

**UNIVERSITY OF MADRAS**  
**B.A DEGREE COURSE IN ECONOMICS**  
**(With effect from 2018-2019)**

**REVISED SCHEME OF EXAMINATION**

**SEMESTER I**

Course Component		Name of the Paper	Ins Hrs	Credit	Max Marks		Total
					Int	Ext	
PART I	Paper – I	Language Paper -I	4	3	25	75	100
PART II	Paper – I	English Paper-II	4	3	25	75	100
PART III	Core Paper I:	Indian Economy-I	5	4	25	75	100
	Core Paper II:	Statistics-I	5	4	25	75	100
	Allied Paper I:	a) History of Economic Thought (OR) b) Introduction to Operations Research	6	5	25	75	100
PART IV		* Basic Tamil / Advanced Tamil / NME :1- Economics for Managers	2	2	25	75	100
		Soft Skill – I		3	50	50	100

**SEMESTER II**

Course Component		Name of the Paper	Int. Hrs	Credit	Max Marks		Total
					Int.	Ext.	
PART I	Paper – II	Language Paper – II	4	3	25	75	100
PART II	Paper – II	English Paper – II	4	3	25	75	100
PART III	Core Paper III	Indian Economy-II	5	4	25	75	100
	Core Paper IV	Statistics- II	5	4	25	75	100
	Allied Paper II	a) Health Economics (OR) b) Computer Applications in Economics	6	5	25	75	100
PART IV		Basic Tamil / Advanced Tamil / NME II-Indian Economy for Competitive Examinations	2	2	25	75	100
		Soft Skill – II		3	50	50	100

**Third Semester**

Course Component	Subjects	Credits	Inst Hours	Maximum Marks		
				Int	Ext	Total
Part I	Language Paper III	3	4	25	75	100
Part II	English Paper III	3	4	25	75	100
Part III	Core Paper V Micro Economics – I	4	5	25	75	100
	Core Paper VI - Mathematics for Economists	4	5	25	75	100
	Allied Paper – III To be chosen from the list of allied subjects	5	6	25	75	100
Part IV	Soft Skill III	3	2	25	75	100
	Environmental Studies		2			
<b>Total Credits</b>		22				

### Fourth Semester

Course Component	Subjects	Credits	Instr Hours	Maximum Marks		
				Int.	Ext	Total
Part I	Language Paper IV	3	4	25	75	100
Part II	English Paper IV	3	4	25	75	100
Part III	Core Paper – VII Micro Economics – II	4	5	25	75	100
	Core paper – VIII Econometrics	4	5	25	75	100
	Allied Paper – IV To be chosen from the list of allied subjects	5	6	25	75	100
Part IV	Soft Skill IV	3	2	25	75	100
	Environmental Studies	2	2	25	75	100
<b>Total Credits</b>		24				

### Fifth Semester

Course Component	Subjects	Credits	Inst Hours	Maximum Marks		
				Int	Ext	Total
Part – III	Core Paper IX - Macro Economics –I	4	4	25	75	100
	Core Paper X - Public Finance – I	4	4	25	75	100
	Core Paper XI - International Economics	4	5	25	75	100
	Core Paper XII - Development Economics	4	5	25	75	100
	<b>Elective Paper - I</b> <b>To be chosen from the list of Elective subjects</b>	5	6	25	75	100
Part –I V	Value Education	2	2	25	75	100
<b>Total Credits</b>		23				

### Sixth Semester

Course Components	Subjects	Credits	Inst Hours	Maximum Marks		
				Int	Ext	Total
Part IV	Core Paper – XIII Macro Economics –II	4	4	25	75	100
	Core Paper XIV Public Finance – II	4	4	25	75	100
	Core Paper XV Monetary Economics	4	5	25	75	100
	<b>Elective Paper - II</b> <b>To be chosen from the list of Elective subjects</b>	5	5	25	75	100
	<b>Elective Paper – III</b> <b>To be chosen from the list of Elective subjects</b>	5	6	25	75	100
Part V	Extension Activities	1				
<b>Total Credits</b>		23				

<p><b><u>ALLIED PAPERS: First Year – Semester</u></b>  1. History of Economic Thought (or)  2. Introduction to Operation Research</p> <p><b><u>Allied – II Semester - II</u></b>  1. Computer Applications in Economics  2. Health Economics</p> <p><b><u>Allied – III Semester - III</u></b>  1. Rural Economics  2. Tourism for Development  3. Demography</p> <p><b><u>Allied – IV: Semester IV</u></b>  1. Tamil Nadu Economy  2. Economic History of India  3. Gender Economics</p>	<p><b><u>LIST OF ELECTIVE PAPERS:</u></b></p> <p><b><u>Fifth Semester: Elective – I</u></b>  1. Agricultural Economics (or)  2. Labour Economics</p> <p><b><u>Sixth Semester: Elective - II</u></b>  Industrial Economics  Managerial Economics</p> <p><b><u>Sixth Semester: Elective - III</u></b>  Environmental Economics  Financial Markets and Institutions</p>
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**UNIVERSITY OF MADRAS**  
**Semester -I**  
**Core Paper I –Indian Economy I**

**UNIT-I**

Economic development and growth-Basic characteristics of the Indian economy-major issues of development-obstacles to development.

**UNIT-II**

Structure of Indian economy-National income – sectoral contribution and economic transition in India - -natural resources in the process of economic development population size and growth –demography composition – new population policy

**UNIT-III**

Objectives of planning in India –development strategy in India-broad achievements and failures-new economic reforms –liberalization, privatization and globalization-rationale behind economic reforms-progress of privatization and globalization.

**UNIT-IV**

The place of agriculture in the national economy-trends in production and productivity in agriculture –green revolution-progress of agriculture under the five year plans –land reforms – rural credit –agricultural marketing and food security in India.

**UNIT-V**

Poverty and inequality in India –unemployment in India-causes for rising of prices – regional disparities in India.

**References**

1. Ahluwalia, I. J. and IMD Little (Eds.) (1998). *India's Economic Reforms and Development*, Oxford University Press, New Delhi.
2. Byres, T.J. (Ed.) (1997), *The State, Development Planning and Liberalization in India*, Oxford University Press, New Delhi.
3. Byres, T.J. (Ed.) (1998), *The Indian Economy: Major Debates Since Independence*, Oxford University Press, New Delhi.
4. Kausik Basu (Ed.) (2012), *Oxford Companion to Indian Economy*, 3<sup>rd</sup> Edition, OUP, New Delhi.
5. Uma Kapila (Ed.) (2017-18) *Indian Economy Since Independence*, Academic Foundation, New Delhi, 28<sup>th</sup> Edition.
6. Ashima Goyal (Ed.) *The Oxford Handbook of the Indian Economy in the 21<sup>st</sup> Century: Understanding the Inherent Dynamism*, Oxford University Press.

## Core Paper – II : STATISTICS - I

### Objectives of the Course:

Enhance the students' understanding in basic concepts, theories and methods in statistics.  
Provide the students with the ability to organize and investigate data.

### Unit I: Descriptive Statistics/Summary Statistics:

Measures of Central Tendency – Minimum, Maximum, Mean, Median, Mode- Measures of Dispersion – Standard deviation, Variance- Measures of deviation from Normality - Skewness, Kurtosis- Frequency Distributions – Univariate, Bivariate- Graphical Illustrations

### Unit II: Probability:

Introduction to Probability & Concepts- Addition Rule of Probability- Multiplication Rule of Probability- Conditional Probability & Baye's theorem- Theoretical Probability Distributions – Binomial, Poisson, Normal distributions

### Unit III: Random Variables & Probability Distributions:

Random Variables – Discrete, Continuous- Probability Density Function- Joint Probability Density Function- Marginal Probability Density Function- Conditional Probability Density Function- Characteristics/Moments of Probability Distributions – Expected Value, Variance

### Unit IV: Inferential Statistics:

Estimation – Point estimation, Interval estimation- Statistical Hypothesis Testing and Significance- Steps in hypothesis testing – Types of hypothesis, Levels of Significance, Degrees of Freedom, Type I and Types II Errors, One-Tail and Two-Tail Tests, Standard Error, p-Values

### Unit V: Tests of Significance of Means:

Small Sample Test: Student's t Distribution – Properties of t distribution, Applications of t test  
Large Sample Test: Standard Error – Applications & Uses- ANOVA – One-way & Two-way

### Reference

1. Aggarwal. Y.P (2002), Statistics Methods – Concepts Application and Computation, Sterling Publishers Private Ltd., New Delhi.
2. Gupta, S.P. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
3. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
4. Whigham, David, (2008), Business Data Analysis Using Excel, Oxford University Press.
5. Wonnacott H. Thomas & Wonnacott J. Ronald (1969), Introductory Statistics, John Wiley & Sons, Inc. New York.
6. Timothy C. Urda (2005), Statistics in Plain English, *Second Edition*, Lea Lawrence Erlbaum Associates Publishers, London

## Allied Paper 1: a) History of Economic Thought

### Unit 1

Introduction to History of Economic Thought and Significance – Mercantalism - Factors responsible for the rise of Mercantalism, Economic ideas of Mercantalists – Physiocracy – Concept of Natural Order – Circulation of Wealth

### Unit II

Classical School – Contributions of Adam Smith, David Ricardo, Thomas Robert Malthus and J.S. Mill

### Unit III

Neo-classical School and Marginal Revolution – William Stanley Jevons and Carl Mengers, Alfred Marshall

### Unit IV

Historical School and Institutionalism – Economic Ideas – Thorstein Veblen

### Unit V

Contributions of Karl Marx and J.M. Keynes

### References:

1. Agnar Sandmo, (2010), Economics Evolving: A History of Economic Thought, Princeton University Press
2. Loganathan V- History of Economic Thought- S.Chand & Company.
3. R.R. Paul – History of Economic Thought, Kalyani Publications (2014)
4. Skousen Mark, The Making of modern economics – The Lives and Ideas of the Great Thinkers, M.E. Sharp 2001.

## **Allied Paper : I (b) Introduction to Operations Research**

### **Unit 1**

Introduction - Nature and scope of Operations Research - Transportation Model - Definition - Methods of finding Initial Basic Feasible Solution - North-West Corner Rule, Least Cost Method, Vogel's Approximation Method - Solution of a Transportation Problem – MODI Method – A note on Unbalanced Transportation problem - Assignment Problem – Hungarian Method

### **Unit 2**

Structure of Decision Making Problems - Types of decision making - Decision making under Uncertainty - Maximin, Minimax, Maximax, Hurwicz and Minimax regret criteria - Decision Making under Risk – Expected Value Criterion, Expected Opportunity Loss Criterion, Expected Value Perfect Information – Decision Tree Analysis

### **Unit 3**

Meaning, Objectives and Types of inventory - Factors affecting inventory control - Benefits of inventory control - Economic order quantity models – Quantity discount models

### **Unit 4**

Meaning, objectives and Basic Components of a Network - Management applications of network analysis - Construction of network for projects – problems - Network computations - Earliest completion time of a project - Critical Path Method - Program Evaluation Review Technique

### **Unit 5**

Queuing Theory : Meaning - Benefits - Elementary Queuing System - Arrival Pattern - Queue and Service Facility - Single Server and Multi Server Models

### **BOOKS RECOMMENDED**

1. Richard Bronson and Govindasamy Naadimuthu - Operations Research (Schaum's Outlines)
2. Wagner .H - Principles of Operations Research
3. Philip D.T. and Ravindran A., "Operations Research", John Wiley, 1992.
4. Taha H.A., "Operations Research", Sixth Edition, Prentice Hall of India, 2003.
5. Kapoor V.K. - Operations Research - Sultan Chand & Sons
6. Gupta P.K. &Hira D.S- Operations Research and Quantitative Analysis - S. Chand & Co. Ltd.,

**Non-Major Electives:1**  
**ECONOMICS FOR MANAGERS**

**Unit - I**

Basic Micro and Macro Economic Concepts: Demand and supply - Elasticity of Demand - Demand Forecasting - Factors affecting supply.

**Unit - II**

Competition: Classification of Market Structure - perfect competition monopoly - monopolistic competition - Oligopoly.

**Unit - III**

Monetary Theory: Nature and Definition of money - Definitions of money supply - Creation of credit - Meaning, causes and control of inflation.

**Unit - IV**

Theories of Business cycles: Meaning types and phases of business cycle - Schumpeter's and Keynesian Theories of Trade Cycle.

**References**

1. Keat, Paul G and Young, Philip K.Y - Managerial Economics, Pearson Education, New Delhi.
2. K. Jothi Sivagnanam, & Srinivasan. R, (2010), Business Economics, Tata McGraw Hill Education Private Limited, New Delhi.
3. Varshney R. L and Maheshwari K L, Managerial Economics , Sultan Chand, New Delhi
4. Domnick Salvatore: Managerial Economics in a Global Economy, 4th Edition. Cengage, 2009.
5. McGuigan, R. James, Moyer, R. Charles & Harris H. Frederick, (2005), Managerial Economics- Applications, Strategy, and Tactics, Cengage Learning, New Delhi.

## SEMESTER II

### CORE PAPER III- INDIAN ECONOMY-II

#### UNIT-I

The role of industrialization-review of industrial growth under planning-small scale industries ; role, problems, and policy perspective to help small scale industries-industrial policies; 1956,1977,1991.

#### UNIT-II

Features of industrial labour- causes for industrial disputes –social security measures – unorganised sector and India’s informal economy –agricultural workers in India.

#### UNIT-III

Importance of foreign trade for a developing economy-composition and direction of India’s foreign trade- role of FDI-BOP crisis- India’s trade policy.

#### UNIT-IV

Financial sector reforms – organisation of India’s money market –changing roles of RBI- development financial institutions –Indian capital market and SBEI

#### UNIT-V

Trends in revenue and expenditure of central and state Governments-deficit finance in India-current year budget of government of India-finance commission-federal finance in India.

#### References

1. Ahluwalia, I. J. and IMD Little (Eds.) (1998). *India’s Economic Reforms and Development*, Oxford University Press, New Delhi.
2. Byres, T.J. (Ed.) (1997), *The State, Development Planning and Liberalization in India*, Oxford University Press, New Delhi.
3. Byres, T.J. (Ed.) (1998), *The Indian Economy: Major Debates Since Independence*, Oxford University Press, New Delhi.
4. Kausik Basu (Ed.) (2012), *Oxford Companion to Indian Economy*, 3<sup>rd</sup> Edition, OUP, New Delhi.
5. Uma Kapila (Ed.) (2017-18) *Indian Economy Since Independence*, Academic Foundation, New Delhi, 28<sup>th</sup> Edition.
6. Ashima Goyal (Ed.) *The Oxford Handbook of the Indian Economy in the 21<sup>st</sup> Century: Understanding the Inherent Dynamism*, Oxford University Press.



## CORE PAPER IV- STATISTICS – II

### Unit I: Measures of Linear Relationships

Introduction to Correlation – Definition, Types- Estimation of Correlation Coefficients– Simple, Partial, Multiple- Properties of Correlation Coefficient- Testing the significance of correlation coefficient – t, Standard Error

### Unit II: Simple Linear Regression Analysis/Models

Introduction to Simple Linear Regression Models- Regression vs. Causation- Properties & Estimation of Regression Coefficients- Goodness of Fit Measure/Summary Measure – Coefficient of Determination

### Unit III: Multiple Linear Regression Models

Introduction to Multiple Linear Regression Models- Properties & Estimation of Partial-Regression Slope Coefficients- Goodness of Fit Measure/Summary Measure – Coefficient of Determination

### Unit IV: Non-Parametric tests

An Introduction to Non-Parametric Tests- Difference between Parametric and Non- Parametric tests- Sign Test – Paired Samples- Mann Whitney U Test – Two Independent Samples- Kruskal Wallis H Test – More than two Independent Samples- Run's Test for Randomness- Chi-square Test

### Unit V: Minor Assignment

Estimate, analyze and draw inference on an economic data using any of the statistical tools in the syllabus.

### Reference

1. Aggarwal. Y.P (2002), Statistics Methods – Concepts Application and Computation, Sterling Publishers Private Ltd., New Delhi.
2. Gupta, S.P. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
3. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
4. Whigham, David, (2008), Business Data Analysis Using Excel, Oxford University Press.
5. Wonnacott H. Thomas & Wonnacott J. Ronald (1969), Introductory Statistics, John Wiley & Sons, Inc. New York.
6. Timothy C. Urdan (2005), Statistics in Plain English, *Second Edition*, Lea Lawrence Erlbaum Associates Publishers, London.

## **ALLIED PAPER II- (a) HEALTH ECONOMICS**

- Unit I:** Health and Economic Development- Investment in man -Health and Social Welfare- Determinants of Health- Income and Health Linkages- Economic Analysis of Health care.
- Unit-II:** Demand for Health Care Services- Preference for Health care using Indifference Curves- Budget Constraints- Income and Price effects for Health care- Elasticity of Demand for Medical care.
- Unit-III:** Supply of Health care services- Physicians and Medical Personnel as Health care providers- Non labour inputs- Hospitals- Interaction of Demand and Supply of Health care.
- Unit-IV:** Health Indicators- Birth rate- Fertility- Morbidity- Mortality- IMR – CMR- MMR- Disability Adjusted Life Year (DALY)- Quality Adjusted Life Year (QALY)- Sex ratio.
- Unit- V:** Health Insurance- Medical Ethics- Medical Tourism.

### **BOOKS FOR REFERENCE:**

1. William Jack, Principles of Health Economics for Developing Countries, World Bank Institute Development Studies 1999.
2. World Development Report, Investing in Health, The World Bank 1993.
3. M. Grossman, 'The Shadow price of Health in the Economics of Health' Vol. 1 by A.J. Culyes (ed) (1991), Edward Elger publishing Ltd, UK.
4. Volan Brian (1993) Economics Incentives, Health Status and Health services, Utilisation, Journal of Health Economics, Vol II.
5. Banerjee, D. (1975), Social and Cultural Foundations of Health Service Systems of India, Inquiry, Supplement to Vol. XII, June.
6. Edwin G Dolan and John C Goodman: Economics of Public Policy: 4<sup>th</sup> Edition: West Publishing Company, New York

(OR)

## ALLIED PAPER II- (b) COMPUTER APPLICATIONS IN ECONOMICS

### **Unit I:**

Working with MS EXCEL- Starting EXCEL- Workbook, Worksheet/Spreadsheet- Calculation Operators- Arithmetic Operators- Comparison Operators- Logical Operations- Excel Tool Bars

### **Unit II:**

Descriptive Analysis- Measures of Central Tendency – Minimum, Maximum, Sum, Mean, Median, Mode- Measures of Dispersion – Range, Standard deviation, Variance- Measures of deviation from Normality – Skewness, Kurtosis- Frequency Distributions – Univariate, Bivariate- Frequency Polygons – Ogives.

### **Graphical Illustrations:**

Column/Bar Diagram- Histogram- Pie diagram- Line Graphs- Scatter Plot- Stock Diagram  
Radar Diagram.

### **Unit III:**

Measures of Linear Relationships – Estimation & Hypothesis Testing - Correlation – Simple, Partial & Multiple- Coefficient of Determination- Regression – Simple & Multiple- Regression & ANOVA

### **Unit IV:**

Functional Forms (Non-Linear Relationship)- Double Log Model – Estimation of Elasticity measure- Semi-log Model – Estimation of Growth Rates- Reciprocal Model – Estimation of Asymptote values- Regression on Dummy variables

### **Unit V:**

Hypothesis Testing – Significance of Means- Student's t Test- ANOVA (one-way & two-way)

### **Reference Books:**

- Microsoft Excel 2016 Bible: The comprehensive tutorial resource by John Walkenbach, John Wiley and sons Inc.2013
- Jeffrey M Wooldridge, Introduction to Econometrics 3rd Edition, Pearson Publishers
- Basic Econometrics, Damodar N Gujarati

## **Non Major Elective 2: INDIAN ECONOMY FOR COMPETITIVE EXAMINATIONS**

### **Unit - I**

Economic Development - Measurement of Development- Cause of under development - Development and the New Economic Policy - Development and the environment.

### **Unit - II**

Population - population growth - Age composition of population - population policy.

### **Unit III**

Poverty - Measurement of Poverty - Poverty line - Policies for poverty alleviation - Poverty and Regional Disparity.

### **Unit IV**

Price policy and Inflation History to price rise in India. Causes of Inflation- Inflation and Price control in the post- reform period - Monetary and fiscal policies.

### **Study Materials:**

1. Riddar Dutt and Sundaram K.P.M. - Indian Economy.
2. Jhingan, M.L. The Economic of Development & Planning.
3. Ahuja, H.L. Economic Environment of Business, Macro Economic Analysis.
4. General Studies Manual for the UPSC Civil Services Preliminary Examination (Latest Edition).
5. Indian Economy Exam Oriented Series – Praitiyogita Darpan.

**Semester III**  
**Core Paper- V**  
**Micro Economics I**

**Unit I**

Definitions of Economics – difference between Micro Economics and Macro Economics – Positive and Normative Economics – Inductive and Deductive Economics – Production Possibility Frontier

**Unit II**

Cardinal Utility Approach – Total Utility and Marginal Utility – Law of Diminishing Marginal Utility – Law of equi-marginal utility – Limitations – Ordinal Utility – Indifference Curves – Properties – Marginal Rate of Substitution – Consumer's Equilibrium – Hicksian Price Effect -- Concept of Consumer Surplus.

**Unit III**

Demand Function – Law of Demand – Determinants of Demand – Exceptions to the Law of Demand- Individual and Market Demand – Shift in Demand – Elasticity of Demand – Price, Income and Cross Elasticity – Factors influencing Elasticity of Demand – Measurement of Elasticity of Demand – Point Method, Arc Method and Total Elasticity Method.

**Unit IV**

Production Function – Law of Variable Proportions – Iso-quants – Marginal Rate of Technical Substitution – Law of Returns to Scale – Producers' Equilibrium – Least cost combinations.

**Unit V**

Law of Supply – Factors influencing Supply – Shift in Supply – Elasticity of Supply – Market Equilibrium – Interaction between Demand and Supply.

**References**

1. Gregory Mankiw (2014) Economics: Principles and Applications, New Delhi, Cengage Learning India
2. Koutsiyannis A. (2003) Modern Micro Economics – Palgram Macmillan (UK) 2nd Edition.
3. Robert Pindyck and Daniel Rubinfeld (2017) 8th Edn. Micro Economics, Pearson Education.
4. Varian, H. (2000), Intermediate Microeconomics: A Modern Approach, W.W. Norton, New York

# **Core Paper- VI**

## **Mathematics for Economists**

### **Unit I**

Vector and Matrix Algebra - Basic Operations - Types of Matrices – Transpose of a Matrix – Properties of Transpose – Partitioned Matrices – Minor and Rank of a Matrix.

### **Unit II**

Determinants – Singular, Non Singular Matrix – Adjoint Matrix – Inverse Matrices – Properties of Inverse – System of Equations with Inverse – Cramer's Rule.

### **Unit III**

Differentiation – Rules of Differentiation: Differentiation of Sum and Difference of functions – Product Rule – Quotient Rule – Chain Rule – Higher Order Derivatives – Direct and Cross Partial Derivatives.

### **Unit IV**

Maximization and Minimization – Economic Applications: Revenue Maximization – Profit Maximization under Perfect Competition, Monopoly, Discriminating Monopoly – Cost Minimization.

### **Unit V**

Integration – Rules – Definite Integrals – Properties of Definite Integrals – Economic Applications: Consumer's Surplus and Producer's Surplus.

### **References:**

1. Chiang. A. C. (2005), Fundamental Methods of Mathematical for Economics, McGraw Hill, New York.
2. Edward T Dowling (2011), Schaum's Outline of Introduction to Mathematical Economics, 3rd Edition, McGraw Hill Publication.
3. Geoff Renshaw(2009), Maths for Economics, 2nd Edition, Oxford Publications, New Delhi
4. Jean E. Weber (1982), Mathematical Analysis, Business and Economics Applications, Harper International Edition, Cambridge, March 1.
5. Mabbet, A.J. (1986), Workout Mathematics for Economists, Mac Millan Master Series, 4th Edition, London.

**Semester IV**  
**Core Paper -VII**  
**Micro Economics II**

**Unit I**

Cost and Revenue Concepts – Types of Costs – Fixed and Variable Costs – Average, Marginal and Total Costs – Short run and Long run Costs – Traditional and Modern Costs – Total, Average and Marginal Revenues.

**Unit II**

Perfect Competition – Features – Price and Output Determination under Perfect Competition – Short run and Long run equilibrium of the firm.

**Unit III**

Monopoly – Supply Curve of the Monopolists – Equilibrium under Monopoly – Price Discrimination – Types and Degrees of Price Discrimination – A Note on Dumping.

**Unit IV**

Equilibrium under monopolistic competition – Excess capacity – Oligopoly – Kinked Demand Curve Model – Cartels.

**Unit V**

Marginal Productivity Theory of Distribution – Wage Differentials – Ricardian Theory of Rent – Classical theory of Interest – Theories of Profit-Innovation theory of Profit, Risk and Uncertainty bearing theory of profit .

**References:**

1. Karl E. Case and Ray C. Fair, (2013)Principles of Economics, 11th Edition, Pearson, New Delhi.
2. Gregory Mankiw (2014), Economics: Principles and Applications, New Delhi, Cengage Learning India.
3. Koutsiyannis A. (2003), Modern Micro Economics – Palgram Macmillan (UK) 2nd Edition.
4. Watson(1975), Price Theory and its uses, Scientific Book Company, Calcutta.

## **Core Paper- VIII**

### **Econometrics**

#### **Unit I**

Introduction to Econometrics – Meaning– Classical Econometric Methodology – Analysis of economic problems: Demand theory and Keynes Consumption theory

#### **Unit II**

Two-variable Linear Regression Analysis: Estimation – Population & Sample Regression Function (PRF, SRF) – Principle of Ordinary Least Squares (OLS) – Derivation of OLS estimators & Properties of OLS estimators – Assumptions of the Classical Linear Regression Model – Estimation of a two-variable model – Reporting & Interpreting the Regression Results – Goodness of Fit Measures - Coefficient of Determination

#### **Unit III**

Two-variable Linear Regression Analysis: Hypothesis Testing – Interval Estimation & Hypothesis testing – An Introduction – Estimation of Confidence Intervals for regression coefficients – Testing the significance of the coefficients – Confidence Interval Approach – Standard Error – Reliability of estimators – Testing the overall significance of the Model: Regression Analysis & ANOVA

#### **Unit IV**

Multiple Linear Regression Analysis: Estimation & Hypothesis Testing – Introduction to Multiple Linear Regression Models & Significance – Assumptions underlying the Multiple Regression Model – Estimation of a three-variable model -Reporting & Interpreting the Regression Results – Standard Error – Reliability of estimators – Coefficient of Determination – Goodness of Fit Measures – Hypothesis testing – Testing the overall significance of the Model

#### **Unit V**

Problem Assignments – Example I: Estimating Demand/Supply Function, Compute Elasticity – Example II: Estimating Consumption Function, Compute & Test the significance of MPC – Example III: Estimating Cob - Douglas Production Function, Computing output elasticity with respect to Labour and Capital Inputs, Testing the significance of the coefficients and of the model – Example IV: Compute Growth Rates

#### **References:**

1. Dougherty, C. (1992), Introduction to Econometrics, Oxford University Press, New York.
2. Gujarati D.N. and Sangeetha (2007), Basic Econometrics, Tata McGraw-Hill Publishing Company, 4<sup>th</sup> edition.
3. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed.), The Macmillan Press Ltd., London.
4. Maddala, G.S. (1997), Econometrics, McGraw Hill, New York.



**Semester V**  
**Core Paper- IX**  
**Macro Economics– I**

**Unit I:**

Concepts – Endogenous, exogenous variables identities-stocks and flows – statics – comparative statics – Dynamics – Ex ante and Ex post Variables – Difference between Micro and Macro Economics-Partial and General equilibrium analysis.

**Unit II:**

Classical theory of output and employment – Product Market, Labour Market, Money Market and Capital Market Equilibrium – J.B Say's Law of Markets-Fishers Quantity theory of Money – Wage – Price flexibility – Derivation of Aggregate Supply Curve – Full Employment Equilibrium – Keynesian Theory of output and employment – Wage rigidity – Derivation of aggregate Supply curve – Aggregate Expenditure function – Effective demand – Full Employment Equilibrium

**Unit III:**

Keynesian theory of income determination – Behavioral equations – cross diagrams - multipliers-closed and open economy models. Post-Keynesian income determination: IS-LM analysis-Integration of real sector with money sector: Multipliers – General equilibrium – Effects of monetary and fiscal policies on the real rate of interest and real national income

**Unit IV:**

Keynesian Absolute Income Hypothesis – Psychological Law of Consumption – Post Keynesian consumption functions – Dusenberry's Relative Income hypothesis – Milton Friedman's Permanent Income Hypothesis, Franco Modigliani's Life Cycle Hypothesis. The implications and propositions of consumption function-Objective and subjective factors determining consumption function.

**Unit V:**

Classical theory of investment demand – Rate of interest-Keynesian theory of demand for investment: MEC, Rate of discount, NPV, Prospective yield, Supply price: Post Keynesian theory of investment demand-Acceleration Principle – Samuelson's and Hick's theories of accelerator.

**References:**

1. Dornbusch, Rudiger, Stanley Fischer, and Richard Startz (2000). Macroeconomics, Tata McGraw-Hill Publishing Company, New Delhi.
2. Roger E.A. Farmer (2002 ), Macro Economics, Thompson Asia Pvt. Ltd., Singapore
3. Jha, Raghendra (1991). Contemporary Macroeconomic Theory and Policy, Wiley Eastern Limited, New Delhi.
4. Laidler, David E.W. (1977). The Demand for Money: Theories and Evidence, Harper and Row, New York.
5. Mueller, M.G. (Ed.)(1978). Readings in Macroeconomics, Surjeet Publications, New Delhi.
6. Mankiw. N Gregory (2000) Macro Economics (Worth Publishers, New York)

# **Core Paper- X**

## **Public Finance – I**

### **Unit I:**

Public finance – Meaning and Scope – Public and Private Finance – Principle of Maximum Social Advantage – Public Goods and Private Goods.

### **Unit II:**

Meaning and Definition of Public Expenditure – Reasons for the Growth of Public Expenditure – Views of Economists on Public Expenditure: Wagner's Hypothesis and Peacock – Wiseman Hypothesis, Canons of Public Expenditure – Effects of Public Expenditure

### **Unit III:**

Sources of Public Revenue – Taxes – Canons of Taxation–Principles of Taxation Classification of Tax – Direct and Indirect taxes – Effects of Taxes.

### **Unit IV:**

Shifting and Incidence of Taxes – Theories of Shifting and Incidence – Concentration theory – Diffusion Theory – Modern Theory of Incidence

### **Unit V:**

Meaning – Factors determining Taxable Capacity – Types of Taxable capacity – Significance – Limits of Taxable Capacity – Measurement of Taxable Capacity.

### **References:**

1. David.N.Hyman(2005),Public Finance: A Contemporary Application of Theory and Policies,Cengage India Edition, New Delhi
2. Holley Ulbrich, (2003), Public Finance in Theory and Practice, Thomson South-Western, Chennai.
3. Lekhi R.K and Joginder Singh (2015), Public Finance, Kalyani publishers, Delhi.
4. Musgrave. Richard and Peggy.Musgrave, (2017), Public finance in Theory and practice.Mcgraw-Hill Publications
5. Rosen, Harvey(2013),Public Finance, McGraw Hill Publications

## **Core Paper-XI**

### **International Economics**

#### **Unit I**

International Trade –Meaning –Difference between International and Inter-Regional Trade – Community Indifference Curve – Production Possibility Curve – Offer Curves – Opportunity Cost.

#### **Unit II**

Theories of International Trade: Adam Smith (Absolute Advantage) – David Ricardo (Comparative Cost Advantage) –Heckscher - Ohlin Theorem— Heberler (Opportunity Cost Theory) - J.S. Mills (Reciprocal Demand Theory).

#### **Unit III**

Free Trade – Protection – Meaning – Cases for and against Free Trade and Protection – Quotas: Meaning and Types. Tariff: Meaning, Types and Effects.

#### **Unit IV**

Balance of Payments – Meaning - Structure of Balance of Payments – Causes of Disequilibrium – Measures to Control Disequilibrium. New International Economic Order – Objectives and Implementation.

#### **Unit V**

IMF – World Bank – WTO –Regional Trade Agreements–ASEAN-Euro Zone- G20 – Asian Development Bank – BRICS – Recent Summits –Trading Blocs –SAARC – NAFTA – EU.

#### **References:**

1. Charles P Kindleberger (1999), International Economics, Macmillan Press Ltd London.
2. Dominick Salvatore (2014), International Economics, John Wiley International Student Edition.
3. Paul Krugman, Maurice Obstfeld and Marc Melitz, Addison (2014) – Wesley International Economics: Theory and Policy, Pearson Education Indian Edition.
4. Robert Carbaugh (2016), International Economics, Cengage Learning.

## **Core Paper-XII**

### **Development Economics**

#### **Unit I**

Definition of Economic Development and Economic Growth – Distinction between economic growth and economic development – Factors Contributing to Development and Growth: Institutional, Technological, Economic and non-economic factors – Measuring Development –GDP – PQLI – PPP - HDI.

#### **Unit II**

Rostow's Stages of Economic growth –Balanced Vs Unbalanced growth- Nurkse Theory of Balanced Growth -Hirshman's theory of unbalanced growth-Rosenstein Rodan's Big Push theory– Lewis' dual sector model - Leibenstein's Critical Minimum Effort thesis.

#### **Unit III**

Issues of Development: Income Distribution – Measuring inequality – Inequality in income and growth – The inverted U Hypothesis -Externality – EnvironmentalKuznet'sCurve – Sustainable Development.

#### **Unit IV**

Poverty cycle – Conceptual issues –Measurement of Poverty –Range –Coefficient of Variation –Head count - Head Count Ratio – Poverty Gap Ratio – Lorenz Curve – Gini Coefficient – Sen's Index on Poverty – Functional Impact of Poverty.

#### **Unit V**

International trade and economic growth – Import Substitution and Export Promotion Meaning and types of international capital movement – Role of Foreign Direct Investment in economic development. – Foreign aid and economic development – Types of foreign aid

#### **References:**

1. Adelman Irma (1961), Theories of Economic Growth and Development,Stanford University Press.
2. Debraj Ray (1998), "Development Economics" Princeton University Press, New Jersey.
3. Gerald M. Meier, James E. Rauch, Leading Issues in Economic Development, Oxford University Press, 7th edition (2000).
4. Thirwall A.P (1989), Growth and Development,Palgrave Macmillan; 4th Ed.
5. Wayne Nafziger E (2012), Economic Development, Edition 5, Cambridge University Press.

**Semester VI**  
**Core Paper-XIII: Macro Economics - II**

**Unit I**

Definition of inflation – Types of Inflation – Demand Pull Inflation – Cost Push Inflation – Mark-up Inflation. Effects of Inflation – Tradeoff between inflation and unemployment – Philips curve – Short run and long run Philips curve

**Unit II**

Growth Concepts – Difference between growth and development – Factors determining growth – Harrod Domar growth model – Neo Classical Theory of Growth by Solow – Kaldor's theory of distribution – Joan Robinson's explanation for different ages – Golden rule of capital accumulation.

**Unit III**

Concepts of business cycle – Four phases of business cycle – Theories – Hawtreys monetary approach – Von Hayek's approach – Schumpeter's Innovation theory – Kaldor's Savings – Investment approach – Hicks' Multiplier – Accelerator interaction approach to the theory of Business cycle – Measures to control business cycle.

**Unit IV**

Monetary Policy: Objectives - Policy Instruments — Monetary Policy lags – Rules vs Discretion. Transmission Mechanism: Classical, Neo classical and Keynesian transmission mechanism. Fiscal Policy– Objectives– Policy Instruments – Lags– Built-in-flexibility – compensatory fiscal policy – Effects of Fiscal policy in classical, intermediate and Keynesian range of LM curve. Income Policies – Various Types-Arguments for and against Income Policy.

**Unit V:**

IS-LM-BP Curves – Effects of monetary and fiscal policy under fixed and flexible exchange rate regimes-Working of Devaluation and foreign shocks on National Income. Rational Expectations – Classical and Keynesian Expectations Augmented aggregate Supply curves. Actual and expected Price Levels.

**References:**

1. Dornbusch, Rudiger, Stanley Fischer, and Richard Startz (2000). Macroeconomics, Tata McGraw-Hill Publishing Company, New Delhi.
2. Roger E.A. Farmer (2002 ), Macro Economics, Thompson Asia Pvt. Ltd., Singapore
3. Jha, Raghendra (1991). Contemporary Macroeconomic Theory and Policy, Wiley Eastern Limited, New Delhi.
4. Laidler, David E.W. (1977). The Demand for Money: Theories and Evidence, Harper and Row, New York.
5. Mueller, M.G. (Ed.)(1978). Readings in Macroeconomics, Surjeet Publications, New Delhi.
6. Mankiw. N Gregory (2000) Macro Economics (Worth Publishers, New York)

## **Core Paper-XIV**

### **Public Finance - II**

#### **Unit I:**

Public Debt - Meaning — Comparison of Private and Public debt – Objectives of Public debt – Classification of Public Debt , Causes, Effects and Redemption of public debt – Public debt management in India

#### **Unit II:**

Meaning – Principles of Fiscal Federalism – Objectives of Finance Commission – Recommendations of 12<sup>th</sup>, 13th, 14th Finance Commission – Co-operative Federalism-NITI Aayog - Centre State Financial Relations.

#### **Unit III:**

Meaning – Objectives – Causes of Deficit Financing – Impact of Deficit financing – Advantages and Disadvantages of Deficit Financing.

#### **Unit IV:**

Meaning and Definition of Budget – Objectives of the Budget – Structure of the Budget – Budgetary procedure in India – An overview of Current Union Government Budget.

#### **Unit V:**

Local Governments – Types of Local Governments – Sources of Finance of Local Governments – Functions of local governments – Problems faced by Local Governments with regard to Finance

#### **References:**

1. David.N.Hyman(2005),Public Finance: A Contemporary Application of Theory and Policies, Cengage India Edition, New Delhi
2. Holley Ulbrich, (2003), Public Finance in Theory and Practice, Thomson South-Western, Chennai.
3. Lekhi R.K and Joginder Singh (2015), Public Finance, Kalyani publishers, Delhi.
4. Musgrave. Richard and Peggy.Musgrave, (2017), Public finance in Theory and practice,McGraw Hill Publications
5. Rosen, Harvey(2013),Public Finance, McGraw Hill Publications

# **Core Paper: XV**

## **Monetary Economics**

### **Unit I**

Money in Economic System – Functions of Money-Evolution of Money – Types of Monetary Standards – Efficiency in Exchange – Features of Real-Exchange Economy and Monetary Economy – Money and Financial System – Properties of Financial Assets – Selection Criteria – Role of Financial Markets – Functions of Financial Intermediaries – Financial Intermediation and Capital accumulation.

### **Unit II**

Demand for Money: Quantity Theory-Classical, Cambridge and Keynesian Versions – Motives and Determinants of Demand for Money – Theory of Liquidity Preference – Transactions Demand, Speculative Demand and Precautionary Demand – Interest Elasticity – Portfolio Analysis of demand for Money – Friedman's Restatement Quantity theory of Money – Supply Analysis: Money Stock Measures, Velocity of circulations of money –Money Multiplier. Money Supply and Balance of Payments.

### **Unit III**

Commercial Banks – Functions and Operations-Credit Creation – Structure of Balance Sheet– Reforms in the Indian Banking System –Issues of NPA-Reserve Bank of India: Functions and Working.

### **Unit IV**

Money Market - Structure and Functions – Features of Indian Money Market – Role of unorganized money markets in India. Capital Market :Primary and Secondary Markets –SEBI and Capital Markets – Foreign Exchange Market – Exchange rate movements – Determinants – Hedging Operations –Convertibility in Current and Capital Accounts.

### **Unit V**

Monetary Policy: Objectives, Instruments of Credit Control – Transmission Process – Monetary Policy in Closed and Open Economies.

### **References:**

1. Goldfield and Chandler (1959) The Economics of Money and Banking,H & R Publication.
2. Jagadish Handa: Monetary Economics, Routledge; 1<sup>st</sup> Edition (18 September 2008)
3. Pierce and Shaw, (1985), Monetary Economics: Theories, Evidence and Policy, Butterworth-Heinemann Ltd; 2<sup>nd</sup> revised edition
4. R.Cauvery, N.Kruparani, U.K,Sudhanayak, A.Manimekhalai, (2012), Monetary Economics, S.Chand and Company limited.
5. R.R.Paul, (2013), Monetary economics, Kalyani Publishers, New Delhi
6. Vaish M C (1985), Money, Banking, Trade and Finance, Wiley Eastern Publication.

# **List of Allied Papers First Year- Semester I**

## **History of Economic Thought**

### **Unit I**

Introduction to History of Economic Thought and Significance – Mercantilism - Factors responsible for the rise of Mercantilism, Economic ideas of Mercantilists – Physiocracy – Concept of Natural Order – Circulation of Wealth

### **Unit II**

Classical School – Contributions of Adam Smith, David Ricardo, Thomas Robert Malthus and J.S. Mill

### **Unit III**

Neo-classical School and Marginal Revolution – William Stanley Jevons and Carl Mengers, Alfred Marshall

### **Unit IV**

Historical School and Institutionalism – Economic Ideas – Thorstein Veblen

### **Unit V**

Contributions of Karl Marx and J.M. Keynes

### **References:**

1. Loganathan V, (2010), History of Economic Thought, S.Chand and Company.
2. R.R. Paul,(2014), History of Economic Thought, Kalyani Publications, New Delhi
3. Robert B. Ekelund Jr. Robert F. Hebert (2014), History of Economic Thought, 6<sup>th</sup> Edition, Waveland Press, Inc.
4. Skousen Mark, (2001), The Making of Modern Economics: The Lives and Ideas of the Great Thinkers, M.E. Sharp.
5. Steven G Medema and Warren J. Samuels,(2013), The History of Economic Thought: A Reader, 2<sup>nd</sup> Edition, Routledge Publications

## **Introduction to Operations Research**

### **Unit I**

Introduction – Nature and scope of Operations Research – Transportation Model – Definition – Methods of finding Initial Basic Feasible Solution – North-West Corner Rule, Least Cost Method, Vogel's Approximation Method – Solution of a Transportation Problem – MODI Method – A note on Unbalanced Transportation problem – Assignment Problem – Hungarian Method

### **Unit II**

Structure of Decision Making Problems – Types of decision making – Decision making under Uncertainty – Maximin, Minimax, Maximax, Hurwicz and Minimax regret criteria – Decision Making under Risk – Expected Value Criterion, Expected Opportunity Loss Criterion, Expected Value Perfect Information – Decision Tree Analysis

### **Unit III**

Meaning, Objectives and Types of inventory – Factors affecting inventory control – Benefits of inventory control – Economic order quantity models – Quantity discount models

### **Unit IV**

Meaning, objectives and Basic Components of a Network – Management applications of network analysis – Construction of network for projects – problems – Network computations – Earliest completion time of a project – Critical Path Method – Program Evaluation Review Technique

### **Unit V**

Queuing Theory: Meaning - Benefits - Elementary Queuing System - Arrival Pattern - Queue and Service Facility - Single Server and Multi Server Models

### **References:**

1. Gupta P.K. and Hira D.S (1976), Operations Research and Quantitative Analysis - S. Chand & Co. Ltd.
2. Kapoor V.K. (2014), Operations Research - Sultan Chand & Sons
3. Philip D.T. and Ravindran A., (1992), "Operations Research", John Wiley Publications
4. Richard Bronson and Govindasamy Naadimuthu (1997), Operations Research (Schaum's Outlines)
5. Taha H.A., (2003), "Operations Research", Sixth Edition, Prentice Hall of India.
6. Wagner.H (1970), Principles of Operations Research, Prentice Hall.



## **Allied II: Semester II**

### **Computer Applications in Economics**

#### **Unit I**

Introduction to MS EXCEL – Calculation Operators: Arithmetic Operators – Comparison Operators – Logical Operations. Excel Tool Bars.

#### **Unit II**

Summary Statistics: Minimum, Maximum, Sum, Mean, Median, Mode – Range, Standard deviation, Variance — Skewness, Kurtosis. Frequency Distributions – Univariate, Bivariate – Frequency Polygons – Ogives

Graphical Illustrations: Column and Bar Diagram – Histogram – Pie diagram – Line Graphs – Scatter Plot – Stack Diagram and Radar Diagram.

#### **Unit III**

Measures of Linear Relationships – Correlation: Simple, Partial and Multiple, Coefficient of Determination – Regression : Simple & Multiple Regression – ANOVA

#### **Unit IV**

Measures of Non Linear Relationships – Double Log Model: Estimation of Elasticity measure. Semi-log Model: Estimation of Growth Rates, Reciprocal Model: Estimation of Asymptote values – Regression on Dummy variables.

#### **Unit V**

Inferential Statistics: Significance of difference in Means – Student's t Test – ANOVA (one-way & two-way).

#### **References:**

1. Andy Field, (2000), Discovering Statistics Using SPSS for Windows-Advanced Techniques for the Beginner, Sage Publications, New Delhi
2. Corey Sandler, Tom Budgett, Jan Weingarten (1997) Office 97 for windows, BPB Publications, New Delhi
3. Lipschutz M.M and S. Lipschutz, (1982), Theory and Problems of Data Processing: Schaum's Outline Series, McGrawHill Publications, New York
4. Davis, Glyn & Pecar, Branko, (2010) Business Statistics- Using Excel, Oxford University Press, New York.
5. Whigham, David, (2008), Business Data Analysis Using Excel, Oxford University Press.

### **Health Economics**

#### **Unit I**

Health and Economic Development – Investment in man – Health and Social Welfare – Determinants of Health – Income and Health Linkages – Economic Analysis of Health care.

#### **Unit II**

Demand for Health Care Services – Preference for Health care using Indifference Curves – Budget Constraints – Income and Price effects for Health care – Elasticity of Demand for Medical care.

#### **Unit III**

Supply of Health care services – Physicians and Medical Personnel as Health care providers – Non labour inputs – Hospitals – Interaction of Demand and Supply of Health care.

#### **Unit IV**

Health Indicators – Birth rate – Fertility – Morbidity – Mortality – IMR – CMR – MMR – Disability Adjusted Life Year (DALY) – Quality Adjusted Life Year (QALY) – Sex ratio.

#### **Unit V**

Health Insurance – Medical Ethics – Medical Tourism.

#### **References:**

1. Banerjee, D. (1975), Social and Cultural Foundations of Health Service Systems of India, Inquiry, Supplement to Vol. XII, June.
2. Edwin G Dolan and John C Goodman, (1991) Economics of Public Policy: 4th Edition: West Publishing Company, New York
3. Grossman M, (1991), 'The Shadow price of Health in the Economics of Health' Vol. 1 by A.J. Culyes (ed), Edward Elgar publishing Ltd, UK.
4. Volan Brian, (1993), Economics Incentives, Health Status and Health services, Utilisation, Journal of Health Economics, Vol II.
5. William Jack, (1999), Principles of Health Economics for Developing Countries, World Bank Institute Development Studies.
6. World Development Report, (1993), Investing in Health, The World Bank.

## **Allied III: Semester III**

### **Rural Economics**

#### **Unit I**

Nature- Scope and Factors determining Rural Economy- Characteristics of Rural Economy - Social Aspects of India's Rural Areas - Barter System - Non-monetized Sector - Economic Characteristics - Land and Asset Distribution - Agricultural Income - Vagaries of Monsoon.

#### **Unit II**

Rural Unemployment - Types and Magnitude , Agricultural Labour – Marginal Productivity – Agricultural Wage – Minimum Wages Act, Rural Employment Programmes – MGNREGA – Rural Poverty – Nature, Causes and Consequences – Poverty Alleviation Programmes.

#### **Unit III**

Agricultural Marketing – Minimum Support Price linked to Production Cost - Agriculture Marketing Development – eNAM system (online Agriculture Market Place) Crop Insurance - Rural Finance - Causes and magnitude of rural indebtedness, Sources of rural credit: Unorganized: Money lenders, Indigenous Bankers, Organized: Co-operatives, Commercial Banks, Regional Rural Banks – NABARD.

#### **Unit IV**

Rural Development Programmes –Pradhan Mantri Sadak Yojana - PradhanMantriAwaasYojana –National Rural Health Mission – National Rural Livelihood Mission.

#### **Unit V**

Rural Industrialization - Agro-based Industries – Cottage Industries, Rural artisans - Cooperative societies – Rural Marketing. Cooperative Marketing-Role of Self Help Groups – PURA Model – Recent Government Policy for Rural Development.

#### **References:**

1. Agarwal A.N., KundanLal, (1990), Rural Economy of India, Vikas, Delhi.
2. Choudry. C.M, (2009) Rural Economics- Jaipur- Sublime Publication
3. DhingraI.C., (2010), The Indian Economy, Sultan Chand, New Delhi.
4. L.C. Jain, (1985), Grass without Roots: Rural Development Under Government Auspices, Sage Publications, New Delhi.
5. Patel, K.V, Shan A.C, and Mello L.D, (1984), Rural Economics, Himalaya, Mumbai.
6. Prasad B.K. Rural Development, (2003), Concept, Approach and Rural Strategy.

### **.Tourism for Development**

#### **Unit I**

Tourism: Concepts: Definitions and Historical development of tourism; Types of tourist-Visitor and Excursionist, Types and Forms of Tourism;-Tourism system: Nature and characteristics. Domestic tourism; features, pattern of growth, profile. International tourism

#### **Unit II**

Tourism Impacts: Impacts: Positive and Negative Impacts of Tourism; Socio-Cultural, Economic, Environmental and Political - Impact Assessment: Social Impact Assessment, Environmental Impact Assessment and Environmental Impact Assessment.

#### **Unit III:**

Employment and Income creation, Tourism Multiplier Effects, Balance of Payments, Foreign Exchange

#### **Unit IV**

Tourism Organizations: Objectives and Role of UNWTO, ITDC & TTDC, Ministries of Railways-IRCTC and Civil Aviation in development; An overview of National and International organizations and associations: IATO, ICAO and IATA

#### **Unit V**

Economic transition in post independent India-A quick review- Tourism Development during the Plan Periods-Effect of liberalization-Tourism and privatization- Globalization of the Tourism Industry.

#### **References**

1. Bhatia, A.K., (1982), Tourism Development and Principles, New Delhi, Sterling Publishers.
2. Bhatia, A.K., (1978), Tourism in India, New Delhi, Sterling Publishers.
3. Negi, Jagmohan and Maboheh, Gaurav N., (1998), India 50 years of Independence- 1947-97 – status and growth & development – Tourism, New Delhi, B.R. Publishing Corporation.
4. Seth Praveen, (1999), Tourism: Today and Tomorrow, New Delhi, Anmol Publications.
5. Singh, P.K., (1998), Fifth Year of Indian Tourism, New Delhi, Kanishka Publishers.

# Demography

## Unit I

Meaning scope of Demography – Components of Population Growth – Theories of Population growth – Malthusian Theory – Optimum theory and Theory of Demographic transition.

## Unit II

Life Table: Meaning of its columns and its uses – Reproductive and Child health in India – Temporal and Spatial Variation in Sex Ratios – Crude birth and death rate, Age Specific birth and death rates – Standardized birth and death rates – Study of fertility – Total fertility Rate – Gross Reproductive Rate – Net Reproductive Rate.

## Unit III

Migration and Urbanisation – Concept and types – Temporary, internal and International effects on population growth and pattern – Factors affecting Migration and its impact on the distribution of rural-urban population.

## Unit IV

Population trends in the 20th Century – International aspects of population growth and distribution – Population and environment pattern of age and sex structure in developed and developing countries – Age pyramids and projections.

## Unit V

Evolution of population policy in India – Population and strategies for human development of different social groups – Evaluation of population policy in India – Task before the National Population Commission – The recent population policies.

## References:

1. Agarwala S.N. (1985), India's Population Problem, Tata McGraw-Hill, Bombay.
2. Bhende, A. and T.R. Kanitkar (1982), Principles of Population Studies, Himalaya Publishing House, Bombay.
3. Bogue, D.J. (1969), Principles of Demography, John Wiley, New York
4. Bose A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi
5. Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi
6. Mishra S. (2000), Voluntary Action in Health and Population, Sage, New Delhi
7. Simon, J. L. (1988), Population & Development in poor countries, Princeton University Press, Princeton, C. Methods and Models in Demography, Bellhaven Press, London
8. Srinivasan, K., (1997), Basic Demographic Techniques and Application, Sage, New Delhi.

## **Allied IV: Semester IV**

### **Tamil Nadu Economy**

#### **Unit I**

Growth and development- Ingredients of economic growth- Sectoral growth in perspective- Inter-state Growth profiles- Economic development and structural Transformation-SDP trends-Planning.

#### **Unit II**

Theory of Demographic Transition – Trends in Growth of Population- Sex ratio, Density, Literacy, Birth and Death rate- Urbanisation – Population Policy 2001. Composition of workforce – Unemployment and Poverty.

#### **Unit – III**

Agriculture – Cropping Pattern – Irrigation – Agricultural Development in Tamil Nadu- Green Revolution – Agricultural marketing: regulated markets and Co- operative marketing – Non- Farm activities in Tamil Nadu- Food Security and Public distribution system.

#### **Unit IV**

Trends in Industrial Development in Tamil Nadu – Factors contributing to Industrial Development in Tamil Nadu- Small Scale Industries: Role , Problems , Promotional Measures for SSI - TIDCO, TANSI, SIPCOT, DIC – Economic Liberalisation Vis-a - Vis Industrial Growth.

#### **Unit – V**

Transport and Economic development- Nationalisation of Roadways-performance of public sector transports- Power development in Tamil Nadu-Rural Electrification. Social inputs and its development effects: Health, Education, Nutrition, water supply and environment

#### **References:**

1. Government of Tamil Nadu, Various Issues of Tamil Nadu Economic Appraisal, Department of Statistics, govt. of Tamil Nadu
2. Leonard A C (2006) , Tamil Nadu Economy, Macmillan India Ltd, New Delhi
3. Manickam.S(2006) Economic development of Tamil Nadu in perspective,Uyirmai,Chennai.78
4. MIDS (1988) , Tamil Nadu Economy : Performance and Issues, Oxford and IBN Publishing Co. Pvt. Ltd., New Delhi
5. Naganathan M (2002) Tamil Nadu Economy: Trends and prospects, University Of Madras.
6. Rajalakshmi V (1999) Tamil Nadu Economy, Business Publication Incorp. Univ. Of Michgan , USA

## **Economic History of India (1757-1964)**

### **Unit: I**

Introduction- Colonial India- Background and Introduction- Overview of colonial economy— Three Stages of Colonialism—Drain of Wealth.

### **Unit II**

Agriculture and Agrarian structure –Permanent Settlement - Ryotwari and Thomas Munro - Mahalwari Settlement — Commercialisation of Agriculture - Rural Indebtedness and State of the Peasants.

### **Unit III**

Railways, Plantations and Mines Railways—Five phases of railways - Tea Plantations—Coal-Mining.

### **Unit IV**

De-industrialization and banking Nature of industrialization— Phases of Industrialization— Industrial Labour, Banking –Evolution and Development

### **Unit V**

India after Independence – Socialistic Vision— Planning Commission - State Controlled Industrialization—Agrarian Reforms

### **References:**

1. AK Bagchi, (1976), Deindustrialization in India in the nineteenth century: Some theoretical implications, Journal of Development Studies.
2. Bipin Chandra, (1981), Nationalism and Colonialism in Modern India (Paperback) Orient Blackswan,
3. Dharma Kumar (ed), (2008), The Cambridge Economic History of India, Vol. II, Cambridge.
4. Irfan Habib, (2006), Indian Economy 1858-1914, A People's History of India, Vol.28, Tulika.
5. Lakshmi Subramanian, (2010), "History of India 1707-1857", Orient Blackswan, (relevant chapters).
6. Tirthankar Roy, (2011), The Economic History of India 1857-1947, Oxford University Press, 3rd edition.

## **Gender Economics**

### **Unit I**

Gender – Gender as category of analysis-Patriarchy – Patriarchy and Gender-The need for Economics from a gender perspective – Gender and Poverty

### **Unit II**

Classical and Neoclassical Economics-Post Keynesian Economics-Economic measurements - Empirical Challenges

### **Unit III**

Gender and labour market-Debates on household labour-Sexual division of Labour and Women's work

### **Unit IV**

Women in Development (WID), Women and Development (WAD) and Gender and Development (GAD)-Women and Empowerment -women and Environment – Ecofeminism

### **Unit V:**

Feminization of work- Feminization of Poverty-Impact of LPG on women.

### **References:**

1. GOI (1987) Shram Shakti, report on the Unorganised Sector, New Delhi, 1987
2. Julie A Nelson (1996) Feminism, Objectivity and economics, Routledge, London.
3. Krishnarar, Maithreyi and Joy P. Deshmukh (1991) Gender in Economics, Ajantha Publishers, New Delhi
4. Loutfi, M F (ed.) (2002) Women, Gender and Work, Rawat Publishers, New Delhi.
5. Special issues of Economic and Political Weekly.

## **List of Elective Papers**

### **Fifth Semester: Elective Paper -I**

#### **Agricultural Economics**

##### **Unit 1:**

Meaning of Agricultural Economics, Need and Importance of Agricultural Economics – Relationship between Agricultural and Non-agricultural Sectors – Major Crops – Food and Commercial Crops, Crop Rotation, Mixed Farming and Sustainable Agriculture – Importance of Technology in Agriculture.

##### **Unit II**

Agricultural Holdings, Sub-Division and Fragmentation of Holding in India, Causes and Effects of Sub-Division - Consolidation of Land Holding. Agricultural Productivity – causes for Low Productivity, Suggestions for Raising Agricultural Productivity. Impact of Land Reform measures.

##### **Unit III**

Indebtedness-Causes, Consequences and Evils of Indebtedness, Measures to Remove Rural Indebtedness and Regulation of Money Lenders. Agricultural Credit – Sources of Agricultural Finance – Institutional, Cooperative Bank – Land Development Bank- NABARD - RRB- Self Help Group- Non Institutional Finance.

##### **Unit IV**

Concepts and Features of Agricultural Marketing in India – Main Defects of Agricultural Marketing. The Regulated Markets – Functions and Progress of Regulated Markets. Co-operative Marketing – Advantages and Progress of Co-operative Marketing, Suggestions to Improve Co-operative Marketing

##### **Unit V**

Community Development – Objectives and Implementation of CD. IRDP – Meanings, Objectives, Strategy - Progress – Swarnajayanthi Gram Swarojgar Yojana (SGSY) – National Agricultural Policy 2000 - MGNREP – Food Security.

##### **References:**

1. Acharya, S.S. and Agarwal, N.L. (2004); Agricultural marketing in India, Oxford and IBH Publishing Co. Pvt. Ltd.
2. Badi, R.V. and Badi, N.V. (2004); Rural Marketing, Himalaya Publishing House.
3. Giriappa, S. (2000); Institutions and Agricultural Marketing, Mohit Publications.
4. Lekhi, R.K. and Singh, Joginder (2005); Agricultural Economics, Kalyani Publishers.
5. Mahajan, K.A. (2003); Co-operative Marketing, Anmol Publications Pvt. Ltd.
6. Rajan Kumar Sahoo, (2011); Agricultural Marketing, Dominant Publishers & Distributors Pvt. Ltd

# Labour Economics

## Unit I

Meaning and Definition of Labour Economics – Scope and nature of Labour Economics– Characteristics of labour market – Nature of labour market in developing countries like India – Demand and Supply of labour.

## Unit II

Theories of wage determination – Classical, Neo-Classical, Marginal productivity and Modern Theories – Collective Bargaining and Wage determination – Wage differentials and Wage Regulations.

## Unit III

Growth pattern and structure of labour unions in India – Labour movements in India — Industrial relations: Industrial disputes and Industrial peace.

## Unit IV

Need for Social security in India– Different schemes of Social security in India – Social insurance and Social Assistance: Minimum wages Act – National Wage Policy.

## Unit V

Child labour – Causes of Child labour – Constitutional and legislative provision measures to regulate child labour – Status of Women Workers- Problems of women workers– Protective provision

## References:

1. Bhagoliwal T.N. (2002), Economics of Labour and Industrial Relations, SahityaBhavan Agra.
2. C.R. McConnell and S.L.Brue (1986) Contemporary Labour Economics, McGrawHill Publications.
3. Datt, G. (1996), Bargaining Power Wages and Employment: An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi
4. Gupta P.K. (2012) Labour Economics, New Delhi Virnda Publication (p) Ltd.
5. Hajela P.D. (1998), Labour Restructuring in India: A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
6. Kannapon, S. (1983), Employment Problems and Urban Labour Markets in Developing Countries, University of Michigan, Ann Arbor.
7. Lester, R.A. (1964) Economics of Labour (2nd Ed.), Macmillan, New York
8. Papola T.S. P.P.Ghosh and A.N. Shama (EDS) (1993) Labour employment: Industrial relation in India, B.R. Publishing Corporation

## **Sixth Semester: Elective Paper II**

### **Industrial Economics**

#### **Unit I**

Industrialisation— pattern – rationalization of industrialization – Factors inhibiting industrialisation – Inter dependence of agriculture and industry

#### **Unit II**

Location of Industries – Weber’s Theory – Sargent Florence’s Theory – Factors influencing location – Balanced Regional development of Industries – Need for balanced Regional development in India.

#### **Unit III**

Industrial Productivity – Tools of Productivity – Factors influencing industrial productivity – Productivity Movement in India – National Productivity Council – Scientific Management.

#### **Unit IV**

MSME: Definition, Role, Policy and Promotional Measures. Public Sector Enterprises: Role – Performance of public sector enterprises – Disinvestment Policy

#### **Unit V**

Industrial Policy: 1956, 1977 and 1991

#### **References:**

1. Barthwal. R. R. (1991), Industrial Economics, Wiley Eastern Ltd; New Delhi.
2. Chernnilam. F(2010), Industrial Economics: Indian Perspective, Himalaya Publishing House, Mumbai
3. K.V. Sivayaa and V.B.M.Das (1969) , Indian Industrial Economy , S. Chand & Company, New Delhi
4. Kuchhal, S. C., (1969), Industrial Economy of India, Chaitanya Pub. House,.
5. Sadhu & Singh (1997), Industrial Economics, Himalaya. Publishing House.
6. Sharma. N. K., (2006), Industrial Economics, Anmol Publications Pvt. Ltd.

### **Managerial Economics**

#### **Unit I**

Definition and Scope of Managerial Economics-Tools of Managerial Decision making: Incremental and Marginal analysis- Equi-marginal principle – Principle of Discounting – Time perspective

#### **Unit II**

Types of Demand: Derived Demand and Autonomous demand - New and replacement Demand - Total Demand and market segment demand - Short run and long run demand -Demand forecasting: Purpose and methods of forecasting. Opinion poll methods – Barometric technique – trend projection methods – time series analysis

#### **Unit III**

Costs, Concepts: Future cost, Imputed costs, Sunk cost– Accounting and Economic costs, Book and Out-of pocket costs – Explicit and Implicit costs, Private and Social costs – shutdown and Abandonment costs. Break even Analysis – Assumptions – Uses –Limitations.

#### **Unit IV**

Pricing Strategy : Peak load pricing, Pricing over the life cycle of a product, Skimming price , Penetration price,Multi-product pricing -Cost oriented pricing, Full cost pricing, Marginal cost pricing, Competition oriented pricing, Going rate pricing, Customary pricing –,Cyclical pricing - Porter’s five forces model of competitive structure

#### **Unit V**

Capital budgeting – cost of capital –Project profitability – Methods of appraising project profitability.

#### **References:**

1. Keat, Paul G and Young, Philip K.Y (2016), Managerial Economics, Pearson Education, New Delhi.
2. K. Jothi Sivagnanam, and R. Srinivasan, (2010), Business Economics, Tata McGraw Hill Education Private Limited, New Delhi.
3. Domnick Salvatore, (2009) Managerial Economics in a Global Economy, 4th Edition. Cengage Learning, New Delhi.
4. McGuigan, R. James, Moyer, R. Charles and Harris H. Frederick, (2005), Managerial Economics- Applications, Strategy, and Tactics, Cengage Learning, New Delhi.
5. Varshney R.L and K.L Maheshwari (2005),Managerial Economics, S.Chand and Co, NewDelhi



## **Sixth Semester: Elective Paper III**

### **Environmental Economics**

#### **Unit I**

Environmental Economics an Introduction - The limitations of circular flow model of the economy: the opportunity cost of economic activity -The resource flow between environment and economy-The functions provided by the environment system to economic system

#### **Unit II**

Types of Pollutants: Cumulative and Con- cumulative-Local, Regional and Global; Point source and Non- point source-Degradable, non-degradable and persistent pollution

#### **Unit III**

Pollution as an external cost-Public goods -Absence of property rights

#### **Unit IV**

Concept of optimum pollution-Command and Control-Pollution Tax-Pollution permits-Subsidies- Types of Environment Value-Cost Benefit Analysis -Travel Cost Method

#### **Unit V**

Definition of Sustainable Development-Policies for Sustainable Development-Economic Costs of Climate change-Urbanisation – Damages in Rural Environment-Economic consequences of climate change in India

#### **References:**

1. Bhattacharaya: Environmental Economics-OUP,2002
2. Hanley, Nick, J.F. Shogren, and Ben White (2013): Introduction to Environmental Economics, London: Oxford University Press. ISBN: 9780199568734
3. Karpagam M. (2013) Environmental Economics, Sterling Publishers, New Delhi. ISBN: 9788120721463

### **Financial Markets and Institutions**

#### **Unit I:**

Types of Financial markets-Meaning and Definition of Stock market, Derivative market, Commodity and Currency market.

#### **Unit II:**

Overview of Indian Financial System –Functions–Players – Structure and growth.

#### **Unit III:**

Indian money market –Instruments–Institutions –Functioning of Indian money market Role of RBI in Money Market –Capital market –Types –Instruments –Institutions –Functioning of Indian capital markets: Role of SEBI.

#### **Unit IV:**

Exchange rate–Types –Determination of exchange rate. Foreign exchange market – Nature of foreign exchange inflow and outflow –RBI and exchange rate management.

#### **Unit V:**

Financial Inclusion–Formal and informal banking– Finance, Microfinance and SHGs.

#### **References:**

1. Bhole, L.M. (2002), Indian Financial Institutions and Markets, Tata McGraw Hill Ltd, New Delhi.
2. David S. Kidwell, David W. Blackwell, David A. Whidee, Richard L. Peterson (2005), Financial Institutions, Markets, and Money, 9th Edition, Wiley Publication, New York.
3. Khan, M.F. (2006), Indian Financial Institutions, Tata McGraw Hill Ltd, New Delhi.
4. Pathak, Bharathi V. (2007), The Indian Financial System: Markets, Institutions and Services, 2/e, Pearson Education India, New Delhi.
5. Thummuuri Siddaiah,(2011), Financial Services, Pearson Education India, New Delhi.
6. Vasant Desai (1988), The Indian Financial System and Development, Himalaya publishing house, New Delhi

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