

**Department of Economics,  
Faculty of Social Sciences,  
Banaras Hindu University, Varanasi**

**Revised & Updated Ordinance, Course Structure  
& Curriculum**

**Bachelor of Arts in Economics**

**(In force from Session 2017-18)**

**DEPARTMENT OF ECONOMICS**  
**FACULTY OF SOCIAL SCIENCES**  
**BANARAS HINDU UNIVERSITY**  
**VARANASI**  
**SYLLABUS — BACHELOR OF ARTS (ECONOMICS)**  
**IN FORCE FROM SESSION 2017-18**

**Guiding Principles for Undergraduate Courses**

Sl.No.	Principle	Weight
1	As Pedestal to PG Courses	40%
2	Subsiding to Social Sciences	10%
3	General awareness about economic aspects of life	10%
4	Preparing Students for Professional/ Job Oriented Courses	20%
5	Linking with Job Market	20%

**Structure**

The Under Graduate Economics (Honours) course shall have altogether Twenty (22) courses comprising of 67 credits. Out of these Four (04) papers shall be optional in nature. There shall be limited choice in optional papers. Semester I, Semester II, Semester III and Semester IV shall have two compulsory papers each. Semester V as well as Semester VI shall have five compulsory and two optional papers each. In addition the Department shall offer some papers for students from other departments/ faculties as ancillary paper. All the Papers would be of 3 credits except Paper –XXII (Field Survey/Project Work/Dissertation) which would be of 4 credits. The structure of course is as following:

Paper	Semester-I	No. of Credits	Paper	Semester-II	No. of Credits
ECB-101	Techniques of Economic Analysis	3	ECB-201	Microeconomics	3
ECB-102	Indian Economic Experiences	3	ECB-202	Macroeconomics	3

Paper	Semester-III	No. of Credits	Paper	Semester-IV	No. of Credits
ECB-301	Money & Banking	3	ECB-401	Indian Economic Policies	3
ECB-302	Public Economics-I	3	ECB-402	Public Economics-II	3

Paper	Semester-V	No. of Credits	Paper	Semester-VI	No. of Credits
ECB-501	Market Analysis	3	ECB-601	Factor Pricing & Welfare Economics	3
ECB-502	International Economics	3	ECB-602	International Macroeconomics	3
ECB-503	Statistical Methods	3	ECB-603	Environmental Economics	3
ECB-504	Quantitative Methods	3	ECB-604	Development Economics	3
ECB-505	Optional-I(from List-I), Paper-I	3	ECB-605	Optional-I(from List-I), Paper-II	3

ECB-506	Optional-II(from List-II), Paper-I	3	ECB-606	Optional-II(from List-II), Paper-II	3
ECB-507	Research Methods	3	ECB-607	Field Survey/Project Work/Dissertation	4

### **Optional Papers**

The students would be required to choose one optional group each from 'List-I' and 'List-II' provided as under and study two papers each from the optional group chosen. For example if the student chooses Econometrics from List-I and Operations Research from List-II, he will have to take Econometrics-I as Paper-XIII and Operations Research-I as Paper-XIV in Semester-V and Econometrics-II as Paper-XIX and Operations Research-II as Paper-XX in Semester-VI. Students shall not be permitted to opt two optional groups from the same list. For example, students are not allowed to opt for Agriculture with Econometrics.

#### **Optional Papers- List-'I'**

ECB-505A	Econometrics-I	ECB-605A	Econometrics-II
ECB-505B	Agriculture-I	ECB-605B	Agriculture-II
ECB-505C	Population Studies-I	ECB-605C	Population Studies-II
ECB-505D	Banking & Insurance-I	ECB-605D	Banking & Insurance-II
ECB-505E	Economic Thought-I	ECB-605E	Economic Thought-II

#### **Optional Papers- List-'II'**

ECB-506A	Operations Research-I	ECB-605A	Operations Research-II
ECB-506B	Mathematical Economics-I	ECB-605B	Mathematical Economics-II
ECB-506C	Computers in Economics-I	ECB-605C	Computers in Economics-II
ECB-506D	Industrial Economics-I	ECB-605D	Industrial Economics-II
ECB-506E	Financial Market-I	ECB-605E	Financial Market-II

### **Ancillary Course for students not offering Economics as one of the Main Course in Sem-I to Sem-IV**

The Department would in principle be offering the following ancillary courses for students who have not taken economics as one of the main course in Semester I to Semester IV. The actual number of courses that would be offered in a particular semester and permissible number of students per course would be declared by the Department at the beginning of each Semester depending on availability of faculty and other resources.

1. ECB-102- Indian Economic Experiences
2. ECB-401-Indian Economic Policies
3. ECB-505B-Agriculture-I
4. ECB-605B-Agriculture-II
5. ECB-505D-Banking & Insurance-I
6. ECB-605D-Banking & Insurance-II
7. ECB-302-Public Economics-I
8. ECB-402-Public Economics-II
9. ECB-603-Environmental Economics
10. ECB-506B-Mathematical Economics-I
11. ECB-606B-Mathematical Economics-II
12. ECB-506E-Financial Market-I
13. ECB-606E-Financial Market-II

These courses would be offered in different semesters as per detail given below:

**Semester wise Ancillary Courses offered by Department to Students not Offering Economics as one of the Main Course in Sem-I to Sem-IV**

**Semester-I**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
ECB-102	Indian Economic Experiences Or	3
ECB-505B	Agriculture-I Or	3
ECB-505D	Banking & Insurance-I Or	3
ECB-302	Public Economics-I	3

**Semester-II**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
ECB-401	Indian Economic Policies Or	3
ECB-605B	Agriculture-II Or	3
ECB-605D	Banking & Insurance-II Or	3
ECB-402	Public Economics-II	3

**Semester-III**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
ECB-506B	Mathematical Economics-I Or	3
ECB-506E	Financial Market-I Or	3
ECB-603	Environmental Economics	3

**Semester-IV**

<b>Course Code</b>	<b>Course Title</b>	<b>Credits</b>
ECB-606B	Mathematical Economics-II Or	3
ECB-606E	Financial Market-II	3

The syllabi of these courses would be same (which is offered to students who have taken economics as their main course). The exact number of course offered in a particular semestr would be declared by the Department based on the availability of teaching and other resources.

**BACHELOR OF ARTS (ECONOMICS)**  
**SEMESTERWISE SYLLABI**  
**SEMESTER-I**

PAPER	SEMESTER- I	NO. OF CREDITS
ECB-101	Techniques of Economic Analysis	3
ECB-102	Indian Economic Experiences	3

**ECB-101: TECHNIQUES OF ECONOMIC ANALYSIS**

**Introduction**

The Economic Problem – Scarcity and Choice; Concepts of Equilibrium – Stable and Unstable; Partial and General; Static and Comparative Static; Dynamic Equilibrium; Meaning and Structure of an Optimization Problem

(5 Lectures)

**Technique of Equilibrium**

Relations, Functions; Rectangular Coordinates; Graphs of Equations, Linear Equations; An Introduction to Straight Line, parabola, hyperbola, Graphs of Linear Function, Demand Analysis and Linear Demand Function, Linear Supply Function. Market Equilibrium – A Linear Partial Equilibrium Market Model – Determination of Equilibrium Quantity and Price (perfect competition and monopoly only); Comparative Static Equilibrium Model – Shifts in Equilibrium; Effects of Unit Tax and Subsidy on Quantity and Price; Quadratic Demand and Supply Curves.

(20 Lectures)

**Technique of Optimization**

The Derivative of a Function; Limit and Continuity; Rules of Differentiation (only non-trigonometric functions), Second and Higher Order Derivatives; Maxima and Minima in One Variable Case: Graphical and Mathematical Relations among Total, Average and Marginal Magnitudes (Revenue and Cost); Elasticity of Demand: Price, Income and Cross Elasticity, Relationship Between Marginal Revenue, Average Revenue and Elasticity of Demand.

(15 Lectures)

**Elementary idea of Matrices and Determinants**

Addition, Subtraction and multiplication of matrices; Properties of Determinants and solution of linear equations using matrices.

(5 Lectures)

**Selected Readings:**

(Valid for Paper-III, Paper-IX and Paper XV Also)

- Koutsoyiannis, A: Modern Microeconomics
- Prasad, A.R: Working Tools of Microeconomics
- Jain, T.R: Microeconomics and Basic Mathematics

- Henderson, J. and R.E. Quandt: Microeconomic Theory – A Mathematical Approach.
- Baumol, W.J. (1982): Economic Theory and Operations Analysis
- Lipsey, R.G. and K.A. Chrystal: Principles of Economics.
- Kreps, D. (1990): A Course in Microeconomic Theory. Princeton, N.J.: Princeton University Press
- Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
- Hal R. Varian (1993): Intermediate Microeconomics, a Modern Approach, Affiliated East-West Press
- Ray, N.C: An Introduction to Microeconomics.
- Mehta, Prem L. et al. (2005): Microeconomics , Pearson Education, Delhi
- Prasad, A.R. (2005): Working Tools of Microeconomics, Mahamaya Publishing House, New Delhi.
- Seth, M.L: Micro-Economics
- Jhingan, M.L: Micro-Economic Theory
- Robert S. Pindyk and D.L. Rubinfeld, (2000): Microeconomics, Prentice Hall India.



## **ECB-102: Indian Economic Experiences**

Indian Economy on the eve of Independence, British rule and its impact on Indian Economy, Emergence and development of Planning exercise in India – historical debates, plan models and shift in focus over time ,Change in Indian Economic structure after Globalization (Only Elementary Idea is to be given)

(10 Lectures)

Output (National Income) & various Concepts, Sectoral analysis: Trend & growth of agriculture, industry and services sectors since Independence, Employment Structure and its Elasticity ,Unemployment – trends, structure and types, Concepts of Poverty and Inequality and problem of Identification, Inflation – trends, structure and causes

(15 Lectures)

Trends and patterns in structure of population over time(1951 to current ) growth rate, gender, rural-urban, literacy, regional disparity. Trends in Agricultural Production and Productivity; Land Reforms – Genesis, Progress and current status; Green Revolution – Measures and its effects.

(10 Lectures)

Trends and Patterns of Industrial Sector since Independence and change in Industrial policies including recent initiatives ; Micro, Small & Medium Scale Industries – Growth, Structure and its contribution in national economy; Public Sector – Growth, Structure, Historical role, Evolution and Disinvestment. Trends in Exports and Imports; Composition and Direction of Foreign Trade; Balance of Payments–Current Status and recent Government initiatives.

(10 Lectures)

### **Selected Readings:**

(Valid for Paper VII, Semester IV also)

- Ramesh Singh ,Indian Economy ,6<sup>th</sup> Edition ,Tata Mcgraw Hill
- Ramesh Singh, Bhartiya Arthayavastha,Paperback 2014

- Nilanjan Banik, The Indian Economy :A Macroeconomic Perspective,2015, Sage Publishing
- Uma Kapila: Indian Economy Since Independence ,26<sup>th</sup> edition ,Academic Foundation
- Uma Kapila: Indian Economy Performance & Policies ,2015-16 ,Academic Foundation
- Amartya Sen & Jean Dreze,An Uncertain Glory :India and its Contradictions,
- J.Bhagwati & A.Panagaria,Why Growth Matters,2014 ,Public Affairs
- Nandan Nilekani, Imagining India: Ideas For New Century,2009,Penguin
- R Dutta and K P M Sundaram: Indian Economy, 72 Edition ,2016,S.Chand & Company Ltd.
- Gurcharan Das, India Unbound: From Independence to Global Information Age, Paperback,2015
- A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
- Mishra and Puri: Indian Economy, Himalaya.
- Government of India: Economic Survey (latest issue)



## SEMESTER-II

PAPER	SEMESTER-II	NO. OF CREDITS
ECB-201	Microeconomics	3
ECB-202	Macroeconomics	3

### ECB-201: MICROECONOMICS

#### Introduction

Economic Agents: Consumer, Producer and Government; Approaches to the Study of Economics – Micro and Macroeconomics.

(3 Lectures)

#### Theory of Consumer Behaviour

Utility Analysis – Concept and Measurement; Cardinal Utility Analysis – Assumptions; Tools of Cardinal Utility Analysis – Total and Marginal Utility; Laws of Cardinal Utility Analysis – The Law of Diminishing Marginal Utility; The Law of Equi-marginal Utility; Consumer Equilibrium: A Two- good Case; Derivation of Demand Curve from Marginal Utility Curve; Critical Evaluation of Cardinal Utility Analysis; Ordinal Utility Analysis – Consumer's Preference: Axioms/Assumptions; Indifference Curve – Assumptions, Properties, Indifference Map, Budget Line — Determinants, Consumer's Equilibrium; Income Effect: Income Consumption Curve, Derivation of Engel Curve, Substitution Effect: Hicks and Slutsky Methods; Price Effect: Price Consumption Curve, Derivation of Demand Curve; Breaking up Price Effect into Income and Substitution Effects: Compensating Variation and Equivalent Variation in Income; Revealed Preference Hypothesis – Assumptions, Derivation of Demand Curve and Indifference Curve; Features of Special Classes of Utility Functions – The Cobb-Douglas Utility Function; The Leontief Utility Function; the CES (Constant Elasticity of Substitution) Utility Function; Elasticity of Demand – Concept, Kinds (Price, Cross-Price and Income Elasticities of Demand) and Methods of Measurement.

(22 Lectures)

#### Theory of Production and Cost

Production Function; Laws of Production – Law of Variable Proportions: Three Stages of the Law of Variable Proportions, Return to a Factor; Law of Returns to Scale; Production with Two Variable Inputs – Isoquants: Slopes and Properties, Isoquant Map, Iso-cost Lines, Producer's Equilibrium; Expansion Path; The Economic Region of Production and Ridge Lines; The Concepts of Costs: Accounting Costs and Economic Costs; Opportunity Cost-Private Cost and Social Costs; The Cost Function; The Traditional Theory of Costs – Short-Run Costs; Long Run Costs: The 'Envelope Curve'; Modern Theory of Costs – Short-Run Costs; Long Run Costs: The 'L-shaped Scale Curve.

(20 Lectures)

#### Selected Readings:

Agarwala, S.K.: Microeconomics  
Ahuja, H.L.: Modern Economics  
Barthwal, R.R.: Microeconomics Analysis  
Bhaduri, Sunil: Microeconomic Theory



Chakravarty, Satya R.: Microeconomics  
 Estrin Saul, Laidler David, David E.W. Laidler, Michael Dietrich, Microeconomics  
 Henderson, James M. & Quandt, Richard E.: Microeconomic Theory  
 Jain, T.R. & Ohri, V.K.: Principal of Microeconomics  
 Jain, T.R. & Trehan, Mukesh: Microeconomics  
 Koutsoyiannis, A.: Modern Microeconomics  
 Lipsey Richard G., Purvis Douglas D., Grant E. Kenneth, Courant Paul N.: Micro Economics  
 Lipsey Richard G., Courant Paul N. Christopher, Ragan, T. S.: Microeconomics  
 Misra, S. K. & Puri, V.K.; Microeconomics: Theory and Applications  
 Mukherjee, Sampat: Modern Economic Theory  
 Mukherjee, Sampat, Mukherjee, Mallinath, Ghose, Amitava: Microeconomics  
 Prasad, A.R.: A Study on the Theory of Production: An Exposition with Simple Mathematics  
 Prasad, A.R.: Working Tools of Microeconomics  
 Prasad, A.R.: A Study on the Theory of Consumer Demand: An Exposition with Simple Mathematics  
 Perloff: Microeconomics: Theory and Applications with Calculus  
 Pindyck / Mehta: Microeconomics  
 Schaum's Outline of Microeconomics, (Schaum's Outline Series)  
 Sen, Anindya: Microeconomics: Theory and Applications  
 Stonier, Alfred W. & Hague, D.C.: A Textbook of Economic Theory  
 Varian, Hal R.: Microeconomic Analysis



## **ECB-202: MACROECONOMICS**

### **National Income**

National Income Accounting & National Income Identities; Measurement of National Income, Problem of Aggregation, Stock & Flow, Concept of Sectors and Market Divisions, Circular Flow of Income in 2 & 3 Sector economy, Measurement of Cost of Living-CPI, GNP deflator Theory of Employment & Output- The Classical Analysis of the Real Sector- Determination of Employment, income and rate of interest Simple Keynesian Analysis- With and Without Government Sector The Neo-Classical Synthesis- The IS-LM Model and the Interaction of the Real and Monetary Sectors.

(18 Lectures)

### **Consumption Function**

Keynes' Absolute Income Hypothesis-APC & MPC, Permanent Income Hypothesis, Relative Income Hypothesis, Life Cycle Hypothesis, Consumption Under Uncertainty, Factors Influencing Consumption Spending, Multiplier- Investment Multiplier- Simple and Dynamic, Leakages and Limitations of Multiplier, Investment Function- Investment Function; MEC & MEI; Savings and Investment Identity and equilibrium. Acceleration Principle

(18 Lectures)

### **Economic Fluctuations**

Nature and Characteristics of Trade Cycle, Theories of Trade Cycle, Samuelson, Hicks, Control of Trade Cycle, Recent Recessions in the World.

(9 Lectures)

**Selected Readings:**

- Dernberg Thomas F (1985): Macroeconomics: Concepts, Theories and Policies, 7<sup>th</sup> Edition.
- Dornbusch, Fischer & Startz (2005): Macroeconomics, Tata McGraw-Hill Publishing Co. Ltd
- Shapiro Edward (2007): Macroeconomic Analysis, Galgotia Publications Pvt. Ltd.
- Blanchard Olivier (2007): Macroeconomics, Ch-8,9, Pearson Education
- Branson William (2006): Macroeconomics: Theory and Policy, AITBS
- Rana, K.C. & Verma K.N: Macro Economic Analysis, Vishal Publishing House
- Hejdra, B.J. and F.V. Ploeg (2001): Foundations of Modern Macroeconomics, Oxford University Press, Oxford.



## **SEMESTER-III**

<b>PAPER</b>	<b>SEMESTER-III</b>	<b>NO. OF CREDITS</b>
ECB-301	Money & Banking	3
ECB-302	Public Economics-I	3

### **ECB-301: MONEY & BANKING**

#### **Money**

Meaning & Functions, Classification, Supply of Money - Approaches to Supply of Money. High Powered Money and Money Multiplier, Measurement of Supply of Money in India, Demand for Money- Conventional, Neo-Classical and Keynes' Approaches,

(14 Lectures)

#### **Value of Money**

Cash Transaction Approach, Cash Balance Approach; Keynes' View on Value of Money, Inflation, & Deflation- Definition & Types, Causes and Effects of Inflation; Demand-pull and Cost-push Inflation, Inflationary Gap and Double Inflationary Gap (Bent Hanson; Inflation and Unemployment-The Phillips Curve-Short run & Long run(Only graphic Presentation) Measures to Control Inflation.

(17 Lectures)

#### **Commercial Banking**

Meaning and Functions, Process of Credit Creation, Recent Reforms in Banking Sector in India. Central Banking- Functions; Methods of Credit Control, Role and Functions of the Reserve Bank of India; Objectives & Limitations of Monetary Policy with Reference to India, Financial Market- Structure and Components of Financial Market.

(14 Lectures)

#### **Selected Readings:**

- Lewis M. K. and P.D.Mizen (2000): Monetary Economics, Oxford
- Jadhav Narendra (2006): Monetary Policy, Financial Stability & Central Banking, Macmillan
- Baye and Jansen(1996): Money, Banking and Financial Markets, AITBS
- Gail E. Makinen (1978): Macroeconomics: Concepts, Theories and Policies, Money, The Price Level and Interest Rate, Prentice hall India Ltd.
- David E.W.Laidler(1977): The Demand for Money: Theories & Evidence, Dun-Donnelley
- O. P. Kotwal (1987): Theories of Inflation: A Critical Survey, Tata-McGraw-Hill Publishing Co. Ltd.
- Ackley G, (1978): Macroeconomics: Theory & Policy, New York, Macmillan
- Rana,K.C. & Verma K.N: Macro Economic Analysis, Vishal Publishing House
- Shekhar & Shekhar, (1998): Banking Theory & Practice, Vikash Publishing House Pvt. Ltd.

## **ECB-302: PUBLIC ECONOMICS-I**

Economic Rationale of Mixed Economy; Public Finance and shift to Public Economics, Role of Government in a State; Efficiency, markets and Governments, Equity and the Social Welfare Function; Market failure and role of government, Asymmetric Information and market Failure; The Problem of Externalities and their Internalization, the Coase Theorem. Problem of Free riding ,Public Policy: State, Civil Society & Public Opinion.

(10 Lectures)

Public goods – Concept, Characteristics and Types of Public Goods; Efficient Provision of Public Goods; Pure Theories of Public Goods – Bowen Model, Lindahl Model, Pigou Model, Preference revelation Mechanisms for Public Goods, Pareto efficiency; The Principle of Maximum Social Advantage; Partial and General Equilibrium Analysis.

(14 Lectures)

Principles of Taxation - Benefit vs. Ability to Pay; Different criteria for ability and progressive taxation; types of taxes; Incidence and Shifting of tax; Taxable Capacity; Welfare Cost of Taxation; Effect of tax on price and output; Unit and Ad valorem taxation under competition and monopoly; Taxation and Work effort – theory and evidence: An Introduction, the Laffer curve.

(10 Lectures)

Indian Tax System - Tax structure in India; Types of taxes in India, Issues of tax buoyancy, Indian Tax Administration-Tax Reforms in India, Chelliah Committee Report – Kelkar committee report I & II -Recent-trends-DTC-Incidence of Major taxes in India - VAT - CENVAT-GST. Issues of subsidies in India and black money, Public Budget – Optimum Budget; Budgetary Procedure in India.

(11 Lectures)

### **Selected Readings:**

#### **(Valid also for Paper-VIII, Public Economics-II)**

- Atkinson, A. and Stiglitz, J. (1980): Lectures in Public Economics, McGraw Hill, London.
- Browning, Edgar K. and Browning, Jacqueline, M. (2004): Public Finance and the Price System, Pearson Education Pvt. Ltd. Delhi.
- Buchanan, James M. (1968): The Demand and Supply of Public Goods, Skokie Ill Rand Mc Nally.
- Chelliah, Raja J: Fiscal policy in Underdeveloped Countries.
- Chelliah, Raja J. et.al: Trends and Issues in India's Federal Finance.
- Jha, Raghendra (1999): Modern Public Economics, Routledge, London and New York.
- Laffont, Jean. Jacques (1994): Fundamentals of Public Finance, Cambridge Mass, MIT Press.
- Musgrave, R.A., and Musgrave, P.B. (1989): Public Finance in Theory and Practices, McGraw Hill, New York.
- Musgrave, Richard.A.(1959): The Theory of Public Finance, McGraw Hill, New York.
- Myles, Gareth D. (1995): Public Economics, Cambridge University Press, Cambridge.
- Rosen, Harvey S. (1995): Public Finance (Fourth Edition), Richard D. Irwin, Chicago.
- Thompson, F. and Green, M.T. (1998): Handbook of Public Finance, Marcel Dekker, NewYork.

## SEMESTER-IV

PAPER	SEMESTER-IV	NO. OF CREDITS
ECB-401	Indian Economic Policies	3
ECB-402	Public Economics-II	3

### ECB-401: INDIAN ECONOMIC POLICY

#### Population Policy

Skill structure of Labour Force; Output –Employment Relationship; Growth – Equity Relationship; Falling employment elasticity; Poverty – Controversy on Identification and Measurement, Poverty –Unemployment relationship. Theoretical foundations and Evaluation of Anti Poverty Programmes; MNREGA and Right to Employment.

(12 Lectures)

#### Evaluation of Agricultural Price Policy; Commercialisation of Agriculture

Agrarian Crisis & Policy Response , Agricultural Controversies in terms of WTO ; Terms of Trade between Agriculture and Industry; Price Responsiveness of Indian Agriculture; Food Policy – Components, Measures and Effectiveness; Public Distribution System – Evolution and Effectiveness.

(15 Lectures)

#### Making of Industrial Policy in India

Continuity and Change, MRTP to Competition Act; Delicensing, Disinvestment, Rationale of PSUs in Neoliberalism, Corporate Social Responsibility Act, MSMEs– Growth, Structure, Policy, Performance, Dualism and Labour Absorption.

(10 Lectures)

#### Salient Features of Macroeconomic Policy & New Initiatives

Monetary & Fiscal Policies and Macroeconomic Problems in India; EXIM Policy; Policy on Foreign Capital, FERA to FEMA, Prevention to Money Laundering Act, 2002.

(8 Lectures)

#### Selected Readings:

(See Reading List of Paper-II)

## **ECB-402: PUBLIC ECONOMICS-II**

### **Budgetary Deficits**

Concept & Types, Public Debt : Theories of public debt – Classical – Keynesian – Modern- Burden of Debt -Intergeneration equity, Impact of Public Debt on prices, output, employment and balance of payment; Crowding out; Methods of Debt Redemption Fiscal Deficit & Public debt: The Indian Context, ,Growth and composition of public debt of the Central Govt. and State Govts- External debt of India. Management of Debt: Measures of Fiscal Consolidation Corrective measures-FRBM Act.

(10 Lectures)

### **Public Expenditure**

Wagner's Law and Wiesman-Peacock Hypothesis; Relationship between Public Expenditure and Fiscal Deficit; Public Expenditure as an instrument of demand management; Public expenditure in India: Its pattern and growth. Principles of expenditure evaluation- Social cost - benefit analysis.

(10 Lectures)

### **Fiscal Policy**

Deficit concepts- Objectives; Problem of fiscal deficit, Fiscal Policy in Keynesian and Neo-classical framework; Fiscal Policy and Neo-liberalism; Theories of Fiscal and Monetary Policy Mix., Instruments and effectiveness of Fiscal Policy in India in context of roll back of state.

(10 Lectures)

### **Federal Finance**

Principles of Federal Finance; Indian Fiscal Federalism- Fiscal imbalances- Intergovernmental transfers - Efficiency basis – Equity arrangements –Major issues in center – state financial relations in India – Vertical and horizontal imbalances – Finance commission and evaluation of its working. An evaluation of the current Finance Commission – Recent Trends -Criteria of devolution – Modified Gadgil formula - Problem of Central loans to States in India – Local Finance – Changing role of local self-governments, Liberalization, economic reforms and center state relations in India.

(15 Lectures)

### **Selected Readings:**

**(See Reading List of Paper-Public Economics-I)**



## **SEMESTER-V**

<b>PAPER</b>	<b>SEMESTER-V</b>	<b>NO. OF CREDITS</b>
ECB-501	Market Analysis	3
ECB-502	International Economics	3
ECB-503	Statistical Methods	3
ECB-504	Quantitative Methods	3
ECB-505	Optional-I(from List-I), Paper-I	3
ECB-506	Optional-II(from List-II), Paper-I	3
ECB-507	Introduction To Research Methods	4

### **ECB-501: MARKET ANALYSIS**

#### **Main Market Forms and Concepts of Revenue**

Market: Meaning, Classification; Features and the Shapes of the Demand (or Average Revenue) Curve under Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly Market Structures; Concepts of Revenue: Total, Average and Marginal Revenue, Relation between Average Revenue and Marginal Revenue Curves under Perfect and Imperfect Competition; Relationship between Average Revenue, Marginal Revenue and Price Elasticity of Demand.

(10 Lectures)

#### **Objectives and Equilibrium of the Firm - A General Analysis**

Objectives of the Firm: Profit Maximization, Sales Maximization, Growth Maximization; Firm's Equilibrium with Total Revenue -Total Cost Approach and Marginal Revenue-Marginal Cost Approach; Breakeven Output; First and Second Order Conditions for Equilibrium of the Firm.

(7 Lectures)

#### **Price and Output under Perfect Competition**

Assumptions, The Nature of Demand and Marginal Revenue Curves under Perfect Competition; Short Run Equilibrium of the Firm; Long Run Equilibrium of the Firm and Industry; Shutdown Point, Short Run Supply Curve of the Firm and the Industry;

(7 Lectures)

#### **Price and Output under Monopoly**

Assumptions, Equilibrium of the Monopolist in the Short Run and Long Run Equilibrium; Allocative Efficiency and Dead Weight Loss; Measurement of Monopoly Power; Absence of Supply Curve Under Monopoly; Monopoly comparison with Perfect Competition; Price Discrimination – Meaning , Possibility and Profitability, Price and Output determination under Price Discrimination.

(7 Lectures)

### **Price and Output under Monopolistic Competition**

Assumptions, Product Differentiation, Advertising (Selling Costs), Concepts of the 'Industry' and the 'Group', The Nature of Demand and Marginal Revenue Curves under Monopolistic Competition; Price-Output determination under Monopolistic Competition, Concept of Excess Capacity, Monopolistic Competition compared with Perfect Competition and Monopoly.

(7 Lectures)

### **Price and Output under Oligopoly**

Characteristics, Collusive Oligopoly – Price and output determination under Cartels, Price Leadership (Low-Cost and Dominant Firm), Non-collusive Oligopoly – Cournot's Duopoly Model, Cournot's Equilibrium as Nash Equilibrium; Bertrand, Chamberlin and Stackelberg with an introduction to Game Theory, The Kinked-Demand Model, Price Leadership Model.

(7 Lectures)

### **Selected Readings:**

Agarwala, S.K.: Microeconomics  
Ahuja, H.L.: Modern Economics  
Barthwal, R.R.: Microeconomics Analysis  
Bhaduri, Sunil: Microeconomic Theory  
Chakravarty, Satya R.: Microeconomics  
Estrin Saul, Laidler David, David E.W. Laidler, Michael Dietrich, Microeconomics  
Henderson, James M. & Quandt, Richard E.: Microeconomic Theory  
Jain, T.R. & Ohri, V.K.: Principal of Microeconomics  
Jain, T.R. & Trehan, Mukesh: Microeconomics  
Koutsoyiannis, A.: Modern Microeconomics  
Lipsey Richard G., Purvis Douglas D., Grant E. Kenneth, Courant Paul N.: Micro Economics  
Lipsey Richard G., Courant Paul N. Christopher, Ragan, T. S.: Microeconomics  
Misra, S. K. & Puri, V.K.; Microeconomics: Theory and Applications  
Mukherjee, Sampat: Modern Economic Theory  
Mukherjee, Sampat, Mukherjee, Mallinath, Ghose, Amitava: Microeconomics  
Perloff: Microeconomics: Theory and Applications with Calculus  
Pindyck / Mehta: Microeconomics  
Schaum's Outline of Microeconomics, (Schaum's Outline Series)  
Sen, Anindya: Microeconomics: Theory and Applications  
Stonier, Alfred W. & Hague, D.C.: A Textbook of Economic Theory  
Varian, Hal R.: Microeconomic Analysis





## **ECB-502: INTERNATIONAL ECONOMICS**

Importance of International Economics; Inter- Regional and International Trade, Pure Theory of International Trade; Absolute and Comparative Advantages; Reciprocal Demand and Opportunity Cost (Haberler), Heckscher – Ohlin Theory. Modifications in H-O Model by relaxing assumptions with reference to the assumption of returns to scale, market perfection, Empirical verification and Paradoxes. Limitations of H-O Model in explaining (a) Intra-Commodity trade & (b) Trade between developed countries.

(20 Lectures)

Trade and Growth: Trade as Engine of Growth, Import Substitution Vs. Export Orientation, Export-Led Growth & Developing Countries, Concept of Terms of Trade; its relations with Economic Development. Gains from Trade.

(10 Lectures)

Tariffs and Quota: Their impact under partial equilibrium analysis, Free trade Vs. Protection, Forms of Economic Integration; Theory of the Second Best, The Globalization debate: Regionalism Vs. Multilateralism.

(15 Lectures)

### **Reading List( Valid for Paper-XVI, Semester-VI, International Macroeconomics also)**

- Salvatore, Dominick: International Economics, John Wiley
- Cherunilam Francis: International Economics (4<sup>th</sup> Edition) 2006 Tata McGraw-Hill Companies
- Krugman Paul and Maurice Obstfeld: International Economics: Theory and policy, latest edition, Pearson Education low-price edition, distributed in India by Addison-Wesley Longman.
- Sodersten B O & Reed Geoffrey: International Economics, 2003 McMillan Press Ltd.
- Bhagawati, Jagdish: In Defence of Globalisation, 2004 Oxford University Press
- Krause Walter: International Economics, 2000
- Sawyer W.Charles, Sprinkle Richard: International Economics T.T. Publications, 2003



## **ECB-503: STATISTICAL METHODS**

Classification of Data, Graphical Representation, Measures of Central Tendency and Dispersion, Correlation; Simple, Multiple and Partial. Regression Equations, Time Series- Components & Measurement, Index Number: Laspeyer, Paasche and Fisher, Tests for Ideal Index Number. Cost of Living and Wholesale Price Indices.

(25 Lectures)

Concept of probability, events and types of events, Theory of Probability, Addition, Multiplication and Bayes.

(7 Lectures)

Theoretical Probability Distributions; Distribution and Density Functions, Binomial, Poisson and Normal Distributions. Properties and Uses of Sampling Distributions;  $t$ ,  $X^2$  and  $F$ .

(10 Lectures)

Estimates and Estimators; Properties of Good Estimator.

(3 Lectures)

### **Reading List**

- Chou, Y.: Statistical Analysis
- Croxton, Crowden and Klein: Applied General Statistics
- Goon, A.M., M.K. Gupta and B. Dasgupta: Fundamentals of Statistics
- Gupta, S.C. and V.K. Kapoor: Fundamentals of Applied Statistics.
- Nagar, A.L. and R.K. Das: Basic Statistics
- Speigal, M.R.: Theory and Problems of Statistics
- Gupta, S P: Statistics
- Elhance, D N: Elements of Statistics



## **ECB-504: QUANTITATIVE METHODS**

(Emphasis is to be given on the Use of Tools & Techniques in Economics)

Matrices and Determinants; Vector and Matrices, Properties of Determinants, Types of matrix, matrix Algebra; Addition, Multiplication and Inverse, Solution of Simultaneous Equations, Rank of a Matrix, Characteristic Roots and Vector.

(10 Lectures)

Function and Derivatives; Concavity and Convexity, Quasi-concavity and Quasi-convexity, Multiple Variable Optimization Problems (2-3 Variables), Maxima and Minima; Constrained and Unconstrained, Relative Extremum, Hessian Determinant.

(20 Lectures)

Integration; Integration of Function, Differential Equations.

(7 Lectures)

Difference Equations of First and Second Order.

(8 Lectures)

### Reading List

- Alpha C. Chiang(1984): Fundamental Methods Of Mathematical Economics. (New Delhi: McGraw Hill, International Book Company).
- Edward T. Dowling(1980): Introduction to Mathematical Economics .(New Delhi: Tata McGraw-Hill publishing company Ltd.).
- RGD Allen(1986) : Mathematical Analysis for Economists (New Delhi: Macmillan India Ltd).
- J.M. Henderson & R.E.Quandt(1980): Micro Economic Theory: A Mathematical Approach. (New Delhi: McGraw-Hill Book Company).



## OPTIONAL PAPERS

### LIST-'I' ECONOMETRICS

#### ECB-505A: ECONOMETRICS-I (SIMPLE TREATMENT)

Theoretical and Empirical Analyses of economic events. Methodology of econometrics, Data, Type of Data and Data Source.

(6 Lectures)

Fundamentals of regression analysis, Linear and reducible to linear models, Errors of specification, Assumptions and estimation of OLS, Properties of least square estimators,

(10 Lectures)

Goodness of Fit ( $R^2$ ) and Adjusted  $R^2$ , Hypothesis testing: confidence interval approach, test of significance approach, Application of regression Analysis

(6 Lectures)

Multiple Regression Analysis (Matrix Algebra), Maximum Likelihood Estimator and its comparison with OLS.

(6 Lectures)

Introduction to Heteroskedasticity, Consequences, Method of Generalized Least Square, Detection of Heteroskedasticity, Method of Weighted Least Square

(7 Lectures)

Autocorrelation: consequences, detection :graphical method, Runs test, Durbin Watson test, Breusch Godfrey test

(5 Lectures)

Multicollinearity: Nature, Estimation and Detection.

(5 Lectures)

#### **Selected Readings:**

- A Koutsoyiannis , Theory of Econometrics , Publisher: Ane Books;
- D Gujarati: Basic Econometrics, McGraw Hill
- GS Madala and Kajal Lahiri: Introduction to Econometrics, Wiley
- William H. Greene : Econometrics Analysis, Pearson Education
- Jeffrey M. Wooldridg: Introductory *Econometrics*: A Modern. Approach, Cengage Learning
- A H Studenmund: Using Econometrics, Pearson



## List-'I' Agricultural Economics

### **ECB-505B: AGRICULTURE-I**

Agriculture and economic development; Agriculture – Industry Linkage, Interaction between agriculture and the rest of the economy; Agriculture and rural poverty

(8 Lectures)

Productivity in agriculture, Traditional agriculture and its modernization question.

(7 Lectures)

Theories and models: Physiocratic model of agricultural development, Mellore & Schultz models of agricultural development.

(8 Lectures)

Agricultural Production Economics- meaning and basic concepts of production economics in agriculture, The principles of resources allocation: production function approach, increasing and diminishing production function, total, average and marginal product curves, and the relation between them, stages of rational and irrational production.

(15 Lectures)

The general conditions of equilibrium, factor-product, factor-factor and product-product relationship.

(7 Lectures)

### **Selected Readings:**

(Valid for Paper-XIX.2, Sem-VI also)

- Bhaduri, A. (1984): The Economic Structure of Backward Agriculture, Macmillan, Delhi.
- Bilgram, S. A. R. (1996): Agricultural Economics, Himalaya Publishing House, Delhi.
- Rudra, A. (1982): Indian Agricultural Economics : Myths and Reality, Allied Publishers, New Delhi.
- Ghatak, S. and K. Ingerscent (1984): Agriculture and Economic Development, Select books, New Delhi.
- Soni, R. N. (1995): Leading Issues in Agricultural Economics, Arihant Press, Jalandhar.



# **LIST-'I' POPULATION STUDIES**

## **ECB-505C: POPULATION STUDIES-I**

### **Demography**

Meaning, scope and importance of Demography; Difference from population studies.

(3 Lectures)

### **Population Theories**

Malthusian Theory, Neo- Malthusian Theory and Optimum Theory; Theory of Demographic Transition.

(8 Lectures)

### **Age-Pyramids**

Concept, Construction & its Significance, Age pyramids and Population Projection: stable and stationary population.

(6 Lectures)

### **Fertility**

Measurement, Levels and trends of fertility in developed and less developed countries; Factors affecting fertility.

(7 Lectures)

### **Mortality**

Measurement, levels and trends in more and less developed countries. Factors responsible for decline in Mortality.

(8 Lectures)

### **Basic Statistical Methods in Population Studies**

Sources of demographic data, Mortality analysis. Population growth, composition and distribution; Health statistics.

(8 Lectures)

### **Life-Table**

Basic concepts of the Life Table; Types and forms of Life Table, Preparation of Life Tables.

(5 Lectures)

### **Selected Readings:**

**(Valid Also for Paper-XIX.3: Population Studies II)**

- Yaukey.D, Anderton,D.L and Lundquist, Jennifer H,(2007): Demography: The Study of Human Population (3<sup>rd</sup> edition).
- Preston, S., Heuveline, P., and Guillot, Michel ( 2000): Demography: Measuring and Modeling Population Processes
- Weinstein, Jay and Pillai, Vijayan K. (2000): Demography: The Science of Population
- Sahoo, Fakir Mohan.,(Ed).,(2009): Behavioural Issues in Ageing : Care, Concern and Commitment



# **LIST-'I' BANKING & INSURANCE**

## **ECB-505D: BANKING & INSURANCE-I**

Nature of Banking Business: Socio, Economic and Legal environment of banking business in India  
- Official regulation & control over banks in India.

(4 Lectures)

Central Banking: Monetary Policy of the RBI - Transmission Channels of Monetary policy –  
*interest rate* channel, exchange rate channel and asset price channel.

(4 Lectures)

Commercial banking: Growth of Commercial banking since independence, nationalization of  
commercial banks and their performance assessment till 1991 and developments thereafter, Bank  
Balance Sheet: Management of assets and liabilities in banks - Profit, Profitability & Productivity in  
banks.

(20 Lectures)

Banking Sector Reforms in India with special reference to Prudential Norms: Capital Adequacy  
Norms- Basel Accord 1 and 2; income recognition norms, classification of assets and the issue of  
non-performing assets and their management; Consolidation & Reorganization of Banks in India.

(12 Lectures)

Overview of Development Banking in India, Co-operative Banks, Meaning, Structure & Role,  
Regulation of Co-operative banks.

(5 Lectures)

### **Selected Readings:**

- Shekhar & Shekhar, (1998): Banking Theory & Practice, Vikash Publishing House Pvt. Ltd.
- Jadhav Narendra (2006): Monetary Policy, Financial Stability & Central Banking, Macmillan
- Baye and Jansen(1996): Money, Banking and Financial Markets, ,AITBS



# **LIST-'I' HISTORY OF ECONOMIC THOUGHT**

## **ECB-505E: ECONOMIC THOUGHT-I**

Pre-Classical Schools of Economics: Mercantilism-main characteristics: Thomas Mun, Physiocracy: Natural Order, Primacy of Agriculture, Social Classes, Tableau Economique, Taxation.

(6 Lectures)

Classical School of Economics Adam Smith — Division of Labour, Theory of Value, Capital Accumulation, Distribution, Views on Trade, Economic Progress, Idea of Laissez faire- Naturalism and Optimism. David Ricardo — Value, Theory of Rent, Distribution, Ideas on Economic Development and International Trade; Thomas R. Malthus — Theory of Population, Theory of Gluts; J.B. Say & Economic Ideas of J.S. Mill.

(15 Lectures)

Socioeconomic Conceptions: German Historical School, F. List. W. Roscher.G. Schmoller. Methodological Debate.-M. Weber. Utopian Socialism and T. More, Saint-Simon, Sismondi, Scientific Socialism-Karl Marx- Dynamics of Social Change, Theory of Value, Surplus Value, Profit, and Crisis of Capitalism.

(14 Lectures)

Marginalists & Cambridge School: The precursors of marginalism – Cournot, The marginalist revolution- Jevons, Gossen, Walras, Bohm-Bowerk and Menger, The rate of interest – Wicksteed, Wicksell and Weiser- Distribution.

(10 Lectures)

### **Selected Readings:**

**(Valid for Paper-XX.5 also)**

- Blaug, M 1997: Economic Theory in retrospect, Cambridge University Press, Cambridge
- Gide, C. and G. Rist: A History of Economic Doctrines
- Roll, E: A History of Economic Thought, Faber, London
- Schumpeter, J.A: History of Economic Analysis
- Schumpeter, J.A: Ten Great Economists.
- Haney, L.H: History of Economic Thought, Surjit Publications
- Gray Alexander: The Development of Economic Doctrines
- Hajela, T.N: History of Economic Thought





## **LIST-'II' OPERATIONS RESEARCH**

### **ECB-506A: OPERATIONS RESEARCH**

Basics of Mathematical Programming, Development of A Programming Problem; Linear and Non linear, Static and Dynamic, Single and Multiple Goals. Programming and Decision Making.  
(10 Lectures)

Linear Programming; Statement of Basic Theorems and Properties, Concept of Convex Set, Graphical Solutions. Simplex Methods, Simplex Algorithm and Solution, The Artificial Variable Technique.  
(20 Lectures)

Duality Theory; The Dual Problem, Duality Theorems, Dual Simplex Algorithm and Solution. Introduction to Nonlinear Programming, Kuhn- Tucker Condition, Some Basic Problems. Application of Mathematical Programming in Economics.  
(15 Lectures)

### **Selected Readings:**

(Valid for paper XX.1, Semester VI also)

- Col. D. S. Cheema (2006), Operations Research, Publisher: Laxmi
- Fernando Vega-Redondo (2003), Economics and the Theory of Games, Publisher: Cambridge University Press
- Frederick Hillier, Gerald Lieberman (Nov. 2005), Introduction to Operations Publisher: Tata Mcgraw Hill
- Hillier (2001), Introduction To Operations Research, Seventh Edition (With CD), Publisher: Tata Mcgraw Hill Publishing Co Ltd
- Jurgen Eichberger (1992), Game Theory for Economists, Publisher: Harcourt College
- Martin J. Osborne and Ariel Rubinstein (1994), A Course in Game Theory, Publisher: MIT PRESS
- Nita Shah Et Al.(2007), Operations Research, Publisher: Prentice-hall Of India Pvt Ltd
- Osborne M J (2006), An Introduction to Game Theory, **Publisher:** Oxford University Press N Delhi
- R. Panneerselvam (2006), Operations Research, Publisher: Prentice-hall Of India Pvt Ltd
- Ronald E. Miller and Peter D. Blair (2009), Input-output Analysis: Foundations and Extensions 2nd revised edition, Publisher: Cambridge University Press
- Scott H. Bierman, Luis Fernandez (1998), Game Theory with Economic Applications, Publisher: Pearson Education
- Taha (2008), Operations Research An Introduction 8e (s), Publisher: Pearson Education (Singapore) Pvt. Ltd
- Thijs Ten Raa (2006), The Economics of Input-Output Analysis, Publisher: Cambridge University Press
- William Peterson (1991), Advances in Input-Output Analysis: Technology, Publisher: Oxford US,



## **LIST-'II' MATHEMATICAL ECONOMICS**

### **ECB-506B -MATHEMATICAL ECONOMICS**

Ingredients of Mathematical Model: Equations and Identities, Relations and Functions. Types of Functions – Constant Function, Polynomial Functions, Rational Functions. Non-algebraic functions. Exponential and logarithmic functions: Interest Compounding, Effective vs. Nominal rates of interest, Discounting. Static Or Equilibrium Analysis : Application of Graphs and Equations in Economics : Iso cost lines, Supply and Demand Analysis. Partial Market Equilibrium- A linear Model, Non-Linear Model, Higher degree polynomial equations, General Market Equilibrium, Two Commodity Market Model, n-commodity case. Equilibrium in National Income Analysis. IS-LM Analysis.

(23 Lectures).

Comparative- Static Analysis : Application of Simple Differentiation : Demand Supply, Income and Cross elasticities, average and marginal cost; AR ,MR and elasticity of demand, constant elasticity of demand, elasticity of average cost and total cost. Finding marginal- revenue /cost functions from average revenue /cost functions. Application of partial and total differentials : Marginal Productivity, income determination multipliers and comparative statics, income and cross partial elasticities of demand. Homogenous functions : Properties, Euler's theorem, Cobb-Douglas and CES production functions. Elasticity of substitution, Cobb-Douglas production function as a special case of the CES production function.

(22 Lectures)

#### **Selected Readings:**

- Alpha C. Chiang (1984): Fundamental Methods of Mathematical Economics. (New Delhi: McGraw Hill, International Book Company).
- Edward T. Dowling (1980): Introduction to Mathematical Economics. (New Delhi: Tata McGraw-Hill publishing company Ltd.).
- RGD Allen (1986): Mathematical Analysis for Economists (New Delhi: Macmillan India Ltd).
- J.M. Handerson & R.E.Quandt (1980): Micro Economic Theory: A Mathematical Approach. (New Delhi: McGraw-Hill Book Company).
- Alfred Marshall (1920): Principles of Economics (8<sup>th</sup> Ed), (London: Macmillan).
- Sameulson, P.A (1948): Foundations of Economic Analysis (Cambridge Mass: Harvard University Press).



## **LIST-'II' COMPUTERS IN ECONOMICS**

Both the papers in this option will have two segments- Part-A (Theory) & Part-B (Practical). Part 'A' will be given 60% weight while remaining 40% weight will be given to Part 'B' in which the students would be assessed through practical examination. There will be no internal assessment marks for the theory portion.

### **ECB-506C: COMPUTERS IN ECONOMICS-I**

Use of Computer for Office Automation: Text editors and word processor software packages; Operative familiarization with any one package like MS-word —Introduction to Word Processing: Editing, viewing documents in different layouts, page margins, indent, bulleting and numbering, bold face, italics, underline, fonts and fonts size, borders and shading, find and replace, page breaks and page numbers, headers and footers, Printing: What To Do Before Printing? Introduction To 'Page Setup', 'Print Preview' And 'Print, Dialog Box'.

(15 Lectures)

MS-Excel: Excel basic: Introduction about Microsoft Excel at the basic level: overview, tools, creates a spreadsheet, format, spreadsheet, calculations, create charts and printing; Solve problems with Excel: Solve some economics problem on spreadsheet: Introduction about the modelling process on spreadsheet and using Excel tools to solve the problems.

(15 Lectures)

MS-Power Point: Presentation with PowerPoint: PowerPoint components, What's Slide Master? What's Title Master? Creating a presentation with full components: text, picture, drawing, WordArt, equation, organization chart, chart, table, sound, video clips, Customizing and applying effects for a slide: template design, background color, animation, effects, built-in animation effects, navigation buttons, etc. Printing and exporting a slide.

(10 Lectures)

Graphics : Uses of computer graphics, classification of applications, software for computer graphics: Harvard and Stanford Graphics, MS-Excel graphics.

(5 Lectures)

### **Selected Readings:**

- V. Rajaraman: Fundamentals of Computers, Prentice Hall (Ind.) New Delhi.
- Sanders, D.H: Computers today, McGraw Hill, New York.
- Sinha: Computer Fundamentals, BPB Publications, New York.
- Kerns: Essentials of Microsoft windows, Word and Excel, Prentice Hall of India, New Delhi.
- Lipschutz, M.M. & Lipschutz, S: Theory and Problems of Data Processing, Schaum's Outline series.
- Leon & Leon: Internet Basics.
- J. Jeffcoate: Multimedia in Practice: Technology & Applications, Prentice Hall of India.
- Long Larry: Computer Fundamentals
- Sams Teach Yourself Windows XP Computer Basics by Greg M. Perry
- Ram, B :Computer Fundamentals
- Michael Miller: Absolute Beginner's Guide to Computer Basics
- Michael Miller: Easy Computer Basics, Windows Vista Edition New Perspectives
- Computer Concepts by Jamrich Parsons, Dan Oja
- Computer decisions, Volume 9 by Karlsruhe

- George E. Mason, Jay S. Blanchard, Danny B. Daniel: Computer applications
- Microsoft Office 2007: Advanced Concepts and Techniques by Gary B. Shelly, Thomas J. Cashman by Misty E. Vermaat
- Formulas and functions with Microsoft Office Excel 2007 by Paul McFedries
- Microsoft Office Access 2007 on demand by Steve Johnson
- Microsoft Office PowerPoint 2007 on demand by Steve Johnson



## **LIST-'II' INDUSTRIAL ECONOMICS**

### **ECB-506D: INDUSTRIAL ECONOMICS-I**

#### **Framework of Industrial Economics**

Evolution and development of Industrial Economics , Concept of Firm – ownership, control and objectives of the firm; Structure of Industrial Organization and Industrial Imbalance, Uncertainty and industrial organization – Theories of informational failure and their impact on the structure of firms, Need for Balanced Regional Development of Industries.

(8 Lectures)

#### **Market Structure**

Elements of Market Structure, Market concentration; Diversification and Vertical Integration, Product differentiation; Entry conditions; Economies of scale and profitability; Market structure and innovation; Theories of industrial location – Weber and Sargent Florence; Factors affecting location.; Industrial Efficiency: Concepts & its measurements.

(10 Lectures)

#### **Market Conduct**

Product pricing – Theories and evidence; Investment Decisions and , Industrial Combinations - Causes, Types and forms of Combinations, Theories and empirical evidence on Mergers, Amalgamations and acquisitions , Joint Ventures: their performance and sustainability, Corporate Governance and Business Ethics Corporate Social Responsibility Act 2013.

(15 Lectures)

#### **Market Performance**

Growth of the firm – Size , growth, & profitability of a firm; Constraints on growth; Productivity and capacity utilization – Concept and measurement, Industrial finance: Private, Public and Co-operative Sector ,Basic idea Capital market and its Instruments ,Foreign capital : Direct Investment & Foreign Institutional Investment, Need for Foreign Capital and NRI policy of India, Competition Act 2002

(12 Lectures)

#### **Selected Readings:**

- Ahluwalia, I. J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
- Barthwal, R. R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi.
- Cherunilam, F. (1994), Industrial Economics : Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
- Desai, B. (1999), Industrial Economy in India (3rd Edition), Himalaya Publishing House, Mumbai.

- Divine, P. J. and R. M. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
- Government of India, Economic Survey (Annual).
- Hay, D. and D. J. Morris (1979), Industrial Economics : Theory and Evidence, Oxford University Press, New Delhi.
- Kuchhal, S. C. (1980), Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
- Reserve Bank of India, Report on Currency and Finance (Annual).
- Singh, A. and A. N. Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay.
- Kamien, M. T. and N. L. Schwartz (1982), Market Structure and Innovation, Cambridge University Press, Cambridge.
- Kirkpatrick, C. M., N. Lee and E. I. Nixon (1984), Industrial Structure and Policy in Less Developed Countries, ELBS/George Allen and Unwin, London.
- Bagchi, A. and M. Banerjee (Eds.) (1979), Change and Choice in Indian Industry, Bagchi Publications, Calcutta.
- Kelkar, V. L. and V. V. Bhanaji Rao (Eds.) (1996), India Development Policy Imperatives, Tata McGraw Hill, New Delhi.
- Bhagwati J. and P. Desai (1972), India : Planning for Industrialization, Oxford University Press, London.
- Sandesara, J. C. (1992), Industrial Policy and Planning – 1947-1991 : Tendencies, Interpretations and Issues, Sage Publications, India Pvt. Ltd., New Delhi.
- Gupta, L. C. (1969), the Changing Structure of Industrial Finance in India, Oxford University Press, New Delhi.
- Sen, R. and B. Chatterjee (2001), Indian Economy : Agenda for the 21st Century (Essays in honour of Professor P. R. Brahmananda) Deep and Deep Publications Pvt. Ltd., New Delhi.
- Dasgupta, P. S., Marglin and A. Sen (1972), Guideline for Project Evaluation, Unido Publications, New York.
- Sandesara, J. C. (1982), Industrial Growth in India : Performance and Prospects, Lala Lajpat Rai College, Bombay



## **LIST-'II' FINANCIAL MARKET**

### **ECB-506E: FINANCIAL MARKETS-I**

Definition and Meaning of the Financial System - Components of financial System: Institutions, Instruments, Markets, and Services; Functions and Role of financial system; Financial System and Economic Development.

(5 Lectures)

Money Market: Meaning - Constituents of organized money market; Features of Indian Money Market. Call money market, Treasury bill market and Commercial bill market in India.

(8 Lectures)

Capital Market: Primary Market: – procedure for issuing equity and debentures, SEBI guidelines towards the issue of equity, Free pricing regime, Secondary Market: organization, management and membership of stock exchanges, listing, trading and settlement systems; Overview of Debt Market in India – Interlink between Money Market and Capital Market. SEBI & Capital Market in India.

(15 Lectures)

Capital Market Instruments- Equities, Debentures and Bonds; New Instruments: Floating Rate Bonds, Zero interest bonds, Deep Discount bonds, Auction rated debentures, securitized papers, collateralized debt obligations, Inverse float bonds.

(10 Lectures)

Markets for Derivatives: Futures, Options, and Other Derivatives: Types, Uses and Pricing of Derivatives; Derivatives trading in India.

(5 Lectures)

Financial Sector Reforms in India: Narsimhan Committee Report 1991 and 1998.

(2 Lectures)

### **Selected Readings:**

(Valid for Paper XX.5 of Semester-VI also)

- Mishkin, F.S. and Eakins S.G: Financial Markets & Institutions, Pearson Education
- Fabbozi, Modigliani, Jones and Ferri: Foundations of Financial Markets and Institutions, Pearson Education.
- Bayes and Jansen: Money, Banking and Financial Markets, AITBS
- Bhole, L.M: Financial Institutions and Markets, Tata McGraw Hill Publishing Company Ltd.
- Gupta, S.K., Aggarwal, N. and Gupta, N: Financial Institutions and Markets, Kalyani Publishers
- Khan, M.Y: Financial Institutions and Markets, Tata McGraw Hill Publishing Company Ltd.
- Pathak Bharati (2008): The Indian Financial System – Markets, Institutions, and Services, Second Edition. Pearson education



## **ECB-507: INTRODUCTION TO RESEARCH METHODS**

Introduction to Research methods and Methodology; Nature of economic reality  
(2 Lecturers).

### **Types and approaches of research**

Introduction to Descriptive, Analytical, Fundamental, Quantitative and Qualitative Research Approaches  
(5 Lecturers).

### **The Time Consideration**

Historical, Experimental and Ex Post Facto  
(3 Lecturers).

Positivism and Scientific Method, the Empiricism; Steps in Empirical Analysis, Question of Objectivity and Subjectivity, the Randomness.  
(4 Lecturers)

### **Formulation of a Research Problem**

Review of literature, Genesis of Problem, Aim/ Objective, Hypothesis and Hypothesis testing  
(4 Lecturers)

### **Introduction to Analytical Design and Sampling Methods**

Preparation of Questionnaire/ Schedule, Reliability and Validity.  
(4 Lecturers)

### **Data**

Nature of data, Collection of Primary and secondary Data, Data processing  
(6 Lecturers)

### **Writing of a Report**

(2 Lecturers)

**Note-** The paper would be taught in workshop mode. Out of the **45** contact hours (required for a 3 credit course) 67% i.e. 30 hours would be devoted to Lectures while remaining **33%** i.e. **15** hours would be devoted to intensive discussion and work assignment related to different aspects of the course. Students would be divided into small groups and tutorial would be organized to facilitate intensive teacher-taught interaction.

### **Selected Readings:**

- Kothari R.C. Research Methodology, Methods and Techniques, New Age International Publishers, 2nd revised edition , Reprint 2008.
- Cooper D.and Schindler P. Business Research Methods ,Tata McGraw Hill.
- Don E. Ehridge Research Methodology in Applied Economics: Organizing ,Planning and Conducting Economics Research ,John Wiley and sons, April 2004
- Goode and Heart, Research Method



## **SEMESTER-VI**

<b>PAPER</b>	<b>SEMESTER-VI</b>	<b>NO. OF CREDITS</b>
ECB-601	Factor Pricing & Welfare Economics	3
ECB-602	International Macroeconomics	3
ECB-603	Environmental Economics	3
ECB-604	Development Economics	3
ECB-605	Optional-I(from List-I), Paper-II	3
ECB-606	Optional-II(from List-II), Paper-II	3
ECB-607	Field Survey/Project Work/Dissertation	4



# **ECB-601: FACTOR PRICING AND WELFARE ECONOMICS**

## **The Theory of Distribution: A General View**

Personal versus Functional Distribution; Marginal Productivity Theory of Distribution; Concepts of Productivity – Marginal Revenue Product (MRP) and Value of Marginal Product (VMP); Determination of Factor Prices under Perfect Competition and Monopoly; The Adding Up Problem: Euler's Product Exhaustion Theorem; Clark-Wicksteed-Walras Product Exhaustion Theorem; Hicks-Samuelson's Solution to the Product Exhaustion Theorem.

(12 Lectures)

## **Rent**

Meaning, Ricardian Theory of Rent: Land Rent, Cost and Price; Determination of Rent of Land – Intensive and Extensive; Scarcity Rent and Differential Rent; Modern Theory of Rent; Quasi Rent.

(7 Lectures)

## **Wage**

Meaning, Choice between Income and Leisure; Modern Theory of Wages; Collective Bargaining: Fellner's and Cartter's Bilateral Monopoly Model.

(5 Lectures)

## **Interest**

Meaning, Money Rate and Real Rate of Interest, Classical (saving-investment) Theory of Interest; Loanable Funds Theory of Interest and Keynesian (liquidity preference) Theory of interest.

(7 Lectures)

## **Profit**

Meaning, Clark's Dynamic Theory, Schumpeter's Innovation Theory, Risk Theory and Uncertainty Bearing Theory of Profits; Dynamic Theory; Monopoly Theory

(7 Lectures)

## **Welfare Economics**

Welfare Economics: Positive and Welfare economics, Individual and Social Welfare, Old Welfare Economics (Pigouvian), Pareto-optimality conditions in Production, Consumption and Exchange.; Compensation Principle: Hicks-Kaldor Criterion, Scitovsky Criterion, Samuelson Criterion; Arrow's Impossibility Theorem; Maximisation of Social Welfare.

(7 Lectures)

## **Selected Readings:**

Agarwala, S.K.: Microeconomics

Ahuja, H.L.: Modern Economics

Barthwal, R.R.: Microeconomics Analysis

Bhaduri, Sunil: Microeconomic Theory

Chakravarty, Satya R.: Microeconomics

Jain, T.R. & Ohri, V.K.: Principal of Microeconomics

Jain, T.R. & Trehan, Mukesh: Microeconomics

Misra, S. K. & Puri, V.K.; Microeconomics: Theory and Applications

Mukherjee, Sampat: Modern Economic Theory

Mukherjee, Sampat, Mukherjee, Mallinath, Ghose, Amitava: Microeconomics

Perloff: Microeconomics: Theory and Applications with Calculus  
Pindyck / Mehta: Microeconomics  
Schaum's Outline of Microeconomics, (Schaum's Outline Series)  
Sen, Anindya: Microeconomics: Theory and Applications  
Stonier, Alfred W. & Hague, D.C.: A Textbook of Economic Theory  
Varian, Hal R.: Microeconomic Analysis



## **ECB-602: INTERNATIONAL MACROECONOMICS**

Balance of Payments: Concept and Components; Equilibrium and Disequilibrium, Various measures to correct Disequilibrium in the BOP, Approaches to BOP,

(8 Lectures)

Concept of Foreign Trade Multiplier.

(3 Lectures)

Introduction to International Monetary System: Foreign Exchange Markets-Functions, Nominal and Real Exchange Rates, Fixed and Floating Exchange Rates, Buying & Selling Rates, Spot Rate, Forward rate & Hedging, Theories of Exchange Rate Determination.

(12 Lectures)

International Capital Movements: FDI & Portfolio Investment, International Resource Movement & Role of Multinational Corporations, Foreign Aid: Dual gap theory, Aid Tying and Sources of Neo-Imperialism.

(12 Lectures)

International Institutions; IMF and World Bank, The GATT/WTO Agreements, Problem of International Liquidity and SDR, New International Economic Order. Environment and International Trade.

(10 Lectures)

### **Selected Readings:**

(See Reading List of Paper-X)



# **ECB-603: ENVIRONMENTAL ECONOMICS**

## **Environmental Economics**

Definition, Scope, Importance, Ecological Economics, Environmental Economics and Natural Resources Economics. Historical development of environmental economics; The Environment-Economy Linkage, (the Materials Balance Model and laws of Thermodynamics).

(10 Lectures)

## **Basic concepts of resource economics**

Natural resources: meaning and classification.

(02 Lectures)

## **Pollution as an economic problem**

Market Failure, Externality; Optimal Pollution: Marginal Damage and Marginal Abatement Costs functions; Uncertainty and Irreversibility.

(08 Lectures)

## **Economic growth and environment**

Fundamentals of Environmental Kuznets Curve.

(03 Lectures)

## **Instruments of Pollution Control**

Command and Control Mechanism and Economic Instruments; Taxes, Subsidies, Tradable Permits, Refundable Deposits, Allocation of Property rights.

(10 Lectures)

## **Environmental Valuation**

Meaning, need and justification, Total Economic Value: Concept and Components.

(7 Lectures)

The basic issues of sustainable development, meaning, and indicators, Environmental policy: Latest National Policy.

(5 Lectures)

## **Selected Readings:**

- Hanley, N., J. Shogren, and B. White (1997): Environmental Economics in Theory and Practice, Macmillan Press, 464 PP.
- Mincer, Jacob, (1974): Schooling, Earnings, and Experience, New York, Columbia University Press
- Pearce, D. W, E. Barbier and A. Markandya (1990): Sustainable Development: Economics and Environment in the Third World, Edward Elgar, Aldershot.
- Pearce, D. W., and R. K. Turner (1990): Economics of Natural Resources and the Environment, Harvester Wheatsheaf, London, 378 PP.
- Perman, R., Y. Ma, J. McGilvray, and M. S. Common (1999), Natural Resources and Environmental Economics, 2nd Edition, Longmans, 564 PP.



## **ECB-604: DEVELOPMENT ECONOMICS**

Meaning, definition and measurement of economic development; Approaches to the study of development: traditional view, modern views- from per capita income to human welfare, concept of sustainable development; obstacles to economic development; Economic growth versus development.

(10 Lectures)

Dualism: concepts and definition; Theories of dualism: technical, economic, social, financial and structural.

(5 Lectures)

Poverty and Basic Needs: Conceptual issues and measurement; Indices of poverty: headcount ratio, poverty gap index, FGT index; Inequality measures: size distribution, Lorenz curve, Gini coefficients; determinants of rural poverty; Role of state.

(10 Lectures)

Development theories: Lewis theory of unlimited supply of labour, Rostow stages of economic growth theory, Low Level Equilibrium Trap- Nelson Model, Critical Minimum Effort Thesis, Theory of Big Push- Rosenstein Rodan, Theory of Balanced Growth- Ragner Nurkse, Unbalanced Growth Strategy- Hirschman, Harrod and Domar model of economic growth.

(20 Lectures)

### **Selected Readings:**

- A.P.Thirlwall: Growth and Development, ELBS
- D Ray: Development Economics, OUP.
- S Ghatak: Introduction to Development Economics, Routledge.
- Y Hayami and Y Godo: Development Economics, From the Poverty to the Wealth of Nations (3<sup>rd</sup> Edition), OUP
- Meier and Rauch: Leading Issues in Economic Development (8<sup>th</sup> Edition), OUP
- M.P.Todaro and S.C.Smith: Economic Development (8<sup>th</sup> Edition), Pearson.
- R.C.Agarwal: Economics of Development and Planning, Laxmi Narayan Agarwal
- M.L.Jhingran: Economic Development and Planning, Vrinda



## **OPTIONAL PAPERS**

## **LIST-‘I’: ECONOMETRICS**

### **ECB-605A: ECONOMETRICS-II (SIMPLE TREATMENT)**

Binary variable, Qualitative Variable, Dummy Variable, Models Linear Probability Model, Logit Model

(7 Lectures)

Simultaneous relationship; Endogenous and Exogenous variables, Structural and Reduced forms, Identification, Method of Indirect least square Estimation of demand/ supply curves, production function, cost curves.

(14 Lectures)

Introduction to Time Series Analysis, Stochastic process, White noise Process, Random walk process, Concept of stationarity and Non stationarity, Consequence of nonstationary, spurious regression, Test of stationarity, Unit root test,

(12 Lectures)

Auto regressive and Moving Approach process, Distributed Lag Models, Almon and Koyack Approach.

(6 Lectures)

Introduction to Panel Data, Advantage of Panel data, Heterogeneity and selectivity Bias, Fixed and Random Effects regression.

(6 Lectures)

#### **Selected Readings:**

- A Koutsoyiannis , Theory of Econometrics , Publisher: Ane Books;
- D Gujarati: Basic Econometrics, McGraw Hill
- GS Madala and Kajal Lahiri: Introduction to Econometrics, Wiley
- William H. Greene : Econometrics Analysis, Pearson Education
- Jeffrey M. Wooldridg: Introductory *Econometrics*: A Modern. Approach, Cengage Learning
- Walter Enders: Applied Econometric Time Series, Wiley
- Kerry Patterson: An Introduction to Applied Econometrics Time Series Approach, Palgrave



## **LIST-‘I’ AGRICULTURAL ECONOMICS**

### **ECB-605B: AGRICULTURE-II**

## (With special reference to Indian Agriculture)

*Demand for Farm Products:* Characteristics of demand for farm products – Concept and measurement of own-price and cross –price; Price and income elasticity of demand and their interrelationship; Growth in demand for food in developing and developed countries; Rationale for and types of government intervention for food and nutrition security in developing countries.

(10 Lectures)

*Supply of Farm Products:* Characteristics of supply of farm products; Issues relating to Supply response, Supply response in Indian agriculture – Price vs. non-price factors in inducing aggregate supply growth.

(7 Lectures)

India's Agricultural Development since Independence: Recent trends in agricultural growth in India; Inter-regional variations in growth of output and productivity; Cropping pattern shifts; Supply of inputs; pricing of inputs and role of subsidies.

(10 Lectures)

Role of public investment and capital formation in Indian agriculture; Strategy of agricultural development and technological progress; Sustainable agriculture.

(7 Lectures)

Agrarian Reforms: Objectives and Instruments – Economic and extra-economic factors influencing enactment and implementation – Evaluation of reforms affecting agrarian structure and relations.

(8 Lectures)

New agricultural strategy and Green Revolution: Economic benefits, Gaps and Fall-outs.

(3 Lectures)



## LIST-‘I’ POPULATION STUDIES

## **ECB-605C: POPULATION STUDIES II**

Population Censuses in India and the Salient Features of 2011 Census; National Family Health Survey-3 & 4, District Level Household Survey-3 & 4.

(6 Lectures)

Characteristics of Indian Population: Birth Rate, Death Rate, Literacy, Life Expectancy etc. Infant and Maternal Mortality in India.

(5 Lectures)

Population and Economic Development

(4 Lectures)

Migration: Concept, types, patterns, and theories related to Migration.

(6 Lectures)

Urbanization: patterns, types and its importance, urbanization and industrialization.

(6 Lectures)

Population Policies in the context of growth, structure, distribution and quality of life.

(3 Lectures)

Evolution of Population Policy in India – The shift in policy from population control to family welfare, to women empowerment, The New Population Policy, Tasks before the National Population Commission.

(10 Lectures)

Evolution of Family Welfare Programmes in India; Family Planning Strategies and their outcomes.

(5 Lectures)



## **LIST-‘I’ BANKING & INSURANCE**

## **ECB-605D: BANKING & INSURANCE-II**

Definition of Insurance; Purpose and need of insurance; insurance as a social security tool; Risk pooling and risk transfer, Social Vs private insurance; Life Vs non-life insurance, Risk management and insurance in economic development,

(5 Lectures)

Fundamentals of life and health insurance, Mathematical basis of life insurance, Selection and Classification of risks; Basics of premium construction; Principles of underwriting of life and health insurance. LIC & other Life Insurance Companies in India.

(10 Lectures)

Definition of General Insurance; Types & importance of general insurance, Physical hazard, Moral hazard; Marketing of general insurance; Technology development and general insurance. General Insurance business in India-GIC, NIC.

(8 Lectures)

Marine Insurance: Nature and Significance Essentials of Marine Insurance Contracts, Types of Marine Insurance Policies, Marine Insurance Clauses, Fire Insurance: Nature and Significance of Fire Insurance, Types of Fire Insurance Policies.

(10 Lectures)

Regulation of insurance; Purpose of government intervention in markets; Theories of regulation; Insurance business in India and its regulation; The Insurance Act, 1938 (as amended), Life Insurance Corporation Act, 1956, General Insurance Business (Nationalisation) Act, 1973, Insurance Regulatory and Development Authority, IRDA Act. Recent Changes in Insurance business in India

(12 Lectures)

### **Selected Readings:**

- Bailey, R. (Ed.) (1999): Underwriting in Life and Insurance, Loma, Atlanta, Ga.
- Black, K and J. Skipper (2000): Life and Health Insurance, Prentice Hall, New Jersey.
- Bickelhaupt, D.L. (1992): General Insurance, Irwin Inc., Burr Ridge, III.
- Head, G.L. AND S. Horn II (1991): Essentials of Risk Management, Management Volume I, Insurance Institute of America, Malvem.
- Dionne, G. and S. E. Harrington (Eds.) (1997): Foundations of Insurance Economics, Kluwer Academic Publishers, Boston.
- Mishra, M. N: Insurance Principles and practice, S. Chand and Co. New Delhi.
- Mishra, M. N: Life Insurance Corporation of India. Vol. I, II, III. Jaipur.
- Pteffer, I. And D.R. Klock (1974): Perspectives on Insurance, Prentice Hall Inc., Engleword, Cliffs.
- Black, Jr. Kenneth and Horold Skipper Life and Health Insurance (13th Edition), Pearson (Indian Economy Edition)-.
- Rejda, George: Principles of Risk Management and Insurance, (13th Edition) (Economy Edition)



## **LIST-I- HISTORY OF ECONOMIC THOUGHT ECB-605E- HISTORY OF ECONOMIC THOUGHT-II**



Alfred Marshall- Marshall as a great synthesizer: Role of time in price determination, Economic Methods. Organization as a factor of production, Nature of profits, Ideas on Consumer's Surplus, Elasticities, Value, Demand and Supply, Representative Firm, External and Internal Economies, Quasi-rent. Pigou: Welfare economics, Maurice Dobb; Schumpeter: Role of Entrepreneur and Innovations. Institutionalism — Irving Fisher

(10 Lectures)

Keynesian Theory: J. M. Keynes. The General Theory of Employment, Interest and: Keynesian Revolution, Role of Money in Keynesian System, Post-Keynesians, Neo-Keynesians & New Keynesians-An Elementary Idea.

(8 Lectures)

Ancient Indian Economic Thought- Valluvar: The idea of wealth, factor of production, welfare state, public health and public finance, poverty & begging. Kautilya: The Idea of Welfare State, Taxation & Public Finance, Interest & Profit, Trade, Infrastructure, Agriculture, Wage Policy, Price Regulation.

(8 Lectures)

Dadabhai Naoroji: Theory of Economic Drain, National Income of India, Taxation, The idea of Poverty.

(3 Lectures)

M.G. Ranade: Method & Scope of Political Economy, Economic Backwardness of India, Opposition to Laissez Faire & Theory of Drain.

(2 Lectures)

G.K. Gokhale: Economic Ideas-Indian Finance & Surplus budget, Economic Condition of India, Advocacy –of Policy of Protection and Criticism of Drain Theory.

(2 Lectures)

Economic Ideas of Pt. Madan Mohan Malviya, Mahatma Gandhi: Village, Swadeshi, Place of Machine and Labour, Trusteeship, Cottage Industries.

(3 Lectures)

J.K. Mehta: Wantlessness, The idea of Representative Firm, The theory of Interest & Profit.

(2 Lectures)



## **LIST-II- OPERATIONS RESEARCH**

### **ECB-606A: OPERATIONS RESEARCH**

Transportation Problem; Formulation of Allocation Problem, Methods for Finding Basic Feasible Solution, Optimal Solution for a Transport Problem.

(12 Lectures)

Introduction to Games theory :two person zero -sum game, pay off matrix, optimal strategy, maximin & mini-max strategies, value of game, pure strategy ,dominance rule . Mixed strategy: Nash equilibrium.

(12 Lectures)

Input-Output Analysis: Concepts, Features, Assumptions, Importance and Uses; Types of Input-Output Model: Static and Dynamic; Method of the Input-Output analysis: the Open Input-Output model, Input-Output Transaction Table, Input Coefficient, Input-Output Technological coefficient, Determination of Equilibrium Prices, the Hawkin-Simon Conditions, the Closed Input-Output model.

(15 Lectures)

Introduction to Sequencing Models; Basic Assumptions, Processing Jobs through Machines, GANTT Chart.

(6 Lectures)



## **LIST-II- MATHEMATICAL ECONOMICS**

### **ECB-606B: MATHEMATICAL ECONOMICS-II**

Optimization (One and two independent variables- Unconstrained case) : Criterion for maximum & Minimum values ; Relative extrema, concave and convex functions, Successive derivative test for

optimization, point of inflexion. Optimising economic functions: Profit maximization under perfect competition, monopoly, when firm fixes the output, when firm fixes the price, price discrimination. Pricing and output under oligopoly. Cournot solution, Stackelberg solution, the market sharing solution. Effect of taxation and subsidy on monopoly.

(22 Lectures).

Optimization (two independent variables: constrained case) : First order condition – Lagrange multiplier technique : Efficient allocation of resources, Utility maximization: cardinal and ordinal utility, Slutsky equation. The contract curve. Producer's behavior : The least cost combination. The production possibility frontier. Combining the Lagrange multiplier method and the differential method. Second order condition: The Bordered Hessian . Dynamic Analysis : Application of integration in economics – Relation between net investment and capital stock, finding total revenue/ cost and consumption function from marginal values, consumer's surplus and producer's surplus. Law of growth – exponential law.

(23 Lectures).

### **Selected Readings:**

- J.M. Handerson & R.E.Quandt(1980): Micro Economic Theory: A Mathematical Approach. (New Delhi: McGraw-Hill Book Company) .
- Slutsky,EE(1915): On the theory of the Budget of the Consumer, Giomale degli Economisti, Vol.15.
- Allen, RGD (1956) : Mathematical Economics, (London: Macmillan).
- Ragnar Frisch(1965): Theory of Production, (Chicago: Rand McNally).
- Taro Yamane(1985): Mathematics for Economists: An Elementary Survey (New Delhi: Prentice Hall of India).
- G.C. Archibald and R.G.Lipse(1984): An Introduction to A Mathematical Treatment Of Economics. ( London: Wiedenfeld & Nicolson)
- Edward T. Dowling (1980): Introduction to Mathematical Economics .(New Delhi: Tata McGraw-Hill publishing company Ltd.)



## **LIST-II- COMPUTERS IN ECONOMICS**

### **ECB-606C: COMPUTERS IN ECONOMICS-II**

SPSS and E-views Basics: Basic components, Start and exit, Window manipulation, Create and save a new work file, Open an existing work file, Select a subset (sample) of observations in the work file, Create new series, Delete a series, Create groups of objects and edit data, Rename, copy and delete objects, Create a new object out of current view (freeze), Printing objects, Import data from Excel file, Create different types of graph of series, Display summary statistics for series

(15 Lectures)

Statistics-I : Bivariate Data: Scatter Diagram, principle of least square and fitting of polynomial and exponential curves, regression, coefficient of determination, lines of regression, auto-regression; Correlation and auto-correlation; Covariance and Auto covariance.

(15 Lectures)

Statistics-II: Hypothesis testing: Simple, composite, null, and alternate hypotheses, level of significance, tests of significance based on chi-square, t and F statistics, confidence intervals, confidence intervals for mean and variance of the normal population, confidence interval for proportions.

(15 Lectures)



## **LIST-II- INDUSTRIAL ECONOMICS**

### **ECB-606D: INDUSTRIAL ECONOMICS-II**

#### **Indian Industrial Growth and Pattern**

Classification of Industries , Strategy – Backward and forward linkages in Indian industry, Industrial Diversification, Shift in Industrial policy since 1991 in India including recent initiatives, Role of Public and private sectors; Recent trends in Indian industrial growth ; MNCs and Rise of Indian MNCs; Global Industrial Trends; Change in Marketing Strategies and Information System for Indian Industries.

(10 Lectures)

## **Indian Micro, Small, Medium Scale Industries**

Micro, Small & Medium Enterprises – Role of MSMEs and their contribution in economy , Industrial Policies for MSMEs – structure and recent initiatives, Problem of Unemployment, Wages, Marketing, Sales and challenges posed by globalization.

(8 Lectures)

## **Industrial Challenges**

Employment Elasticity; Industrial Policy for Foreign Capital – Pre and Post 1991; FEMA; Export-Import (EXIM) Policy, Competition Act, Corporate Social Responsibility Act E-Commerce & M-Commerce.

(8 Lectures)

## **Industrial Labour**

Structure and Legislations of Industrial labour; Institutional Issues – Governance; Regulatory mechanism; Infrastructure; Industrial relations; Exit policy and social security; Wages and problem of bonus – labour market reforms, Labour flexibility; Subcontracting and ancillarization Industrial Sickness: Definition; magnitude; structure; consequences and remedial measures.

(10 Lectures)

## **Project Appraisal**

Cost benefit analysis – Net Present Value (NPV) and internal rate of return (IRR) criteria – balancing private and social returns.

Industrial Visit and Market Survey based Assignment.

(9 Lectures)

## **Selected Readings:**

(See Reading List of Paper Industrial Economics-I in Semester –V)



## **LIST-‘II’ FINANCIAL MARKET ECB-606E: FINANCIAL MARKETS- II**

Development Financial Institutions (DIIs) and Investing Institutions: Concept of Development Banking, All India and State Level DFIs – Their Objective and Functions, Financial and Promotional Assistance to Industry – An Aggregative View

(8 Lectures)

Life Insurance Corporation, GIC and UTI – Their Role in Savings Mobilization, Investment Policies and Role in Subscriptions to Corporate Securities.

(8 Lectures)

Types of Non-banking Financial Institutions (NBFI) Growth of NBFI, Types, Maturity and Purpose of Deposits with NBFI, Growth of Deposits with NBFI and their role in a globalised world.

(8 Lectures)

Concept of Financial Services– meaning – features – importance, Financial instruments- types and recent innovation, Organization and Growth of Financial Services in India, , Elementary knowledge of some important financial services-viz-merchant banking, factoring, leasing , credit rating etc. Regulation of Financial Services Market-SEBI & RBI

(11 Lectures)

Different Types of Foreign Capital Investment in India – Foreign Capital Investment, NRI Investment by Foreign Institutional Investors (FIIs), Euro-issues-Study of Recent Trends, Measures for Attracting Foreign Capital to India.

(10 Lectures)



## **ECB-607**

### **FIELD SURVEY/PROJECT WORK/DISSERTATION**

Paper-XXII will consist of Dissertation/Project Work/Field Work and Viva-Voce. Dissertation submitted by the students would be evaluated by External Examiners appointed by the University for marks of 70 (Seventy). Remaining 30 (Thirty) marks would be for Viva-Voce that will be conducted by the Department as per the rules and regulations of the University.

