public employment programmes for unorganised workers – case of NREGA

**UNIT V**

Importance of Agriculture in National Economy- Agriculture growth- Green Revolution and Land reformation-its impact – performance of Agriculture sector in five year plans – agriculture and rural India – rural distress in post-reform India – Agriculture policies – Food Management – recent policy initiatives Public Distributive system in India - – food security and future sources of growth in Agriculture – food subsidy

**BOOKS FOR REFERENCE**

1. Indian Economy: performance and policies - UMA KAPILA
2. India Economy since Independence - UMA KAPILA
3. RuddarDutt and KPM. Sundharam: Indian Economy

## **CORE PAPER III- STATISTICS FOR ECONOMISTS**

### **UNIT - I**

Probability – Theorems- Addition- Multiplication-Conditional Probability – Bayes Theorem  
Mathematical Expectation-Theoretical Distribution– Normal-Binomial and Poisson

### **UNIT - II**

Index Number – Types of Index Numbers – Construction of Consumer Price Index –  
Wholesale Price and Production Indices in India.

### **UNIT - III**

Analysis of Time Series – Measurement of Trend – Semi Averages, Moving Averages -  
method of Least Square- Simple Correlation – Partial Correlation - Regression

### **UNIT - IV**

Hypothesis Testing, Standard Error – Large Sample Test for Two Means and Two Standard  
Deviations – Two Proportion and Confidence Interval Small Sample Test – t-Test – Paired t-  
Test-Chi Square Test

### **UNIT - V**

F Test- Analysis of Variance One Way - Two Way Classifications-Design of Experiments-  
Latin Squares.

### **RECOMMENDED TEXT:**

1. Gupta .S.P. Statistical Methods, Sultan Chand and Sons, New Delhi, 2005
2. Sancheti. DC and Kapoor .VK Statistical Theory-Method and Application, Sultan Chand and Sons, New Delhi, 2005.
3. Shukla .MC & Gulshan.SS, Statistical Theory and Practice. Sultan Chand and Sons, New Delhi, 2000.

## **Core Paper – IV: ENVIRONMENTAL ECONOMICS**

### **UNIT - I: INTRODUCTION**

The services provided by the environment for the economic system - Environment for the  
economic system - The flow of environmental resource

### **UNIT - II: ECONOMIC ROOTS OF ENVIRONMENTAL DAMAGE**

The market as allocation and mechanism: Conditions for efficient allocation - Market failure  
and the environment: Environmental damage as an “externality”, environment as “Public  
good”, The “tragedy of the commons”

### **UNIT - III: ECONOMIC INSTRUMENTS FOR ENVIRONMENTAL PROTECTION**

The concept of “Optimum Pollution” - Limitations of Command-and –Control policy -  
Pollution Tax - Tradable permits- Property rights to environmental goods (Coase solution)

### **UNIT - IV: THE ECONOMIC VALUE OF NATURE**

The meaning to economic value: Willingness to pay - Types of environmental value: Use and  
non-use values - Cost-benefit analysis - “Stated Preference and revealed preference”  
approaches to environmental valuation

## **UNIT - V: CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT**

Sources of climate change, economic consequences of climate change - Economic Policy for climate change: costs and benefits of mitigation and adaptation - Definition of sustainable development, Policy for sustainable development - Poverty –development interrelationship.

### **BOOKS FOR REFERENCES**

1. Charles D. Kolstad (2003), Environmental Economics, Oxford University Press, New York.
2. Nick Hanley, Jason F. Shogren and Ben White (1999), Environmental Economics: In Theory and Practice, Macmillan India Limited, New Delhi.
3. Barry C. Field (1997), Environmental Economics: An Introduction, McGraw-Hill Companies, Singapore.
4. Ulaganathan Sankar (2008), Environmental Economics, Oxford University Press, New Delhi.
5. Rabindra N. Bhattacharya (2005), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
6. Katar Singh and Anil Shishodia (2007), Environmental Economics: Theory and Applications, Sage Publications, New Delhi.
7. Subhashini Muthukrishnan (2010), Economics of Environment, PHI Learning Private Limited, New Delhi.
8. Jhingan, M.L. and Chandar K. Sharma (2007), Environmental Economics: Theory, Management and Policy, Vrinda Publications (P) Ltd., Delhi.
9. A. Jonathan Lesser, Daniel E. Dodds and Richard O. Zerbe Jr. (1997), Environmental Economics and Policy, Addison-Wesley Ltd., New York.
10. Anil Markandya and Julie Richardson (eds.) (1992), the Earthscan Reader in Environmental Economics, Earthscan Publications Ltd., London.
11. M.V. Joshi (2001), Theories and Approaches of Environmental Economics, Atlantic Publishers and Distributors, New Delhi.

## **Elective paper – I: AGRICULTURAL ECONOMICS**

### **UNIT - I**

Agricultural Production and Productivity: Resource use and efficiency - Production function analyses in agriculture - Factor combination and resource substitution - Cost and supply curves - Size of farm and laws of returns - Theoretical and empirical findings - Farm budgeting and cost concepts - Supply response of individual crops and aggregate supply.

### **UNIT - II**

Economics of Rural Infrastructure: Use of land, water and energy - Rural transport, communication, banking, extension services – Role and modes - Problems of rural electrification - Rural social infrastructure - education and health and information dissemination - Rural Finance - Role of capital and rural credit - Organized and unorganized capital market - Characteristics and sources of rural credit - Institutional and non-institutional - Rural Labour - Mobility of labour and segmentation in labour markets - Marginalisation of rural labour - Nature, extent and trends in rural unemployment - Agricultural wages in India - Male-female wage differences - Non-agricultural rural employment - Trends and determinants.

### **UNIT - III**

Diversification of Rural Economic Activities: Livestock economics - Livestock resources and their productivity - Problems of marketing - White Revolution - Fishery and poultry development - Forestry, horticulture and floriculture - Issues and problems in rural industrialization and development of agro-based industries.

### **UNIT - IV**

Agricultural Growth in India: Recent trends in agricultural growth in India - Inter-regional variations in growth of output and productivity - Cropping pattern shifts - Supply of inputs - Irrigation, power, seed and fertilizers - Pricing of inputs and role of subsidies - Distribution of gains from technological change - Role of Public investment and capital formation in Indian agriculture - Strategy of agricultural development and technological progress - Sustainable agriculture - Indigenous practices - Bio-technological practices and growth potential.

### **UNIT - V**

Agriculture and External Sector: International trade in agricultural commodities - Commodity agreements - Role of World Trade Organization - Issues in liberalization of domestic and international trade in agriculture - Nature and features of agri-business - Role of MNCs - Globalization of Indian economy and problems and prospects of Indian agriculture - Impact of World Trade Organization on Indian agriculture.

### **RECOMMENDED TEXT**

1. Sadu and Singh – Fundamentals of agricultural economics.
2. C.B. Mamoria - Agricultural economics.

## **SEMESTER – II**

### **CORE PAPER V- MICRO ECONOMICS – II**

#### **UNIT- I: MODERN THEORIES OF THE FIRM**

Baumol's Theory of Sales Revenue Maximisation – Marris 's Model of the Managerial Enterprise – O. Williamson's Model of Managerial Discretion – the Behavioural model of Cyert and March.

#### **UNIT – II: DISTRIBUTION THEORIES**

Macro theories of distribution – Ricardian, Marxian, Kalecki and Kaldor's – Marginal productivity theory – Product Exhaustion theorem – Elasticity of Technical Substitution – Theory of distribution in imperfect product and factors markets – Determination of wages, interest and profit

#### **UNIT – III: ECONOMICS OF INFORMATION**

Asymmetric Information -Moral hazard problem, adverse selection, principal agent problem, implications of asymmetric information, market signaling, information and insurance.

#### **UNIT – IV: GENERAL EQUILIBRIUM THEORY**

Two Sector Model of General Equilibrium: Assumptions – Static Properties of a General Equilibrium State – General Equilibrium and the Allocation of Resources and Money.

#### **UNIT – V: WELFARE ECONOMICS**

Criteria of Social Welfare: The Pareto-Optimality Criterion – Arrow impossibility theorem - The Kaldor-Hicks 'Compensation Criterion' – the Bergson Criterion 'Social Welfare Function' – Maximisation of Social Welfare.

#### **RECOMMENDED TEXT:**

1. Koutsoyiannis. A. : Modern Microeconomics 2<sup>nd</sup> edition, Macmillan
2. Hal. R. Varian :Intermediate Micro Economics- Modern Approach, 4<sup>th</sup>edn, W.W. Norton& Company.
3. W.J.Baumol and Alan Blinder – Micro Economics, Newyork University.

#### **BOOKS FOR REFERENCE:**

1. Baumol. W.J., (1978) : Economic Theory and Operations Analysis, Prentice Hall of India.
2. Green, H.A.J (1974) : Consumer Theory, 2nd Edition, Macmillan.
3. Jack Hirschleifer (1980) : Price Theory and Applications, 2nd Edition, Macmillan
4. Richard, H. Leftwich : The Price System and Resource Allocation.

## **CORE PAPER VI- INDIAN ECONOMICS – II**

### **UNIT-I**

Savings and investments in India – various plan periods– its impact on Indian Economy – factors affecting savings in India –Savings in post reform periods - Capital formation and its determinants – growth performance of capital formation in India – External shocks and its impact on savings, investment and capital formation in India .

### **UNIT-II**

Industrial development and policies – New Industrial policy reforms 1991-its comparison with previous industrial policies - performances of small, medium and large industries in India -employment trends in manufacturing sector -- Industrial development and foreign direct investment – strategies of disinvestment and privatisation – Industrial growth performance in India – pre reform and post reform periods.

### **UNIT- III**

India's external sector – Export promotion vs import substitution – foreign trade policies - Structural changes in India's foreign trade during 80 and 90s – India's services trade – Gold and Oil trade - special economic zones –Balance of payments of India – Exchange rate fluctuations and its impact on Indian Economy – external debt and Indian economy– external sector reforms.

### **UNIT - IV**

Foreign direct investment and portfolio investment in India – Foreign Aid vs Foreign direct investment- Foreign Direct Investment and Economic Development -sectoral performance - – growth trends of foreign direct investment – India-china comparison —performances of foreign institutional investments.

### **UNIT - V**

Globalization and India–WTO negotiations and India– Impact of globalization on Indian Economics –Pre and Post reform period - Reforms in Money market and Capital Market – Globalization, External shocks and Indian Economy – Global financial crisis and its impact on Indian economy – Environmental changes and sustainable development of India – issues and challenges.

### **BOOKS FOR REFERENCE**

1. Indian Economy: performance and policies - UMA KAPILA
2. India Economy since Independence - UMA KAPILA
3. RuddarDutt and KPM. Sundharam: Indian Economy



## **CORE PAPER VII- MATHEMATICS FOR ECONOMICS**

### **UNIT - I**

Matrices – Matrix operations – Commutative Associative and Distributive Laws – Determinants – Rank of a matrix – Matrix Inverse – Cramer's Rule - Finding the values of unknown variables in the market(Prices)

### **UNIT - II**

Differentiation – one variable-AC,MC-AR,MR –Elasticities-Price-income-cross Elasticities- – Conditions for Profit Maximisation and Cost Minimisation

### **UNIT - III**

Partial Derivatives - Functions of two Variables — Properties of Homogenous Functions- Euler's Theorem- Uses of Homogenous Functions in Economics-Cobb-Douglas Production Function.

### **UNIT - IV**

Constrained Optimisation – Use of Lagrange Multiplier Method – Application to Utility Maximisation, Profit Maximisation and Cost Minimisation.

### **UNIT - V**

Elementary Integration Techniques – Indefinite Integrals – Definite Integrals – Economic Applications of Integrals – Consumer's Surplus and Producers Surplus

### **RECOMMENDED TEXT**

1. Edward. T. Dowling, Mathematical Economics, 2<sup>nd</sup> Edition, McGraw Hill, New York, 1992.

### **BOOKS FOR REFERENCE**

1. Chiang A.C. Fundamental Methods of Mathematical Economics, McGraw Hill Book Company, New York, 1974.
2. Mehta V.L. and Madnani G.M.K, Mathematics for Economists, Sultan Chand and Sons, New Delhi, 2005.
3. Monga, G.S. Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi, 1972.
4. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002.

### **Journals:**

1. Journal of Applied Mathematics
2. Journal of Mathematical Economics

## **Core Paper – VIII: ECONOMETRICS**

### **UNIT - I: INTRODUCTION TO ECONOMETRICS**

Origin, definition, objectives and scope of econometrics, limitations of econometrics, Methodology of econometric research, specification and estimation of an econometric model

### **UNIT - II: ESTIMATION AND REGRESSION ANALYSIS**

Basic concept of estimation, desirable properties of estimators, Unbiasedness, Efficiency, Consistency and Sufficiency. Correlation and regression, coefficient of determination, estimation of an equation

### **UNIT - III: ESTIMATION THEORY AND PROBLEMS**

Ordinary Least Squares (OLS) method-assumption, Gauss-Markov theorem standard errors of estimates. Testing of regression coefficient; coefficient of determination-test; problems of heteroscedasticity and auto correlation (1st order); multicollinearity–their consequences, test and remedies.

### **UNIT - IV: THEORETICAL DISTRIBUTION AND HYPOTHESIS TESTING**

Theoretical frequency distribution, basic concept of binomial, Poisson and normal distribution. Hypothesis testing-Design and evaluation of test: Type-I and type-II errors, standard errors.

### **UNIT - V: LAG MODELS AND SUMMARY VARIABLES**

Lag in econometric models-concepts, Koyck model, partial adjustments and adaptive expectation models. Summary variable; Qualitative data, seasonal analysis, use of dummy variables for pooled data and uses.

### **RECOMMENDEDTEXT:**

1. Gujrati, D. (1995), Basic Econometrics, (3rd Edition), MacGraw Hill, New Delhi.
2. G.S. Madalla, Basic Econometrics.

## **Elective Paper – II: INDUSTRIAL ECONOMICS**

### **UNIT – I**

Meaning of Industrialisation - The role of Industry in Economic Development - Theories of Industry - Hoffman - Chenery and Gerschenkron

### **UNIT – II**

Concept and Organisation of a Firm - Market Structure - Sellers Concentration - Product Differentiation - Entry Conditions - Economics of Scale - Profitability and Innovation

### **UNIT – III**

Theories of Industrial Location - Weber - Sargant Florence - Factors Affecting Location

### **UNIT – IV**

Growth of the Firm - Size and Growth - Growth and profitability of the Firm - Constraints on Growth - Productivity - Efficiency - Capacity Utilisation - Concept - Measurement

## **UNIT – V**

Classification of Industries - Use Based - Resource Based -Industrial Policy in India - Role of Public and Private Sectors - Recent Trends in Industrial Growth - India as a Global Hub - MNCs - Transfer of Technology – Liberalisation –Privatisation

### **BOOKS FOR REFERENCE:**

1. Ahulwalia .I.J. -Industrial Growth in India, Oxford University Press, New Delhi.
2. Ahulwalia .I.J. -Industrial Growth in India,
3. Chernuliam .F -Industrial Economics; Indian Perspective, Himalaya publishing House.
4. Desai .B - Industrial Economy in India (3rd Ed.)HPH, Mumbai.
5. Kuchhal .S.C. -Industrial Economy of India(5th Edition), Chaitanya Publishing House.
6. Sing, AandA.N. Sadhu -Industrial Economics, Himalaya Publishing House, Mumbai. Government of India, Economic Survey (Annual).

## **SEMESTER – III**

### **CORE PAPER IX- MACRO ECONOMICS – I**

#### **UNIT - I: KEY MACRO ECONOMIC VARIABLES**

Aggregate Income- Expenditure and circular flow- computation of GDP – Real Vs – Nominal GDP – Measurement of Cost of Living (CPI and WPI) – Measurement of Unemployment rate

#### **UNIT - II: THEORIES OF CONSUMPTION AND INVESTMENT**

The Consumption function and its determinants – Hypotheses of Absolute, Relative and Permanent Incomes and Life Cycle. The Investment function and its determinants, The Saving function and Marginal Efficiency of Capital. Investment Function – Marginal Efficiency of Investment, Multiplier Analysis, Accelerator and Investment behavior concepts of super multiplier.

#### **UNIT - III: THEORY OF INCOME AND EMPLOYMENT**

Basic assumptions of the classists, Says Law of Market, Classical theory of Employment saving and Investment theory wage and price flexibility criticisms of classical theory- Keynesian theory of employment and income - Aggregate demand – Effective Demand - The concept of under employment equilibrium.

#### **UNIT - IV: THEORY OF DEMAND FOR MONEY**

Quantity theory of money - Fisher's and Cambridge equation, Keynesian theory of money – Milton Friedman restatement of Quantity theory of money – Patinkin's Real Balance Effect – Tobin's Portfolio analysis, Crisis in Keynesian economics and the revival of monetarism.

#### **UNIT - V: THEORY OF SUPPLY OF MONEY:**

RBI Approach to money supply: narrow money, broad money, reserve ( high powered) money - open market operations - cash reserve ratio – Fractional banking - repo rate - money multiplier - Money Supply in open economy- market for loanable funds in an open economy - Control of money supply.

#### **RECOMMENDED TEXT:**

1. Branson, W.A.(1989) : Macroeconomic Theory and Policy, (3<sup>rd</sup> Edition), Harper and Row, New York.
2. Shapiro, E. (1996) : Macroeconomic Analysis, Galgotia Publications, New Delhi.
3. N.Gregory Mankiw : Macro Economics, Worth Publishers.

#### **BOOKS FOR REFERENCE**

1. Ackley, G. (1978) - Macroeconomics: Theory and Policy, Macmillan, New York Blackhouse,
2. R.and A. Salansi (2000) - Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
3. Dornbusch, R.and F. Stanley (1997) - Macroeconomics, McGraw Hill, Inc., New York.
4. Gupta S.B(1993) - Monetary Economics, S Chand Publications, New Delhi.
5. Hall, R.E. and J.B. Taylor (1986) -Macroeconomics, W.W.Norton, New York.
6. Heijdra, B.J. and V.P. Fredericck (2001) - Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
7. Jha, R. (1991) - Contemporary Macroeconomic Theory and Policy, Wiley Easter Ltd., New Delhi.

8. Romer, D.L. (1996) - Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
9. Scarfe, B.L. (1977) - Cycles, Growth and Inflation, McGraw Hill, New York.
10. Surrey, M.J.C. (Ed.) (1976) - Macroeconomic Themes, Oxford University Press, Oxford.

## **CORE PAPER X- PUBLIC FINANCE –I**

### **UNIT - I: INTRODUCTION**

Public Finance and Public Economics - Government in Mixed Economy – Public and Private Sectors – Cooperation or Competition – Role of Public Enterprises in India – Pricing Policies of Public Enterprises – Administered prices – Peak load pricing – Marginal cost pricing.

### **UNIT -II: PUBLIC GOODS AND PUBLIC CHOICE**

Allocation, growth and stabilization function of government – private goods, public goods and merit goods – market failure – imperfections, decreasing costs, externalities, uncertainty and non-existence of future markets - Theory of second best – problems of allocating resources – problems of preference revelation and aggregation of preferences – voting systems.

### **UNIT - III: PUBLIC GOOD AND TAXATION**

Samuelson theory of public goods - Lindahl solution, theory of clubs, median voter theorem, theory of rent seeking-Taxation :Theories of Taxation — Concept of Excess Burden of Taxes – Excess burden of an Excise Tax – Excess burden of Tax on Wage incomes– direct Vs. Indirect taxes, efficiency and equity, dead weight loss (income tax, commodity tax)

### **UNIT -IV: TAXATION AND PUBLIC DEBT**

Taxation and labour supply, taxation and savings, risk-taking and wealth, general equilibrium (Herberger) models of tax incidence, theory of optimal taxation- Deficit Financing- Concept of Burden of Public debt – Compensatory aspect of debt policy – debt management

### **UNIT - V: BUDGETING**

Budgeting-type of budgeting-public budget, kinds of budgets, zero based budgeting-programme and performance budgeting-Union and State government Budgets-Neutral and compensatory and functional finance-balanced budget multiplier.

### **RECOMMENDED TEXT:**

1. Bhargava (2004) : Public finance, Its Theory and working in India, Chaitanya Publishing House.
2. Musgrave, R.A. (1959) : The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo
3. Musgrave, R.A. and P.B. Musgrave (1976) : Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.

### **BOOKS FOR REFERENCE**

1. Atkinson, A.B. and J.E. Siglitz (1980) : Lectures on Public Economics, Tata McGraw Hill, New York.
2. Auerbach, A.J. and M. Feldstern (Eds.) (1985) : Handbook of Public Economics, Vol. I, North Holland, Amsterdam.

3. Buchanan, J.M. (1970): The Public Finances, Richard D. Irwin, Homewood.
4. Goode, R. (1986) Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
5. Houghton, J.M. (1970) : The Public Finance : Selected Readings, Penguin, Harmondsworth.
6. Jha, R. (1998) Modern Public Economics, Routledge, London.
7. Menutt, P. (1996) : The Economics of Public Choice, Edward Elgar, U.K.
8. Shoup, C.S. (1970) : Public Finance, Aldine, Chicago.
9. Shome, P. (Ed.) (1995): Tax Policy : Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

## **CORE PAPER XI- INTERNATIONAL ECONOMICS – I**

### **UNIT- I**

Nature and scope of international economics – Inter-regional and International Trade-theories of International trade – Basic concepts: - Community Indifference Curve — offer curve -Classical theories – Adam Smith – David Ricardo — J.S.Mill's reciprocal theory – Heberler and Opportunity cost theory

### **UNIT - II**

Modern theory of International Trade – Huckster-Ohlin theory of International Trade — Superiority of H-O theory over classical theories of International Trade — Factor price equalisation theorem –factor price and factor reversals – obstacles – Lerner and Kindelberger analysis of factor price equalisation theorem- Stolper-samuelson theorem – Rybczynskitheorem-

### **UNIT - III**

Inter- industry trade and Intra-industry trade- differences –global pattern of intra industry trade –An explanation of Intra-industry trade

### **UNIT- IV**

Economies of Scale and Trade: Differential products and trade, differences in taste and Trade; The specific factor model – single and two specific factor case – Technological Gap and product cycle models– increasing returns to scale

### **UNIT - V**

Terms of Trade – concepts of terms of trade – Determinants of Terms of trade – static and dynamic gains from trade – Samuelson on gains from trade – immiserising growth – Economic Growth and trade -Technical progress and Trade – Hicksian graphical analysis – neutral, capital and labour saving technologies and its impact on terms of trade- Prebisch-singer thesis – impact of deterioration of terms of trade on developing countries.

### **RECOMMENDED TEXT:**

1. International Economics – Bo sodersten
2. International economics paulkrugman
3. International Economics – K.C.Rana and K.C.Verma
4. International Economics theory and policy – D.N Dwivedi

## **BOOK REFERENCES**

1. International trade theory and policy – Giancarlo Gandolfo
2. International Economics: Miltiades Chacholiades
3. International Economics – K.C.Rana and K.C.Verma
4. International Economics Francis cherunilam

## **CORE PAPER XII- DEVELOPMENT ECONOMICS – I**

### **UNIT - I: INTRODUCTION**

Features of less developed economics- Similarities and differences

Distinction between growth and development; Indicators of development: GDP as development indicator; purchasing power points; Human Development Index

### **UNIT - II: INEQUALITY, POVERTY & DEVELOPMENT**

Measuring inequality: Lorenz curve and Gini co-efficient

Economic growth and inequality: Kuznets inverted U Hypothesis; consequences of inequality

Measuring Poverty: Head count index, income gap index and capability poverty ---

The impact of growth and poverty

### **UNIT - III: THEORIES OF DEVELOPMENT - I**

Adam Smith's Theory

Malthus Theory

Ricardo's Theory

Marx Theory of Capitalist development

### **UNIT -IV: THEORIES OF DEVELOPMENT - II**

Development with unlimited supplies of labour (Lewis Theory)

Schumpeter's Theory of development

Rostow's Stages of growth theory

### **UNIT -V: THEORIES OF GROWTH**

Harrod-Damon model

Solow ; growth theory: the convergence hypothesis, Solow residual

New growth theory (Romer)

## **RECOMMENDED TEXT**

1. Adelman, I (1961) : Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Thirillwall, A.P. (1978) : Growth and Development, 2ed. Macmillan
3. Michael P. Todaro and Stephen C. Smith (2003): Economic Development, Pearson Education Pte. Ltd., Singapore.

## **BOOKS FOR REFERENCE:**

1. Chakravorthy, S. (1982): Alternative Approaches to a theory of Economic Growth, Oxford University Press.
2. Chakravorthy, S. (1989): Development Planning: The Indian Experience, Clarendon Press.
3. Chatak, S. (1986) An Introduction to Development Economics, Allen and Unwin.
4. Kindleberger, C.P. (1977) : Economic Development 3ed McGraw Hill.

5. Meler, G.M. (ed.) (1984) : Leading Issues in Economic Development 4ed. Oxford University Press.
6. Mair, G.M., and D. Seers (Eds.) (1987): Pioneers in Development, Oxford University Press.
7. **Pathway to Economic Development by** Amilaya Krishna Dutt (New Delhi, Oxford University Press, 2014).

### **Elective Paper – III: ECONOMICS OF INFRASTRUCTURE**

#### **UNIT-I**

Infrastructure and economic development – Infrastructure as a public good; Social and physical infrastructure; Special characteristics of utilities. The peak-load, Off-Load Problem, Dual Principle Controversy

#### **UNIT-II**

The structure of Transport Costs and Location of Economic Activities. Demand for Transport. Models of Freight and Passenger Demand. Model Choice; Cost Functions in the Transport Sector. Principle of Pricing. Special Problems of Individuals Modes of Transport.

#### **UNIT-III**

Primacy of Energy in the Process of Economic Development- Factors Determining Demand for Energy; Effects of Energy Shortages- Energy Conservation-Renewable and Non-conventional Sources of Energy- The search for an Optimal Energy Policy in the Indian Context.

#### **UNIT-IV**

Organization and Financing of Services - Private vs. Public Sector Financing - the fixation of prices of social services-Health, Education and Human Development Concept- scope and relevance of Human Resource Development - Education and Economic Growth - Educational Planning -Social Demand -The case for Universal, Free, Primary Education; Structure of higher education and problems of its financing in India; The issues in education policy – importance of health and its impact on Economic development.

#### **UNIT –V**

Infrastructure in Modern India – strategies for Infrastructure development – differences in infrastructure building between China and India – infrastructure investments in India – prioritization of infrastructure sectors for development – Macro perspective of Infrastructure development in India - Infrastructure and Plans.

#### **RECOMMENDED TEXT**

1. Crew, M.A. P.R. Kleindorfer (1979), Public Utility Economics, Macmillan, London.
2. Indian Council of Social Sciences Research (ICSSR)(1976), Economics of Infrastructure, Vol. VI, New Delhi.
3. National Council of Applied Economic Research (NCAER) (1996), India Infrastructure Report;
4. Policy Implications for Growth and Welfare, NCAER, New Delhi.
5. Parikh, K.S. (Ed.) (1997), India Development Report , Oxford, New Delhi.
6. Turvey. R. (Ed.) (1968), Public Enterprises, Penguin, Harmondsworth.



**BOOKS FOR REFERENCE**

1. Goyal, S.K. (Ed.) (1995), Public Enterprises, Indian Institute of Public Administration, New Delhi.
2. Panchamukh, P.R. (1980), Economics of Health: A Trend Report in ICSSR, A Survey of Research in Economics, Vol. VI, Infrastructure, Allied, Delhi.
3. Tilak, J.B.G. (1994), Education for Development in Asia, Sage Publications, New Delhi.

## **SEMESTER – IV**

### **CORE PAPER XIII- MACRO ECONOMICS II**

#### **UNIT – I: KEYNESIAN THEORY THROUGH IS-LM FRAMEWORK**

IS-LM Model – Derivation of IS-LM Curves - Fiscal Policies in IS-LM Framework - Monetary Policies in IS-LM Framework - Policy Implications of Keynesian Economics: Philips Curve

#### **UNIT – II: MONETARISM**

The Crisis in Keynesian Theory: Stagflation - Expectations Augmented Philips Curve (NAIRU) Policy Implications of Monetarism

#### **UNIT III: NEW CLASSICAL ECONOMICS AND NEW KEYNESIAN ECONOMICS**

New Classical Economics: Rational Expectations Hypothesis – The Concept of Policy Irrelevance - Policy Implications of New Classical Economics - New Keynesian Economics: Similarities and Differences between Traditional Keynesian Economics and New Keynesian Economics - Explaining the Upward Slopping Short run Aggregate Supply Curve through Sticky Wages and Sticky Prices - Policy Implications of New Keynesian Economics

#### **UNIT - IV: BUSINESS CYCLE:**

Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin model, Control of Business Cycles, relative Efficiency of Monetary and Fiscal Policies

#### **UNIT - V: OPEN ECONOMY AND MACRO ECONOMY**

The GDP in an Open Economy - Capital Movement and Interest Rate Parity - Mundell–Fleming model – Merits - Dangers of Free Capital Flows–The Global Recession of 2008

#### **RECOMMENDED TEXT:**

1. Branson, W.A.(1989) : Macroeconomic Theory and Policy, (3<sup>rd</sup> Edition), Harper and Row, New York.
2. Shapiro, E. (1996) : Macroeconomic Analysis, Galgotia Publications, New Delhi.
3. N.Gregory Mankiw : Macro Economics, Worth Publishers.

#### **BOOKS FOR REFERENCE**

1. Ackley, G. (1978) - Macroeconomics: Theory and Policy, Macmillan, New York Blackhouse,
2. R.and A. Salansi (2000) - Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
3. Dornbusch, R.and F. Stanley (1997) - Macroeconomics, McGraw Hill, Inc., New York.
4. Gupta S.B(1993) - Monetary Economics, S Chand Publications, New Delhi.
5. Hall, R.E. and J.B. Taylor (1986) -Macroeconomics, W.W.Norton, New York.
6. Heijdra, B.J. and V.P. Fredericck (2001) - Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
7. Jha, R. (1991) - Contemporary Macroeconomic Theory and Policy, Wiley Easter Ltd., New Delhi.
8. Romer, D.L. (1996) - Advanced Macroeconomics, McGraw Hill Company Ltd.,New York.
9. Scarfe, B.L. (1977) - Cycles, Growth and Inflation, McGraw Hill, New York.
10. Surrey, M.J.C. (Ed.) (1976) - Macroeconomic Themes, Oxford University Press, Oxford.

## **CORE PAPER XIV- PUBLIC FINANCE -II**

### **UNIT - I: PUBLIC POLICY**

Demand revealing schemes for public goods – Contribution of Clarks, Groves and Leyard, Tiebout model, theory of club goods, stabilization policy – Keynesian case for stabilization policy: Uncertainty and expectations, Failure of inter – temporal markets.

### **UNIT - II: PUBLIC EXPENDITURE**

Public Expenditure – Wagner's Law – Wiseman – Peacock Hypothesis – Structure and Growth of Public Expenditure – Evaluation of Public expenditure – Cost Benefit Analysis – Shadow Prices – Discount Rate – Reforms in Public Expenditure –Performance Budgeting – Programme Budgeting - Zero Base Budgeting – Appraisal of Public Expenditure Policy in India.

### **UNIT - III: FISCAL FEDERALISM**

Fiscal federalism: Theories of Fiscal Federalism- Concepts of Deficits – Deficit Financing – Budget Deficit – Issues of Equity and Efficiency – Designing Equalisation transfers – Conditional and Unconditional grants.

### **UNIT - IV: INDIAN FISCAL FEDERALISM**

Indian federalism- Tax assignments to Centre and States—Particular Taxes – Personal income Tax – Corporation Income Tax – Capital Gains Tax –Union Excise Duties - MANVAT, MODVAT –VAT- GST –Service tax; Tax Evasion –State Taxes- Appraisal of Tax Policies of India-Goods; tax reforms in India-Goods and services tax.

### **UNIT - V: FISCAL POLICY**

Objectives – Fiscal and monetary policies – Fiscal policy for stabilization – Automatic Vs Discretionary stabilization – Alternative measures of Resource mobilization and their impact on growth, distribution and prices.

### **RECOMMENDED TEXT:**

1. Bhargava (2004) : Public finance, Its Theory and working in India, Chaitanya Publishing House.
2. Musgrave, R.A. (1959) : The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo
3. Musgrave, R.A. and P.B. Musgrave (1976): Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.

### **BOOKS FOR REFERENCE**

1. Atkinson, A.B. and J.E. Sgiltz (1980) : Lectures on Public Economics, Tata McGraw Hill, New York.
2. Auerbach, A.J. and M. Feldstern (Eds.) (1985) : Handbook of Public Economics, Vol. I, North Holland, Amsterdam.
3. Buchanan, J.M. (1970): The Public Finances, Richard D. Irwin, Homewood.
4. Goode, R. (1986)Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
5. Houghton, J.M. (1970) : The Public Finance : Selected Readings, Penguin, Harmondsworth.
6. Jha, R. (1998) Modern Public Economics, Routledge, London.
7. Menutt, P. (1996) : The Economics of Public Choice, Edward Elgar, U.K.

8. Shoup, C.S. (1970) : Public Finance, Aldine, Chicago.
9. Shome, P. (Ed.) (1995):Tax Policy : Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

## **CORE PAPER XV- INTERNATIONAL ECONOMICS –II**

### **UNIT - I**

Trade policy – Free trade vs Restricted trade policy –Barriers to trade – Tariff- Meaning and types of Tariff – General Equilibrium analysis of tariff – Effects of Tariff – Theory of optimum tariff — Non-tariff barriers – Quotas – Dumping – Export taxes and subsidies – Voluntary export restraints — the state trading- International trade cartels – Theory of Customs Union – trade creation and trade diversion – effects of customs union- Trade problems and policies of developing countries. Foreign trade and National Income –trade multiplier and export multiplier

### **UNIT - II**

Balance of payments and trade – Structure of balance of payments — Balance of payments equilibrium -Balance of payments adjustments – exchange rate – Devaluation and balance of payments –Elasticity approach – The J-curve effect – Absorption approach – Balance of payment adjustments - domestic price , income , capital movements, monetary approach and expenditure policies – balance of payment adjustments through controls

### **UNIT - III**

Foreign exchange - functions – determination of equilibrium – spot and forward rates of exchange – Theories of exchange rate determination – Mint parity theory-purchasing power parity theory – balance of payment theory – Fixed exchange vs flexible exchange – Exchange controls –current account and capital account convertibility

### **UNIT - IV**

International capital movements – Foreign aid and development – Aid vs Trade effects of International capital flows – Internal and external balance –The Mundell-Fleming model– internal and external balance through monetary –fiscal policy mix – fixed exchange rate system and flexible exchange rate system – balance of payments with inflation and unemployment.

### **UNIT-V**

International monetary system – Problems of international monetary system – Bretton wood system and its breakdown - GATT- WTO - European currency markets – European monetary system -Globalization and integration of global economy – Global financial crisis and global Economy – International trade and Environment

### **RECOMMENDED TEXT:**

1. International Economics – Bo sodersten
2. International economics paulkrugman
3. International Economics – K.C.Rana and K.C.Verma
4. International Economics theory and policy – D.N Dwivedi

### **BOOK REFERENCES**

1. International trade theory and policy – Giancarlo Gandolfo
2. International Economics: Miltiades Chacholiades

3. International Economics – K.C.Rana and K.C.Verma
4. International Economics Francis cherunilam

## **CORE PAPER XVI- DEVELOPMENT ECONOMICS – II**

### **UNIT - I: SECTORAL CONTRIBUTION IN DEVELOPMENT**

Agricultural sector's contribution to development and policies for enhancing agriculture's role in development

Rural-Urban migration: Push and Pull factors.

Manufacturing sector and developmental.

Urban informal sector: Characteristics of the sector and consequences of its growth.

### **UNIT - II: HUMAN CAPITAL AND DEVELOPMENT**

Population: Demographic transition, population – development interrelationship

The role of health in national and economic performance

Education and Economic growth: the return on education; and productivity

Economic rationals for government's role in providing health care and education in poor economics

### **UNIT - III: STRATEGIES FOR DEVELOPMENT**

Balanced and Unbalanced growth

The role of market and state in development

Strengths and limitations of inward-oriented and outward trade policies

The "Washington Consensus" components and critical evaluation

### **UNIT - IV: GENDER EMPOWERMENT**

The concept of gender empowerment UNDP's Gender Empowerment Measure

The mutual interrelationship between gender empowerment and economic development

The concept of sustainable development (Brundland definition), policies for sustainable development

### **UNIT - V: NON-ECONOMIC FACTORS IN DEVELOPMENT**

Geography and development; the "internal resource curse" (DUTCH Disease)

Social capital and economic growth

Institution for development: Property rights, "inclusive" political institutions

### **RECOMMENDED TEXT**

1. Adelman, I (1961) : Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Thirillwall, A.P. (1978) : Growth and Development, 2ed. Macmillan
3. Michael P. Todaro and Stephen C. Smith (2003): Economic Development, Pearson Education Pte. Ltd., Singapore.

### **BOOKS FOR REFERENCE:**

1. Chakravarthy, S. (1982): Alternative Approaches to a theory of Economic Growth, Oxford University Press.
2. Chakravarthy, S. (1989): Development Planning: The Indian Experience, Clarendon Press.
3. Chatak, S. (1986) An Introduction to Development Economics, Allen and Unwin.
4. Kindleberger, C.P. (1977) : Economic Development 3ed McGraw Hill.

5. Meler, G.M. (ed.) (1984) : Leading Issues in Economic Development 4ed. Oxford University Press.
6. Mair, G.M., and D. Seers (Eds.) (1987): Pioneers in Development, Oxford University Press.
7. **Pathway to Economic Development** by Amilaya Krishna Dutt (New Delhi, Oxford University Press, 2014).

## **Elective Paper – IV: COMPUTER APPLICATION IN ECONOMIC ANALYSIS**

### **UNIT - I**

Introduction to Computers and Peripherals Basic components of computer - CPU, input-output devices, keyboard, mouse and scanner, video display, printers and plotters, data storage and retrieval, hard disk, floppy disk and CDROM; Type of computers and their applications; Computer networking and resource sharing, hardware, software and firmware.

### **UNIT - II**

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

### **UNIT - III**

Statistical Processing Techniques and Methods Series, groups, tables, graphs and objects; Time and frequency series, regression methods and techniques; Regression analysis; Data Validation; Trends and cyclicity forecasting; System equation; Specification; Error and correction strategies, Statistical modeling and descriptive statistics; Distribution functions, Regression statistics.

### **UNIT - IV**

Review of Multivariate models & Factor Analysis: a) Estimation of Recursive and simultaneous Equations models. Analysis of qualitative data: ANOVA, ANCOVA etc. Multivariate statistical analysis: Multiple correlation and multiple regression; b) Cluster analysis, discriminate analysis etc., Application of Excel, SPSS and LIMDEP for statistical and econometric analysis. Database in Indian Economy: Census, CSO, NSSO, CMIF etc.

### **UNIT - V**

Applications to Finance & Commerce a) On line banking; ATM's Electronic stock exchange; Electronic trading; Data sharing and decryption; Electronic transaction; Document delivery; Authentication and validation transaction processing. b) Electronic trading and marketing; On line shopping and malls, B2B, B2C, B2B and G2B models and their applications; Document and transaction security and digital Signature; Integrated transaction on mobile platforms.

### **RECOMMENDED TEXT**

1. Sanders, D.H. (1988): Computers Today, McGraw Hill (3 rd Edition), New York.

2. Sinha, P.K. (1992) : Computer Fundamentals, BPB Publications, New Delhi.
3. Handbook of Statistic

**BOOKS FOR REFERENCE**

1. Rajasekaran, S. (1986) : Numerical Methods in Science and Engineering, A.H. Wheeler, Allahabad.
2. Rajasekaran, S. (1986) : Numerical Methods in Science and Engineering, A.H. Wheeler, Allahabad.
3. Sanders, D.H. (1988) : Computers Today, McGraw Hill (3 rd Edition), New York.
4. Sinha, P.K. (1992) : Computer Fundamentals, BPB Publications, New Delhi.