

**TYBA ECONOMICS SEMESTER-V REVISED SYLLABUS  
(APPLICABLE FROM ACADEMIC YEAR: 2023-2024)**

**PAPER-IV: ADVANCED MICROECONOMICS - III**

**Course Objectives**

The course is designed to provide sound understanding in micro economic theory. Since students have been taught perfect competition, this course focuses on three main pillars of microeconomics such as imperfect competition, welfare economics and information economics.

**Course Outcomes**

- Enables students to get knowledge on new market structure, imperfect competition.
- Provides understanding on the welfare economics and economics of information.

**Module 1: General Equilibrium and Welfare Economics**

**(12 Lectures)**

Concept of General Equilibrium and Walrasian General Equilibrium Model - Pareto Optimality – The Pareto Optimality Condition of Social Welfare - Marginal Conditions for Pareto Optimal Resource Allocation - Perfect Competition and Pareto Optimality - Arrow’s Impossibility Theorem

(Earlier module 4)

**Module 2: Market Structure: Monopoly and Monopolistic Competition**

**(14 Lectures)**

Concept of Monopoly - Measurement of Monopoly Power - Price Discrimination: Types and Classification of Price Discrimination (Degrees of Price Discrimination) - Equilibrium under discriminating Monopoly - Regulation of Monopoly Market Product Differentiation in Monopolistic Competition - Chamberlin’s Alternative approach- Equilibrium under Monopolistic Competition - Excess Capacity

### **Module 3: Oligopoly**

**(12 Lectures)**

The Cournot Model - Meaning and Characteristics of Oligopoly Market - Rigid Prices - The Sweezy Model of Kinked Demand Curve - Collusive Oligopoly - Cartel: Centralized and Market Sharing Cartel - Imperfect Collusion- Price Leadership Models, Game Theory - Prisoner's Dilemma, Nash Equilibrium and Dominant Strategy Equilibrium (Earlier module 2)

### **Module 4: Information Economics**

**(12 Lectures)**

Economics of Search and Search Cost - The Theory of Asymmetric Information-The Market for Lemons and Adverse Selection - Risk Preference and Expected Utility - The Problem of Moral Hazard - Market Signaling - Principal-Agent Problem

### **References:**

1. Jhingan MLL. (2012), Advanced Economic Theory, Vrinda Publications, Delhi.
2. Mankiw N. Gregory (2015), Principles of Microeconomics, Cengage Learning.
3. Mansfield, Edwin (1985), Micro-economics: Theory & Applications, 5<sup>th</sup> edition, W.W. Norton & Company, New York.
4. Patil K. A (Second edition, 2011, Marathi), Advanced Economic Theory-Micro Analysis, Shri Mangesh Prakashan, Nagpur.
5. Salvatore D. (2006), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
6. Varian Hal R. (8 Edition 2010) Intermediate Microeconomics A Modern Approach, East-West Press, New Delhi

## **PAPER-V: ECONOMICS OF GROWTH AND DEVELOPMENT**

### **Course Objectives**

This paper introduces the concepts, theories, process and policies regarding growth and development. The meaning of the development as it has evolved over the years is clarified. The contemporary as well as classical theories of growth, development, and underdevelopment are considered in detail. Theories and issues related to population, poverty, inequality and human capital are considered. Urban and rural aspects of the development process studied. Importance of technology, infrastructure and planning in development process are considered. The approach has been to cover all important areas of development economics.

### **Course Outcomes**

- Enable students to apply and analyse issues in the development process.
- Students will be able to identify the issues related to Growth and Development
- Students will be able to understand the policy options and analyzed the Measures taken for the Development of an economy.

### **Module 1: Meaning of Economic Growth and Development**

**(12 Lectures)**

Concepts of Economic Growth and Development - Distinction between Economic Growth and Development- Concept of Human Development- H.D.I, G.D.I, Green GDP- Sen's Capability approach- Millennium Development Goals (MDGs)- Initiative by Indian government towards MDGs.

### **Module 2: Theories of Economic Development**

**(12 Lectures)**

Rostow's stages of growth; Big Push Theory- Leibenstein's Critical Minimum Effort Thesis - Harrod - Domar Growth Model- Lewis Model of unlimited supply of labour - Ragner Nurkse's Theory of Disguised Unemployment- Schumpeter's Theory of Development

### **Module 3: Structural Issues in Development Process**

**(12 Lectures)**

Concept of Human Capital- Role of Education, Health and nutrition in Human Capital - Meaning and Measurement of Poverty and Inequality- Measures to eradicate poverty and Inequality - Meaning of Inclusive growth - SHG and Microfinance- Migration – Urbanization- Formal and Informal Sector- Urban Informal Sector

### **Module 4: Planning, Technology and Economic Development**

**(12 Lectures)**

Concept and Role of infrastructure in Economic Development- Role of technology in Economic Development- Labour intensive versus Capital intensive technology- Schumacher's concepts of intermediate and appropriate technology- Green Technology- Meaning and Types of Economic Planning- Role of Planning in Economic Development

### **References:**

1. Boldwin, Economic Development: Theory, History and Policy, Willy Publishers, 1957.
2. Mamoria, Joshi, Principles and practice of marketing in India, Kitab Mahal, 1979.
3. Meier, Gerald M. and James E. Rauch. Leading Issues in Economic Development, New Delhi: Oxford Univ. Press, 2006.
4. Thirlwall, A.P. Growth and Development 8e. New York: Palgrave MacMillan, 2005. 7
5. Todaro, Michael P. and Stephen C. Smith. Economic Development, 8e. Delhi: Pearson Education, 2003.
6. V.K. Puri and S.K. Mishra, Indian Economy, Himalaya Publishing House, 2019

## **PAPER-VI: ECONOMICS OF AGRICULTURE**

### **Course Objectives**

This paper provides an overview of the role of agriculture in the economic development of the country and the salient features associated to agricultural productivity and agricultural labour. The pertinent aspects related to agricultural credit, agricultural marketing as well as the global problems existing in the marketing are dealt in. Students can acquire understanding about the features of agricultural policy and the agrarian crisis as well as the problems and challenges in the field of Agriculture and cooperation.

### **Course Outcomes**

- Students will obtain information regarding various agricultural issues in India and remedies for it.
- Making awareness about self-employment through various local business like agro- tourism, travel agents, horticulture, floriculture, fishery and animal husbandry.

### **Module 1: Agricultural Productivity**

**(12 Lectures)**

Role of agriculture in Economic Development - Cropping pattern in India, Recent trends, Factors affecting - cropping pattern - Physical, Technical and Economic - Agricultural Productivity, Causes of Low Productivity in Agriculture - Measures taken to improve the Agricultural Productivity in India - Irrigation and Water Management and agricultural development - Agricultural labour Problems and suggestions.

### **Module 2: Agricultural Credit**

**(12 Lectures)**

Institutional and Non-Institutional Sources of Credit Co-operative Credit and Agriculture Rural Indebtedness - Commercial Banks and Regional Rural Banks - Microfinance and NABARD - Role and Performance - Crop loan and Crop Insurance, Kisan Credit card Yojana.

### **Module 3: Agricultural Marketing**

**(12 Lectures)**

Types of Marketing - Corporate, Commodity and Global Problems and Measures of Agricultural Marketing - Regulated Market - WTO and Indian Agriculture - Problems of Agricultural Marketing and its measures - National Agricultural Market - FPO – Farmers Producer Organizations

### **Module 4: Agricultural Price and Policy**

**(12 Lectures)**

Food Security in India - Price Policy of CACP Evaluation - Agricultural Crisis and Farmers Suicide - Agro-Tourism and its policy - Organic Farming - Mechanization of Agriculture

### **References:**

1. Bilgrami S.A.R. (2000), An Introduction of agricultural Economics, Himalaya Publishing House, Mumbai
2. Datta Ruddra and Mahajan Ashwini (2016), Indian Economy, Chand and Company Ltd., New Delhi.
3. Gupta P. K.,(2012), Agricultural Economics, Vrinda Publications (P) Ltd. Delhi.
4. Mamoria C.B. and B.B. Tripalhi (1991), Agricultural Problems in India, Kitab Mahal, Allahabad.
5. Sadhu and Singh (2008), Fundamental of Agricultural Economics, Himalaya Publishing House, Mumbai.
6. Tyagi B.P., (2016), Agricultural Economics and Rural Development, Jaiprakash Nath and Co. Meerut.

## **PAPER-VII: RESEARCH METHODOLOGY - I**

### **Course Objectives**

This paper contains within the various objectives, such as to understand and make aware as well as inculcate research in Economics amongst the learners, to encourage exchange of ideas and application of results of economic research at the same time to enable students in understanding data collection and presentation for quality research in social sciences.

### **Course Outcomes**

- The learners will understand and inculcate research in Economics
- The learners will exchange ideas and application of results of economic research.
- The course will help in formulation of problems in social science research.
- The students will understand data collection and presentation for quality research in social sciences.

### **Module 1: Introduction to Research** **(12 Lectures)**

Meaning and scope of social science research- Basic assumptions of research- Features and importance of social science research- Objectives and types of research; Basic, Applied, Pure, Descriptive, Analytical, and Empirical research- Limitations of social science research- Difficulties in social science research

### **Module 2: Formulation of Problem in Social Science Research** **(12 Lectures)**

Research process: Identification, selection and formulation of research problem-Sources of research problem - Criteria of a good research problem- Review of literature-Formulation of hypothesis- Research design: Definition, Concepts, and types- Data Collection and analysis- Interpretation and report writing- Use of web search in research process.

### **Module 3: Types of Data: Primary and Secondary**

**(12 Lectures)**

Types of Data: Primary data and its collection methods: Observation method- Interview Technique - Design of schedule and questionnaire - Survey method and Field visits - Secondary data: Meaning- advantages- sources- relevance and limitations of secondary data- Sampling Techniques: Census and sample survey- Essentials of a good sampling - Advantages and limitations of sampling- Types of sampling: Random sampling and Non-random sampling-Sampling and Non- Sampling errors.

### **Module 4: Representation and Analysis of Data**

**(12 Lectures)**

Classification, Tabulation and Graphical presentation of socio-economic data- Need and importance of data analysis- Statistical analytical tools: Measures of Central Tendency - Measures of Variation: Absolute and relative measures - Quartile deviation, standard deviation, coefficient of variation- Skewness: Meaning and measurement (Karl Pearson's and Bowley's methods) - Preliminaries of computer applications in data organization and data processing.

### **References:**

1. Bhandarkar P.L., (1994), Samajik Sanshodhan Padhati, Himalaya Publication, New Delhi.
2. Dawson, Catherine (2002), Practical research methods, UBS Publishers, New Delhi.
3. Ghosh, B.N. (1992), Scientific methods and social research, Sterling Publishers Pvt. Ltd, New Delhi.
4. Gupta S P, (1987), Statistical methods, Sultan Chand and Sons, New Delhi.
5. Kothari R.C. (2008), Research methodology, methods and techniques, New Age International Publishers, New Delhi.
6. Krishnaswamy O.R.(1993), Methodology of research in social sciences, Himalaya publishing House, Mumbai.



## **PAPER-VIII: ENVIRONMENTAL ECONOMICS - I**

### **Course Objectives**

This course introduces the learner to the basic concepts, economic instruments and policy options in managing the environment. The impact of development on environment is suitably addressed under the rubric of sustainable development. Economic implications of environmental policy and valuation of environmental quality are important areas of concern to be covered. The students are sensitized to the role of human decisions in affecting the environmental quality and managing global environmental issues. The causes, effects and measures to control different types of pollution are impressed upon. The environmental accounting practices, policies, impact and risk analysis focuses on India.

### **Course Outcomes**

- On the completion of this course, the student will have a good understanding of contemporary environmental issues and their relation to economic development.
- The learner will be equipped to understand the methodologies and tools of valuing the environment.
- In the light of international environmental agreements, the learners will be able to understand the global approaches and policies adopted by India to deal with the environmental issues.

### **Module1: Introduction to Environmental Economics**

**(12 Lectures)**

Environmental Economics: Nature, Significance and Scope; Environment and the economy; Environmental Kuznets Curve; Common resources, externalities and property rights; Coase Theorem; Rio Declaration and Agenda 21 programme of action for sustainable development.

### **Module 2: The Design and Implementation of Environmental Policy**

**(12 Lectures)**

Criteria for evaluating environmental policies; Tools of Environmental Policy: Standards, Pigovian taxes/effluent fees, quotas/tradable permits; Choice between taxes and quotas; Environmental Policy: Regulation and Implementation.

### **Module 3: Measuring Benefits of Environmental Improvements**

**(12 Lectures)**

Economic value of Environment: Use and Non-use values; Measurement methods of environmental value: Market based and Non-market based methods; Contingent Valuation Method; Travel Cost Method; Hedonic Price Method.

### **Module 4: Global Environmental Issues**

**(12 Lectures)**

Trade and environment-Overview of trans-boundary environmental problems-Global Warming - Climate Change - Energy Crisis - Challenges of urbanization - International environmental agreements.

### **References:**

1. Barry Field and Martha K Field: Environmental Economics, McGraw Hill International Edition, 2017.
2. Benneer, Lori Snyder, and Cary Coglianese (2004), Evaluating Environmental Policies, KSG Faculty Research Working Paper Series RWP04-049, USA
3. Charles Kolstad : Environmental Economics, Oxford University Press, New York, 2000.
4. Hanley Nick, Shogren Jason and White Ben: Introduction to Environmental Economics, Oxford University Press, 2001.
5. Mickwitz, Per. (2003). A Framework for Evaluating Environmental Policy Instruments Context and Key Concepts. Evaluation.
6. Smith Stephen: Environmental Economics: A very Short Introduction, 1st Edition, Oxford University Press, New York, 2011.

## **PAPER-IX: HISTORY OF ECONOMIC THOUGHT - I**

### **Course Objectives**

The very purpose of this course is to provide information about the biography and contribution of the most influential economists who influenced the economic fraternity and to whom we are obliged to for shaping up the economic thought process.

### **Course Outcome:**

- Students will get information about the genesis of Economics and its modern scenario.
- Establish the co-relation of Economics with other subjects.

### **Module 1: Classical Economics**

**(12 Lectures)**

Mercantilism and Physiocracy: Introduction -Adam Smith: Liberalism -Division of Labour -Theory of Value - David Ricardo: Rent Theory- Wage Theory - Theory of Value- Karl Marx: Surplus Value  
Materialistic Interpretation of History -Scientific Socialism.

### **Module 2: Neo-Classical Economics**

**(12 Lectures)**

Alfred Marshall : Thought on Value - Representative Firm - Consumer's Surplus - Internal and External Economies-Quasi Rent - Schumpeter: Economic Development And Innovation- Pigou :Welfare Economics.

### **Module 3: Keynesian Ideas**

**(12 Lectures)**

Employment Theory- Money- Wage Rigidity Model- Multiplier and accelerator and their interaction - Trade Cycle - Inflation -Role of Fiscal Policy - Keynesian Economics and Developing Countries.

## **Module 4: Post-Keynesian Economics**

**(12 Lectures)**

Supply Side Economics -Hayek's Theory of Trade Cycle- Life Cycle theory Consumption- Friedman: Theory of Demand for Money - Long-Run Philips Curve - Mankiw's New Keynesian Model - Stagflation.

### **References:**

1. Dasgupta A. K, Epochs of Economic Theory Oxford University Press. New Delhi, 1985.
2. Ernesto Screpanti and Stefano Zamagni, An Outline Of The History Of Economic Thought, OxfordUniversity Press Inc., New York, 5005.
3. Ghosh and Ghosh: Concise History of Economic Thought, Himalaya Publishers.
4. Gide, O. and G. Rist, A History of Economics Doctrine. George Harrop Co. London. 1956.
5. Harry Landreth and David C. Colander, History of Economic Thought, Houghton Mifflin Company Boston Toronto, 2001.
6. Roll, E., A History of Economics Thought. Faber Landon, 1973.

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**PAPER-IV: ADVANCED MACROECONOMICS - III**

**Course Objectives**

This course introduces the students to formal modeling of a macro economic theory with analytical tools. Since students have been taught Keynesian Synthesis, this course focuses on four aspects which are the study of Post Keynesian Synthesis, Trade Cycles, Exchange Rate Regimes and International Monetary System.

**Course Outcomes**

- To make students aware about Post Keynesian Synthesis and understand various aspects of Trade Cycles.
- Students will be able to describe the contemporary Exchange Rate Regimes and International Monetary System.

**Module 1: Post Keynesian Synthesis**

**(14 Lectures)**

Derivation of Aggregate Demand Curve with IS-LM - Aggregate Supply Curve - Determination of Equilibrium National Income and Price Level under Aggregate Demand and Aggregate Supply Model - Extension of IS-LM Model with Labour Market and Flexible Prices - Natural Rate of Unemployment- Long run Philips Curve - Friedman's Expectation Model - Tobin's Modified Philips Curve - Adaptive Expectations and Rational Expectations.

**Module 2: Trade Cycles**

**(12 Lectures)**

Meaning- Nature- Features and Types of Trade Cycles - Phases of Trade Cycles - Theories of Trade Cycles- Hawtrey's, Kaldor, Paul Samuelson and Hicks - Measures to Control Trade Cycles.

### **Module 3: Exchange Rate Regimes and Currency Crisis**

**(12 Lectures)**

Managed Exchange Rate- Advantage and Disadvantage - Policy of Managed Flexibility-Adjustable Peg System, Crawling Peg System, Managed Floating System, Clean and Dirty Float System - Balance of Payment and Exchange Rate - Is Balance of Payments Always in Balance? – Convertibility of Currency- Currency Crisis-Causes, Impact and Measures.

### **Module 4: International Monetary System**

**(12 Lectures)**

Rise and Fall of International Gold Standard - Bretton Woods System- Breakdown of the Bretton Woods System - Monetary System after the Collapse of Bretton Woods System - Maastricht Treaty, Features, Effects and Importance of Euro- Currency Market - Causes and Consequences of Global Economic Crisis - Impact of Global Recession on the Indian Economy - Asia Infrastructure Investment Bank (AIIB) - New Development Bank (NDB): Asian Development Bank (ADB).

### **References:**

1. Blanchard, Oliver (2008), Macroeconomics, Pearson education, New Delhi, India.
2. Dornbusch, Fisher and Startz (2018): Macroeconomics, McGraw Hill Education (India) Pvt. Ltd.
3. Mankiw N Gregory (2003), Macroeconomics, 6" edition, Worth Publishers, New York.
4. Patil J. F (2005, Marathi Edition), Macroeconomic Analysis, Phadke Prakashan, Kolhapur.
5. Rana K. C. & Verma K.N (2017), International Economics, Vishal Publishing CO. Jalandhar.
6. Salvatore D. (1997), International Economics, Printice Hall, New York.

## **PAPER-V: INTERNATIONAL ECONOMICS**

### **Course Objectives**

The course is designed to provide a general understanding of the fundamentals of International Trade Theories along with the balance of payment concepts, crisis and various policy measures to correct the same. It also provides overview of the working of foreign exchange market, determination of exchange rate and different terms related with the foreign exchange market. The course introduces the main features of the international economic institutions and enables them to critically understand role and functions of those institutions.

### **Course Outcomes**

- Students will be able to understand the trade theories and determinants of trade which helps them to analyze the international trade policies.
- Students will be able to understand the role of various international institutions and trade blocks and their approaches in framing the policies for trade.

### **Module 1: Introduction to Trade Theories**

**(12 Lectures)**

Meaning, scope and importance of International Trade- Difference between Internal and International Trade - Adam Smith's Theory of International Trade - Ricardian theory of comparative cost difference Heckscher- Ohlin Theory-Leontief's Paradox- Krugman's Model

### **Module 2: Balance of Trade and Balance of Payment**

**(12 Lectures)**

Concepts of Terms of Trade (Net barter, Gross barter and Income terms of trade)-Meaning and difference between Balance of Trade (BOT) and Balance of Payment (BOP)-Purchasing Power Parity theory, Law of Reciprocal Demand-Marshall-Edgeworth Offer curves, Gains from trade-Case for and against Free Trade and Protection policy

### **Module 3: Foreign Exchange Market**

**(12 Lectures)**

Meaning and Functions of Foreign Exchange Market-Exchange rate determination, Factors influencing foreign exchange rate-Managed Flexibility-SWAP Market, Components of foreign exchange reserves  
Foreign Aid Vs Foreign Trade, FDI and MNCs

### **Module 4: International Economic Institutions and Economic Integration**

**(12 Lectures)**

IMF, World Bank - Role and functions-WTO-Objectives, Functions and Agreements with respect to TRIPS, TRIMS, GATS, AoA - Forms and objectives of Economic Integration-Cartels-Trade Blocs, ASEAN- European Union (EU)- NAFTA and SAARC.

### **References:**

1. Appleyard Dennis and Alfred j Field, Jr, International Economics, 2001, 4<sup>th</sup> Edition, Tata McGraw-Hill Education Private Limited.
2. Cherunilam Francis, International Economics, 2009, 5<sup>th</sup> Edition, Tata McGraw-Hill Education Private Limited, New Delhi.
3. Krugman R Paul, Maurice Obstfeld, International Economics Theory and Policy, 2009, 8<sup>th</sup> Edition, Pearson.
4. Melitz M. and Trefler D., Gains from Trade When Firms Matter, Journal of Economic Perspectives, Spring 2012.
5. Salvatore, Dominick, International Economics, 2008, 8<sup>th</sup> Edition, Wiley India.
6. Sodersten, Bo and Geoffery Reed, International Economics, 2006, 3<sup>rd</sup> Edition.



## **PAPER-VI: ECONOMICS OF C O-OPERATION**

### **Course Objectives**

The paper is designed to provide various aspects related to the Principles of cooperation and cooperative organizations in the globalized economy. The essentials of cooperative finance are dealt in with reference to the latest trends. The cooperative movement has a long history of more than hundred years. Indian Cooperatives Structure is one of the largest networks in the world. Under this backdrop the student should study the principles and role of cooperation in the modern era.

### **Course Outcomes**

- Students can understand the basic Principles of Cooperation, Globalization and Cooperation.
- Provides information about co-operative Movement in India and its performance and role in rural development.
- Students get introduced to the problems and measures of agro industries and Cooperative farming and Leadership in cooperative development.

### **Module 1: Co-operation**

**(12 Lectures)**

Meaning and features of Co-operation- Principles of Co-operation (Manchester-1995) - Role of Co-operation in Economic development - Globalization and Co-operation-Importance and Benefits of Co-operation - Co-operative Movement in foreign Countries - Consumer Cooperative Movement in U.K- Agricultural Cooperative Movement in Israel.

### **Module 2: Co-operative Finance in India**

**(12 Lectures)**

Co-Operative Finance: Need, Structure. Progress and Problems - National Co-operative Development Corporation (NCDC) - Farmers service societies - Urban Co-operative banks,

### **Module 3: Agricultural Co-operatives**

**(12 Lectures)**

Role and Types of Agro-Industries - Problems and Measures of Agro-Industries - Sugar and Dairy Co-operatives - Food and Fruits Processing Industry - Co-Operative Farming

## **Module 4: Co-operative Organizations in India**

**(12 Lectures)**

Consumer Co-operatives - Co-operative Marketing - NAFED - Housing Co-operative societies Labour Co-operative societies - Leadership in Cooperative development - Concept of Co-Operatives Audit.

### **References:**

1. Bedi R. D. (2001), Theory, History and Practice of Co-Operation, International Publishing House, Meerut (U.P.).
2. Government of Maharashtra - Co-operative movement at a Glance (latest annual report).
3. Hajela T.N, (2000), principles, problem and practice of Co-operation, Agarwal Publication, New Delhi.
4. Mathur B. S, (2000), Co-Operation in India, Sahitya Bhavan, Agra.
5. Matthai John, (1996), Agricultural Co-Operation in India, Reliance Publishing House, New Delhi.
6. Swami Krishna, (1985), Fundamentals of Co-Operation, S. Chand and Company Ltd, New Delhi.

## **PAPER-VII: RESEARCH METHODOLOGY - II**

### **Course Objectives**

This paper has various objectives, like to enable students in understanding application of statistics in research, to prepare learners to realize about various analytical tools and methods in research, to orient the students to know index numbers, hypothesis formulations and testing and to make student understand about the research report writing.

### **Course Outcomes**

- The learners get assimilated to the research culture in Economics through application of Statistics.
- The learners will understand the concept of index number with its use and applications.
- The course will help in formulation of hypotheses and its testing in social science research.
- The students will understand the writing of social science research reports with its various types, organization and styles.

## **Module 1: Application of Statistics in Research**

**(10 Lectures)**

Methods of studying correlation- measurement of simple correlation: graphic method- Scatter diagram- Coefficient of correlation- Karl Pearson and rank correlation- Interpretation of  $r = +1$ . Linear regression analysis: Meaning, regression lines, regression equation, regression equation relationship between correlation and regression- Analysis of time series- Components- Trend analysis- Moving averages (3, 4 and 5 Yearly) - Method of least square.

## **Module 2: Index Number:**

**(14 Lectures)**

Meaning and classification of index number - Problems encountered while constructing index numbers- Uses and limitation of index numbers - Methods of constructing index numbers: Simple index: i) Aggregate method ii) Simple average of Relative method - Weighted index: Laspeyer's, Paache's, Fisher's and Marshall- Edgeworth - Base shifting - Deflating and Cost of living index number: Weighted average of Relative method - Aggregate Expenditure method- Chain based index - Concepts of base shifting, splicing, and deflating - Consumer price index- Meaning, need and construction.

## **Module 3: Hypothesis Formulation and Testing**

**(10 Lectures)**

Definition and functions of Hypothesis - Criteria of workable Hypothesis - Forms and sources of hypothesis- Concepts in testing of hypothesis: Universe / Population parameter and sample statistics- Types of hypotheses: Null and Alternative Hypotheses-Levels of significance-Critical region -Type I and Type II Errors -Student t- test.

## **Module 4: Research Report Writing**

**(14 Lectures)**

Types of research reports: Technical, Popular, Interim, Summary, Article- Format of a research report- Principles of writing the research report: Organization and style - Contents- Styles of reporting- Steps in drafting reports- Editing the final draft-Evaluating the final draft -Organization of the research report: Preliminaries, Contents of report, Structuring the report: Chapter format- Pagination- Identification- Using quotations, Presenting footnotes- Abbreviations- Presentation of tables and figures- Referencing documentation-Use and format of appendices- Indexing - Bibliography, Appendices.

## References:

1. Allen, T. Harrell (1978), New methods in social science research, Praeges Publishes, New York
2. Bhandarkar P.L.,(1994), Samajik Sanshodhan Padhati, Himalaya Publication, New Delhi, (Marathi)
3. Ghosh, B.N, (1992). Scientific methods and social research, Sterling publishers Pvt. Ltd, New Delhi.
4. Gupta S. P, (1987), Statistical methods, Sultan Chand and Sons, New Delhi
5. Kothari R.C. (2008), Research methodology, methods and techniques, New Age International Publishers, 2<sup>nd</sup> revised edition, New Delhi.
6. Krishnaswamy O.R. (1993), Methodology of research in social sciences, Himalaya Publishing House, Mumbai

## **PAPER-VIII: ENVIRONMENTAL ECONOMICS - II**

### **Course Objectives**

This paper introduces vital aspects related to environmental degradation and advocates the need for environmental accounting. The paper also focuses on the attainment of SDGs

### **Course Outcomes**

- Students are empowered about the environmental challenges and the need for environmental accounting
- Develop understanding on the policy measures to attain SDGs.

### **Module1: Environmental Degradation (12 Lectures)**

Concept and types of Environmental Degradation; Renewable and Non-renewable natural resources: Land, Air, Water and Noise Pollution: Causes, effects and measures.

### **Module 2: Environmental Accounting (12 Lectures)**

Accounting for environmental and natural resources: Meaning and importance; System of Environmental-Economic Accounting (SEEA) and Environmental and Natural Resources Accounting (ENRA); Integration of Environmental Accounts with System of National Accounts: Green GDP; Concept of Green Growth and its Indicators; Concepts of Green Consumer and Green Business.

### **Module 3: Sustainable Development and India (12 Lectures)**

Concept of Sustainable Development; Characteristics and dimensions of Sustainable Development; Sustainable Development Goals and Measures with special reference to India; Smart Cities Mission in India; National Mission For Sustainable Agriculture (NMSA): Objectives, strategy and components.

### **Module 4: Environmental Policy in India**

**(12 Lectures)**

Role of the center and state government Overview of laws to improve the environment in India; Central pollution Control Board; Industrial Pollution Control Measures in India; Pradhan Mantri Ujjwala Yojana (PMUY); National Green Tribunal.; Environmental Education in India.

## References:

1. Barry Field and Martha k Field: Environmental Economics, McGraw Hill International Edition, 2017.
2. Bhattacharya R.N. (Ed) (2001), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
3. Charles Kolstad : Environmental Economics, Oxford University Press, New York, 2000.
4. Hanley Nick, Shogren Jason and White Ben: Introduction to Environmental Economics, Oxford University Press, 2001.
5. Kaltschmitt, Martin, Streicher, Wolfgang, Wiese, Andreas, Renewable Energy: Technology, Economics and Environment, Springer, Germany, 2007.
6. V.S. Ganesamurthy: Environmental Economics in India, New Century Publications, New Delhi, 2009.

## PAPER-IX: HISTORY OF ECONOMIC THOUGHT-II

### Course Objectives

This paper aims to provide the information about the biography and contribution of various economic thinkers. This paper is framed with the objective of making students aware of the varying phases of economic thoughts and development of that into economic science.

### Course Outcome

- Students will get information about the genesis of Economics and its modern scenario.
- Students get familiarized with the leading Indian economists who significantly contributed to the stream of Indian economic thought

### **Module 1: Indian Economic Thought**

**(12 Lectures)**

Kautilya on welfare state -Dadabhai Naoroji's Thoughts on Drain Theory- Ranade's Case on Protection - R. C. Dutt on Imperialism - Land Tax and Public Finance - Gopal Ganesh Agarkar.

### **Module 2: Economic Thought of Mahatma Phule and Gandhi**

**(12 Lectures)**

Mahatma Phule's Views on Agriculture - Reasons of Farmer's Poverty - Gandhian Economic Thoughts on Self-Sufficient Village Economy - Dignity of Labour – Trusteeship - and Sarvodaya.

### **Module 3: Economic Thought of Dr. B.R. Ambedkar, G.K. Gokhale and Dr. Manmohan Singh**

**(12 Lectures)**

Dr. Ambedkar's Case for State Socialism - Problem of Rupee - Public Finance – G.K. Gokhale on Development and Welfare - Dr. Manmohan Singh's ' Three Steps' to Stem India's Economic Crisis.

### **Module 4: Nobel Prize Winners in Economics**

**(12 Lectures)**

Dr. Amartya Sen (1998) -Robert. A. Mundell (1999) -Joseph Stiglitz (2001) -Dr. Abhijeet Banarjee (2019)

### **References:**

1. B.R.Nanda Gokhale (1977):- The Indian moderates and the British raj, Delhi.
2. Ajit K.Dasgupta,A History of Indian Economic Thought, (1993)Routledge London and New York.
3. Bipin Chandra (ed) (1999) Ranade's economic writings, Gyan Publication House, New Delhi.
4. Encyclopaedia of Nobel Laureate, Ed's, (2002) R. Kapila & A. Kapila, Academic Foundation.
5. Gandhi. M. K., (1959), India of my dreams, Navjivan publishing house Ahmadabad.
6. R. P. Mansi, Dadabhai Naoroji, (1960) publication Division, Government of India Delhi.



**EVALUATION SCHEME:**  
**( FOR SEMESTER-V AND VI )**  
**TOTAL MARKS 100**

**CIA (CONTINUOUS INTERNAL ASSESSMENT) – TOTAL MARKS - 40**

**Components of CIA**

CIA 1 - Internal Exam – 20 Marks

CIA 2 – Any one of the following – 20 Marks

- a) Assignment and Presentation
- b) Field work and Report
- c) Study Tour and Report
- d) Group Discussion
- e) PPT Presentations

**ESE EXTERNAL EXAM PAPER PATTERN – TOTAL MARKS - 60**

- Q.1. Any 2 questions out of 3 on Module 1 (12 marks)
- Q.2. Any 2 questions out of 3 on Module 2 (12 marks)
- Q.3. Any 2 questions out of 3 on Module 3 (12 marks)
- Q.4. Any 2 questions out of 3 on Module 4 (12 marks)
- Q.5. Any 2 short notes out of 4 on all modules (12marks)