

## BHARATHIAR UNIVERSITY: COIMBATORE –46

### M.A. (ECONOMICS) CBCS

(Applicable to the students admitted from the academic year 2015 - 2016 onwards)

### ELIGIBILITY FOR ADMISSION TO THE COURSE

Any Graduate who have studied Economics / Econometrics / Statistics / Mathematics / Business Economics / Commerce / Management as one of the papers, of study is eligible for admission to M.A. (Economics)

### COURSE OF STUDY AND SCHEME

Sem	Code No	Subject	Credit	University Examination		
				Internal (%)	External (%)	Total
I	15ECOB13A	Business Economics	4	25	75	100
	15ECOB13B	Mathematics for Economists	4	25	75	100
	15ECOB13C	Economics of Human Resource	4	25	75	100
	15ECOB13D	Marketing Management	4	25	75	100
	15ECOB1EA	<i>Elective : Indian Economy</i>	4	25	75	100
		<i>Supportive - I</i>	2	12	38	50
	II	15ECOB23A	Macro Economics	4	25	75
15ECOB23B		Environmental Economics	4	25	75	100
15ECOB23C		Econometrics	4	25	75	100
15ECOB23D		Export Marketing	4	25	75	100
15ECOB2EB		<i>Elective: Operation Research</i>	4	25	75	100
		<i>Supportive - II</i>	2	12	38	50
III		15ECOB33A	Research Methodology	4	25	75
	15ECOB33B	Economics of Farm Business	4	25	75	100
	15ECOB33C	Public Economics	4	25	75	100
	15ECOB33D	Monetary Theory and Policies	4	25	75	100
	15ECOB3EC	<i>Elective: Industrial Economics</i>	4	25	75	100
		<i>Supportive - III</i>	2	12	38	50
	IV	15ECOB43A	Economics of Development	4	25	75
15ECOB43B		International Economics	4	25	75	100
15ECOB43C		Economic Administration	4	25	75	100
		Research Project & Viva-voce	12	60 (Viva)	240	300

**Total Marks: 2250**

**Credit: 90**

Supportive courses offered to other departments

I	15ECOGS..	Basic Economics	2	12	38	50
II	15ECOGS..	Agricultural Economy of India	2	12	38	50
III	15ECOGS..	Elements of Public Economics	2	12	38	50
IV	15ECOGS..	Introduction to Indian Economy	2	12	38	50
V	15ECOGS..	An Introduction to Environmental Economics	2	12	38	50

**Subject Title** : **BUSINESS ECONOMICS**

**Course Number** : **15ECOB13A**

**Subject Description:**

This subject is aimed at providing knowledge on basic Economic Principles, as well as applied skills to enable the students to gain managerial decision making and skills.

**Goals:**

This paper intends to give the students a good understanding of the economic theory and applying it in business decisions.

**Objectives:**

- To gain sound knowledge in basic Economic theories, concepts and models.
- To gain sound knowledge to apply economic theories and models to execute Managerial functions.
- To enable students to obtain managerial problems solving skills.

**Contents:**

**UNIT –I:**

Economics: Definition-Concepts and Principle of economics – Consumption: Wants- Utility: Cardinal and Ordinal utility-Marginal utility- Consumer surplus - Law of diminishing marginal utility- Indifference curve.

**UNIT –II**

Managerial Economics: Meaning - Role and Responsibilities of Managerial Economics – Demand - Types of Demand - Determinants of Demand - Demand function - Elasticity of Demand - Demand forecasting Techniques – Supply analysis - Elasticity of Supply – Production Analysis: Production Function - Law of Diminishing Marginal Return – Isquant - MRTS - Laws of Returns to Scale - Cobb-Douglas production function.

**UNIT –III**

Cost Analysis: Fixed Cost, Variable Cost, Average Cost, Marginal Cost - Cost-Output Relations - Break-Even Analysis - Economies and diseconomies of scale – Market Structure and Pricing: Market Features, Price and Output Decisions under Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly.

#### **UNIT -IV**

Factor Pricing: Marginal Productivity Theory - Nature of Demand and Supply of Factor Inputs – Determination of Wage Rates Under Perfect Competition - Exploitation of Labour – Rent: Concept- Ricardian and Modern Theories of Rent, Quasi Rent – Interest: Concept and Theories of Interest – Profit: Concepts and Theories of Profit.

#### **UNIT -V**

Capital Budgeting: Meaning and importance – evaluating capital investment project: Undiscounted cash flow: Payback period method, Average rate of return – Discounted cash flow: Net Present Value criterion (NPV)-Benefit-cost ratio - Internal Rate of Return (IRR)method – Investment Decisions under risk and uncertainty.

#### **References:**

1. Ahuja .H.L. – Business Economics, S.Chand & Co, New Delhi,2004.
2. Ferguson - "Microeconomic theory",Cambridge University press.
3. R.R.Barthwal - "Microeconomic Analysis", Wiley Eastern Ltd.
4. W.J.Baumol - "Economic Theory and Operational Analysis", Prentice Hall.
5. A.Koutsyanni's - " Modern Microeconomics", Macmillan.
6. M.L.Trivedi -Managerial Economics– Theory and Applications Tata Mc Graw Hill, 2002.
7. R.L.Varshney and K.L.Maheswari-Managerial Economics, Sultan Chand & Sons, New Delhi.

**Subject Title : MATHEMATICS FOR ECONOMISTS**

**Course Number : 15ECOB13B**

#### **Subject Description:**

This course deals with the basic knowledge relating to set theory, relation and functions, derivations, optimization problems and matrix algebra and their applications in economics.

#### **Goals:**

The course intends to equip students to develop working knowledge of basic mathematical operations and tools. The course aims at using such skills to apply to economic theory and managerial decisions.

#### **Objectives:**

- To impart various mathematical and statistical methods
- To apply quantitative techniques in managerial practices.

#### **Contents:**

Set Theory: Operations on sets and Laws of set operations- Properties of real number solutions of quadratic equations - Solution to Linear Equations with two variables.

Relations and Functions: Functions of one variable - straight line, parabola, rectangular hyperbola - Exponential and logarithmic functions. Concave and Convex functions - Applications in Business Economics.

Derivatives and their interpretation and techniques of derivatives. Relationships among Total, Average, and Marginal Revenue and Cost and Elasticity of Functions. Functions of two variables - Partial derivatives and their applications in Economics.

Optimisation problems involving one or two variables - Applications in Economics - Homogeneous function and their properties, Eulers Theorem, Cobb-Douglas and CES Production Functions and their properties.

Matrix Algebra – Determinants and properties, Types of Determinants - Matrix: Square Matrix, Null Matrix, Unit Matrix, Multiplication and Scaler Matrix, Operations - Addition and Subtraction of Matrix, Multiplication - Transpose of a Matrix and Inverse of Matrix. Solutions for simultaneous equations - Crammer's Rule.

**Reference Books:**

- 1.Alpha C Chiang, "Fundamental Methods of Mathematical Economics", 3ed McGraw Hill, New York.
- 2.Tara Yamne, "Mathematics for Economics", 2nd ed. Engle wood Cliffs, New Jercy.
- 3.Draper, Jean.E, "Mathematical Analysis-Business and Economic Applications", Harper International ed., New York.
- 4.Mabbett A.J., "Workout Mathematics for Economists", Macmillan, London.
- 5.Allen R.G.D., "Mathematical Analysis for Economists", ELBS, Macmillan.
- 6.Medha and Madhnani, "Mathematics for Economics", Sultan Chand, New Delhi.
- 7.Dowling.T.E., Introduction to Mathematical Economics, McGraw Hill (Schamm's outline service), New Delhi.
- 8.Neber.E.J., Mathematical Analysis: Business and Economic Applications, Harper International Edition, New York.

**Subject Title : ECONOMICS OF HUMAN RESOURCES**

**Course Number : 15ECOB13C**

**Subject Description :**

This course is aimed at providing Ideas on basic concepts in Economics of Human Resources as well as applied skills to enable the students to gain knowledge on human resources.

**Goals:**

This paper intends to give the students a good understanding of the contents of human resources and applying it in business decisions.

**Objectives:**

- To familiarize in theories and concepts of human resources.
- To gain sound knowledge on human capital theories.

- To enable the students to know about the importance of investment in health and education.

**Contents:**

**UNIT-I:**

Importance of Human Resource- Human Resource and Economic Development-The Theory of Investment in Human Capital –Return to Investment in Human Capital –Gender Inequalities- Unemployment-Kinds, Causes and Remedies.

**UNIT-II**

Importance of Investment in Human Resource; Education and Economic Development –Women’s Education- Public Expenditure on education in India-Higher Education in India.

**UNIT-III**

Importance of Human Resource in Health- Investment in Health - Importance of Health Economics- Demand for Health - Healthcare expenditure in India-Healthcare issues and Challenges- Health Insurance for the Poor.

**UNIT-IV**

Demand for Labour- Supply of Labour- Theories of Labour Market- Wage Theories – Trade Unions – Women and Child Labour.- Labour Market discrimination- Social Security Measures in India.

**UNIT-V**

Migration- Types of Migration: Internal and External- Reasons for Migration-Theories of Migration: Micro and Macro –Effects of Urbanisation - Brain Drain in India

**Reference Books:**

1. Becker. G.S Human Capital
2. Blaug.M An introduction to Economics of Education, Penguin Books.  
Economics of Education-Vol -I & II, Penguin Books and ELBS.
3. Psacharopoulos.G Returns to Education.
4. Psacharopoulos.G Economics of Education-Research Studies Program Press
5. Schultz.T.W Economic Value of Education.
6. Nidhi Shah Human Resource Development in Healthcare

**Subject Title : MARKETING MANAGEMENT**

**Course Number : 15ECOB13D**

**Subject Description:**

The Subject aims at providing basic knowledge on marketing, functions of marketing, pricing of the product, physical distribution product promotional stratifies and consumer probeebin

**Goals:**

This paper methods to develop understanding about the concept of marketing, its functions and skills required to promote a product for marketing.

**Objectives:**

- To acquire basic knowledge about the functions of market.
- To understand the product planning and development
- To apply the principles marketing in scientific decision making process and problem solving in modern marketing management process.

**Unit – I: Introduction:** Nature, Scope and Importance of Marketing - Evolution of Marketing Concept – Marketing Environment – Functions of Marketing – Market Segmentation: Concept, Benefits, Methods – Consumer Behaviour – Buying Motives, Theories.

**Unit – II: Product and Pricing:** Concept of Product – Product Planning – New Product Development, Meaning and Steps – Product Life Style – Pricing: Significance and Factors Affecting Pricing – Pricing Objectives – Pricing Policies – Kinds of Pricing – Pricing of New Product.

**Unit – III: Physical Distribution:** Importance of Distribution Channel – Kinds of Channel Members – Factors Influencing Distribution Channel - Types of Middlemen – Function of Middlemen – Inventory Control.

**Unit – IV: Promotion:** Product Promotion – Meaning, Objectives and Methods of Product Promotion. Advertising: Meaning, Objectives and Kinds of Advertising – Scientific Advertising – Advertising Management – Personal Selling: Meaning and Importance of Personal Selling – Kinds of Salesmen – Selling Process.

**Unit – V: Marketing and Society:** Need for Consumer Protection – Measures for Consumer Protection – Consumerism – Evolution and Approaches to Consumerism – Laws to Protect Consumers.

**Reference**

1. **Philip Kotler:** Marketing Management Practice – Prentice – Hall of India, New Delhi.
2. **Gupta C.B. & Rajan Nair. N:** Marketing Management, Sultan Chang & Sons, New Delhi.
3. **Ramasamy V.S. and Namakumari. S:** Marketing Management, Macmillan India, New Delhi.

**Subject Title : INDIAN ECONOMY**

**Course Number : 15ECOB1EA (Elective)**

**Subject Description:**

Indian Economics provides the foundations for "economic development". The topics covered in Indian Economics are characteristics of developed and under developed economy, estimation of national income, measurement of the poverty level, economics of planning and public finance for allocations of funds.

**Goals:**

This course is intended to introduce the students on the basic concepts of economic development, strategies and measurement. With this background the course will provide broad outline on the nature and characteristic feature of the Indian Economy.

**Objectives:**

- To give the students the tools for critical decision-making about and participation in Indian economic growth and development.

**Contents:**

Economic Development: Measurement of Economic Development - Characteristic of Underdeveloped and Developed Economies - Causes for Indian Economic Underdevelopment - Major Issues in Development - Strategies for Economic Development Import Substitution and Export Oriented Strategies - Determinants of Economic Development.

The National Income and its Estimates in India - Limitations of National Income Estimation - Trends in National Income of India: Growth and Structure - Inter-state variations in National Income - Income Distribution - Measurement of Poverty in India. Economic Planning - Planning and Economic Development in India - Planning Models in India (Elementary concepts) - Capital Formation - Growth of Public and Private sector in India - Industrial Policies an Assessment - Capital Formation and Domestic saving.

Indian Public Finance: Budgetary Policies of the Central Government - Composition and Trends in Public Revenue and Expenditure - Expenditure Control and Government Consumption Expenditure - Concepts of Budgetary Deficits and Implications - State Budget.

India and External sector: Importance of Foreign Trade - Terms of Trade and Balance of Payments \_ Export and Import Policies - India and WTO.

**References:**

1. Dutt.R. and K.P.M.Sundaram : Indian Economy, S.Chand and Co, New Delhi.
2. Agarwal.A.N. : Indian Economy, Wiley Eastern Ltd, New Delhi.
3. Srinivas Y.Thakur : Indian Economic Development, Sterling Publishers, New Delhi.
4. Government of India, Economic Survey, (various years).

**Subject Title : MACRO ECONOMICS**  
**Course Number : 15ECOB23A**

**Subject Description:**

This course aims at students to gain strong fundamentals of macro economy theories policies and models in a historical prospective.

**Goals:**

The paper examines the basic principles underling the functioning of an economy and deals with the determination of major macroeconomic aggregates.

**Objectives:**

- To introduce the students on the sectoral flow of national income, its accounting and factors influencing income at current and constant prices.
- To enable students develop a critical insight on classical, Keynesian macro economic models and a functioning at four different market conditions.
- To make students to understand roll of expectation uncertainty and the relationship between inflation and employment.

**Contents:**

**UNIT – I**

National Income – Concept and Measurement – GDP – GNP – Difficulties in the Measurement of National Income - Social Accounting – Presentation of Social Accounts - Importance of Social Accounting – Difficulties in Social Accounting.

**UNIT – II**

Classical Theory of Income, Output and Employment – Keynesian Theory of Income, Output and Employment – Say’s Law of Market – Principles of Effective Demand – Importance of Effective Demand – Aggregate Demand and Aggregate Supply.

**UNIT – III**

Consumption Function – Keynes’s Psychological Law of Consumption – Determinants of the Consumption function – Investment function – Types of Investment – Marginal Efficiency of Investment (MEI) – Saving and Investment Equality.

**UNIT – IV**

Multiplier – Assumption – Leakages – Importance of Multiplier - Super Multiplier - Use of Super Multiplier in Business Cycles - Multiplier in an Underdeveloped Country – Acceleration – Income Determination – IS and LM Functions – General Equilibrium.

**UNIT – V**

Monetary Policy – Role of Monetary Policy in a Developing Economy – Fiscal Policy – Inflation – Inflationary Gap – Demand pull Vs Cost push Inflation – Causes of Inflation – Measures to control Inflation – Effects of Inflation – The Phillips Curve .

**References:**

1. M.L. Jhingan “Advanced Economic Theory,” Vrinda Publications (P) Ltd.
2. M.C. Vaish “Macro Economic Theory,” Vikas Publishing House (P) Ltd.
3. R. D. Gupta and A.S. Rana “Keynes and Post Keynesian Economics,” Kalyani Publishers.

**Subject title : ENVIRONMENTAL ECONOMICS**

**Course Number : 15ECOB23B**

**Subject Description:**

This course explores the fundamental theories of environmental economics, the environmental problems and policy measures.



**Goals:**

This course is intended to introduce the basic environmental economics coverings theory and concepts, environmental problems, issues in environment protection, assessment of environmental damages, policy issues, government regulation and environmental protection in India.

**Objectives:**

- To apply economic theories in to the environmental problems to solve the social issues.

**Contents:**

**An introduction to Environmental Economics and Concepts**

An Introduction to Environmental Economics – Economy-Environment Linkages – The Material Balance Principle – Market Failure – Private Versus Social Cost – Trade-Off between Economic Growth and Environment – Sustainable Development – Environmental Quality as a Public Good

**Environmental Problems**

Sources and Types of Pollution: Domestic and Industrial Pollutions (Air, Water, Solid Waste, Land Degradation) – Causes and Effects of Environmental Degradation – Urban and Rural Environmental Problems – Energy: Renewable and Non-Renewable Resources – Global Environmental Problems: Global Warming; Climate Change

**Environmental Economic Theory for Resource Allocation**

Economic Theory for Resource Allocation – Externalities – Pareto Efficiency’ and the Market – Limits to Growth – Coase’s Theorem- Simon Kuznet’s Inverted ‘U’ Shaped Curve – Technology Versus Environment – Population and Environment

**Environmental Management**

Economics of Pollution Control - Environmental Impact Assessment (EIA) – Benefit/Cost Analysis – Contingent Valuation Method – Valuing Environmental Benefits: Hedonic Price Approach.

**Policy Measures**

International Environmental Policy – India’s Environmental Policy – Law and Environmental Protection in India

**References:**

1. U. Shankar (2000) ‘Environmental Economics, Oxford University Press, New Delhi
2. Eugene T. (2005): “Environmental Economics”, Vrinda Publications, Pvt. Ltd, New Delhi.
3. M. Karpagam (2000) ‘Environmental Economics’ Sterling Publisher Pvt.Lyd. New Delhi
4. Ramprasad Sengupta (2000) ‘Ecology and Economics’ Oxford University Press, New Delhi
5. Charles D. Kolstad (2000): “Environmental Economics”, Oxford University Press, New York.

**Subject Title : ECONOMETRICS**

**Course Number : 15ECOB23C**

**Subject Description:**

This course presents the basic econometric techniques emphasizing numerical estimation of economic relationships as applied to practical economic and managerial problems.

**Goals:**

To enable the students to learn the basic econometric techniques relating to the estimation of parameters.

**Objectives:**

- On successful completion of the course the students should have understood the estimation techniques, learned the difficulties involved in the estimation process, evaluation of parameters and enable understanding scientific decision making process.

**Contents:**

**Unit I :** Nature, Meaning, Definition and Scope of Econometrics- – Methodology of Econometric Research – Simple Linear Regression Model – Method of OLS – Assumptions underlying the Method of Least Squares – Standard Errors of Least Squares Estimators – Properties of Least Squares Estimators – The Gauss Markov Theorem (without proof) – Coefficient of determination  $R^2$  and adjusted  $R^2$  – Relationship between Coefficient of Correlation  $r$  and  $R^2$ .

**Unit II :** Interval estimation – Confidence Intervals for Regression Coefficients  $b_1$  and  $b_2$  – Hypothesis Testing: Confidence Interval Approach and Test of Significance approach – The t test – meaning of accepting or rejecting a hypothesis.

**Unit III :** Multiple Regression Analysis: Assumptions - The two and three variable model – Statistical Properties of Least Square Estimates - Interpretation of multiple Linear regression Model – Goodness of fit.

**Unit IV :** Multicollinearity: Nature of Multicollinearity – Estimation in the presence of Multicollinearity – Theoretical and Practical consequences of Multicollinearity – Detection of Multicollinearity – Remedial measures.

Autocorrelation: Nature of the problem of Autocorrelation – Auto Regressive model – Durbin Watson Test – Remedial Measures.

**Unit V :** Heteroscedasticity: Definition – Consequences – tests: Spearman Rank Correlation test – Goldfeld and Quandt test – Park Test.

Regression with Qualitative Independent Variable - Regression Models with Dummy Variable – Logit Model – Concept and Estimation – Dummy Variable Trap.

**Note:** Problems may be asked only from the following areas

- a) Correlation
- b) Estimation of Parameters as per OLS/GLS Model
- c) Test of Significance

**References:**

1. A.Koutsoyiannis, "Theory of Econometrics: An Introductory Exposition of Econometric Methods", Educational Low-Priced Books Scheme, McMillan Education Ltd.,(1992)..Is2
2. Damodar Gujarathi "Basic Econometrics", Tata MCGraw Hill Ltd,1999.4th ed.
3. Suresh K.Ghose "Econometrics", prentice Hall of India private limited, New Delhi.
4. Goldberger A.S. (1998), Introductory Econometrics, Oxford University Press, Cambridge, Mass.

**Subject Title : EXPORT MARKETING**  
**Course Number : 15ECOB23D**

**Subject Description:**

This course presale an insight export promotion measures, procedure for import and export various documents involved in the exports.

**Goals:**

This course enables the students to understand the various measures undertaken in India to promote exports and develop basic knowledge on the procedure and documents involved in international trade

**Objectives:**

- To understand pricing of exports and manage finance for exports
- To be familiar with various procedure and documents to be filed and filled in exports.
- To know the different methods of payment for exports and the measures adopted to promote export.

**Unit I: Introduction to Export Marketing:** Marketing, Domestic Vs Export – Exporting Word Markets- Marketing Strategy- Product, Pricing, Delivery, Distribution and Promotion-Agency- Corporate Export Policy- EXIM Policy of the Government Origin and Developments and Latest Changes and Policy Objectives.

**Unit II: Export Pricing and Financing:** Pricing Decisions- Cost Analysis- Market Imperatives- Pricing Objectives- Structure of Export Pricing- Quotations and Their Basis- Step by Step Analysis Costing Projects and Services- Need for Finance- Packing Credit- Post-shipment Credit- Short Term Credit- Medium and Long Term Financing- Export-Import Bank of India their Lending Programmes and Services- ECGC, Objectives and Policies- Financial Guarantees- New Features in Export Finance.

**Unit III: Export Procedures and Documentation:** Offers and Orders- Production of goods- Excise Duty Procedures- Shipment Formalities and Procedures Banking Procedures- Aligned Documentation System (ADS).

**Unit IV: Methods of Payment in Exports:** Terms of Payment- Different Types of Letters of Credit- Uniform Customs and Practices for Documentary Credits, International Norms- Advance Payment, CAD, DA, Consignment Basis- Packing Credit, Post-shipment, Procedures.

**Unit V: Export Promotion Measures in India:** Advance License- IPRS- Duty Drawback- MDF Facilities- Fiscal Benefit- Export Promotion Measures- Foreign Trade Organizations- Export Promotion Council- Commodity Boards- Board of Trade, Trade Industry Associations- FIEU, STC, MMTC- Export Houses, Trading Houses, Star Trading Houses- Free Trade Zone- 100% Export-Oriented Units.

**Text Book:**

1. T.A.S Balagopal- Export Management, Himalaya Publishing Houses, Mumbai.

**Reference**

2. Pars Ram – Export What, Where and How, Anupam Publishers, Delhi.
3. M.L Maharajan – A Guide to Export Policy Procedure and Documentation.
4. Jacob Cherian & Parab – Export Marketing, Himalaya Publishing Houses, Mumbai.
5. Kathiresan & Radha – Export Management, Bhavani Publications, Madras.

**Subject Title : OPERATIONS RESEARCH**  
**Course Number : 15ECOB2EB (Elective)**

**Subject Description:**

This paper covers the basic operation research techniques and deals with the application of these techniques in business practices.

**Goals:**

This paper enable the students to familiarize with operation research techniques and its applications in managerial decision making.

**Objectives:**

- To introduce the students to the basic operation research techniques such as Linear Programming, Game theory, Input-output analysis, PERT and CPM and inventory control that are widely used in decision making.
- To enable the students to apply these technique in current business practices
- To make them draw inference based on the numerical results obtained.

**Contents:**

**UNIT – I**

Operations Research – Meaning – Significance – Features – Types of Models – Scope and Applications.

**UNIT – II**

Linear Progr amming – Structure – Assumptions – Advantages – Limitations – General Mathematical Model and Problems. Graphical Solution Method LP Problems – Important Definitions – Feasible Solution.

**UNIT – III**

Transportation Problem – Structure – Methods for Finding an Initial Solution – Degeneracy – Optimal Solution – Assignment Problem – Algorithm – Variations.

**UNIT – IV**

Net Work Analysis – PERT – CPM – Critical Path – Time Estimates – Determination of Critical Path – Waiting Lines Models.

### **UNIT – V**

Inventory – Functions – Steps – Deterministic Inventory Models – EOQ different Models – Inventory Control Approach – ABC Analysis. Simulation – Process – Monte Carlo Method – Inventory Simulation Model – Decision Tree Analysis – Pay-off Tables.

### **References:**

1. J.K. Sharma “Operations Research: Theory and Applications,” Mamillan.
2. C.V. Shenoy, U.K. Srivastava and S.C. Sharma “Operations Research,” Wiley Eastern Ltd.
3. Ronald L. Rardin, “Optimization in Operation Research,” Prentice Hall.

**Subject Title** : **RESEARCH METHODOLOGY**  
**Course Number** : **15ECOB33A**

### **Subject Description:**

This course is designed to induce the basic principles and methods of quantitative and qualitative research for conducting the empirical research and writing research report.

### **Goals:**

This course will emphasis on research process includes problem identification, conceptualization of research questions, sampling design, measurement, data collection, analysis and dissemination of findings.

### **Objectives:**

- Upon completion of this course, students should have developed an understanding of the research process, its applications in the economic research and its utilizations in the problem solving in economic research.

### **Contents:**

Meaning of Research – Objectives of Research – Formulating The Research Problem – Formulation of Hypothesis – Research Design: Pure, Applied, Action and Evaluation Research.

Sources of Data: Primary and Secondary Sources – Methods of Data Collection: Census and Sample survey – Data Collection Instruments: Observation, Interview , Schedules and Questionnaires – Sampling Design: Probability and non – probability Sampling Methods , Secondary Data Sources in India.

Analysis of Data: Measures of Central Tendency: Mean, Median and Mode – Measures of Dispersion: Range, Mean deviation, Standard Deviation, Variance, Coefficient of Variation.

Elementary Theory of Probability: Probability Distribution and Their Properties: Binomial, Poisson and Normal Distributions. Testing of Hypothesis: Parametric and Non – Parametric Tests – Standard Test of Hypothesis: ‘Z’ test, ‘t’ test, ‘F’ test and ANOVA, Chi square test – Index Numbers.

Presenting Results : Written and oral Reports – Stages in Drafting Written Research Report – Layout of Research Report – Footnotes and Bibliography.

**Reference Books:**

1. Hooda R.P., “Statistics for Business and Economics”, Macmillan Publishing House
2. Johnson L.G. (1986) Research Methodology for Economists, (Philosophy and Practice), MacMillan.
3. Krishnaswamy.O.R. (1993) Methodology of Research in Social Sciences, Himalaya Publishing House, Bombay.
4. Lipsey G.R. & Chrystal.K.A. with Oxford University Press, Madras. (1995) An Introduction to positive Economics/EL/BS/
5. C.R.Kothari (1988) Research Methodology, Methods and Techniques - Willey Eastern Ltd., 1988.
6. B.N.Ghosh (1992) Scientific Method and Social Research - Sterling Publishers (P) Ltd., 1992.
7. W.J.Goode and Heete.P.K. Ltd., New Delhi. (1993) Methods in Social Research, McGraw Hill
8. Sankar W & Lakshmanasamy T. Sterling Publishers Pvt.Ltd, New Delhi. (1993) Methodology of Applied Economics Research,

**Subject Title : ECONOMICS OF FARM BUSINESS**  
**Course Number : 15ECOB33B**

**Subject Description:**

This course will enable the students to acquire advanced knowledge as to how agricultural practices facilitate the economic growth and development in developing nations.

**Goals:**

This paper explains the economic principles applied in management of farm. It also helps them to understand the Indian Economic background under which farm operates.

**Objectives:**

- To familiarize typical farm management decisions.
- To provide strong knowledge base on Indian farm management system.
- To develop a critical study on principles of Farm Management marketing and agricultural trade.

**Contents:**

UNIT - I

Meaning and Scope of Farm Management –Importance of The Subject of Farm Management In India. Principles Involved In Farm Management Decisions: Principle of Variable Proportion - Cost Principle - Principles of Factor Substitution - Law of Equimarginal Return - Opportunity Cost Principle - Principle of Combining Enterprises - Principle of Comparative Advantage - Time Comparison Principle.

UNIT – II

**Farm Resources:** Green Revolution - Agriculture Inputs: Fertilizers and Plant Protection, Irrigation and Farm Mechanization - Concept of Agricultural Labourer – Growth, Causes of Growth - Conditions and Problems of Agricultural Laborers and Measures Taken.

#### UNIT - III

**Capital and Credit:** Role of Capital in Agriculture - Sources of Capital - Need for Agricultural Credit - Classification of Agricultural Credit - Source of Agricultural Credit: Non-institutional and Institutional – Crop Insurance - Capital Formation In Agriculture Sector.

#### UNIT - IV

**Marketing:** Functions of Marketing - Characteristics of Agricultural Produce – Defecting In Marketing of Agricultural Produce In India – Measures Taken By Government – Regulated Markets – Co-Operative Marketing – Marketed and Marketable Surplus, Marketing Costs and Margin.

#### UNIT - V

**Price Policy and Public Distribution:** Need For and Objectives of Agricultural Price Policy - Instruments of Agricultural Price Policy In India: Support, Procurement And Issue Prices - Public Distribution – Buffer Stock – Agricultural Trade and Balance of Payment With Special Reference To Agricultural Commodities.

#### REFERENCES:

1. S.S.Johl and Kapur – Fundamentals of Farm Business Management, Kalyani Publishers.
2. A.N.Sharma and V.K.Sharma:- Elements of Farm Mngement, Prentice-Hall of India Pvt. Ltd
3. Sadhu and Singh - Fundamentals of Agriculture Economics, Himalaya Publishing House, Bombay.
4. Earl.O.Heady - Economics of Agricultural Production & resources use, Prentice Hall, New Delhi.
5. Rudder Datt and K P M Sundaram- Indian Economy, S.Chand & Company Ltd, New Delhi.

**Subject Title : PUBLIC ECONOMICS**

**Course Number : 15ECOB33C**

#### Subject Description:

This subject is primarily aimed at introducing principles of public finance, role of different governments, public expenditure, taxation, budget and fiscal policy in India.

#### Goals:

To give exposure to the student, the role and the function of the government in a modern economy. The government plays different roles and performs varied functions which are different from earlier societies. In this context the public financial functions of the government need to be understood by a student, by studying the relevant theory and empirical analysis.

#### Objectives:

- To gain sound knowledge on the principles of public finance.
- To understand roles of different governments.
- To provide a strong knowledge base on Indian public finance.

**Contents:**

**UNIT – 1**

Role of Government In Managing Economy Under Different Economic Systems – Social Welfare Function – Theory of Public Goods - Market Failure – Externalities – Problems in allocation of Resources – Theoretical developments in Demand Revelation for Social Goods – Public Choice.

**UNIT – 2**

Public Expenditure: Theories of Public Expenditure – Structure and Growth of Public Expenditure – Criteria for Public Investment – Income Redistribution – Expenditure Programmes for the Poor.

**UNIT – 3**

Budget – Concept of PPB – Zero-based Budgeting – Deficit Budgeting – types of Deficits – Public Dept: Trends and Composition of Indian Public Dept – Dept Management

**UNIT – 4**

Taxation : Theory of Taxation – Benefit and Ability-to-Pay Approaches – Indian Direct and Indirect Taxes – Tax reforms Since 1975 – Chelliah Committee Report – Evaluation of Tax Reforms – Taxation Incidence and Alternative Concepts of Incidence.

**UNIT – 5**

Fiscal Policy – Role of Fiscal Policy in India – Principles of fiscal Federalism in India – Vertical and Horizontal Imbalance – Finance Commissions and Planning Commission – Issues in Revenue Devolutions and Grants-in-aid – Local Finance.

**References:**

1. Dr. B.P. Tyagi “Public Finance,” Jai Prakash Natu & (O).
2. S.K. Singh “Public Finance in Theory and Practices,” Sultan Chand & Co.
3. D.K. Srivastava, “Issues in Indian Public Finance,” New Century Publications.

**Subject Title** : **MONETARY THEORY AND POLICIES**  
**Course Number** : **15ECOB33D**

**Subject Description:**

This subject provides knowledge of different theories of monetary economics. It also studies the nature of money supply.

**Goals:**

The main objective of this paper is to give the students a good understanding on principles which govern the monetary forces and interaction of these forces in the domestic economy.

**Objectives:**

- To train students on different concepts of monetary theory.
- To familiarize the monetary policy of Indian Economy.
- To develop a critical study on the money and capital markets



**Contents:**

Monetary Theories: Concepts - The Role of Money in an Economy - Fisher's Quantity Theory - Cambridge Cash Balance Approach - Keynesian Theory - Modern Quantity Theory: Friedman's Approach - Don patinkin's Integration Theory - Tobin's Portfolio Analysis - Inventory Theory of Money (Baumol).

Theory of Money Supply: High Power Money - Money Multiplier Process-Determinants of Money Multiplier - Factors Affecting H-Reserve Bank Analysis of Money Supply - Credit Creation by Commercial Banks - Banks Balance Sheet - NBFI.

Central Banking System: Role of Central Banks - Development and Promotional Functions - Credit Control Methods - RBI: Role and Functions - Central Banks in UK and USA.

Monetary Policy: Role of Monetary Policy in Economic Development - Goals, Targets and Indicators of Monetary Policy - Lags in Monetary Policy - Inflation - Chakravorthy and Narasimhan Committee Reports.

Money and Capital Markets: Characteristics of Developed and Undeveloped Money Market - The Indian Money Market - Capital Market: Primary and Secondary Market - Stock Exchanges: Role and Their Functions - SEBI.

**Text Books:**

1. Chandler, L.V., Economics of Money and Banking (UBS) Revised Edition.
2. Laidler, David, The Demand for Money (Allied Publishers).
3. Harry G.Johnson, Further Essays in Monetary Economics(Allen & Unwin).
4. Milton Friedman, Studies in the Quantity Theory of Money.
5. Suraj B.Gupta, Monetary Economics, Institutions, Theory and Policy, S.Chnad and Co.
6. Gail E.Makinen, Money, Interest and the Price Level, (Prentice Hall, 1978).

**Subject Title : INDUSTRIAL ECONOMICS**  
**Course Number : 15ECOB3EC (Elective)**

**Subject Description:**

This paper deals with the basic concepts of productivity, various productivity measurements, Theory of Production of Functions and numerical measurement of elasticities.

**Goals:**

This course aims at providing an indepth knowledge on the need, significance, measurement and use of various industrial productivity concepts. The scope also intends to develop skills to monitor and mange enterprises at optimal levels of industrial productivity.

**Objectives:**

- To introduce to the students the various concepts of Productivity.
- To enable the students to measure productivity numerically using mathematical and econometric techniques.
- To make students to draw inferences based on the numerical measurements.

**Contents:**

**UNIT-I**

Meaning of the Firm and Industry-Industrial Efficiency: Meaning of the Concept- The Determinants of Economic Efficiency- Measurement of the Efficiency Levels- Types of Organisational Form- Business Motives

**UNIT-II**

The Theory of Cost and Production- The Concept of Production Function and Optimal Input Mix- The Efficiency and Size of the Firm- Market Concentration- Measurement of Market Concentration.

**UNIT-III**

Concept of Total Factor Productivity Index – Methods of Estimation: Kendrick – Solow – Divisia – Malmquist – Economic significance of Inter – Regional and Inter – Industry Variations in TFP – Estimates.

**UNIT-IV**

Financial Ratio Analysis- Classification of Financial Ratios- Methods of Project Evaluation: NPV, Payback Method, IRR, ARR, Cost-Benefit Analysis- Inventory Investment Approach.

**UNIT-V**

Role of Advertising- Pricing Procedures- Pricing in Public Enterprises- The General Determinants of Industrial Location- Approaches to Industrial Locational Analysis- Weber's Theory of Industrial Location.

**References:**

1. Sanhey S. C. "Productivity Management: Concepts and Techniques," Tata McGraw Hill, New Delhi.
2. Heathfield F.D. "An Introduction to Cost and Production Functions." Macmillon Education & Soren Wibe London.

**Subject Title : ECONOMICS OF DEVELOPMENT**

**Course Number : 15ECOB43A**

**Subject Description:**

This course will enable the students to acquire advanced knowledge as to how policies facilitate the economic growth and development in advanced countries.

**Goals:**

This paper enables the students to understand important growth models and helps them to familiarize with factors that contribute to economic growth.

**Objectives:**

- To familiarize economic theories and growth models.
- To provide a strong knowledge base on India's economy both during pre and post reform periods.
- To develop a critical study on recent development in the Indian Economy in the context of the world economic scenario.

**Contents:**

**UNIT-I**

Economic Growth and Economic Development- Early Growth Theories: Mercantilist Growth Theory, Physiocratic Growth Theory, Adam Smith's Theory of Economic Growth – Keynesian Theory of Secular Stagnation – Marxian Theory of Economic Growth.

**UNIT – II**

Economic growth- Measurement of Development: Conventional, HDI and Physical Quality of life Indies (PQLI) – Factors Determining Economic development – Obstacles of Economic development: vicious circle of Poverty-Economic Development and sustainable Development.

**UNIT III**

Doctrine of balanced growth-Concept of unbalanced growth-Dualistic theories- Technological Dualism-Myrdal theory-Regional Inequalities-Growth Models-Harrod-Domar model.

**UNIT IV**

Joan Robinson's model of capital accumulation-Meade's neoclassical model-Solow's Model of Long Run Growth.

**UNIT – V**

Kaldor's model -Models of Technical Change – Mahalanobis Model, Lewis Model: Two sector economy- Cobb Douglas Production Function.

**References:**

1. Debraj Ray "Development Economics," Oxford University Press.
2. Jaydeb Sarkhel "Growth Economics," Book Syndicate (P) Ltd.
3. Michael P. Todaro and Stephen C. Smith "Economic Development," Pearson Addison Wesley.
4. The Economics of Development and Planning – M.L.Jhingan, Vrinda Publications (P) Ltd.

**Subject Title : INTERNATIONAL ECONOMICS**  
**Course Number : 15ECOB43B**

**Subject Description:**

An introduction to the basic principles of international economics, with emphasis upon the classical and modern theories of international trade, trading problems in developing countries and need for protection of domestic producer.

**Goals:**

The course goals are to develop the fundamental economic models that explain why countries trade with one another. Theoretical explanation of trade patterns include technological differences, resources differences and competitiveness differences. And another goal is to discuss how government policies influence international trade and how these policies influence special interests within the country as well as between the country.

**Objectives:**

- To acquire basic knowledge about International Trade and trade issues

- To understand how economic decisions are made in the international market at the global level.
- To analyse and apply the economic principles into trading activities to solve the problems related to international trade.

### **Contents:**

Modern Theory of International Trade: Heckscher - Ohlin Theorem - International Trade and Factor Prices - Leontief Paradox - Terms of Trade - Factors Affecting Terms of Trade - Gains from Trade.

Theories of Foreign Exchange Rate: Mint par Parity Theory, Purchasing Power Parity Theory - Balance of Payments Theory. Foreign Exchange Rate Policy: Fixed Exchange Rate Flexible Exchange Rate - Foreign Exchange Markets: Spot and Forward Exchange Market.

Balance of Payments - Balance of Trade - Disequilibrium in BOP - Methods of Correcting Disequilibrium - Free Trade vs Protection - Methods of Protection (Tariffs and Quotas), Tariffs: Classification - Impact - Non-tariff Barriers - Quotas: Types and Impact.

Foreign Trade Control and EXIM Policy - Export Promotion: Incentives - Production assistance - Marketing Assistance - Export and Trading Houses - Letter of Credit - Export Procedures and Documents - Bill of Lading - Export Risk Insurance.

International Financial Institutions: Current International Monetary and Trade Issues - IMF -IBRD - North-South Dialogue - WTO - UNCTAD - Multinational Corporations - Foreign Direct Investments - Foreign Institutional Investments.

### **Reference Books:**

1. Sodersten B. (1985), International Economics.
2. Sodersten B. (1986), International Trade - Essays in Theory, North Holland, Amsterdam.
3. Varma M.L (1983), Foreign Trade Management in India", Vikas, New Delhi.
4. Deepak Nayyar (1976), India's Export and Import Policies in the 1960's, Cambridge University Press.
5. Haberler.G (1985), The Theory of International Trade, William Hodge Company, London.
6. Import and Export Policy (1992-1997), Ministry of Commerce, Government of India.
7. Kindleberger C.P. (1976), International Economics, R.D.Irwin, Homewood.
8. Modwel S.K. and (1986), "Export Efforts of India", Indian Institute of Foreign Trade, New Delhi.

**Subject Title : ECONOMIC ADMINISTRATION**  
**Course Number : 15ECOB43C**

### **Subject Description :**

This Subject is aimed at providing knowledge on basic Economic Administrative Principles as well as applied skills to enable the students to gain Administrative Decision making skills.

**Goals :** This paper intends to give the students a good understanding of the economic administration.

### **Objectives**

- To enable the students to appreciate the utility of economics in day – to day life.
- To gain sound knowledge on Economic Administration.

### **Contents**

**Unit 1: National Income:** Concept of National Income -Circular flow of income; Methods of calculating National Income: Value Added or Product method, Expenditure method, Income method. Concepts and Aggregates Related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) – at Market Price, at Factor Cost; National Disposable Income (Gross and Net), Private Income, Personal Income and Personal Disposable Income; Real and Nominal GDP- GDP and Welfare.

**Unit 2: Government Budget and the Economy :** Concept and Types of Tax – Direct Tax and Indirect Tax, Canons of Taxation, Subsidy, Transfer Policy ; Budgetary Procedure-Types of Budget-Classification of Receipts : Revenue Receipt and Capital Receipt; Classification of Expenditure : Revenue Expenditure and capital expenditure; Various Measures of Government Deficit : Revenue Deficit, Fiscal Deficit, Primary Deficit-their Meaning and Implications.

**Unit 3: Revenue Resources and Public Debt:** Deficit Financing and Methods - An Evaluation of Fiscal Policy of Government of India – Highlights of Recent Budget; Sources of Public Debt-Internal and External Debt; Burden of Public Debt; Redemption of Public Debt; Debt Trap; Role of Public Debt with Special Reference to Developing Countries.

**Unit 4 : Money Market and Capital Market:** Nature and Functions of Indian Money Market- Nature and Functions of Indian Capital Market-Stock Markets - Meaning and functions of Stock Market - Functions of Securities Exchange Board of India (SEBI). Credit Control: Quantitative Measures: Bank Rate -Open Market Operations - Variable Reserve Ratio - Statutory Liquidity Ratio - Qualitative Credit Control: Limitations.

**Unit 5 : Index Numbers and Inflation:** Inflation – Meaning and types – Effects of Inflation – Measures to Control Inflation – Inflationary Gap – Deflation – Meaning, Causes, Types, Effects – Deflationary Gap.  
Index Numbers : Type – Construction of Simple ,Weighted, Chain-Base Index Numbers-Difficulties-Limitation- Index Numbers and Inflation

### **References**

Dutt and Sundaram: Indian Economy, S Chand and Company, Delhi  
Agarwal: Indian Economy, Vikas Publishing Company, Delhi

Indian Economy: AN Agrawal. New Age International Economics : Mc Graw-Hill

Indian Economy: Misra and Puri Himalaya Pub.House

Economic Survey, Different volumes

**Subject Title : BASIC ECONOMICS**  
**Course Number : 15ECOGS.. (Supportive)**

### **Subject Description:**

Basic economics is the study of the choices made by individuals, households and firms of how these choices influences the market for goods and services.

### **Goals:**

The paper covers the theoretical foundation of the economic theory at the beginner's level and understands basic microeconomic concepts such as scarcity, choice, efficiency, equity, equilibrium, consumption, utility, demand and supply, production and market structure.

### **Objectives:**

- Students who complete this course will be able to illustrate how consumers and sellers are behave in the market through use of the demand and supply theory, consumption, production and market structure.
- Students who complete this course will be able to comprehend the important role of pricing methods to economic decision making.
- Students who complete this course will be able to understand what is meant by market success and market failure.

### **Contents:**

The paper covers the theoretical foundation of economic theory at the beginner's level.

Meaning - Definition - Subject Matter of Economics - Relation of Economics with other Social Sciences - Micro and Macro Economics.

Consumption: Wants - Utility - Law of Diminishing Marginal Utility - Equip - Marginal Utility - Indifference Curve - Consumers Surplus.

Demand and Supply: Law of Demand - Demand Schedule - Determinants of Demand - Elasticity of Demand - Law of Supply - Supply Schedule.

Production: Factors of production and their features - Law of Diminishing Marginal Return - Malthusian Theory of Population - Economies of Scale – Organisation of Enterprise - Cost Concepts.

Market Structure: Features of Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly - Price Determination under Perfect Competition.

**References:**

1. K.K.Dewett : Modern Economic Theory, New Delhi, Shyam Lal Chariatable Trust.
2. H.L.Ahuja : A Text Book of Modern Economics, New Delhi, S.Chand & Co. Ltd.
3. M.L.Seth : Principles of Economics, Agra, Lakshmi Narain Agarwal.
4. Sampat Mukherjee : Modern Economic Theory Wishwa Prakashan, New Delhi.

**Subject Title** : **AGRICULTURAL ECONOMY OF INDIA**  
**Course Number** : **15ECOGS.. (Supportive)**

**Subject Description:**

This subject is aimed at providing knowledge on the agricultural economy of India, its development, productivity, rural indebtedness and defects in the agricultural market.

**Goals:**

To enable the student to understand some of the central aspects of agricultural economy of India.

**Objectives:**

- To familiarize the agricultural situation in India
- To provide sound knowledge base on India's Agricultural economy before green revolution and after it.
- To develop a critical study on recent Agricultural crises in India.

**Contents:**

Features of Agriculture - Importance of Agriculture in the Indian Economy - Relationship between Agriculture and Non-Agriculture sectors.

Agriculture Development in India - Subdivision and Fragmentation of holdings in India and causes - Land Tenure and Land Reforms.

Productivity in Agriculture - New Agriculture Strategy - Green Revolution - Nature of Food Economy - Agriculture price policy in India - Public Distribution system.

Rural Indebtedness - Causes of Rural Indebtedness - Sources of Agricultural Finance.

Market and Marketed Surplus - Defects in marketing Agricultural produce - Regulated markets - Co-operative marketing - Farmers Market.

**References:**

1. Misra and Puri, Indian Economy, Himalaya Publishing House Bombay.
2. Rudrar Dutt and K P M Sundaram Indian Economy, S.Chand & Co.Ltd, New Delhi.
3. Bansil.B.C. Agricultural Problems of India, Vikas

- 4.Sankaran.A. Publishing House. Pvt. Ltd., New Delhi.  
Agricultural Economy of India, Progressive  
Corporation. Pvt. Ltd., Bombay.
- 5.Srivastava.O.S. Agricultural Economics, Rawat Publications,  
Jaipur, 1996.

**Subject Title : ELEMENTS OF PUBLIC ECONOMICS**  
**Course Number : 15ECOGS.. (Supportive)**

**Subject Description:**

This course is primarily aim at introducing the principles of public finance and related issues.

**Goals:**

To impart basic theoretical skills of financial functions to manage emerging trends in the market.

**Objectives:**

- To understand the role of government under different economic systems.
- To equip students on issues related to taxation and public expenditure
- To gain knowledge on budget and fiscal policy.

**Contents:**

The objective of this paper is to give exposure to the student on the role and functions of a government in a modern economy. The government plays different roles and performs varied functions which are different from earlier societies. In this context the public financial functions of the government need to be understood by a student, by studying the relevant theory and empirical analysis.

Role of government in managing the economy under different economic systems - Social Welfare Function . Theory of Public goods. Problems in Allocation of Resources.

Public Expenditure: Structure and Growth of Public Expenditure - Criteria for public investment - Income Redistribution - Expenditure Programmes for the poor.

Taxation : Theories of Taxation - Benefit and ability-to-pay approaches - Indian Direct and Indirect Taxes - Tax reforms since 1975 - Evaluation of Tax Reforms -Taxation Incidence and alternative concepts of Incidence.

Budget - Deficit Budgeting - Types of Deficits - Performance of Public Sectors - Enterprises - Administered Pricing - Public Debt.

Fiscal Policy - Role of Fiscal Policy in India - Principles of Fiscal federalism in India - Local Finance.

**Reference Books:**

- 1.B.P.Thiagi, "Public Finance".



2.S.K.Singh, "Public Finance in Developed and Developing Countries".

**Subject Title : INTRODUCTION TO INDIAN ECONOMY**

**Course Number: 15ECOGS.. (Supportive)**

**Subject Description:**

This course provides the foundation for the nature of Indian Economy. This subject is aimed at introducing the characteristics of Indian Economy, National Income and determinants of Economic Development.

**Goals:** To enable the students to learn the basic features of Indian Economy.

**Objectives:**

- Students who complete this course will be able to understand the developmental aspect of Indian Economy and the problems facing by the India.

**Contents:**

Methods of measuring National Income (Income, output and expenditure method)-India as a Developing Economy – Basic characteristics of Indian Economy -Concepts of National Income: GNP, NNP, PI, NI, DPI-National Income Estimates in India.-

Natural resources in the process of Economic Development: land-forest-water-fisheries, mineral resources in India.

Income distribution and inequalities in India- the concept of poverty – causes of poverty failure to eradicate poverty – poverty eradication programmes. Budget: meaning- Revenue and Capital budget.

The place of agriculture in the national economy- Green Revolution- food Security- Sickness of industries- prevention of industrial sickness and state policy- functions of RBI. The foreign trade of India – importance of foreign trade for developing economy – India's balance of payment crisis – Special Economic Zone (SEZ)- impact of WTO on various aspects of Indian Economy.

**References:**

1. Dutt. R. and K.P.M. Sundaram : Indian Economy, S. Chand and Co, New Delhi.
2. Agarwal. A.N. : Indian Economy, Wiley Eastern Ltd. New Delhi.
3. Srinivas Y. Thakur : Indian Economic Development, Sterling Publishers, New Delhi
4. Government of India, Economic Survey, (various years).

**SUBJECT TITLE : AN INTRODUCTION TO ENVIRONMENTAL ECONOMICS**  
**COURSE CODE : 15ECOGS.. (SUPPORTIVE)**

**Subject Description:**

This supportive course is designed to introduce students to key contemporary issues in environmental economics and equip them with the approaches in economics that are in general applied to analyse environmental problems and policies.

### **Goals**

This supportive course is intended to introduce the basic environmental economic concepts and theory, environmental problems, issues in environment protection, assessment of environmental damages, government regulation and environmental protection in India.

### **Objectives**

- Students who complete this supportive course will be able to apply economic theories in to the environmental problems to solve the social issues.

### **Module: I – Concept**

Nexus between environment and economics – the principle of material balance – Market failure - private versus social cost – Trade-off between economic growth and environment - sustainable development - Environmental Quality as a Public Good.

### **Module: II - Environmental Economic Theory for Resource Allocation**

Economic theory for resource allocation: Theory of externalities - Benefit/Cost Analysis – Limits to Growth – Coase`s theorem- Simon Kuznet`s Inverted ‘U’ shaped curve – Hedonic Theory.

### **Module: III - Environmental problem in India**

Sources and types of pollution (air, water, solid waste, noise, land degradation); Causes and effects of environmental degradation, Urbanisation and its Impact on Environment and Rural environmental problems - Energy-environment interaction

### **Model: IV –Environment-society interface and policy**

Population and Environment – women and environment – Environmental acts in India – International initiative on environmental protection.

### **References**

1. U. Shankar (2000) ‘Environmental Economics, Oxford University Press, New Delhi
2. Eugene T. (2005): “Environmental Economics”, Vrinda Publications, Pvt. Ltd, New Delhi.
3. M. Karpagam (2000) ‘Environmental Economics’ Sterling Publisher Pvt.Lyd. New Delhi.
4. Charles D. Kolstad (2000): “Environmental Economics”, Oxford University Press, New York.

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