

# GUJARAT UNIVERSITY

Design and Structure of various Courses for Semester based Credit System to be implemented from June-2012

Department	Semester	Paper No.	Course	No. of Hours Per Week				Course Credits
				Lectures	Others	Practicals	Total	
Economics	1		Name					
		ECO401	Microeconomics-I	3	1		4	4
		ECO402	Macroeconomics-I	3	1		4	4
		ECO403	Public Economics-I	3	1		4	4
		ECO404	International Economics-I	3	1		4	4
		ECO405	Growth & Development-I	3	1		4	4
		ECO406	Environmental Economics-I	3	1		4	4
			Total	18	6	0	24	24
	2	ECO407	Microeconomics-II	3	1		4	4
		ECO408	Macroeconomics-II	3	1		4	4
		ECO409	Environmental Economics-II	3	1		4	4
		ECO410	Managerial Economics-I	3	1		4	4
		ECO411E A	EA-Q.M.E-I	3	1		4	4
		ECO411E B	EB-R.M.E.-I					
		ECO412E A	EA-Industrial Economics-I	3	1		4	4
		ECO412E B	EB-Econometrics-I					
			Total	18	6	0	24	24
	3	ECO501	International Economics-II	3	1		4	4
		ECO502	Growth & Development-II	3	1		4	4
		ECO503	Public Economics-II	3	1		4	4
		ECO504	Managerial Economics-II	3	1		4	4
		ECO505E A	EA-Q.M.E-II	3	1		4	4
		ECO505E B	EB-R.M.E.-II					
		ECO506E A	EA-Industrial Economics-II	3	1		4	4
		ECO506E B	EB-Econometrics-II					
			Total	18	6	0	24	24
	4	ECO507	Application of Research Methods in Economics	3	1		4	4
		ECO508	Agriculture Economics Macroeconomics-I	3	1		4	4
		ECO509	Labour Economics	3	1		4	4
		ECO510	Mathematical Economics	3	1		4	4
		ECO511	Financial Institutions & Markets	3	1		4	4
		ECO512	PT-Project				4	4
			Total	15	5	0	24	24

**M.A. ECONOMICS REVISED SYLLABUS**  
**FOR SEMESTER SYSTEM**

**EFFECTIVE FROM JUNE-2012**

**SEMESTER-I**  
**ECO401 – MICROECONOMICS – I**

**OBJECTIVE**

This paper has the focus on economic behavior of an individual and the firm, which is governed by the principles of demand, consumer surplus and consumer behavior under various market situations. The contribution of various economists to the readings of welfare economics will form a part of the teachings of this subject. The aim of this subject is to develop specific skills in the student that are applicable in different fields such as administration, marketing and research, etc.

**OUTCOME**

This paper teaches about the behavior of an individual touching every aspect of day-to-day transactions. The subject prompts the students to do mind boggling exercises while observing his own vis-à-vis others behavior at home as well at the market places. An interest in the subject and regularity in observing the consumer behavior leads the students to excel in marketing and consumer research.

**UNIT-1**

Micro economics - nature, scope, importance & limitations; Methodology of economics - deductive versus inductive; Economics – static and dynamic, positive and normative, general and partial equilibrium; Difference between Macro and Micro economics, production possibility frontier.

**UNIT-2**

Cardinal utility approach - law of diminishing marginal utility, consumer equilibrium, derivation of demand curve, law of demand. Indifference curve analysis- indifference curves, properties, consumer equilibrium, price, income and substitution effects, Giffen paradox, derivation of demand curve with the help of Indifference curves. Marshallian cardinal utility vs. indifference curve analysis; Revealed preference theory of demand. Lancaster's attribute theory of demand.

**UNIT-3**

Consumer surplus-meaning, Marshall's measurement of consumer surplus, measurement of consumer surplus through indifference curve analysis, critical evaluation. Hicks's four concepts of consumer surplus. Elasticity of demand - meaning, price elasticity of demand, measurement of price elasticity, income elasticity of demand, cross elasticity of demand, measurement of income and cross elasticity of demand.

**UNIT-4**

General equilibrium analysis. Pigou's theory of welfare economics. Conditions of Pareto Optimality. New welfare economics-Kaldor-Hicks welfare criteria; Bergson - Samuleson's social welfare function; Concept of grand utility possibility frontier.

**Basic Reading List:**

- Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London
- Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
- Layard, P.R.G. and A. W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.

- Sen, A. (1999), Microeconomics Theory and Applications, Oxford University Press, New Delhi.
- Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.
- Varian, H. (2000), Microeconomic Analysis, W. W. Norton, New York.

**Additional Reading List:**

**UNIT-1**

- Baumol, W. J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

**UNIT-2**

- Baumol, W. J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- Green, H.A.G. (1971), Consumer Theory, Penguin, Harmondsworth.
- Henderson, J. M. and R. E. Quandt (1980), Microeconomic Theory : A Mathematical Approach, McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

**UNIT-3**

- Baumol, W. J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
- Green, H.A.G. (1971), Consumer Theory, Penguin, Harmondsworth.
- Henderson, J. M. and R. E. Quandt (1980), Microeconomic Theory : A Mathematical Approach, McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

**UNIT-4**

- Broadway, R. W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, London.
- Da Costa, G. C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
- Graff, J. De V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
- Green, H. and V. Walsh (1975), Classical and Neo-classical Theories of General Equilibrium, Oxford University Press, London.
- Hansen, B. (1970), A Survey of General Equilibrium Systems, McGraw Hill, New York.
- Henderson, J. M. and R. E. Quandt (1980), Microeconomic Theory : A Mathematical Approach. McGraw Hill, New Delhi.
- Mishan, E. J. (1969), Welfare Economics : An Assessment, North Holland, Amsterdam.
- Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.
- Weintrub, E. R. (1974), General Equilibrium Theory, Macmillan, London.

## **ECO-402-MACROECONOMIC ANALYSIS-I**

### **OBJECTIVE**

Macroeconomics or aggregative economic analysis establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics now is not only a scientific method of analysis; but also a body of empirical economic knowledge.

### **OUTCOME**

The paper entitled Macro Economic Analysis-I equips the students at the postgraduate level to understand economic facts and latest theoretical developments for empirical analysis.

### **UNIT-1**

Macroeconomic Models: Classical Macroeconomics: Equilibrium Output & Employment. Keynesian Macroeconomics: Determination of National Income in two sector, three sector and four sector model. Equilibrium Output & Employment Determination. New Classical Macroeconomics- Rational Expectation Theory.

### **UNIT-2**

Consumption Function: Keynes' psychological law of consumption and absolute income hypothesis, short-run and long-run consumption function; empirical evidence on consumption function; income- consumption relationship. Relative income, life cycle and permanent income hypotheses.

### **UNIT-3**

Investment Function: Meaning-autonomous and induced investment. Determinants of investment: marginal efficiency of capital. Accelerator theory of investment.

### **UNIT-4**

Neo-classical and Keynesian Synthesis: The IS-LM model, Derivation of IS and LM curves, Extension of IS- LM model with government sector. Relative effectiveness of monetary and fiscal policies.

### **Basic Reading List :**

- Ackley, G. (1978), *Macroeconomics • Theory and Policy*, Macmillan, New York.
- Branson, W. A. (1989), *Macroeconomic Theory and Policy*, (3rd Edition), Harper and Row, New York.
- Dornbusch, R. and F. Stanley (1997), *Macroeconomics*, McGraw Hill, Inc., New York.
- Hall, R. E. and J. B. Taylor (1986), *Macroeconomics*, W. W., Norton, New York.
- Jha, R. (1991), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- Romer, D. L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd., New York.
- Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi.
- Surry, M. J. C. (Ed.), *Macroeconomic Themes*, Oxford University Press, Oxford.
- Errol D'souza, (2008), *Macroeconomics*, Pearson Education, India.
- Andrew B. Abel, Ben S. Bernanke & Dean Croushore (2011), *Macroeconomics*, Pearson, India, Seventh Edition, Global Edition.

## **Additional Reading List**

### **UNIT-1**

- McConnel C. R. and H. C. Gupta (1987), Introduction to Macroeconomics, Tata McGraw Hill, New Delhi.
- Gupta G. S. (2000), Macroeconomics, Tata McGraw Hill, New Delhi.
- Froyen, Macroeconomic Theory and Practice.
- Vaish M. C., Macroeconomic Theory.

### **UNIT-2**

- Duesenberry, J. S. (1949), Income Saving and the Theory of Consumer Behaviour, Harvard University Press, Harvard.
- Friedman, M. (1957), The Theory of Consumption Function, Princeton University Press, Princeton.
- Keynes, J. M. (1936), The General Theory of Employment, Interest and Money, Macmillan, London.
- Mueller, M. G. (1966), Readings in Macroeconomics, Holt Rinehard and Winston New York.

### **UNIT-3**

- Gordon R. and S. G. Harris (1988), Macroeconomics, Addison Wesley.
- Culbertson. J. M. (1968), Macroeconomic Theory and Stabilization Policy, McGraw Hill, Kogenkosh, Tokyo.

### **UNIT-4**

- Leijonhufvud, A. (1969), On Keynesian Economics and Economics of Keynes, Oxford University Press, London.
- Levacic, R. and A. Rebman (1986), Macroeconomics • An Introduction to Keynesian and Neo- classical Controversies, Macmillam, London.
- Mankiw, N. G. and D. Romer (Eds.) (1991), New Keynesian Economics, (2 Vols.), MIT Press, Cambridge.
- Rakshit, M. (1998), Studies in the Macroeconomics of Developing Countries, Oxford University Press, New Delhi.
- Friedman, M. (1956), Studies in the Quantity Theory of Money, The University of Chicago Press, Chicago.

## ECO-403-PUBLIC ECONOMICS-I

### OBJECTIVE

This paper helps the student to understand the role and function of the Government in an economy which have been changing with the passage of time. It helps students to understand those policies and operations which involve the use of tax and expenditure measures.

### OUTCOME

The student, after studying this paper, will be able to understand and appreciate the need, functions. It will help student to understand and analyze the effects of tax policies and the government expenditure.

### UNIT-1

Introduction-Role of Government in an organized society. Government in a mixed economy-public and private sectors. Private Goods, Public Goods and Merit goods. Market failure-its causes.

### UNIT-2

Public Choice-Private and public mechanism for allocating resources; Problems for allocating resources; Problems of preference revelation and aggregation of preferences; Voting systems-Median Voter and Arrow's impossibility theorem.

### UNIT-3

Rationale for Public Policy. Allocation of resources-provision of public goods. Voluntary exchange models-Contributions of Samuelson and Musgrave; Demand-revealing schemes for public goods. Public Expenditure-Wagner's law of increasing state activities. Wiseman-Peacock hypothesis; Pure theory of public expenditure; Structure and growth of public expenditure;

### UNIT-4

Taxation-Alternative concepts of incidence. Equity in Taxation-tradeoff between equity and efficiency. Income Tax-its Economic Effects. Income Tax Vs. Expenditure Tax; Benefit and Ability-to-Pay approaches. Theory of optimal taxation and Laffer Curve.

### Basic Reading List

- Atkinson, A. B. and J. E. Stiglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
- Auerbach, A. J. and M. Feldstern (Eds.) (1985), Handbooks of Public Economics, Vol.1, North Holland, Amsterdam.
- Buchanan, J. M. (1970), The Public Finances, Richard D.Irwin, Homewood.
- Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
- Houghton, J. M. (1970), The Public Finance : Selected Readings, Penguin, Harmondsworth.
- Herber, B. P. (1967), Modern Public Finance,
- Menutt, P. (1996), The Economics of Public Choice, Edward Elgar,.K.
- Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo.
- Musgrave, R. A. and P. B. Musgrave (1976), Public Finance in Theory and Practice,

McGraw Hill, Kogakusha, Tokyo.

- Shoup, C. S. (1970), Public Finance, Aldine, Chicago.
- Shome, P. (ed.) (1995), Tax Policy • Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

### **Additional Reading List**

#### **UNIT-1**

- Cornes, R. and T. Sandler (1986), The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge.
- Duff, L. (1997), Government and Market, Orient Longman, New Delhi.
- Herber, B. P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.
- Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.

#### **UNIT-2**

- Buchanan, J. M. (1968), The Demand and Supply of Public Goods, Rand McNally, Chicago.
- Mueller, D. C. (1979), Public Choice, Cambridge University Press, Cambridge.
- Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.
- Stiglitz, J. E. (1986), Economics of Public Sector, Norton, New York.

#### **UNIT-3**

- Dorfman, R. (Ed.) (1970), Measuring the Benefits of Government Investment, Brookings Institution, Washington.
- Duff, L. (1997), Government and Market, Orient Longman, New Delhi.
- Friedman, A. (1986), Welfare Economics and Social Choice Theory, Martins Nijhoff, Boston.
- Glennester, H. and J. Hills (1998), The State of Welfare • The Economic and Social Spending, Oxford University Press. London.

#### **UNIT-4**

- Mishan, E. J. (1982), Cost-Benefit Analysis • An Informal Introduction, George Allen and Unwin, London.
- Peacock, A and D. J. Robertson (Eds.) (1963), Public Expenditure • Appraisal and Control, Oliver and Boyd, Edinburgh.
- Phyr, P. (1970), Zero Base Budgeting • A Practical Management Tool for Evaluating Expenses, John Wiley, New York.
- Premchand, A. (1966), Control of Public Expenditure in India, Allied Publishers, New Delhi.
- Sahni, B. S. (Ed.) (1972), Public Expenditure Analysis • Selected Readings, Rotherdam University Press.
- Bird, R. and O. Oldman (1967), Readings on Taxation in Developing Countries, the John Hopkins University Press, Baltimore.
- Cutt, J. (1969), Taxation and Economic Development in India, Frederick A Praegar Publishers, New York.
- Kaldor, N. (1955), An Expenditure Tax, George Allen and Unwin, London.
- Musgrave, R. A. and C. Shoup (Eds.) (1970), Readings in the Economics of Taxation, George. Allen and Unwin, London.

## **ECO404- INTERNATIONAL ECONOMICS-I**

### **OBJECTIVE**

This subject has the focus on foreign exchange and balance of payments that forms the backbone of the international trade of each country. The foreign trade policy of the government of India is an important part of this subject.

### **OUTCOME**

Since the implementation of economic reforms the Indian economy has attracted various global players. This subject imparts knowledge about the working of foreign exchange market, balance of payment and international trade policies of the government of India. The benefits of this subject will be fully reaped by those students who get the opportunity to work in trading houses and financial institutions.

### **UNIT 1**

Balance of payment, structure, causes of disequilibrium in BOP. Measures to correct BOP – automatic adjustment under the fixed and flexible exchange rates. Approaches for BOP – Elasticity, absorption, monetary and income approach; Devaluation, foreign trade multiplier.

### **UNIT 2**

Expenditure changing policies; Monetary and Fiscal policies. Monetary and Fiscal policies mix for achieving internal and external equilibrium simultaneously, Swan Diagram. Assignment problem-Mundellian model of monetary and fiscal policies. Expenditure switching policies.

### **UNIT 3**

Determination of foreign exchange rate; Theories of foreign exchange rate- Mint parity theory- Purchasing power parity theory-Balance of payment theory. Causes of changes in exchange rate; Flexible exchange rates - case for and against; fixed exchange rates - case for and against; hybrid and multiple exchange rates. Foreign exchange market–spot and forward exchange markets premiums and discounts, hedging, interest arbitrage, speculation.

### **UNIT 4**

Direction and composition of trade in India and its implications. Trade Policies in India, critical evaluation of trade reforms since 1991.

### **Basic Reading List:**

- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
- Carbough, R. J. (1999), International Economics, International Thompson Publishing, New York.
- Chacholiades, M. (1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
- Dana, M. S. (2000), International Economics : Study, Guide and Work Book, (5th Edition), Routledge Publishers, London.
- Dunn, R. M. and J. H. Mutti (2000), International Economics, Routledge, London.
- Kenen, P. B. (1994), The International Economy, Cambridge University Press, London.
- Kindleberger, C. P. (1973), International Economics, R. D. Irwin, Homewood.
- King, P. G. (1995), International Economics and International Economics Policy : A Reader, McGraw Hill, International, Singapore.
- Krugman, P. R. and M. Obstfeld (1994), International Economics : Theory and Policy,



Glenview, Foresman.

- Salvatore, D.(1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd.,London.

### **Additional Reading List**

#### **UNIT 1**

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.
- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

#### **UNIT 2**

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

#### **UNIT 3**

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

#### **UNIT 4**

- Bhagwati, J. and P. Desai (1970), India : Planning for Industrialization, Oxford University Press, London.
- Brahmananda, P. R. and V. R. Panchmukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
- Joshi, V. and I. M. D. Little (1998), India's Economic Reforms, 1999-2000, Oxford University Press, New Delhi.
- Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press, Ltd., India.
- Satyanarayan, B. (1986), India's Trade with Asia and the Far East Countries, B. R. Publishing Corp., New Delhi.
- Verma, M. L. (1995), International Trade, Vikas Publishing House Pvt. Ltd. Delhi.

## **ECO-405-GROWTH & DEVELOPMENT-I**

### **OBJECTIVE**

The main objective of this paper is to study the theories of growth and development, social and institutional aspects of development, importance of agriculture, and the rationale and pattern of industrialization in developing countries.

### **OUTCOME**

The student, after studying this paper will be able to understand the issues in the context of development such as infrastructures-linkages, role of international trade, importance of domestic macroeconomic policies, investment criteria and relevance of planning for faster economic development.

### **UNIT 1**

Social and institutional aspects of Development : Meaning of Growth and Development, criteria of development & growth, Poverty-absolute and relative; Human development index and other indices of development and quality of life. Human resource development; Human capital: Education and health in economic development. Population problem and growth pattern of population - theory of demographic transition.

### **UNIT 2**

Theories of Development : Classical theory of development - contributions of Adam Smith, Ricardo, Karl Marx and development of capitalistic economy - theory of social change, surplus value and profit; Immutable laws of capitalist development; Crisis in capitalism - Schumpeter and capitalistic development; innovation - role of credit, profit and degeneration of capitalism; Structural analysis of development.

### **UNIT 3**

Approaches to Development-Partial theories of growth and development - vicious circle of poverty, circular causation, unlimited supply of labour, big push, balanced growth, unbalanced growth, Ranis and Fei model.

### **UNIT 4**

Sectoral Aspects of Development-Role of agriculture in economic development; Efficiency and productivity in agriculture, New technology and sustainable agriculture; Globalization and agricultural growth. Rationale and pattern of industrialization in developing countries.

### **Basic Reading List**

- Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Behrman, S. and T. N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
- Chenery, H. B. et. al. (Eds.) (1974), Redistribution with Growth, Oxford University Press, Oxford.
- Chenery, H. and T. N. Srinivasan (Eds.), (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam.
- Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
- Gillis, M., D. H. Perkins, M. Romer and D. R. Snodgrass (1992), Economics of Development, (3rd Edition), W. W. Norton, New York.
- Gimmell, N. (1987), Surveys in Development Economics, Blackwell, Oxford.

- Higgins, B. (1959), Economic Development, W. W. Norton, New York.
- Hogendorn, J. (1996), Economic Development, Addison, Wesley, New York.
- Kindleberger, C. P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
- Meier, G. M. (1995), Leading Issues in Economic Development, (6th Edition), Oxford University Press, New Delhi.
- Myint, Hla (1965), The Economics of Underdeveloped Countries, Press, New York.
- Myint, H. (1971), Economic Theory and Underdeveloped Countries, Oxford University Press.
- Todaro, M. P. (1996), (6th Edition), Economic Development, Longman, London.
- Thirwal, A. P. (1999), (6th Edition), Growth and Development, Macmillan, U. K.

### **Additional Reading List**

#### **UNIT 1 & 2 :**

- Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
- Hirsch, A. O. (1958), The Strategy of Economic Development, Yale University Press New York.
- Lewis, W. A. (1955), The Theory of Economic Growth, George Allen and Unwin, London.
- Mehrotra, S. and J. Richard (1998), Development with a Human Face, Oxford University Press, New Delhi.
- Meier, G. M. and D. Seers (Eds.) (1987), Pioneers in Development, Oxford University Press, New York.
- Myrdal, G. (1957), Economic Theory and Underdeveloped Regions, Duckworth, London.
- Schumpeter, J. A. (1949), The Theory of Economic Development, Harvard University Press, Cambridge, Mass.
- Todaro, M. P. (1971), Development Planning • Models and Methods, Oxford University Press, Oxford.
- United Nations (1994), Human Development Report, United Nations, New York.

#### **UNIT 3 :**

- Hirsch A. O. (1958), The Strategy of Economic Development, Yale University Press, New York.
- Lewis, W. A. (1955), The Theory of Economic Growth, George Allen and Unwin, London.
- Mehrotra, S. and J. Richard (1998), Development with a Human Face. Oxford University Press, New Delhi.
- Myrdal, G. (1957), Economic Theory and Underdeveloped Regions, Duckworth, London.
- Ranis, G. and A. Mahmood (1992), Political Economy for Development, Blackwell, Cambridge, Mass.
- Sen, A. (1992), Inequality Reexamined, Oxford University Press, Oxford.
- United Nations (1994), Human Development Report, United Nations, New York.

#### **UNIT 4 :**

- Chakravarti, S. (1987), Development Planning • The Indian Experience, Clarendon Press, Oxford.
- Bhagwati, J. and P. Desai (1970), India • Planning for Industrialization, Oxford University Press, London.
- Grossman, G. and E. Helpman (1991), Innovation and Growth in the Global Economy, MIT Press, Cambridge, Mass.
- Nayyar, D. (Ed.) (1994), Industrial Growth and Stagnation • The Debate in India, Oxford University Press, New Delhi.
- Todaro, M. P. (1971), Development Planning • Models and Methods, Oxford University Press, Oxford.
- Weiss, J. (1988), Industry in Developing Countries, Croom Helm, London.

## **ECO406 – ENVIRONMENTAL ECONOMICS - I**

### **OBJECTIVE**

Environmental economics is considered as an important course for students studying industrial economics and management. Global warning about climatic change and the focus of the United Nations on the adoption and implementation of sustainable development policies in the member countries has carved a niche for the environment economics. This paper is designed to teach the students about various environmental issues, environmental protection policy of the Government of India and the importance of environmental protection for the attainment of sustainable development.

### **OUTCOME**

The environment economics has been considered an important branch of the social sciences in the developed as well as developing countries. After successful completion of studies, the students possessing adequate knowledge about environmental issues will play an important role in the implementation of various environment related programs.

### **UNIT 1**

Elementary ecology- functions of ecosystems , relationship between economy - eco-system and first two laws of Thermodynamics. Economic development and environment - environmental Kuznets' curve. Meaning, nature and scope of environmental economics. Conventional national accounting system and natural resource accounting system.

### **UNIT 2**

Market failures in environmental goods, externalities, common property resources, non-exclusion, public goods and non rivalry, non-convexities, asymmetric information.

### **UNIT 3**

Instruments of environmental policy, liability rules, command and control (standards) policy, market based instruments-price rationing (charges and subsidies), quantitative rationing concept and basic theory of tradable pollution permits. Environmental policy in India.

### **UNIT 4**

Historical evolution of sustainable development, definition and concept of sustainable development. Growth verses zero growth; limits to growth verses sustainable development debates. Models of sustainable development.

### **Books Recommended**

- Asian Development Bank (1996) : Economic Evaluation of Environmental Impact : A Workbook.
- Baumol William and Wallace Oates (1975) The Theory of Environment Policy, Prentice Hall, New Jersey.
- Centre for Science and environment (1999, 1997, 1991, 1984 and 1982) : The state of India's environment, CSE, New Delhi.
- Collard David, Pearce David, Ulph David (eds.) (1988) : Economics, Growth and Sustainable Environment, St. Martin's Press, New York.
- Cropper M. L. and Oates W. E. (1992) : Environmental Economics : A survey, Journal of Economic Literature.
- Dasgupta Parth and Karl - Goram Malor (eds.) (1997) : The Environment and Emerging Development Issues, Oxford University Press, New York.
- Hanley Nick, Shogren J. F. and White Ben (1997), Environmental Economics in Theory and Practice, Macmillan, New Delhi.

- Kolstad Charles (2000) : Environmental Economics, Oxford University Press, New York.
- Mehta Shekhar, Mundel Sudipto and Sarkar U. (1997) : Controlling Pollution, Sage, New Delhi.
- Markandya A. and Richardson J. (eds.) (1992) : Environmental Economics : A Reader, St. Martin's Press, New York.
- Oates W. E. (1992) : The Economics of the Environment, Cambridge University Press, Cambridge.
- Opschoor J. (Hans), B. Button Kenneth and Peter Nijamp (eds.) (1999) : Environmental Economics and Development, Edward Elgar, U.K.
- Preeman Hyrick A. (1993) : The Measurement of Environment and Resource Values, Resources for Future, Washington D.C.
- Seitz John L. (1995) : Global Issues : An Introduction, Blackwell, Oxford, U.K.
- Seminer (Issue No. 486 : February 2000) : A symposium on Environment : Myth and Reality.
- Siebert H. (1998) : Economics of Environment : Theory and Policy, (5th revised edition), Springer, New York.
- Tietenberg Thomas, Kenneth Button and Peter Nijkamp (eds.) (1999) : Environmental Instruments and Institutions, Edward Elgar, U.K.
- Turner Kerry R., Button Kenneth and Peter Nijkamp (eds.) (1999) : Ecosystems and Nature : Economics, Science and Policy, Edward Elgar, U.K.
- World Bank (1992) : World Development Report 1992 : Development and the Environment, Oxford University Press, New York.
- World Watch Institute (1992) : State of the World, Horizon India Books, New Delhi.

## SEMESTER-II

### ECO407–MICROECONOMICS–II

#### OBJECTIVE

The focus of this paper is on imparting rigorous and comprehensive understanding of the behaviour a firm. Teaching of different theories of production, costs, price determination in different market situations is aimed at triggering the analytical skills in the budding economists.

#### OUTCOME

The strength of microeconomics comes from the simplicity of its underlying structure and its close touch with the real world. The students learn how different players make choices when different forces like scarcity, surplus and regulations govern the market. By understanding the supply and demand theories, the students gain in-depth knowledge about the interaction of various market forces. The Supply and demand refers to goods and services and the concept is the hallmark of the business. A thorough knowledge of this subject would help the students to contribute considerably in the planning and research activities in the industry and academic institutions.

#### UNIT 1

Production function – types, elasticity of substitution, law of variable proportions, returns to scale, Producer's equilibrium, choice of optimal combination of inputs; Economies of scale - internal economies and diseconomies, external economies and diseconomies. Cost concepts - accounting and economic costs, private cost and social cost, opportunity cost, traditional and modern theories of cost.

#### UNIT 2

Perfect competition - supply curve of firm and industry. Monopoly - price and output determination; Comparison between monopoly equilibrium and perfect competition equilibrium; Discriminating monopoly – price discrimination, equilibrium under discriminating monopoly, welfare aspect of monopoly. Monopolistic competition, price and output determination. Excess capacity under monopolistic competition.

#### UNIT 3

Oligopoly – price and output determination; Classical models of duopoly. Collusive oligopoly-cartels. Price-Leadership model; Kinked demand curve theory; Bilateral monopoly. Baumol's model of sales revenue maximization. Marris's managerial model of the firm.

#### UNIT 4

Marginal productivity theory, Euler's theorem and product exhaustion problem. Classical and modern theory of rent, quasi rent. Theory of profit.

#### Basic Reading List:

- Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London
- Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
- Layard, P.R.G. and A. W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.
- Sen, A. (1999), Microeconomics Theory and Applications, Oxford University Press, New Delhi.
- Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.
- Varian, H. (2000), Microeconomic Analysis, W. W. Norton, New York.

## **Additional Reading List**

### **UNIT 1**

- De Costa, G. C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
- Healthfields and Wibe (1987), An Introduction to Cost and Production Functions, Macmillan, London.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

### **UNIT 2**

- Archibald, G. C. (Ed.) (1971), Theory of the Firm, Penguin, Harmondsworth.
- Da Costa, G. C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

### **UNIT 3**

- Archibald, G. C. (Ed.) (1971), Theory of the Firm, Penguin, Harmondsworth.
- Bain, J. (1958), Barriers to New Competition, Harvard University Press, Harvard.
- Archibald, G. C. (Ed.) (1971), Theory of the Firm, Penguin, Harmondsworth.
- Bain, J. (1958), Barriers to New Competition, Harvard University Press, Harvard.
- Da Costa, G. C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

### **UNIT 4**

- Bronfenbrenner, M. (1979), Income Distribution Theory, Macmillan, London.
- Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.

## ECO-408-MACROECONOMIC ANALYSIS-II

### OBJECTIVE

The student will learn about uses, problems and measurement of important economic aggregates like national income, money supply and its determinants, various theories about demand for money, inflation and business cycles-their causes, effects and remedies.

### OUTCOME

The paper entitled Macro Economic Analysis-II helps the students at the postgraduate level to understand systemic facts for empirical analysis. The students will be able to appreciate and understand the various economic policies declared by the government from time to time.

### UNIT 1

National Income and Accounts: Meaning and different concepts of National Income, Circular Flow of Income in two, three and four sector economy. Three methods of measurement of National Income. Difficulties in measurement of National Income. National Income and measurement of economic welfare.

### UNIT 2

Supply of Money: The concept of money supply and its measurement. Four measures of money supply- $M_1$ ,  $M_2$ ,  $M_3$  &  $M_4$ -Broad Money and Narrow Money. Determinants of money supply-high powered money & money multiplier. A behavioral model of money supply determination, demand determined money supply process. RBI approach to money supply.

### UNIT 3

Demand for Money : Classical approach to demand for money: Quantity theory approach, Fisher's equation, Cambridge quantity theory, Keynes's liquidity preference approach, transaction, precautionary and speculative demand for money. Post - Keynesian Theories of Demand for Money: Tobin's portfolio approach and Baumol's inventory approach, Friedman's theory of demand for money.

### UNIT 4

Theory of Inflation: Classical, Keynesian and Monetarist approaches to inflation, Philips curve analysis - Short run and long run Philips curve; The Adaptive expectations-Friedman's views and long run Phillips curve. Policies to control inflation. Business Cycles: Theories of Samuelson and Hicks. Control of business cycles.

#### Basic Reading List :

- Ackley, G. (1978), Macroeconomics • Theory and Policy, Macmillan, New York.
- Branson, W. A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
- Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York.
- Hall, R. E. and J. B. Taylor (1986), Macroeconomics, W. W., Norton, New York.
- Heijdra, B. J. and V. P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New York.
- Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
- Romer, D. L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
- Scarfe, B. L. (1977), Cycles, Growth and Inflation, McGraw Hill, New York.
- Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.



- Errol D'souza, (2008), Macroeconomics, Pearson Education, India.
- Ahuja H.L., Macroeconomics-Theory and Policy, S.Chand & Company

**Additional Reading List**

**UNIT 1 :**

- Edey, M. and A. T. Peacock (1967), National Income and Social Accounts, Hutchinson University Library, London.
- Powelson, J. P. (1960), National Income and Flow of Funds Analysis, McGraw Hill, New York.
- Rao, V. K. R. V. (1983), India's National Income • 1950 to 1980, Sage Publications, New Delhi.
- Ruggles, R. and N. Ruggles (1956), National Income Accounts and Income Analysis, McGraw Hill, New York.
- United Nations (1974), Year Book of National Account Statistics.

**UNIT 2 :**

- Chakravarty, S. C. (1985), Report of the Committee to Review the Working of the Monetary System, Reserve Bank of India, Bombay.
- Gupta, S. B. (1995), Monetary Planning in India, Oxford University Press, New Delhi.
- Gurley, J. and E. S. Shaw (1960), Money in a Theory of Finance. Brookings Institution, Washington.
- Mckinen, G. E. (1976), Money, The Price Level and Interest Rates, Prentice Hall of India, New Delhi.
- Redy, Y. V. (2000), A Review of Monetary and Financial Sector Refoms in India—A Central Banker's Perspective, UBSPD, New Delhi.

**UNIT 3 :**

- Friedman, M. (1956), Studies in the Quantity Theory of Money, The University of Chicago Press, Chicago.
- Keynes, J. M. (1936), The General Theory of Employment, Interest, and Money, Macmillan, London.
- Laidler, D. E. W. (1977), Demand for Money • Theory and Evidence, Dum-Don Valley, New York.
- Mckinen, G. E. (1978), Money, The Price Level and Interest Rates, Prentice Hall of India, New Delhi.

**UNIT 4 :**

- Frisch, H. (1983), Theories of Inflation, Cambridge University Press, Cambridge.
- Hagger, A. J. (1977), Inflation • Theory and Policy, Macmillan, London.
- Hudson, J. (1982), Inflation • A Theoretical Survey and Synthesis, George Allen and Unwin, London.
- Sheffrin S. M. (1996), Rational Expectations, Cambridge University Press, Cambridge.
- Gordon, R. A. (1961), Business Fluctuations, Harper and Row.
- Gordon R. A. and L. R. Klein (Eds.), (1965), Readings in Business Cycles, Irwin, Homewood.
- Hicks, J. R. (1950), A Contribution to the Theory of Trade Cycles, Clarendon Press, Oxford.
- Lucas, R. (1981), Studies in Business Cycle Theory, M.I.T. Press, Cambridge, Massachusetts.

## ECO-409- ENVIRONMENTAL ECONOMICS-II

### OBJECTIVE

The objective of this paper is to impart knowledge about the importance of environment for the survival of life on the planet earth. This paper is designed to teach about the availability of environmental resources, evaluation of resources, measures adopted for the management and protection of natural resources and different international treaties related to environment protection.

### OUTCOME

After completion of studies the students are expected to play an important role in the implementation of sensitization programs aimed at environment protection. The knowledge of environment related issues would add additional qualities in the students and make them conscious about environment protection at every walk of life in their professions.

### UNIT 1

Environment as a source of all economic resources. Natural resources- nature, type and characteristics - renewable and non-renewable Use of natural resources for development - environment economics of exhaustible and renewable resources. Common property resources- concept, nature of CPR, uncertainty of CPR.

### UNIT 2

History of environment valuation, definition and importance of environment valuation, direct method of environment valuation CVM, indirect method of environment valuation TCM and Hedonic pricing. Issues in environment valuation.

### UNIT 3

Meaning of NRMP, NRMP of India - forest, joint forest management - social forestry, water-participatory irrigation management, Involvement of voluntary sector - NGO's - in NRM programs, Case studies of NRM - AKRSP/ DSC , etc.

### UNIT 4

Environment and WTO, Treaties in bio-diversity, Kyoto protocol, Montreal protocol, UN convention on climate change, Ramsar, etc. Environment protection movements in India and Gujarat.

### Books Recommended

- Dasgupta Parth (1982) : The Control of Resources, Harward University Press, Cambridge, Mass.
- Davis Kingsley and Mikhail S. Bernstam (1991) : Resources, Environment and Population, Oxford University Press, New York.
- Pearce and Turner (1990) : Economics of Natural Resources and the Environment.
- Randall Alan (1987) : Resource Economics : An Economic Approach to Natural Resources and Environmental Policy, 2nd ed., John Wiley, New York.
- Turner Kerry R. (ed.) : Sustainable Environmental Economics and Management: Principles and Practices.

## **ECO410 – MANAGERIAL ECONOMICS - I**

### **OBJECTIVE**

The focus of Managerial economics is on preparing the students with fundamental knowledge in the areas of business economics. The teaching aims at the explanation of basic concepts of managerial economics, imparting understanding about important statistical tools used in the estimation of demand, and price, cost and budget analysis which are considered to be critical in every business.

### **OUTCOME**

The labour markets are becoming more and more competitive in India. This paper prepares the students to gain basic knowledge required for working efficiently in the business environment. Various concepts commonly used in management, and the application of simple tools in demand and price analysis in each business is of great help to build professional competency in the management.

### **UNIT 1**

Meaning, nature, characteristics and significance of managerial economics. Scope, role and responsibility of managerial economics. Fundamental concepts, models and methods; Managerial and behavioral theories of firm.

### **UNIT 2**

Use of Optimization Techniques in the theory of firm, differential calculus; Rules of derivation, optimization using calculus. Linear Programming-basic assumptions, constrained profit maximization & constrained cost minimization using graphical method.

### **UNIT 3**

Purpose of forecasting demand, steps involved in forecasting, determinants of demand forecasting. Methods of demand forecasting for established products and for new products.

### **UNIT 4**

Pricing Practices & Strategies: Some popular pricing practices; Pricing in large enterprises; Pricing approach in small business.

### **Books Recommended**

- Dominic Salvatore, Managerial Economics, Thomson-South Western, 2001.
- Peterson C.H. and Lewis WC, Managerial Economics, Pearson, 2012.
- Dholkia R.H. and Oza A.N., 'Microeconomics for managers', Oxford University Press, 1996.
- Rikie W. D. and J. N. Crook, 'Managerial Economics', Heritage Publishers, 1988.
- Dutt R. and Sundaram KPM, 'Indian Economy', S Chand Group, New Delhi.
- Mehta P.L., Managerial Economics, Sultan Chand & Sons, New Delhi, 2005.

**ECO411-EA:Q.M.E.-1(QUANTITATIVE METHODS IN ECONOMICS-I)**  
**(To be implemented from June-2013)**

**OBJECTIVE**

The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied, to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical and statistical methods rather than learning mathematics and statistics itself.

**OUTCOME**

After studying this paper a student will be initiated into various economic concepts which are amenable to mathematical and statistical treatment. The paper also deals with simple tools and techniques which will help a student in data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

**UNIT 1**

Concept of function and types of functions-constant, linear and non-linear functions. Functions in Economics--production, cost, revenue, demand and supply functions. Derivative- Rules of differentiation and partial differentiation. Elasticity and different types of elasticity.

**UNIT 2**

Integration-rules of integration. Its application in Economics-consumer's surplus.

Determinants and their basic properties; Solution of simultaneous equations through Cramer's rule. Concept of matrix—their types, simple operations on matrices, matrix inversion. Concept of vector—their properties. Matrices and vectors.

**UNIT 3**

Probability-Variou definitions; Laws of addition and multiplication; Conditional probability and concept of interdependence; Baye's theorem and its applications;

**UNIT 4**

Theoretical Probability Distributions; Binomial, Poisson, Normal Distribution and their application in economics.

**Basic Reading List :**

- Allen, R. G. D. (1974), Mathematical Analysis for Economists; Macmillan Press and ELBS, London.
- Chiang, A. C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- Gupta, S. C. (1993), Fundamental of Applied Statistics, S. Chand & Sons, New Delhi.

**Additional Reading List :**

**UNIT 1 :**

- Monga, G. S. (1972), Mathematics and Statistics for Economics, Vikas Publishing House, New Delhi.
- Vygodsky, G. S. (1971), Mathematical Handbook, (Higher Mathematics), Mir Publishers, Moscow.

**UNIT 2 :**

- Chiang, A. C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- Monga, G. S. (1972), Mathematics and Statistics for Economics, Vikas Publishing House, New Delhi.

**UNIT 3 :**

- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
- Gupta S.P. (2005), Statistical Methods, S. Chand & Sons, New Delhi
- Nagar, A. L. and R. K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.

**UNIT 4 :**

- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), Fundamentals of Statistics, Vol. 1, The World Press Ltd., Calcutta.

## **ECO411-EB:R.M.E.-1(RESEARCH METHIDIOLOGY IN ECONOMICS-I)**

**Note :** This paper is offered to only those students who have either studied papers of Mathematical Economics, Econometrics, Managerial Economics or Statistical Methods(as first subsidiary) at B.A. level.

### **OBJECTIVE**

The objective of this paper is to equip the students with statistical tools and techniques with examples from economics so that when he takes up any research projects he can use them.

### **OUTCOME**

After studying this paper the student will be better equipped to do a more scientific study of various economic issues. This paper will also help students in future research in the subject.

### **UNIT 1**

Measures of central tendency. Measures of Dispersion and Skewness.

### **UNIT 2**

Probability-Its Relevance Definitions. Sample space-events-theorems of probability—The Bay's theorem. Theoretical Probability Distributions; Binomial, Poisson, Normal Distribution and their application in economics.

### **UNIT 3**

Probability Distribution: Random variable-Mathematical Expectation and Variance of a Random Variable-Properties and Laws. Joint Probability distribution, Conditional Distribution and independence.

### **UNIT 4**

Population & sample Sampling and Sampling Distributions : Census v/s sampling, probability sampling v/s non-probability sampling-simple random sampling—Types of sampling—Sampling and non-sampling errors.

### **Basic Reading List:**

- Quantitative Techniques for Managerial Decisions by U. K. Srivastav, G. V. Shenoy and S. C. Sharma, 1989, Published by Wiley Eastern Limited.
- Basic Statistics, by A. L. Nagar and R. K. Das, Published by Oxford Univrersity Press.
- Quantitative Techniques by C. R. Kothari.
- Statistics for Economists — Merryl and Fox.
- Statistical Methods by S.P. Gupta, S.Chand & Company, New Delhi
- Basic Econometrics by Damodar Gujarati — 2002, Published by MacGraw Hill International.

## ECO412EA–INDUSTRIAL ECONOMICS-I

### OBJECTIVE

Industrialization has played a key role in the growth of economies across the globe. The focus of this paper is on the teachings related to industrial structure, theories of firm, location theories, issues related to investment decisions including industrial finance, project evaluation, profitability and productivity. The main objective of this paper is to impart adequate knowledge to the students for their career growth.

### OUTCOME

The study of industrial economics opens wider avenues to the students in the areas related to trade and commerce. The rise and fall of industrial houses, rising competition in domestic and global markets have opened new opportunities and challenges to professionals holding responsible positions in industry and commerce. A thorough knowledge of industry related issues and methods of evaluating business development would help the students to disseminate their skills in business, trade, industry, administration and market research.

### UNIT 1

Meaning, scope, need and significance of the study of industrial economics. Dimensions to measure market structure. Relationship of market structure with profitability and innovation. Theories of diversification, integration and merger.

### UNIT 2

Product pricing - theories and evidence. Nature and types of investment decisions, preparation of time profile of a project; methods of evaluating investment expenditure, cost-benefit analysis, net present value (NPV) and internal rate of return (IRR). Analysis of financial ratios and their relationships- assessment of financial soundness.

### UNIT 3

Firm-concept, characteristics of firm. Objectives of firm and determinants of optimum size of a firm. Theory of growth of the firm–Devine, Penrose, and Marris. Importance of industrial location and factors influencing the location. Theories of industrial location – Weber theory and Sargent Florence theory.

### UNIT 4

Meaning, scope, importance of industrial finance. Risk of industrial finance, methods to avert risk. Sources of industrial finance - internal and external. Role, nature, volume and types of institutional finance - IDBI, IFCI, SFCs, SIDC, Commercial banks.

### Basic Reading List:

- Datt, G. (1996) : Bargaining Power, Wages and Employment • An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P. D. (1998): Labour Restructuring in India. A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- MacConnell, C. R. and S. L. Brue (1986) : Contemporary Labour Economics, MacGraw Hill, New York.
- Rosenberg M. R. (1988), Labour Markets in Low Income Countries in Chenery, H. B. and T. N. Srinivasan (Eds.) : The Handbook of Development Economics, North-Holland, New York.
- Venkata Ratnam, C. S. (2001) : Globalization and Labour-Management Relations: Dynamics of Change, Sage Publications/Response Books, New Delhi.

### **Additional Reading List:**

#### **UNIT 1 :**

- Bains, J. S. (1976), Industrial Organization, Cheltenham, U.K.
- Hardeen, J. B. (1975), The Economic of Corporate Economy, Dunellen Publishers, New York.
- 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.
- Menon, K. S. V. (1979), Development of Backward Areas Through Incentives, Asia Publishing House, Bombay.
- Smith, D. M. (1971), Industrial Location : An Economic and Geographic Analysis, John Wiley, New York.
- Wiles, P. J. D. (1963), Price, Cost and Output, Praeger, New York.

#### **UNIT 2 :**

- Dasgupta, P. S. Marglin and A. Sen (1972), Guideline for Project Evaluation, Unido Publications, New York.
- Fog, B. (1959), Industrial Pricing Policies, North Holland, Amsterdam.
- Koulsoyiannis, A. (1979), Modern Microeconomics, Macmillan, New York.

#### **UNIT 3 :**

- Hardeen, J. B. (1975), The Economics of Corporate Economy, Dunellen Publishers, New York.
- Kirkpatrick, C. M., N. Lee and E.I. Nixon (1984), Industrial Structure and Policy in Less Developed Countries, ELBS/George Allen and Unwin, London.
- Menon, K. S. V. (1979), Development of Backward Areas Through Incentives, Asia Publishing House, Bombay.
- Smith, D. M. (1971), Industrial Location : An Economic and Geographic Analysis, John Wiley, New York.

#### **UNIT 4 :**

- Gupta, L. C. (1969), The Changing Structure of Industrial Finance in India, Oxford University Press, New Delhi.
- Khan, M. Y. (1981), Indian Financial Systems, Allied Publishers, 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.



## ECO412-EB-ECONOMETRICS-I

### OBJECTIVE

The main objective of this paper is to understand the importance of Econometrics for analysis purpose. The students will be taught the use, application and limitations of ordinary least squares estimation method which widely used for economic analysis. They will taught regression analysis with both qualitative as well as quantitative data.

### OUTCOME

After studying this paper the student will be able to apply the regression technique for economic analysis. He will also be able to appreciate the limitations of his research work in the context of the analysis technique he has used.

### UNIT 1

Basic Econometrics : Nature, meaning and scope of econometrics; Simple and general linear regression model—Assumptions, Estimation (through OLS approach) and properties of estimators; Gauss-Markov theorem; Matrix Approach to Linear Regression Model, Concepts and derivation of  $R^2$  and adjusted  $R^2$ ; application in regression analysis; Estimation of non-linear equation.

### UNIT 2

Problems in Regression Analysis-Nature, test, consequences and remedial steps of problems of Heteroscedasticity; Multicollinearity and Auto-correlation; Problems of specification error; Errors of measurement.

### UNIT 3

Regressions with Qualitative Independent Variables: Dummy variable technique—Testing structural stability of regression models, comparing two regressions, interaction effects, seasonal analysis, piecewise linear regression.,

### UNIT 4

Dynamic Econometric Model-Autoregressive and distributed lag models—Koyck model, Partial adjustment model, adaptive expectations; Problem of auto- correlation—Application; Almon approach to distributed-lag models;

### Basic Reading List :

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harward University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- Kmenta, J. (1997) : Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
- Koutsoyiannis, A. (1977) : Theory of Econometrics (2nd ed.) The Macmillan Press Ltd., London.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.
- Ramu Ramanathan (2002): Introductory Econometrics with Applications, 5<sup>th</sup> edition, Thompson-South-Western, India

## **Additional Reading List :**

### **UNIT 1**

- Croxton, F. E., D. J. Cowden and S. Klein (1973) : Applied General Statistics, Prentice Hall, New Delhi.
- Maddala, G. S. (1997) : Econometrics, McGraw Hill, New York.

### **UNIT 2 :**

- Intrilligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Johnston, J. (1991) : Econometric Methods, McGraw Hill Book Co., London.

### **UNIT 3 :**

- Chow, G. C. (1983) : Econometrics, McGraw Hill, New York.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.

### **UNIT 4 :**

- Chow, G. C. (1983), Econometrics, McGraw Hill, New York.
- Franses, P. H. (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press, New York.
- Hamonda, O. F. and J. C. R. Roley (1997), Time Series Model, Causality and Exogeneity, Cheltenham, U. K.
- Hansen, P. R. and S. Johnson, (1998), Workbook on Co integration, Oxford University Press, New York.
- Harvey, A. C. (1981), Econometric Analysis of Time Series, Phillip Allen, London.
- Johnston, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
- Maddala, G. S. (1997), Econometrics, McGraw Hill, New York.

**SEMESTER-III**  
**ECO501 - INTERNATIONAL ECONOMICS - II**

**OBJECTIVE**

This course is designed to impart thorough understanding about the broad principles and theories, which tend to govern the flow of trade in goods, services and capital at the global level. Besides, preparing the students about the relevance and limitations of these principles, the contents of the paper, spread over different subjects, lay stress on the theory and nature of the subject, which, in turn, will greatly help them to examine the impact of the trade policies. This subject will impart learning of various theories of international trade, economics of international trade, theories and practice of trade regulations and restrictions the in international trade including trade cartels and market blockade.

**OUTCOME**

The aim of this subject is to provide an understanding of the economics of international trade from a microeconomic perspective. The study of international economics will prepare the students to demonstrate knowledge and understanding of various players in the global markets and also the intricacies of international trade.

**UNIT 1**

Classical theories of comparative advantage-Adam Smith, Ricardo; Neoclassical theory – Haberler's opportunity cost theory. Modern theory - Heckscher-Ohlin theorem, Leontief paradox; Factor price equalization theorem–Stolper-Samuelson, Rybczynski. Alternative theories of International Trade.

**UNIT 2**

Terms of Trade – Types, factors affecting TOT. Mill's theory of reciprocal demand; Marshall's theory of offer curves. Secular deterioration of TOT – Singer, Prebisch theory, immiserising growth.

**UNIT 3**

Free trade versus protection, economic arguments for protection. Tariffs - types of tariffs, effects of tariffs, partial and general equilibrium; Optimum tariff and protective tariff; Import quota – types, effects.

**UNIT 4**

Theory of custom unions – trade creation and trade diversion, production and consumption effects, other dynamic effects of customs unions. Economic progress under SAARC/SAPTA, NAFTA, ASEAN, EU, EURO dollar market. International monetary system; International trade and financial institutions – GATT, WTO, IMF, World Bank, Asian Development Bank.

**Basic Reading List:**

- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
- Carbough, R. J. (1999), International Economics, International Thompson Publishing, New York.
- Chacholiades, M. (1990), International Trade • Theory and Policy, McGraw Hill, Kogakusha, Japan.
- Dana, M. S. (2000), International Economics • Study, Guide and Work Book, (5th Edition), Routledge Publishers, London.
- Dunn, R. M. and J. H. Mutti (2000), International Economics, Routledge, London.
- Kenen, P. B. (1994), The International Economy, Cambridge University Press, London.
- Kindleberger, C. P. (1973), International Economics, R. D. Irwin, Homewood.
- King, P. G. (1995), International Economics and International Economics Policy : A Reader, McGraw Hill, International, Singapore.
- Krugman, P. R. and M. Obstfeld (1994), International Economics : Theory and Policy, Glenview, Foresman.

- Salvatore, D.(1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd.,London.

**Additional Reading List :**

**UNIT 1**

- Bhagwati, J. (Ed.) (1981), International Trade : Selected Readings, Cambridge University Press, Mass.
- Corden, W. M. (1965), Recent Developments in the Theory of International Trade, Princeton University Press, Princeton.
- Greenway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London.
- Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- Barrow, R. J. (1979), Macro Economic, 4th Edition, John wiley, New York.
- Clement, M. O., R. L. Pfister and K. J. Rothwell (1969), Theoretical Issues in International Economics Cosntable Publication, London.
- Corden,W.M.(1974),Trade Policy and Economic Welfare, Clarendon Press, Oxford.

**UNIT 2**

- Goldstein, M. (1998), The Asian Financial Crisis :• Causes, Cure and Systematic Implication, Institute for International Economics, Washington, D.C.
- Jackson, J. (1989), The World Trading System, Cambridge University Press, Mass.

**UNIT 3**

- Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- Pomfrert, R. (1988), Unequal Trade : The Economics of Discriminatory International Trade Policies, Black well Publishers, Oxford.

**UNIT 4**

- Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- Brahmananda, P. R. (1982), The IMF Loan and India's Economic Future, Himalaya Publishing House, Bombay.
- Grable, J. O. (1996), International Financial Markets, Prentice Hall, Englewood Cliffs, New York.
- Kenen, P. B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K.
- Kindleberger, C. P. (1996), A History of Financial Crisis : Manias, Panics and Crashes, (3<sup>rd</sup> Edition), John Wiley and Sons, New York.
- Manmohan Singh (1964), India's Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, New Delhi.
- Mishkin, S. F. (1998), The Economic of Money, Banking and Financial Markets, (5th Edition), Harper Colins Publishers, New York.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.
- Nayyar, D. (1976), India's Exports and Export Policies in the 1960s, Cabbridge University Press.
- Panchmukhi, V. R. (1978), Trade Policies of India — A Quantitative Analysis, Concept Publishing Company, New Delhi.
- Panchmukhi, V. R., K. M. Raipuria and R. Tandon (1987), Money and Finance in World Economic Order, (RIS), Indus Publishing Co., Delhi.
- Pomfrert, R. (1996), International Trade : An Introduction to Theory and Policy, Basil Blackwell, Oxford.
- Soloman, R. (1982), The International Monetary System 1945-1981, Harper and Row Publishers, New York.
- Tew, B. (1985), The Evaluation of the International Monetary System : 1945-1985, Hutchinson.
- Whalley, John (1985), Trade Liberalization Among Major Trading Areas, Cambridge University Press, Mass.

## ECO-502-GROWTH & DEVELOPMENT-II

### OBJECTIVE

The main objective of this paper is to understand the difference between growth and development and various growth models which can explain the causes of growth in other countries. It also helps students to understand the role of various international financial institutions in economic development.

### OUTCOME

The student will be able to reasons for economic growth. He will understand the role and importance of various macroeconomic policies for. The student after studying this paper will be able to appreciate the role of World B and IMF in economic development.

### UNIT 1

Economic growth and development - Factors affecting economic growth: capital, labour and technology; Growth models - Harrod and Domar, instability of equilibrium; Neo-classical growth models - Solow and Meade, Mrs. Joan Robinson's growth model.

### UNIT 2

Technological progress - embodied and disembodied technical progress; Hicks, Harrod; Growth models of Kaldor and Pasinetti, golden rule of accumulation, two-sector model of Ujawa, Stability of equilibrium.

### UNIT 3

Need for investment criteria in developing countries, Rationale for planning; democratic, decentralized and indicative planning, micro-level planning; Review of Indian Plans.

### UNIT 4

IMF & World Bank policies in developing Countries, post GATT international economic order, WTO & developing countries, Infrastructure & its importance in Developing countries,

### Basic Reading List :

- Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Mass.
- Chenery, H. B. et. al. (Eds.) (1974), Redistribution with Growth, Oxford University Press, Oxford.
- Chenery, H. and T. N. Srinivasan (Eds.), (1989), Handbook of Development Economics, Vols. 1& 2, Elsevier, Amsterdam.
- Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
- Gillis, M., D. H. Perkins, M. Romer and D. R. Snodgrass (1992), Economics of Development, (3<sup>rd</sup> Edition), W. W. Norton, New York.
- Gimmell, N. (1987), Surveys in Development Economics, Blackwell, Oxford.
- Higgins, B. (1959), Economic Development, W. W. Norton, New York.
- Hogendorn, J. (1996), Economic Development, Addison, Wesley, New York.
- Kahkonon, S. and M. Olson (2000), A New Institutional Approach to Economic Development, Vistaar.
- Kindleberger, C. P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
- Meier, G. M. (1995), Leading Issues in Economic Development, (6th Edition), Oxford University Press, New Delhi.

- Myint, Hla (1965), *The Economics of Underdeveloped Countries*, Press, New York.
- Myint, H. (1971), *Economic Theory and Underdeveloped Countries*, Oxford University Press.
- Todaro, M. P. (1996), (6th Edition), *Economic Development*, Longman, London.
- Thirwal, A. P. (1999), (6th Edition), *Growth and Development*, Macmillan, U. K.

### **Additional Reading List**

#### **UNIT 1 & 2 :**

- Barrel, R., G. Mason and M. O. Mahoney (2000), *Productivity, Innovation and Economic Performance*, Cambridge University Press, Cambridge.
- Barrow, R. and X Sela-I, Martin, *Economic Growth*, McGraw Hill, New York.
- Chakravarti, S. (1982), *Alternative Approaches to the Theory of Economic Growth*, Oxford University Press, New Delhi.
- Hayami, Y. (1997), *Development Economics*, Oxford University Press, New York.
- Meadows, D. H. et.al. (1972), *The Limits to Growth*, Universe Books New York.
- Sen, A. K. (Ed.) (1990), *Growth Economics*, Penguin, Harmondsworth.
- Solow, R. M. (2000), *Growth Theory • An Exposition*, Oxford University Press, Oxford.
- Taylor, L. (1979), *Macro Models for Developing Countries*, McGraw Hill, New York.
- Therberge, J. D. et. al. (1968), *Economics of Trade and Development*, John Wiley, New York.

#### **UNIT 3 & 4**

- Brahmananda, P. R. and C. N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
- Chakravarti, S. (1987), *Development Planning • The Indian Experience*, Clarendon Press, Oxford.
- Gupta, S. B. (1988), *Monetary Economics • Institutions, Theory and Policy*, S. Chand and Co., New Delhi.
- Jadhav, N. (1995), *Monetary Economics for India*, Macmillan, New Delhi.
- Killick, T. (1995), *IMF Programmes in Developing Countries • Design and Impact*, Routledge, London.
- Little, I. M. D. (1982), *Economics Development • Theory and International Relations*, Basic Books, New York.
- Mason, M. (1992), *American Multinationals and Japan*, Harvard University Press, Cambridge, Mass.
- Mehrotra. S. and J. Richard (1998), *Development with a Human Face*, Oxford University Press, New Delhi.
- Therberge, J. D. (Ed.) (1968), *Economics of Trade and Development*, John Wiley, New York.
- World Bank (1993), *East Asian Miracle*, World Bank Report, Washington D. C.
- World Bank (1994), *Infrastructure and Development*, World Bank, Washington D. C.
- United Nations (1994), *Human Development Report*, United Nations, New York.
- Dasgupta, P., A. K. Sen and S. Marglin (1972), *Guidelines for Project Evaluation*, UNIDO, Vienna.
- Mishan, E. J. (1975), *Cost-Benefit Analysis*, (2nd Edition), Allen and Unwin, London.
- Bhagwati, J. and P. Desai (1970), *India • Planning for Industrialization*, Oxford University Press, London.
- Brahmananda, P. R. and C. N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
- Chakravarti, S. (1987), *Development Planning • The Indian Experience*, Clarendon Press, Oxford.
- Mehrotra. S. and J. Richard (1998), *Development with a Human Face*, Oxford University Press, New Delhi.
- Thirlwal, A. P. (1974), *Inflation, Saving and Growth in Developing Economies*, Macmillan, London.
- Todaro, M. P. (1971) *Development Planning • Models and Methods*, Oxford University, Press, Oxford.

## ECO503 – PUBLIC ECONOMICS-II

### OBJECTIVE

The objective of this paper is to highlight various issues related to the working of Government viz.- public debt, fiscal federalism and fiscal policy. This paper combines a thorough understanding of fiscal institutions with careful analysis of the issues which underline budgetary policies in general and Indian experience in particular.

### OUTCOME

After studying this paper the student will be able to understand and analyze the public debt management, fiscal policy and fiscal federalism in India. He will be also able to critically evaluate the budgetary process and its implications.

### UNIT 1

Public Debt-Classical view of public debt; Compensatory aspect of debt policy; Burden of public debt; Sources of public debt; Debt through created money; Public borrowings and price level; Crowding out of private investment and activity.

### UNIT 2

Fiscal Policy-Objectives of fiscal policy—full employment, anti-inflation, economic growth, redistribution of income and wealth; Interdependence of fiscal and monetary policies; Fiscal policy for stabilization—automatic Vs, discretionary stabilization;

### UNIT 3

Fiscal Federalism-Fiscal federalism in India; Vertical and horizontal imbalance; Constitutional provisions, Finance Commission and Planning Commission. Reports of Finance Commissions in India. Devolution of resources and grants; Resource transfer from Union to States—Criteria for transfer of resources; Centre-State financial relations in India; Transfer of resources from Union and States to local bodies.

### UNIT 4

Indian Public Finances : Indian tax system; Revenue of the Union, States and local bodies; Major taxes in India; taxation of agriculture, Brief view of VAT & GST.; Non-tax revenue of Centre, State and local bodies. Analysis of Central and state government budgets; Balanced budget multiplier. Various concepts of Deficits-Primary Deficit, Revenue Deficit, Budget Deficit & Fiscal deficits and their implications.

### Basic Reading List

- Atkinson, A. B. and J. E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
- Buchanan, J. M. (1970), The Public Finances, Richard D. Irwin, Homewood.
- Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
- Houghton, J. M. (1970), The Public Finance : Selected Readings, Penguin, Harmondsworth.
- Jha, R. (1998), Modern Public Economics, Routledge, London.
- Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.
- Musgrave, R. A. and P. B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Shoup, C. S. (1970), Public Finance, Aldine, Chicago.
- Shome, P. (ed.) (1995), Tax Policy • Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

## **Additional Reading List**

### **UNIT 1 :**

- Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- Buchanan, J. M. (1958), Public Principles of Public Debt, A Defense and Restatement, Richard D. Irwin Homewood.
- Ferguson, J. M. (Ed.) (1964), Public Debt and Future Generations, North Caroline University Press, Chapel Hill.
- Sreekantaradhya, B. S. (1972), Public Debt and Economic Development in India, New Delhi.

### **UNIT 2 :**

- American Economic Association (1955), Readings in Fiscal Policy, George Allen and Unwin, London.
- Chelliah, Raja J. (1971), Fiscal Policy in Underdeveloped Countries, George Allen and Unwin, London.
- Government of India (1985), Long Term Fiscal Policy, New Delhi.
- Peacock, A. and G. K. Shaw (1976), The Economic Theory of Fiscal Policy, George Allen and Unwin, London.

### **UNIT 3 :**

- Bhargava, R. N. (1967), The Theory and Working of Union Finance in India, Chaitanya Publishing House, Allahabad.
- Bhargava, P. K. (1982), Centre State Resource Transfers in India, The Academic Press, Gurgaon.
- Chelliah, Raja J. et. al. (1981), Trends and Issues in India's Federal Finance, National Institute of Public Finance and Policy, New Delhi.
- Gulati, I. S. (1979), Centre State Financial Relations • An Assessment of the Role of Finance Commission, M. S. University of Baroda, Baroda.
- Lakdawala, D. T. (1967), Union State Financial Relations, Lalwani Publishing House, Mumbai.
- Musgrave, R. A. (1977), Essays in Fiscal Federalism, Greenwood West Port.
- Oates, W. E. (1972), Fiscal Federalism, Harcourt Brace and Johanowich, New York.
- Reports of various Finance Commissions.
- Srivastava, D. K. (Ed.) (2000), Fiscal Federalism in India, Har-Anand Publication Ltd. New Delhi.

### **UNIT 4 :**

- Bhargava, R. N. (1969), Indian Public Finance, B. D. Bhargava and Sons, Chandausi.
- Bhargava, P. K. (1976), Taxation of Agriculture in India, Vora and Co. Bombay.
- Bhargava, P. K. (1984), Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi.
- Bhargava, P. K. (1991), India's Fiscal Crisis, Ashish Publishing House, New Delhi.
- Borkar, V. V. (1971), Income Tax Reform in India, Popular Prakashan, Bombay.
- Chelliah, R. J. (Ed.) (1997), Towards Sustainable Growth, Oxford University Press, New Delhi.
- Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
- Gandhi, V. P. (1970), Some Aspects of India's Tax Structure, Vora and Company, Bombay.
- Government of India (1992), Reports of the Tax Reforms Committee-Interim and Final (Chairman : Raja J. Chelliah).
- Jain, A. K. (1975), Taxation of Income in India, Macmillan Company of India Ltd., New Delhi.
- Jain, I. (1988), Resource Mobilization and Fiscal Policy in India, Deep & Deep Publications, New Delhi.
- Kumar, A. (1999), The Black Economy in India, Penguin, Hamondsworth.
- Mundle, S. (1999), Public Finance, Policy Issues for India, Oxford University Press, New Delhi.
- Singh, T. (2000), The Corporation Tax in India, Classical Publishing Company, New Delhi.
- Ganguly, S.P. (2000), Fundamentals of Government Budgeting in India, Concept Publishing Company, New Delhi
- Economic Development in India, Edited, Raj & Uma Kapila, Economic Development in India-A Continuing series in India, Academic Foundation, New Delhi
- Economic--functional classification of central and state government budgets Author National Council of



Applied Economic Research Published 1960

- Premchand; International Monetary Fund; Government Budgeting and Expenditure Controls-Theory and Practice;
- Budget - Government of India, Ministry of Finance, Different Volumes 2 Publisher: Vitta Mantralaya (Ministry of Finance),

The Politics of Economic Reforms in India(2005); Editor-Jos Mooji; Sage Publications India, New Delhi

## ECO504-MANAGERIAL ECONOMICS-II

### OBJECTIVE

This paper is designed with the purpose of imparting knowledge to the students about various administrative and logistical aspects of business. Process of business decisions, business risks and different statistical tools useful for the analysis of business development etc., would be taught under this subject.

### OUTCOME

On successful completion of the studies, the students would possess wide knowledge of various legal and administrative formalities that are considered to be an integral part of the industrial development policies of the Government of India. The learning of project planning, decision making under competition and uncertainty, different statistical methods used for business analysis etc. would prepare the students to become a part of the decision making team of the management in industry as well as commerce.

### UNIT 1

Decision & Risk Analysis:-Business Decision Making, Certainty, Risk & Uncertainty. The Pay-off Matrix, Sources of Business Risk & Steps involved in the Analysis of Risky Decisions.

Risk in Project Analysis:-The Expected Value & The standard Deviation Method for Decision Making. Coefficient of Variation and Decision Making.

### UNIT 2

Public sector decisions: Evaluation of Benefits & Costs. Cost-Benefit Analysis. Pricing by Public Sector- Marginal cost pricing, Ramsey pricing & Average cost pricing.

Location Decisions-Determinants of Location. Theories of Location-Weber's Deductive Theory & Sargent Florence's Inductive Theory

### UNIT 3

Profit: policy, planning, control and forecasting-Break-even analysis.

Taxation and decision making: excise taxes, taxes on profit, taxes on inputs, property taxes, tax preferences

### UNIT 4

Game Theory:-Meaning & Basic Definitions & Terminology-strategy, payoff matrix, optimal strategy & value of game. The Two Person Zero-Sum Game, Minimax & Maximin criterion. Dominant Strategy. Nash Equilibrium. Prisoner's Dilemma.

Linear programming — primal and dual problem, simplex method; transport and storage problems.

### Books Recommended

- Dominick Salvatore, 'Managerial Economics', McGraw Hill International Editions.
- Peterson C.H. and Lewis WC, 'Managerial Economics', Eastern, Economic Edition, Prentice Hall of India,
- Miller R. and Meiners R, 'Intermediate Micro Economics', McGraw Hill Publishers.
- Pindyou R. and Rubinfeld D.L. , 'Microeconomics', Prentice Hall of India.

### Additional Reading List :

- Brigham E.F. and Pappas J.L , Managerial Economics, Dried & Press
- Diwedi D.N, Managerial Economics, Vikas Publishing House, New Delhi
- Dwivedi, R.S, Organisational Behaviour, McMillan Publishing
- Jain T.R. , Economics for Managers, V.K Publications
- Mehta P.L Managerial Economics, Sultan Chand, New Delhi
- Salvatore, Managerial Economics in Global Economy, Thomson Learning, Bombay
- Varshnay R.L., Managerial Economics, Sultan Chand Publications

**ECO505-EA:Q.M.E.-II(QUANTITATIVE METHODS IN ECONOMICS-II)**  
**(Only for the Academic Year-2012-13)**

**OBJECTIVE**

The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied, to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical and statistical methods rather than learning mathematics and statistics itself.

**OUTCOME**

After studying this paper a student will be initiated into various economic concepts, which are amenable to mathematical and statistical treatment. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

**UNIT 1**

Probability-Various definitions; Laws of addition and multiplication; Conditional probability and concept of interdependence; Baye's theorem and its applications;

**UNIT 2**

Theoretical Probability Distributions; Binomial, Poisson, Normal Distribution and their application in economics.

**UNIT 3**

Index Numbers- Calculation of Index Numbers, - Problems and adequacy test of Index Number. Cost of Living Index Numbers & Wholesale price Index.

**UNIT 4**

Time series Analysis-Meaning, Methods & Analysis of time series. Application of time series method in Economic Forecasting

**Basic Reading List :**

- Allen, R. G. D. (1974), Mathematical Analysis for Economists; Macmillan Press and ELBS, London.
- Chiang, A. C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- Gupta, S. C. (1993), Fundamental of Applied Statistics, S. Chand & Sons, New Delhi.
- Handry, A. T. (1999), Operations Research, Prentice Hall of Inca. New Delhi.
- Speigal, M. R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
- Taha, H. A. (1997), Operations Research • An Introduction ( 5th Edition), Prentice Hall of India

**Additional Reading List :**

**UNIT 1**

- Gupta S.P. (2005), Statistical Methods, S. Chand & Sons, New Delhi
- Hogg. R. V. and A. T. Craig (1970), Introduction to Mathematical Statistics (3rd Edition), Macmillan Publishing Co., New York.
- Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.

**UNIT 2,3,4**

- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), Fundamentals of Statistics, Vol. 1, The World Press Ltd., Calcutta.
- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), Fundamentals of Statistics, Vol. 1, The World Press Ltd., Calcutta.
- Gupta, S. P. (2005), Statistical Methods, S. Chand & Sons, New Delhi.
- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
- Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
- Nagar, A. L. and R. K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.
- Hogg, R. V. and A. T. Craig (1970), Introduction to Mathematics Statistics (3rd Edition), Macmillan Publishing Co., New York.

**ECO505-EA:Q.M.E.-II(QUANTITATIVE METHODS IN ECONOMICS-II)**  
**(To be Implemented from June 2013)**

**OBJECTIVE**

The main objective of this paper is to train the students to use the techniques of statistical analysis, which are commonly applied, to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of statistical tools rather than learning the statistics itself.

**OUTCOME**

After studying this paper a student will be initiated into various economic concepts which are amenable to statistical treatment. The paper also deals with simple tools and techniques which will help a student in data collection, data analysis, presentation of outcome and drawing inferences about various statistical hypotheses.

**UNIT 1**

Measures of central tendency – mean, median, mode. Measures of dispersion- range, quartile deviation, mean deviation and standard deviation. Karl Pearson coefficient of skewness.

**UNIT 2**

Correlation Analysis -Meaning, assumptions, limitations of simple correlation, methods of finding correlation, Karl Pearson's coefficient of correlation and rank correlation coefficients, probable error. Regression analysis; Concept of least squares and the lines of regression; Standard error of estimate.

**UNIT 3**

Index Numbers- Calculation of Index Numbers, - Problems and adequacy test of Index Number. Cost of Living Index Numbers & Wholesale price Index.

**UNIT 4**

Time series Analysis-Meaning, Methods & Analysis of time series. Application of time series method in Economic Forecasting.

**Basic Reading List :**

- Allen, R. G. D. (1974), Mathematical Analysis for Economists; Macmillan Press and ELBS, London.
- Chiang, A. C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- Gupta, S. P. (1993), Fundamental of Applied Statistics, S. Chand & Sons, New Delhi.

**Additional Reading List :**

**UNIT 1 :**

- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
- Gupta S.P. (2005), Statistical Methods, S. Chand & Sons, New Delhi
- Nagar, A. L. and R. K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.

**UNIT 2 :**

- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), Fundamentals of Statistics, Vol. 1, The World Press Ltd., Calcutta.

**UNIT,3,4**

- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), Fundamentals of Statistics, Vol. 1, The World

Press Ltd., Calcutta.

- Gupta, S. P. (2005), Statistical Methods, S. Chand & Sons, New Delhi.
- Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
- Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
- Nagar, A. L. and R. K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.

## ECO505-EB:R.M.E.-2(RESEARCH METHODOLOGY IN ECONOMICS-II)

**Note** :This paper is offered to only those students who have either studied papers of Mathematical Economics, Econometrics, Managerial Economics or Statistical Methods(as first subsidiary) at B.A. level.

### OBJECTIVE

The objective of this paper is to equip the students with statistical tools and techniques with examples from economics so that when he takes up any research projects he can use them.

### OUTCOME

After studying this paper the student will be better equipped to do a more scientific study of various economic issues. This paper will also help him in future research in the subject.

### UNIT 1

Meaning of estimation. Point and interval estimation, Characteristics of a good estimator. One tail and two tail tests. Testing of hypothesis; Concept of hypothesis testing, Type — I and Type II errors, Testing of Means, Proportions, equality of population means, two variances etc. Z-test.

### UNIT 2

Correlation : Meaning, Methods and Uses. Linear zero order correlation—Correlation with the grouped data, partial and multiple correlation. Regression—Single and Multivariate. Estimation of parameters using OLS method. Test of Goodness of Fit-t Test. Properties of OLS estimators-BLUE-Gauss Markov theorem.  $R^2$  - its importance and its relationship with  $\beta$ .

### UNIT 3

Index Numbers-Variou formulae of Index Numbers, Construction — Problems and Tests of Index Number. Theory of Cost of Living Index Numbers.

### UNIT 4

Time series Analysis — Estimation of trend. Seasonal Indexes and Tests of Randomness. Forecasting based on time series analysis.

### Basic Reading List:

- Quantitative Techniques for Managerial Decisions by U. K. Srivastav, G. V. Shenoy and S. C. Sharma, 1989, Published by Wiley Eastern Limited.
- Basic Statistics, by A. L. Nagar and R. K. Das, Published by Oxford University Press.
- Quantitative Techniques by C. R. Kothari.
- Statistics for Economists — Merryl and Fox.
- Statistical Methods by S.P. Gupta, S.Chand & Company, New Delhi
- Basic Econometrics by Damodar Gujarati — 2002, Published by MacGraw Hill International.

## **ECO506EA–INDUSTRIAL ECONOMICS-II**

### **OBJECTIVE**

This subject is designed to impart adequate knowledge to the students about the issues related to industrial development in India. Understanding about the policies related to industrial development, employment, labour laws, trade unions are critical for the students of industrial economics. Teaching of this paper covers all the important areas of the Indian industry that the students are expected to know.

### **OUTCOME**

This subject will introduce the students to various fields of the industry that opens new challenges and opportunities. After successful completion of studies the bright students would be able to contribute considerably to various fields of industry such as industry, business, trade unions, NGOs and industry related research institutes.

### **UNIT 1**

Classification of industries, Industrial policy of India - prior to 1991 - new industrial policy - appraisal of NIP; Public sector in India-objectives- role- performance- problems- policy towards public sector since 1991- appraisal of the policy; Privatization as a measure to solve problems of PSUs.

### **UNIT 2**

Industrial development during the planning period- changes in the pattern of industrial development - problems of industrial development in India; Small scale industries –importance - role - policy - problems - measures to improve performance; Industrial sickness –meaning-magnitude-causes - remedial measures; Industrial productivity in India; MNCs - transfer of technology - Foreign capital.

### **UNIT 3**

Social security- need – meaning - evolution - social insurance - social assistance; Social security measures in India - critical evaluation; Labour legislation in India- Factory Act 1948 - Industrial Dispute Act 1947 – Industrial Employment (Standing Order) Act 1946 - Contract Labour (Regulation and Abolition Act 1970. Trade Union Act 1926, Child Labour Act and Women Labour Act, Industrial disputes- causes – forms - preventive and settlement machinery.

### **UNIT 4**

Meaning and different theories of trade unionism; Objectives and structure of trade unions in India;, role and functions of trade unions; Development of trade unions in India; Problems of Indian trade unions and suggestions to make them effective.

### **Basic Reading List:**

- Ahluwalia, I. J. (1985), Industrial Growth in India, Oxford University Press, 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.
- Government of India, Economic Survey (Annual).
- Mishra SK & Puri VK – Indian Economy, Humaliya publishing House, New Delhi.
- Papola, T. S., P. P. Ghosh and A. N. Sharma (Eds.) (1993) : Labour, Employment and Industrial Relations in India, B. R. Publishing Corporation, New Delhi.

## **Additional Reading List :**

### **UNIT 1**

- Bhagwati J. and P. Desai (1972), *India, Planning for Industrialization*, Oxford University Press, London.
- Brahmananda, P. R. and V. R. Panchamukhi (Eds.) (1987), *The Development Process of the Indian Economy*, Himalaya Publishing House, Bombay.
- Chakravarty, S. (1987), *Development Planning : The Indian Experience*, Oxford University Press, New Delhi.
- Datta, B. (1992), *Indian Planning at the Crossroads*, Oxford University Press, New Delhi.
- Ghosh, P. K. (1977), *Government and Industry*, Oxford University Press, New Delhi.
- Joshi, V. and I.M.D. Little (1999), *India : Macro Economics and Political Economy : 1964-1991*, Oxford University Press, New Delhi.

### **UNIT 2**

- Brahmananda, P. R. and V. R. Panchamukhi (Eds.) (1987), *The Development Process of the Indian Economy*, Himalaya Publishing House, Bombay.
- Chakravarty, S. (1987), *Development Planning : The Indian Experience*, Oxford University Press, New Delhi.
- Datta, B. (1992), *Indian Planning at the Crossroads*, Oxford University Press, New Delhi.
- Dhameeja, N. and K. S. Sastry (1998), *Privatization : Theory and Practice*, A. H. Wheeler, New Delhi.
- Jalan, B. (1996), *India's Economic Policy*, Viking, New Delhi.
- Joshi, V. and I.M.D. Little (1999), *India : Macro Economics and Political Economy : 1964-1991*, Oxford University Press, New Delhi.
- Kelkar, V. L. and V. V. Bhanoji Rao (Eds.) (1996), *India Development Policy Imperatives*, Tata McGraw Hill, New Delhi.
- Rama Murti, R. and R. Vernan (Eds.) (1991), *Privatization and Control of State-owned Enterprises*, The World Bank, Washington.
- Sandesara, J. C. (1992), *Industrial Policy and Planning — 1947-1991: Tendencies, Interpretations and Issues*, Sage Publications, India Pvt. Ltd., New Delhi.

### **UNIT 3**

- Deshpande, S. G. Standing and, L. K. Deshpande (1998) : *Labour Flexibility in a Third World Metropolis*, Commonwealth Publishers, New Delhi.
- Hauseman, S. (1991): *Industrial Restructuring with Job Security*, Harvard University Press, Cambridge, Mass.
- MHRD, GOI (1987) : *Shram Shakti : Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector*, Ministry of Human Resources Development, New Delhi.
- Misra, L. (2000) : *Child Labour in India*, Oxford University Press, New Delhi.
- Riveros, L. (1990) : *Labour Market Policies and Labour Market Reforms in Socialist Economies*, World Bank, Washington D.C.
- Standing G. and V. Tokman, (Eds.) (1991) : *Towards Social Adjustment*, ILO, Geneva.

### **UNIT 4**

- Breman, J. (1996) : *Footloose Labour : Working in India's Informal Economy*, Cambridge University Press, Cambridge.
- Memoria, C. B. (1966) : *Labour Problems and Social Welfare in India*, Kitab Mahal, Allahabad.
- Puneekar, S. D. (1978): *Labour Welfare, Trade Unionism and Industrial Relations*, Himalaya Publishing House, Bombay.
- Sach, J. (1990), : *Social Conflict and Populist Policies in Latin America*, in R. Brunnetta and C. D. Aringa, (Eds.) : *Labour Relations and Economic Performance*, Macmillan, Basing Stock.
- Singh, V. B., (Ed.) (1970) : *Industrial Labour in India*, Popular Prakashan, Bombay.



## ECO506-EB-ECONOMETRICS-II

### OBJECTIVE

The objective of this paper is to give an exposure to the students opting this paper about the simultaneous equation models and some advanced econometrics involving time series data. The use of some selected computer packages like SPSS and other will be given to students.

### OUTCOME

After studying this paper the student will be able to understand the limitations of classical regression method. He will be in a position to decide which alternative method best suits his own research problem. He will also learn to apply the computer packages and interpret his results.

### UNIT 1

Simultaneous Equation Models: Introduction and examples-the simultaneous equation bias and inconsistency of OLS estimators. The identification problem-rules of identification-order and rank conditions.

### UNIT 2

Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS); 2SLS, 3SLS methods and applications.

### UNIT 3

Time Series Econometrics-Stationarity, unit roots, co-integration-spurious regression. Dickey-Fuller test, Engle-Granger test, Random walk model, Forecasting with ARIMA models; Vector autoregressive model-problems with VAR modeling—applications-estimation.

### UNIT 4

Introduction to Panel Data Model-use of panel data set to investigate dynamics. Fixed effect regressions-least squares dummy variable fixed effects. Random effect regressions, Random effects or OLS?

### Basic Reading List :

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harvard University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- Kmenta, J. (1997) : Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
- Koutsoyiannis, A. (1977) : Theory of Econometrics (2nd ed.) The Macmillan Press Ltd., London.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.

### Additional Reading List :

#### Unit 1

- Croxton, F. E., D. J. Cowden and S. Klein (1973) : Applied General Statistics, Prentice Hall, New Delhi.
- Maddala, G. S. (1997) : Econometrics, McGraw Hill, New York.

#### UNIT 2

- Intrilligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Johnston, J. (1991) : Econometric Methods, McGraw Hill Book Co., London.

#### UNIT 3

- Chow, G. C. (1983) : Econometrics, McGraw Hill, New York.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.

#### **UNIT 4**

- Chow, G. C. (1983), *Econometrics*, McGraw Hill, New York.
- Franses, P. H. (1998), *Time Series Models for Business and Economic Forecasting*, Cambridge University Press, New York.
- Hamonda, O. F. and J. C. R. Roley (1997), *Time Series Model, Causality and Exogeneity*, Cheltenham, U. K.
- Hansen, P. R. and S. Johanson, (1998), *Workbook on Cointegration*, Oxford University Press, New York.
- Harvey, A. C. (1981), *Econometric Analysis of Time Series*, Phillip Allen, London.
- Johnston, J. (1991), *Econometric Methods*, McGraw Hill Book Co., London.
- Maddala, G. S. (1997), *Econometrics*, McGraw Hill, New York.

## **ECO-507-APPLICATION OF RESEARCH METHODS IN ECONOMICS**

### **OBJECTIVE**

The main objective of this paper is to provide the student tools and techniques that will help him to perform any research in the subject of economics more scientifically and objectively. The main purpose of this paper is to teach him how to apply the mathematical and statistical tools for economic analysis.

### **OUTCOME**

The student, after studying this paper, will be able to undertake any research in the subject independently and in a more scientific way.

### **UNIT 1**

Meaning and components of research work. Various types and methods of research work, Steps in undertaking research work.  
Basic concept of sampling—random and non-random sampling; Methods of Sampling;

### **UNIT 2**

Concept of function, Economic Models and its use in Economic Research. Basic concept of Derivative and integration and its application in Economics. Problems of maxima and minima. Simple problems in market equilibrium.

### **UNIT 3**

Sampling Distributions-Student-t-test, Chi-square test, F test, Confidence interval approach and Testing of Hypothesis. One tail and Two tail test. Type I and Type II Errors and the power of the test.

### **UNIT 4**

Analysis of Variance & Co-variance: Meaning of ANOVA. The Basic Principle & Technique of ANOVA. ANOVA Table, Short Cut Method for One-way ANOVA, Coding Method. Two Way ANOVA.

### **Basic Reading List :**

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harward University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- Kementa, J. (1997) : Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
- Koutsoyiannis, A. (1977) : Theory of Econometrics (2nd ed.) The Macmillan Press Ltd., London.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.
- Kothari, R.C., Research Methodology-Methods and Techniques, New Age International u

## ECO-508E-AGRICULTURE ECONOMICS

### OBJECTIVE

The objective of this course is to provide a detailed treatment of issues in agricultural economics to those intending to specialize in this area.

### OUTCOME

This paper will familiarize the students with policy issues that are relevant to Indian agricultural economics and develop a thorough understanding of the subject of agricultural economics.

### UNIT 1

Agriculture & Economic Development-Nature and scope of agricultural and rural economics; Role of agriculture in economic development, Demand for agricultural products; Its special characteristics ; Interdependence between agriculture and industry - some empirical evidence; Models of interaction between agriculture and the rest of the economy.

### UNIT 2

Agriculture & Rural Finance : Need of agricultural finance; Problems of agricultural credit in India, Role of capital and rural credit; Organized and unorganized capital Market; sources of rural credit institutional and non-institutional; Role of NABARD.

### UNIT 3

Land Reforms; Objectives; and Land Policy : Principles of land utilization; Land distribution - structure and trends; land tenures and farming systems ,land reform measures and performance; problems of marginal and small farmers.

### UNIT 4

Agricultural marketing- Meaning; Scope; Marketing functions; Market organization- village, wholesale and Terminal Markets - Co-operative Marketing, Regulated markets - storage and processing - Marketable surplus; Problems and remedies to improve agricultural marketing, Recent trends in agricultural growth in India.

### Basic Reading List:

- Bilgrami, S. A. R. (1996), Agricultural Economics, Himalaya Publishing House. Delhi.
- Dantwala, M. L. et. al. (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.
- Joshi, P. C. (1975), Land Reforms in India • Trends and Prospects, Allied Publishers. Bombay.
- Rao, C. H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- Reserve Bank of India, Report on Currency and Finance (Annual), Mumbai.
- Rudra, A. (1982), Indian Agricultural Economics : Myths and Reality, Allied Publishers, New Delhi.

## **Additional Reading List :**

### **UNIT 1,2, 3 & 4**

- Bardhan, P. (1984), Land, Labour and Rural Poverty, Oxford University Press, New Delhi.
- Chadha, G. K. and A. N. Sharma (1997), Growth, Employment and Poverty • Change and Continuity in Rural India, Vikas Publishing, New Delhi.
- Chakravarty, S. (1987), Development Planning • The Indian Experience, Oxford University Press, New Delhi.
- Chaudhary, P. (1972), Readings in Indian Agricultural Development, George Allen & Unwin, London.
- Chelliah, Raja and R. Sudarshan (1999), Income, Poverty and Beyond • Human Development in India, Social Science Press, New Delhi.
- Datwala, M. L. (1996), Dilemmas of Growth • The Indian Experience, Sage Publications, New Delhi.
- Ghatak, S. and K. Ingerscent (1984), Agriculture and Economic Development, Select books. New Delhi.
- Government of India, Five Year Plans, New Delhi.
- Meier, G. M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.
- Raj, K. N. et. al. (1988), Essays in the Commercialization of Indian Agriculture, Oxford University Press, New Delhi.
- Bharadwaj K. (1974), Production Conditions in Agriculture, Cambridge University Press. Cambridge.
- Brahmananda, P. R. and V. R. Panchumukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
- Desai G. and A. Vaidyanathan (Eds.) (1995), Strategic Issues in Future Growth of Fertiliser Use in India, Macmillan, New Delhi.
- Soni, R. N. (1995), Leading Issues in Agricultural Economics, Arihant Press, Jalandhar.
- Raghvan and L. Sarkar (Eds.) (1996), Poverty and Employment, New Age, New Delhi.
- Visaria, P. and R. Basant (1994), Non-Agricultural Employment in India • Trends and prospects, Sage Publications, New Delhi.
- Jodhar N. (Ed.) (1996), Challenges to Indian Banking, Macmillan, New Delhi.
- Reserve Bank of India (1989), Report of the Agricultural Credit Review Committee, Bombay.
- Cohen, R. L. : The Economics of Agriculture, Ch. 1, Section I

## ECO509E–E-LABOUR ECONOMICS

### OBJECTIVE

The study of labour economics is vital as it touches every issues of economic development. The umbrella of labour economics covers various concepts, Indian labour markets, wage theories, wage determination, wage and productivity relationship and collective bargaining theories and practice.

### OUTCOME

The interest in labour economics motivates the students to concentrate on empirical research related to different spheres of labour economics. Conceptual clarity helps the students to collecting relevant data and applying appropriate methodologies while doing policy research in the Government offices, corporate houses as well as research institutes.

### UNIT 1

Meaning – nature - scope - importance of labour economics; Meaning - concept - significance - characteristics of labour; Labour problems in India; Labour policy in India; Impact of economic reforms and globalization on labour.

### UNIT 2

Characteristics of labour in India - migration - mobility - absenteeism - turnover etc; Characteristics of Indian labour market; Economic reforms / globalization and labour market flexibility; Impact of technology and rationalization on Indian labour market; Second national commission on labour

### UNIT 3

Classical theories - neo-classical theories of wages; Criteria for wage determination- wage comparison - capacity to pay - productivity - cost of living; Concept of minimum wage - fair and living wage rate; Wage policy in India during five year plans; Wage differential.

### UNIT 4

Meaning – nature - objectives of collective bargaining; Theories of collective bargaining; Collective bargaining in India; Workers participation in management- concept – models; Workers participation in India.

### Basic Reading List:

- Datt, G. (1996) : Bargaining Power, Wages and Employment : An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P. D. (1998) : Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- Lester, R. A. (1964) : Economics of Labour, (2nd Edition), Macmillan, New York.
- MacConnell, C. R. and S. L. Brue (1986) : Contemporary Labour Economics, MacGraw Hill, New York.
- Papola, T. S., P. P. Ghosh and A. N. Sharma (Eds.) (1993) : Labour, Employment and Industrial Relations in India, B. R. Publishing Corporation, New Delhi.
- Rosenberg M. R. (1988), Labour Markets in Low Income Countries , in Chenery, H. B. and T. N. Srinivasan (Eds.) : The Handbook of Development Economics, North-Holland, New York.
- Venkata Ratnam, C. S. (2001) : Globalization and Labour-Management Relations : Dynamics of Change, Sage Publications/Response Books, New Delhi.

## **Additional Reading List :**

### **UNIT 1**

- Deshpande, S. G. Standing and, L. K. Deshpande (1998) : Labour Flexibility in a Third World Metropolis, Commonwealth Publishers, New Delhi.
- Hauseman, S. (1991) : Industrial Restructuring with Job Security, Harvard University Press, Cambridge, Mass.
- McCormick, B. and Smith (Eds.) (1968) : The Labour Market, Penguin, Harmondsworth.
- MHRD, GOI (1987) : Shram Shakti : Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector, Ministry of Human Resources Development, New Delhi.
- Misra, L. (2000) : Child Labour in India, Oxford University Press, New Delhi.
- Papola, T. S. and Rodgers, G. (Eds.) (1992) : Labour Institutions and Economic Development in India, International Institute for Labour Studies, Geneva.
- Rees, A. (1973) : Economics of Work and Pay, Harper and Row, New York.
- Riveros, L. (1990) : Labour Market Policies and Labour Market Reforms in Socialist Economies, World Bank, Washington D.C.
- Sen, A. K. (1975) : Employment, Technology and Development, Oxford University Press.
- Solow, R. M. (1990) : Labour Market as an Institution, Blackwell, London.
- Standing G. and V. Tokman, (Eds.) (1991) : Towards Social Adjustment, ILO, Geneva. New Delhi.

### **UNIT 2**

- McCormick, B. and Smith (Eds.) (1968): The Labour Market, Penguin, Harmondsworth.
- Papola, T. S. and Rodgers, G. (Eds.) (1992) : Labour Institutions and Economic Development in India, International Institute for Labour Studies, Geneva.
- Rees, A. (1973) : Economics of Work and Pay, Harper and Row, New York.
- Sen, A. K. (1975) : Employment, Technology and Development, Oxford University Press, New Delhi.
- Solow, R. M. (1990) : Labour Market as an Institution, Blackwell, London.

### **UNIT 3**

- Binswanger H. P. and M. R. Rosenzweig (Eds.), (1984) : Contractual Arrangements, Employment and Wages in Rural Labour Markets in Asia, Yale University Press, New Haven.
- Deshpande L. K. and J. C. Sandesara (Eds.), (1970) : Wage Policy and Wages Determination in India, Bombay University Press, Bombay.
- Foster, A. D. and M. R. Rosenberg, (1993) : Information Flows and Discrimination in Labour Markets in Rural Areas in Developing Countries, Annual Conference on Development Economics, World Bank, Washington D. C.
- Hicks J. R. (1932) : The Theory of Wages, Clarendon Press, Oxford.
- Madan, B. K. (1977) : The Real Wages of Industrial Workers in India, Management Development Institute, New Delhi.
- Mazumdar, D. (1989) : Micro-economic Issues of Labour Markets in Developing Countries, EDI Services Paper No. 40, World Bank, Washington D. C.

### **UNIT 4**

- Katz H, Kochan H.A., Katz H.C., Colvin A.J.S., An Introduction to Collective Bargaining & Industrial Relations, McGraw-Hill Companies
- M. Mustafa, O. Sharma, Workers Participation In Management, Deep and Deep Publications, N. Delhi
- Sharma A.K., Labour Economics, Anmol Publications, New Delhi

## ECO510E-MATHEMATICAL ECONOMICS

### OBJECTIVE

This course is designed to equip students to understand the economic concepts and theories which use mathematical tools and techniques to refine the verbal logic. Mathematical economics deals with various applications of mathematical tools and techniques in defining and developing economic relationships.

### OUTCOME

After studying this paper the student will be able to apply various mathematical techniques/methods/models to the different parts of economic theory like consumer theory, theory of production, pricing, trade cycles, growth models, etc. The paper covers important aspects of microeconomics, macroeconomics and development. The use of calculus will enable the students to formulate the economic problems in multivariable mode and yield valuable insight about optimizing human behaviour.

### UNIT 1

Theory of Consumer Behaviour-Cardinal and ordinal utility maximization, Slutsky equation, compensated demand functions, income, substitution, and price effects; Concept of elasticities.

### UNIT 2

Theory of Production: Production function — homogeneous and non-homogeneous; Properties of Cobb-Douglas Production function; CES; Simple derivation of short and long run cost functions.

### UNIT 3

Price Determination in Various Markets: Price determination in perfect competition, monopoly, monopolistic competition, duopoly and oligopoly. Pricing of factors of production.

### UNIT 4

Determination of Income and Fluctuations in Income: Classical and Keynes' macro system; Determinants of investment; Accelerator; trade cycle model of Samuelson and Hicks(IS-LM model).

### Basic Reading List

- Allen, R. G. D. (1976), *Mathematical Economics*, Macmillan, London.
- Arrow, K. J. and M. Intrilligator (Eds.) (1982), *Handbook of Mathematical Economics*, Volumes I, II, and III, North Holland, Amsterdam.
- Henderson, J. M. and R. E. Quandt (1980), *Microeconomic Theory • A Mathematical Approach*, McGraw Hill, New Delhi.
- Chung, J. W. (1993), *Utility and Production • Theory and Applications*, Basil Blackwell, London.
- Ferguson, C. E. (1976), *Neo-classical Theory of Production and Distribution*.
- Allen, R. G. D. (1974), *Mathematical Analysis for Economics*, Macmillan Press and ELBS, London.
- Chiang, A. C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.



## ECO511-FINANCIAL INSTITUTIONS AND MARKETS

### OBJECTIVE

In the rapidly changing global scenario and expanding markets, the financial systems play a key role for individuals, institutions, corporate and the governments in the achievement of growth. The study of Financial Institutions and Markets is important to understand the existence of sound financial services system which constitutes the nucleus of every activity of economic development.

### OUTCOME

The learning of Financial Institutions and Markets imparts understanding about the conceptual framework of the various aspects of financial systems. The movement in the financial markets affects individual wealth, the behavior of business firms, and economy as a whole. Thus the knowledge of financial markets is critical for an efficient allocation of capital, which contributes to higher productivity and efficiency. It is particularly appealing to those who need to have an overview of the markets, how they work, the language its participants use and the trading of different instruments in those markets. It will also be of benefit to individuals or companies providing services to the financial services industry.

### UNIT 1

Financial System- Components, functions, financial system design, nature and role of financial institutions. Financial System and the Economy- national income accounts, flow of funds accounts, relationship between financial system and economic growth. Reforms in Financial System in India – pre-reform and post-reform period.

### UNIT 2

Money Market–call money market, treasury bills, commercial paper, commercial bills, certificates of deposits, CBLO, money market intermediaries, money market mutual funds, money market derivatives. Overview of money market.

### UNIT 3

Capital Market – history, reforms. Primary Market – free pricing regime, book building, green shoe option, on-line IPOS, primary issues in private/public sector, mutual funds, steps to improve primary market infrastructure. Secondary Market – past reforms in stock market, stock exchanges, listing of securities, trading arrangement/ settlements, internet trading. Stock Exchanges – BSE, NSE, OCE, working of SEBI.

### UNIT 4

Derivatives Market – meaning, types, uses, futures, options, swaps, warrants and convertibles, credit derivatives, some important concepts, critique of derivatives, derivatives in India, credit derivatives, commodity derivative market.

### Basic Reading List:

- Bharati Pathak V., “The Indian Financial System”, Pearson, 2010.
- Bhole L.M. and Mahakud J, “Financial Institutions and Markets”, Tata McGraw Hill, New Delhi, 2009. Guruswami S., “Financial Markets and Institutions”, Tata McGraw Hill Education Pvt. Ltd, New Delhi, 2009.
- Kohn Meir, “Financial Institutions and Markets”, Tata McGraw Hill Publishing Company Ltd, New Delhi, 1996.
- Bhatt V.V., “Financial Systems, Innovations and Development”, Sage Publications, New Delhi, 1995.

## **ECO512PT-PROJECT**

Every student shall be required to undertake a research based project. The project topics should be related to the courses studied by the student in four semesters. The project topics will be decided by the Head of the Department along with the Guide. Each student will be required to submit the project of at least 100 pages before the commencement of the end semester examination of the fourth semester.