



**BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI – 620 024**

**M.A. Economics Syllabus under CBCS**

**(Applicable to the candidate admitted from the academic year 2016-2017 onwards)**

| Seme<br>ster | Course  | Course Title  | Ins.<br>Hrs /<br>Week | Credit    | Exam<br>Hrs | Marks |      | Total       |
|--------------|---|---|-----------------------|-----------|-------------|-------|------|-------------|
|              |   |   |                       |           |             | Int.  | Ext. |             |
| <b>I</b>     | Core Course – I (CC)  | Micro Economics – I   | 6                     | 4         | 3           | 25    | 75   | 100         |
|              | Core Course – II (CC)                                       | Macro Economics I   | 6                     | 4         | 3           | 25    | 75   | 100         |
|              | Core Course – III (CC)                                      | Monetary Economics  | 6                     | 4         | 3           | 25    | 75   | 100         |
|              | Core Course – IV (CC)                                       | Mathematical methods for<br>Economic Analysis                           | 6                     | 4         | 3           | 25    | 75   | 100         |
|              | Elective Course – I (EC)                                    | Environmental Economics   | 6                     | 4         | 3           | 25    | 75   | 100         |
|              |   | <b>Total</b>  | <b>30</b>             | <b>20</b> | --          | --    | --   | <b>500</b>  |
| <b>II</b>    | Core Course – V (CC)  | Financial Economics   | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – VI (CC)                                       | Micro Economics II  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – VII (CC)                                      | Macro Economics II  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – VIII (CC)                                     | Statistics  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Elective Course – II (EC)                                   | Research Methodology  | 6                     | 4         | 3           | 25    | 75   | 100         |
|              |   | <b>Total</b>  | <b>30</b>             | <b>24</b> | --          | --    | --   | <b>500</b>  |
| <b>III</b>   | Core Course – IX (CC)                                       | Indian Economy  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – X (CC)  | International Business  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – XI (CC)                                       | Industrial Economics  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – XII (CC)                                      | Fiscal Economics  | 6                     | 5         | 3           | 25    | 75   | 100         |
|              | Elective Course – III (EC)                                  | Project Appraisal   | 6                     | 4         | 3           | 25    | 75   | 100         |
|              |   | <b>Total</b>  | <b>30</b>             | <b>24</b> | --          | --    | --   | <b>500</b>  |
| <b>IV</b>    | Core Course – XIII (CC)                                     | Economics of Growth and<br>Development                                  | 5                     | 5         | 3           | 25    | 75   | 100         |
|              | Core Course – XIV (CC)                                      | Economics of Natural<br>Resources                                       | 5                     | 5         | 3           | 25    | 75   | 100         |
|              | Elective Course - IV (EC)                                   | Management Information<br>Systems                                       | 5                     | 4         | 3           | 25    | 75   | 100         |
|              | Elective Course - V (EC)                                    | Computer Applications in<br>Economics<br><b>(updated on 16-11-2016)</b> | 5                     | 4         | 3           | 25    | 75   | 100         |
|              | Project Work<br>Viva voce 20 marks<br>Dissertation 80 marks |   | 10                    | 4         | ---         | ---   | ---  | 100         |
|              |   | <b>Total</b>  | <b>30</b>             | <b>22</b> | --          | --    | --   | <b>500</b>  |
|              |   |   | <b>120</b>            | <b>90</b> | --          | --    | --   | <b>2000</b> |

Note:

Project :100 Marks  
Dissertation : 80 Marks  
Viva Voice : 20 Marks

Core Papers - 14  
Elective Papers - 5  
Project - 1

Note:

1. Theory Internal 25 marks External 75 marks
2. Separate Passing Minimum is prescribed for Internal and External
  - a) The passing minimum for CIA shall be 40% out of 25 marks (i.e. 10 marks)
  - b) The passing minimum for University Examinations shall be 40% out of 75 marks (i.e. 30 marks)
  - c) The Passing minimum not less than 50 % in the aggregate

References / Text Books contain the following details :

- I. Name of the Author
- II. Title of the Book
- III. Name of the Publisher
- IV. Year

## **CORE COURSE I MICRO ECONOMICS I**

**Objective:** To make the students understand the fundamental theories of Microeconomics and their applications.

### **Module I: Demand Analysis**

Utility theory – Ordinal approach – Indifference curve (income and substitution effects, Slutsky theorem, compensated demand curve) and their applications, Revealed preference theory, Revision of demand theory by Hicks; Characteristics of goods approach (Lancaster), consumer's choice involving risk (N-M hypothesis) – Friedman-Savage, Markowitz hypotheses; indirect utility functions (duality theory); Recent developments in demand analysis (pragmatic approach and linear expenditure systems); Inter-temporal consumption; Recent developments in demand; Elementary theory of price formation – demand and supply equilibrium; Cobweb theorem; lagged adjustment in interrelated markets.

### **Module II: Theory of Production and Costs**

Production function – short period and long period; law of variable proportions and returns to scale; Isoquants – Least cost combination of inputs; Returns to factors: Economies of Scale; Multi-product firm; Elasticity of substitution; Euler's theorem; Technical programme and production function; Cobb – Douglas and CES Production functions and their properties; Empirical work on production functions; Traditional and modern theories of costs – Empirical evidence; Derivation of cost functions from production functions; derived demand for factors.

### **Module III: Price and Output Determination – Perfect competition and Monopoly**

Marginal analysis as an approach to price and output determination: perfect competition – short run and long run equilibrium of the firm and industry, price and output determination, supply curve; Monopoly – short run and long run equilibrium, price discrimination, welfare aspects, monopoly control and regulation.

### **Module IV: Monopolistic Competition and Oligopoly Models**

Monopolistic competition – general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group with product differentiation and selling costs, excess capacity under monopolistic and imperfect competition, criticism of monopolistic competition; Oligopoly – Non-collusive (Cournot, Bertrand, Edgeworth, Chamberlin, kinked demand curve and Stackelberg's solution) and collusive (Cartels and mergers, price leadership models); Price and output determination under monopsony and bilateral monopoly; Workable competition – Structure, conduct and performance norms – Concept of Contestable Market.

### **Module V: Alternative Theories of the Firm**

Critical evaluation of marginal analysis; Baumol's sales revenue maximization model; Williamson's model of managerial discretion; Marris model of managerial enterprise, Full cost pricing rule; Bain's limit pricing theory and its recent developments including Sylos-Labini's model; Behaviours model of the firm; Game theoretic models.

### **References:**

1. Kreps, David M (1990) A Course in Microeconomic Theory, Princeton University Press, Princeton
2. Koutsoyiannis, A (1979), Modern Microeconomics (2<sup>nd</sup> Edition) Macmillan Press, London.
3. Layard P.R.G and A.W. Walters (1978) Microeconomic Theory, McGraw Hill, New York
4. Sen A. (1999) Microeconomics: Theory and Applications, Oxford University Press, New Delhi
5. Stigler, G (1996), Theory of Price, (4<sup>th</sup> Edition), Prentice Hall of India, New Delhi
6. Varian,H. (2000) Microeconomic Analysis, W.W. Norton, New York
7. Baumol, W.J. (1982) Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi
8. Hirshleifer, J. and A Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi
9. Da Costa, G.C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi
10. Salvatore, Domnick (1991), Micro Economic Theory, 3<sup>rd</sup> Edition, McGraw Hill, New Delhi

## **CORE COURSE II MACRO ECONOMICS I**

**Objective:** To make the students to understand the macro economic concepts and their relevance to the economy.

### **Module I: Basic Concepts**

Macro Economics – meaning and scope – macro static and dynamics – macro economic goals – national income – employment and unemployment - price – inflation – GDP and GNP concepts and measurements – aggregate demand and supply.

### **Module II: National Income and Accounts**

Circular Flow of Income in two – three and four – sector economy; different forms of national income accounting –social accounting, input – output accounting, flow of funds accounting and balance of payments accounting.

### **Module III: Consumption Function**

Keynes psychological law of consumption-implications of the law; short-run and long- run consumption function; Empirical evidence on consumption function; Income-consumption relationship-absolute income, relative income, life cycle and permanent income hypotheses

### **Module IV: Investment function**

Marginal efficiency of capital and investment – long run and short run; The Multiplier – accelerator and investment behaviour –impact of inflation; Influence of policy measure on investment – empirical evidence.

### **Module V: Neo – Classical, Keynesian Synthesis and Post-Keynesian Syntheses**

Neo – Classical and Keynesian views on interest; the IS – LM model; Slopes of IS and LM; Extension of IS-LM model with government sector; Relative effectiveness of monetary and fiscal policies; extension of IS-LM models with labour market and flexible prices.

## References:

1. Ackley, G (1978) *Macroeconomics: Theory and Policy*, Macmillan, New York
2. Blackhouse, R. and A Salansi (Eds.) (2000), *Macroeconomics and the Real World (2 Vols.)*, Oxford University Press, London
3. Branson, W.A. (1989) *Macroeconomics Theory and Policy (3<sup>rd</sup> Edition)*, Harper and Row, New York
4. Bornbusch, R. and F. Stanley (1997), *Macroeconomics*, McGraw Hill, Inc., New York
5. Hall, R.E. and J.B. Taylor (1986) *Macroeconomics* W.W. Norton, New York
6. Heijdra, B.J. and V.P. Frederick (2001), *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi
7. Jha, R. (1991) *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
8. Romer, D.L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd, New York
9. Scarfe, B.L. (1977) *Cycles, Growth and Inflation*, McGraw Hill, New York
10. Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi
11. Surrey, M.J.C. (Ed.) (1976), *Macroeconomic Theories*, Oxford University Press, Oxford.

## **CORE COURSE III MONETARY ECONOMICS**

**Objective:** To understand the concepts relating to Monetary Economics and their practical applicability.

### **Module I: Supply of Money**

Financial intermediation a mechanistic model of bank deposit determination; A behavioural model of money supply determination, a demand determined money supply process – Inside and outside money ( Gurley and Shaw) – RBI approach to money supply; High powered money and money multiplier; Budget deficits and money supply; money supply and open economy; control of money supply – Instruments of credit control.

### **Module II: Demand for Money**

Classical approach to demand for money-Quantity theory approach, Fisher's equation, Cambridge quantity theory – Neutrality of money, Classical dichotomy –Keynes's liquidity preference approach, transaction, precautionary and speculative demand for money-aggregate demand for money, derivation of LM curve

### **Module III: Theory of Inflation**

Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation; Philips curve analysis-Short run and long run Philips curve; Samuelson and Solow – the natural rate of unemployment hypothesis; Tobin's modified Philips curve, Adaptive expectations and rational expectations; policies to control inflation

### **Module IV: Post-Keynesian Demand for Money**

Post – Keynesian approaches to demand for money-Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin; Friedman and the modern quantity theory; Crisis in Keynesian economics and the revival of monetarism; Mundell – Fleming model-Asset markets, expectations and exchange rates; Monetary approach to balance of payments

### **Module V: Financial Market**

Nature and functions of financial market – Money market – Meaning, Characteristics and constituents, functions, structure and institutions of money market – Bankers – Weakness of Indian money market – measures for improvement – recent concepts and instruments of financial market – capital market – Sensex and Nifty – SEBI and its role

**References:**

1. Ackley, G (1978) *Macroeconomics: Theory and Policy*, Macmillan, New York
2. Blackhouse, R. and A Salansi (Eds.) (2000), *Macroeconomics and the Real World (2 Vols.)*, Oxford University Press, London
3. Branson, W.A. (1989) *Macroeconomics Theory and Policy (3<sup>rd</sup> Edition)*, Harper and Row, New York
4. Bornbusch, R. and F. Stanley (1997), *Macroeconomics*, McGraw Hill, Inc., New York
5. Hall, R.E. and J.B. Taylor (1986) *Macroeconomics* W.W. Norton, New York
6. Heijdra, B.J. and V.P. Frederick (2001), *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi
7. Jha, R. (1991) *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
8. Romer, D.L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd, New York
9. Scarfe, B.L. (1977) *Cycles, Growth and Inflation*, McGraw Hill, New York
10. Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi
11. Surrey, M.J.C. (Ed.) (1976), *Macroeconomic Theories*, Oxford University Press, Oxford.



**CORE COURSE IV**  
**MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS**

**Objective:** To familiarize the mathematical concepts relating to Economics and their applications.

**Module I: Terminology, Concepts and tools**

Addition, subtraction, multiplication and division of fractions and decimals – Constants, variables, parameters, intercepts Coefficients – Functions – inverse, general and specific functions – Equations – Applications – Demand and supply functions – Cost and revenue functions – Consumption function –IS & LM functions – Multivariable functions –Market equilibria.

**Module II: Differential Calculus**

Rules of differentiation – slopes – linear and non linear functions – partial derivatives – higher order derivatives – Young’s Theorem – Constrained & unconstrained optimization – Lagrangian Multiplier – Interpretation – Use of derivatives in economics – Maximization, minimization, elasticities - Utility function – production function – revenue, cost and profit functions (simple problems)

**Module III: Integration**

Concept-simple rules of integration-application to Consumer’s surplus & producer’s surplus-Costs & revenues

**Module IV: Matrix and Determinants**

Matrices and Determinants: Rules and applications – Cramer’s rule-Input-Output analysis: Uses.

**Module V: Linear Programming**

Basic Concepts - formulation of LP problem-feasible, basic and optimal solution – Graphic and Simplex method (Concept only) – Duality Problem – Applications of LP technique.

**References:**

1. Allen, R.G.D. (1974) *Mathematical Analysis of Economists*, Macmillan Press and ELBS, London
2. Chiang, A.C. (1986) *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York
3. Yamane, Taro (1975) *Mathematics of Economists*, Prentice Hall of India, New Delhi
4. Baumol, W.J. (1984) *Economic Theory and Operations Analysis*, Prentice Hall. Englewood Cliffs, New Jersey
5. Monga, G.S. (1972), *Mathematics and Statistics for Economists*, Vikas Publishing House, New Delhi
6. Salvatore Dominick (1992) *Mathematics for Economists*, Schaum Series

## **ELECTIVE COURSE I ENVIRONMENTAL ECONOMICS**

**Objective:** To help students to understand current issues and policies relating to physical environment.

### **Module I: Concepts**

Environment – Eco-system – Nexus between Economics and Environment – The principle of material balance – Private versus Social Cost – Entropy – Ecological balance – Sustainable development – Externalities.

### **Module II: Environmental Issues**

Environmental quality – Non-marketed goods – Regulatory – Command and Control Method – Environmentalism – Trade off between Environmental Protection and Economic Growth – Institutional Approach to Environmental Problems – Environmental Education.

### **Module III: Measurement of Environmental Values**

User values: Option values and non-use values; Valuation methods – Methods based on observed market behaviour; Hedonic property values and household production models (travel cost methods and household health production function), Methods based on response to hypothetical markets contingent valuation methods.

### **Module IV: Environment and Society**

Pollution and Environment – Impact of population growth (Trends, Sex ratio, Rural and Urban) on environment – Urbanisation and environment – Poverty and Environment – Culture and Environment – People Participation in Environmental movement.

### **Module V: Environmental Policy**

Ministry of Environment and Forest – Water Pollution (Prevention and Control) Act 1974 – Air Pollution (Prevention and Control) Act 1981 – Comprehensive Environment Bill 1986 –Recent Policy – WTO and Environment

## References:

1. Agarwal S.K. (1997) "Environmental Issues and Themes", APH Publishing Corporation, 5 – Ansari Road, New Delhi
2. Pravin Sheth (1997), "Environmentalism Policies, Ecology and Development", Rawat Publications, Jaipur and New Delhi
3. Neela Mukherjee (1997) "Participatory appraisal of Natural Resources", Concept Publications, company New Delhi.
4. Pashupathi Nath and Siddha Nath (1990), "Environmental Pollution Conservation and Planning" Chugu Publication, Alahabad, India.
5. Sumi Krishna (1996), "Environmental Politics People's lives and Development Choices" Saga Publications, New Delhi.
6. Ajit Kumar Singh (1997), "Land use Environment and Economic Growth in India", MD Publications PVT, LTD, New Delhi
7. Baumol, W.J. and W.E. Oates (1988), "The Theory of Environmental Policy" (2<sup>nd</sup> Edition) Cambridge University Press, Cambridge
8. Bromley, D.W. (Ed.) (1995) "Handbook of Environmental Economics" Cambridge University Press Cambridge
9. Fisher, AC (1981), "Resource and Environmental Economics" Cambridge University Press Cambridge
10. Hanley, N.J.F., Shorgen and B. White (197), "Environmental Economics in Theory and Practice", Macmillan
11. Hussien, A.M. (1999), "Principles of Environmental Economics", Routledge, London.
12. Jeroen, C.J.M. Van Den Bergh (1999), "Handbook of Environmental and Resource Economics", Edward Elgar Publication Ltd, UK.
13. Kolstad, C.D. (1999), "Environmental Economics", Oxford University Press, New Delhi
14. D.W. and R.Turner (1991), "Economics of Natural Resource use and Environment", John Hopkins University Press, Baltimore
15. Perman, R. Ma and J.Mc. Mivary (1996), "Natural Resource and Environmental Economics", Longman, London.
16. Sankar,U. (Ed.) (2001), "Environmental Economics", Oxford University Press, New Delhi
17. Rabindra N. Battacharya (2001), "Environmental Economics", (Ed.), Oxford University Press, New Delhi.

## **CORE COURSE V FINANCIAL ECONOMICS**

**Objective:** To gain knowledge about the linkage among financial sub markets.

### **Module I : Introduction to Financial Economics**

Objectives – Functions – Scope – Evolution – Interface of financial economics with other areas – Corporate finance

### **Module II: Time Value of Money**

Future value of single cash flow, Multiple cash flow, annuity, sinking fund factor – Present value of single cash flow – Multiple cash flow, annuity, annuity dues, perpetuities, comparison rates.

### **Module III: Sources of Long –term Finance**

Equity capital, retained earnings, preference capital, term loans, debentures, pattern of corporate financing in India.

### **Module IV: Financial Statement Analysis**

Introduction, meaning of financial analysis – Types and devices of financial analysis – Understanding financial statements: Balance sheet, Income statement. Common size analysis, trend analysis and ratio analysis - Financial ratios as perceived by commercial banks, corporate controllers, forecasting financial failure.

### **Module V: Fund Flow and Cash Flow Analysis**

Working capital – Basics of working capital – Working capital finance – Sources of working capital

### **References:**

1. Rose et.al, 1999, Fundamentals of Corporate Finance, Tata McGrawHill, New Delhi
2. Prasanna Chandra, 2001, Financial Management: Theory and Practice, Tata McGraw-Hill, New Delhi
3. Charles H. Gibson, 2001, Financial Reporting and Analysis, South Western College, Publication
4. Wild et al, 2001, Financial Statement Analysis, McGraw-Hill International.

## **CORE COURSE VI MICRO ECONOMICS II**

**Objective:** To make the students understand the fundamental theories of Microeconomics and their applications.

### **Module I: Distribution**

Neo-classical approach – Marginal productivity theory, Product exhaustion theorem, Elasticity of technical substitution, technical progress and factor shares: Theory of distribution in imperfect product and factor markets; Macro theories of distribution – Ricardo, Marx, Kalecki and Kaldor.

### **Module II: Welfare Economics**

Pigovian welfare economics: Pareto optional conditions; Value judgement; Social welfare function; Compensation principle, Inability to obtain optimum welfare – Imperfections, market failure, decreasing costs, uncertainty and non-existent and incomplete markets; Theory of Second Best – Arrow's impossibility theorem; Rawl's theory of justice - Equity – efficiency trade off.

### **Module III: General Equilibrium**

Partial and general equilibrium - Walrasian excess demand and input-output approaches to general equilibrium, existence, stability and uniqueness of equilibrium and general equilibrium, coalitions and monopolies; Production without consumption – one sector model, homogeneous functions, income distribution; Production without consumption – two sector model, relationship between relative commodity and factor prices (Stopler-Samuelson theorem), relationship between output mix and real factor prices, effect of changes in factor supply in closed economy (Rybczynski theorem), production and consumption – Contributions of Arrow and Debreu to general equilibrium analysis.

### **Module IV: Economics of Uncertainty**

Individual behaviour towards risk, expected utility and certainty equivalence approaches, risk and risk aversion – sensitivity analysis, gambling and insurance, the economics of insurance, cost and risk, risk pooling and risk spreading, mean-variance analysis and portfolio selection, optional consumption under uncertainty.

### **Module V: Competitive Firm under Uncertainty**

Factor demand under price uncertainty, the economics of search – different models, the efficient market hypothesis, stochastic models of inventory demand; Market with incomplete information, search and transaction costs, the economics of information.

## References:

1. Kreps, David M (1990) A Course in Microeconomic Theory, Princeton University Press, Princeton
2. Koutsoyiannis, A (1979), Modern Microeconomics (2<sup>nd</sup> Edition) Macmillan Press, London.
3. Layard P.R.G and A.W. Walters (1978) Microeconomic Theory, McGraw Hill, New York
4. Sen A. (1999) Microeconomics: Theory and Applications, Oxford University Press, New Delhi
5. Stigler, G (1996), Theory of Price, (4<sup>th</sup> Edition), Prentice Hall of India, New Delhi
6. Varian,H. (2000) Microeconomic Analysis, W.W. Norton, New York
7. Baumol, W.J. (1982) Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi
8. Hirshleifer, J. and A Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi
9. Da Costa, G.C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi
10. Salvatore, Domonick (1991), Micro Economic Theory, 3<sup>rd</sup> Edition, McGraw Hill, New Delhi

## **CORE COURSE VII MACRO ECONOMICS II**

**Objective:** To make the students to understand the macro economic concepts and their relevance to the economy.

### **Module I: New Classical macro economics**

The new classical critique of micro foundations, micro foundations of macro economics – the new classical approach - Policy implications of new classical approach - Empirical evidence.

### **Module II: Stabilization policy - I**

Lags in the effects of policy – role of expectations –uncertainty and economic policy – rules versus discretion – Phillips curve and the aggregate supply curve – expectations and short run Phillips curves – Friedman – Phelps argument – shifting short-run Phillips curve – trade off between inflation and employment – natural rate of unemployment.

### **Module III: Stabilization policy - II**

Okun's law –budget deficit and inflation – mechanics of financing the budget – income policies –monetarists and Keynesian models – portfolio approach – crowding out – government budget constraint – Rational expectations and short run ineffectiveness of stabilization policy – Criticisms of the rational expectations hypothesis

### **Module IV: Equilibrium and disequilibrium analysis**

Walrasian general equilibrium models – problem of consistency and invalid dichotomy – real balance effect – assessment of the significance of real balance effect – effective demand, notional demand and involuntary unemployment – price and quality flexibility – source of non instantaneous price adjustment – new Keynesianism and the theory of unemployment.

### **Module V: Macro economics in the open economy**

Application of fiscal and monetary policies in an open economy – fiscal policy and monetary policy with fixed exchange rates and flexible exchange rates – global co-operation and coordination in macro economic policy – internal and external balances – monetary approach to the balance of payment.

## References:

1. Ackley, G (1978) *Macroeconomics: Theory and Policy*, Macmillan, New York
2. Blackhouse, R. and A Salansi (Eds.) (2000), *Macroeconomics and the Real World* (2 Vols.), Oxford University Press, London
3. Branson, W.A. (1989) *Macroeconomics Theory and Policy* (3<sup>rd</sup> Edition), Harper and Row, New York
4. Bornbusch, R. and F. Stanley (1997), *Macroeconomics*, McGraw Hill, Inc., New York
5. Hall, R.E. and J.B. Taylor (1986) *Macroeconomics* W.W. Norton, New York
6. Heijdra, B.J. and V.P. Frederick (2001), *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi
7. Jha, R. (1991) *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
8. Leijonhufvud, A (1968) *On Keynesian Economics of Keynes*, OUP, Oxford
9. Romer, D.L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd, New York
10. Scarfe, B.L. (1977) *Cycles, Growth and Inflation*, McGraw Hill, New York
11. Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi
12. Surrey, M.J.C. (Ed.) (1976), *Macroeconomic Theories*, Oxford University Press, Oxford.



## **CORE COURSE VIII STATISTICS**

**Objective:** To help the students understand and apply statistical tools for research

### **Module I: Univariate Analysis**

Measures of central tendency, dispersion – standard deviation co-efficient of variation, Lorenz curve, Gini concentration ratio – Skewness (simple problems)

### **Module II: Bivariate Analysis**

Correlation, regression, simple, multiple, 1 (simple problems) – OLS – assumptions – violation of assumptions – heteroscedasticity, autocorrelation and multicollinearity (concepts only) Interpretation of Co-efficients – Introduction to multiple and non-linear regression – relation between regression and correlation coefficients – relation between  $b_{yx}$  and  $b_{xy}$  –relation between intercept and slope.

### **Module III: Probability and distributions**

Elementary probability theory, concepts, binomial – expansion, coefficient – Poisson and normal distribution – application in economics.

### **Module IV: Sampling Distribution**

Sampling distribution, standard error-testing of hypothesis – one tailed and two tailed tests – testing of means, proportions, standard deviations :  $\chi^2$ , F- ANOVA testing correlation and regression coefficients.

### **Module 5: Index numbers and Time Series**

Uses, selection of number of items, base year price relatives-Fisher's ideal index-Factor reversal test-Time reversal test-Chain index-Bas shifting –conversion of current price data into constant price data – price index numbers in India – WPI & CPI – applications – Components of time series – Moving averages-Straight line trend – Deseasonalisation of data – Seasonal Index

### **References:**

1. Gupta, S.C. (1993), Fundamentals of Applied Statistics, S.Chand & Sons, New Delhi.
2. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London
3. Chou, Y. (1975), Statistics Analysis, Holt, Reinhart and Winston, New York
4. Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
5. Nagar, A.L. and R.K. Das (1993), Basic Statistics, Oxford University Press, New Delhi
6. Salvatore, Dominick (1982), Statistics and Econometrics, McGraw Hill, New Delhi

## **ELECTIVE COURSE II RESEARCH METHODOLOGY**

**Objective:** To make the students understand the methods and steps of doing research in social sciences.

### **Module I: Basic concepts of research**

Science –its meaning and characteristics – The meaning of ‘research’ – Specific features of research in Social Sciences as opposed to Physical and Natural Sciences – Objectivity in research Sources of bias – Good evidence and true evidence – Basic categories in scientific method –Facts –Concepts – Causality – Uncertainty - Probability – Dialectical and Historical Materialism.

### **Module II: Research methods**

Methods of Research – Falsification and verification criteria (Karl Popper) – Paradigm Shift (Kuhn) – Deductive and inductive Reasoning –Steps of Scientific Method – Historical Method – Case study – Scaling Techniques – Sample surveys – Various sampling methods – Importance of proper sampling design.

### **Module III: Stages in research**

Steps in Research - Formulation of a Research problem – Guiding principles in the choice of a research topic – Role of Review of Literature – Formulation of Research Design –Model building – Hypothesis: concept, definition, formulation and testing

### **Module IV: Sources and methods of data collection**

Secondary data – some important sources: NSSO, CSO, Economic Survey, Season & Crop Report, Agricultural Census, Livestock Census, Annual survey of Industries, RBI Reports, WDR, HDR, IDR; Primary Data collection – Tools – observation, schedule, questionnaire, projective techniques – Principles underlying construction of a questionnaire – Preparation of master table – Data processing – Analytical Tables.

### **Module V: Report writing**

Report writing – Structure and General format – Style – Language punctuation, grammar, symbols – Use of footnotes, references –citations – Presentation of tables, diagrams, charts and maps – Bibliography.

## References:

1. Ghose, B.N. Scientific Method and Social Research, New Delhi, Sterling Publishers, 1982
2. Goode, W.J. & Hatt,P.K. Methods in Social Research, New York, McGraw Hill, 1952
3. Kate Turabina, Manual of style for writing dissertations, thesis and reports, University of Chicago Press, Chicago
4. Myrdal,G. Objectivity in Social Research
5. C.T. Kurien (Ed.) A Guide to Research in Economics (Sangam Publishers)
6. Wilson Gee, Social Science Research Methods (N.Y. Appleton Century Croft 1950)
7. Pauline V, Young, Scientific Social Surveys and Research
8. Parson,C.J., Thesis and Project Work
9. Karl Popper, The Logic of Scientific Discovery, (Lond, Hutchinson, 1934)
10. T.S.Kuhn, The Structure of Scientific Revolutions, (Chicago 1962)

## **CORE COURSE IX INDIAN ECONOMY**

**Objective:** To make the students understand the structure and functioning of Indian economy

### **Module I: Natural Resources and Population**

Natural Resource – Meaning and Importance - Forest resources – Energy resources – Mineral resources – Water resources – Environmental degradation – Indian population size, density and distribution – urbanization – National population policy – Human capital and its development.

### **Module II: Poverty and Unemployment**

Poverty – its dimensions, nature and causes – Poverty line: definition – Poverty alleviation programmes – Unemployment and its types – New Employment Policy in XI Plan – RLEGP – inequalities in distribution – programmes and measures – causes of income inequalities – suggested measures to redress inequalities – parallel economy: meaning, magnitude and consequences – causes and remedies.

### **Module III: Foreign Trade and WTO**

Direction and composition of foreign Trade – Balance of trade and payments – The New Economic Reforms – Partial convertibility – Foreign Direct Investment – Foreign exchange rate – Foreign exchange reserve – India's foreign Trade Policy – WTO – Features and assessment – Globalization: Features and problems – Sectoral contribution.

### **Module IV: Agricultural and Industrial Sectors**

Technological change in agriculture – Pricing of agricultural inputs and outputs – Agricultural marketing – New agricultural policy – Issues in food security, availability – Farmers suicide – Policies for sustainable irrigation – Government's investment on irrigation – Disincentive to agricultural sector – New industrial policy – Problems of corporate sector – Subsidies to corporate sector – Privatization and disinvestments – Labour market reform

### **Module V: Planning in India**

Objectives – Achievements since 1950 – Agriculture, industry and social sectors – X Plan performance to tackle poverty, inequality and unemployment – XII Plan :Overview.

## References:

1. Agrawal, A.N. (2004) Indian Economy, Wishwa Prakashan, New Delhi
2. Ahluwalia, J.J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
3. Bardhan, P.K. (9<sup>th</sup> Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi
4. Bawa, R.S. and P.S. RAikhy (Ed.) (1997), Structural Changes in India Economy, Guru Nanak Dev University Press, Amritsar
5. Brahmananda P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy: Inter – State Perspectives, Bookwell, Delhi
6. Chakravarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi
7. Dantwala, M.L. (1996), Dilemmas of Growth : The Indian Experience, Saga Publications, New Delhi
8. Datt and Sundaram (2002), Indian Economy, S. Chand & Co, New Delhi
9. Dhingra C. (2003), The Indian Economy, Sultan Chand & Sons, New Delhi
10. Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi
11. Jalan,B. (1992) The Indian Economy – Problems and Prospects, Viking, New Delhi
12. Parkh, K.S. (1999), India Development Report (Annual), Oxford University Press, New Delhi
13. Reserve Bank of India, Report of Currency and Finance (Annual)
14. Dreze, Jean and Amarta Sen (1999), India: Economic Development and Social Opportunity, OUP, New Delhi
15. Datt Ruddar and K.P.M. Sundaram (2001), Indian Economy, S.Chand & Co., New Delhi
16. Alagh, Y.K. (1995), Indian Development Planning and Policy, Vikas, New Delhi

## **CORE COURSE X INTERNATIONAL BUSINESS**

**Objective:** To make the students understand the consequences of international business on income, employment and social standards.

### **Module I: General Concepts**

Special features of international business – reasons for IB – Difference in endowments, cultures, currencies, technologies, wages, tastes, language – understanding world map – location of countries, their capital, currencies.

### **Module II: Concepts and Institutions**

Free trade versus protection – arguments for and against Laissez faire – Terms of trade – tariffs – quotas – non-tariff barriers – phyto-sanitary measures – dumping – exchange rate – foreign exchange reserves – IMF – WB – GATT-WTO – UNCTAD – SAARC – SAAPTA – ASSFTA – NAFTA – ASEAN – MNCs – BOP – BOT – FDI.

### **Module III: Foreign Trade Documents**

Need, rationale and type of documents – export & import licenses – processing of export order – pre-shipment inspection and quality control – foreign exchange formalities – excise and customs clearance – port procedures

### **Module IV: Foreign Trade Procedure**

Claiming duty drawbacks and other benefits – determination of freight – containerization – booking of cargo space – packing and marking for exports – forwarding and clearing agents and their operations – cargo insurance

### **Module V: Exports**

Role of export – selection of export products – selection of export markets – role of export houses – appointment of agents – payment of agency commission – promotion abroad – participation in trade fairs – export contracts – arbitration and dispute settlements – pre-shipment and post-shipment finance – letters of credit – EXIM bank – international capital markets foreign exchange rates.

### **References:**

1. T.A.S. Balgopal, Export Management
2. Handbook of export and import procedure
3. S.R. Ullal, Export Management
4. Paras Ram, Export, what, where and how
5. Keshkamat, Finance of foreign trade
6. G.S. Lall, Finance of foreign trade
7. Ministry of Commerce, Government of India, India's trade agreement, latest number
8. R.S. Rathore, Export Marketing
9. Economic Survey, Ministry of Finance, Government of India, latest issue

## **CORE COURSE XI INDUSTRIAL ECONOMICS**

**Objectives:** To help the students understand the basic aspects of industrial structure, finance and Labour

### **Module I: Patterns and Structure**

Process and pattern of industrialization – Industrial structure and change – Alternate patterns – Hoffman’s Hypothesis of Market Economics –Simon Kuznets’ Interpretation of secular changes in industrial development – Industrialization in Planned Economics – Key Role of Capital Goods Sector – HB Chenery’s pattern of industrial change

### **Module II: Market Structure**

Sellers’ concentration; Production differentiation; Entry conditions; Economics of scale; Market structure and profitability; Market structure and innovation; Theories of industrial location – Weber, Losch and Sargent Florence; Factors affecting location.

### **Module III: Industrial Finance**

Owned, external and other components of funds; Role, nature, volume and types of institutional finance – IDBI, IFCI, SFCs, SIDC, commercial banks, etc., Financial statement – Balance Sheet, Profit and loss account; assessment of financial soundness, ration analysis

### **Module IV: Industrial Labour**

Structure of industrial labour; employment dimensions of Indian industry; industrial legislations; industrial relations; Exit policy and Social security; Wages and problems of bonus – labour market reforms.

### **Module V: Project Planning and Appraisal**

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

### **References:**

1. Barthwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd, New Delhi
2. Cherunilam, F (1994), Industrial Economics; Indian Perspective (3<sup>rd</sup> Edition) Himalaya Publishing House, Mumbai
3. Divine, P.J. and R.M.. Jones et.al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd, London.
4. Hay, D. and D.J. Morris (1979), Industrial Economics : Theory and Evidence, Oxford University Press, New Delhi
5. Kuchhal, S.C. (1980), Industrial Economy of India (5<sup>th</sup> Edition), Chaitanya Publishing House, Allahabad
6. Singh, A. and A.N. Sadhu (1988), Industrial Economics, Himalaya Publishing Home, Bombay
7. Mamoria and Mamoria (2000) Dynamics of Industrial Relations in India (15<sup>th</sup> Edition), Himalaya Pub. House, Mumbai

## **CORE COURSE XII FISCAL ECONOMICS**

**Objective:** To help the students to understand the fiscal economic theories and practices.

### **Module I: Theory of Public Goods and Public Choice**

The economic role of government – Allocation, Growth and Stabilisation – Private goods, public goods and merit goods, Market failure-imperfections, decreasing costs, externalities, public goods; Uncertainty and non-existence of futures markets; Informational asymmetry – Theory of second best – Private and public mechanism for allocating resources; Problems of allocating resources; Problems of preference revelation and aggregation of preferences; Voting systems; Arrow impossibility theorem; An economic theory of democracy, Politico-eco-bureaucracy; Rent seeking and directly unproductive profit seeking (DUP) activities.

### **Module II: Public Expenditure**

Wagner's law of increasing state activities,; Wiesman-Peacock hypothesis, Pure theory of public expenditure; Structure and growth of public expenditures; Criteria for public investment; Social cost-benefit analysis-Project evaluation, estimation of costs, discount rate; Reforms in expenditure budgeting; Programme budgeting and zero base budgeting.

### **Module III: Taxation and Public Debt**

Theory of incidence; Alternative concepts on incidence – Allocate and equity aspects of individual taxes; Benefit and ability to pay approaches; theory of optional taxations; Excess burden of taxes Trade off between equity and efficiency – Laffer curve – Theory of measurement of dead weight losses; the problem of double taxation – The rationale behind VAT – Indian tax structure and trends

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; principles of debt management and repayment

### **Module IV: Fiscal Policy**

Objectives of fiscal policy - Budgetary procedure - Budgetary deficit and its implication; fiscal policy for stabilization-automatic vs. discretionary stabilization; Alternative measures of resource mobilization and their impact on growth, distribution and prices; Balanced budget multiplier-Meaning and significance of budgetary terms; revenue account, capital account, fiscal deficit and other types of deficit – recent Budget.



## **Module V: Fiscal Federalism**

Principles of multi-unit finance; Fiscal federalism in India; Vertical and horizontal imbalance; Assignment of function and sources of revenue; Constitutional provisions; finance Commission and Planning Commission; Devolution of resources and grants; Theory of grants; resource transfer from Union to States – Criteria for transfer of resources; Centre-State financial relations in India; Problems of state's resources and indebtedness; Transfer of resources from union and State to local bodies.

### **References:**

1. Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York
2. Auerbach, A.J. and M. Feldstern (Edn.) (1985), Handbook of Public Economics, Vol. I, North Holland, Amsterdam.
3. Buchanan, J.M. (1970), The Public Finances, Richard D, Irwin, Homewood
4. Goode,R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi
5. Houghton, J.M. (1970), The Public Finance; Selected Readings, Penguin, Harmondsworth
6. Jha,R. (1998), Modern Public Economics, Routledge, London
7. Menutt,P. (1996), The Economics of Public Choice, Edward Elgar, U.K.
8. Musgrave, R.A. (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo
9. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo
10. Shoup, C.S. (1970), Public Finance, Aldine, Chicago
11. Shome,P. (Ed.) (1995), Tax Policy; Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.
12. Srivastava, D.K. (Ed.) (2000), Fiscal Federalism in India, Har Anand Publishers, New Delhi
13. Reports of various Finance Commissions

## **ELECTIVE COURSE III PROJECT APPRAISAL**

**Objective:** To help the students to understand the steps and methods of project appraisal.

### **Module I: Introduction**

Capital expenditure – importance and difficulties – objectives, resource allocation – Criteria – Investment strategic– Generation and screening of investment ideas.

### **Module II: Project Analysis**

Market and demand analysis – Technical analysis – Financial analysis – Economic viability – Technical feasibility – Social acceptability.

### **Module III: Selection of Project**

Project cash flows – Appraisal criteria – Pay back period – Rate of Return – Discount cash flow methods – NPV, IRR – Calculation of IRR for two years and more – Risk analysis – Types and measures of risk – Sensitivity analysis – Scenario analysis – Decision tree analysis – Uncertainty – Stochastic dominance

### **Module IV: Special Decision Situations**

Choice between mutually exclusive projects of unequal life – Optional timing – determination of economic life – Interrelationship between investment and financing aspects – Price index numbers and capital budgeting comparison of time series data – Deflating.

### **Module V: Implementation**

Project organization – Project planning – Project control – Pre-requisites for successful project implementation – Network techniques – Development of Project net work – Time estimation – Scheduling – PERT –CPM – Network cost system – Project evaluation – Accounting, Economic and Social costs and benefits – Abandonment analysis – Administrative aspects in capital budgeting.

### **References:**

1. Prasanna Chandra, Projects; Planning, Analysis, Selection, Implementation and Review, Tata McGraw Hill.
2. Clark J.C. et al., Capital Budgeting: Planning and Control of Capital Expenditure, Prentice Hall.
3. Little I M D and S A Mirlees, Project Appraisal and Planning for Developing Countries, Heimann, London
4. Marghin E. and A.K. Sen, Guideline for Project Evaluation, UNIDO, New York
5. Bhavesh M Patel, Project Management, Vikas Publishing House New Delhi

## **CORE COURSE XIII ECONOMICS OF GROWTH AND DEVELOPMENT**

**Objective:** To make the students to understand the concepts of growth and development and their implications on the economy.

### **Module I: Economic Growth and Development**

Economic Growth and development – Factors affecting economic growth and development – Basic social and economic structure - Sustainable development – social and economic environmental balances.

### **Module II: Economic Growth Models**

Growth models-Harrod and Domar, Neoclassical growth models – Solow and Meade, Mrs. Joan Robinson’s growth model; criticism of Neo-classical analysis of growth, the capital controversy - Technical Progress – embodied and disembodied technical progress; Kaldor and Pasinetti models.

### **Module III: Social and Institutional Aspects of development**

Development and underdevelopment – Poverty – Absolute and relative measure development and development gap – inequality of income, human development index and other indices of development and quality of life – Food security, education, health and nutrition; Human resource development; Theory of demographic transition, Population as limits to growth and as ultimate source – Population, poverty and environment; economic development and institutions

### **Module IV: Theories of Development**

Classical theory of development – contributions of Adam Smith, Ricardo, Malthus and James Mill Karl Marx and development of capitalist economy – theory of social change, surplus value and profit; immutable laws of capitalist development; crisis in capitalism – Schumpeter and capitalist development; innovation-role of credit, profit and degeneration of capitalism

### **Module V: 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, critical minimum effort thesis, low income equilibrium trap; Dualism-technical, behavioural and social; Ranis and Fei model

**References:**

1. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford
2. Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics Vol.3, Elsevier, Amsterdam
3. Chenery, H. and T.N. Srinivasan (Eds.) (1989) Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam
4. Ghatak, S. (1986), An Introduction of Development Economics, Allen and Unwin, London
5. Gimmell, N. (1987), Surveys in Development Economics, Blackwell, Oxford
6. Kindleberger, C.P. (1977), Economic Development, (3<sup>rd</sup> Edition), Mc Graw Hill, New York
7. Meier, G.M. (1995), Leading Issues in Economic Development, (6<sup>th</sup> Edition), Oxford University Press, New Delhi
8. Myint, Hla (1965), The Economics of Underdeveloped Countries, Preager, New York
9. Todaro, M.P. (1996) (6<sup>th</sup> Edition), Economic Development, Longman, London
10. Thirwal, A.P. (1999), (6<sup>th</sup> Edition), Growth and Development, Macmillan, U.K.

## **CORE COURSE XIV ECONOMICS OF NATURAL RESOURCES**

**Objective:** To enable the students to understand the different types of natural resources and their uses for economic development.

### **Module I: Natural Resources: Uses and misuses**

Land, Water, Air – Mining, petroleum extraction, fishing, forestry – Energy – Pollution: Meaning and forms: Domestic, Solid Waste, Health and Sanitation and Unsafe Drinking Water, Industrial: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution - Soil erosion– Deforestation.

### **Module II: Nexus between Economics and Natural Resources**

Material balance principle – Externalities and market inefficiency - Pareto optimal provision of public goods – Lindahl's equilibrium - Common property resources.

### **Module III: Natural Resource Management and Sustainable Development**

Theories of optimal use of exhaustible and renewable resources; Issues in biodiversity – Environment and development trade off - Sustainable development: Concept, Significance and Indicators - Macroeconomic policies on natural resources – water, air, land, copper, gold, silver, diamond, iron, lead, limestone, oil, salt, tin and uranium.

### **Module IV: Natural Resource Problems in India**

Mechanism for environment regulation in India; Environmental laws and their implementation - Policy instruments for controlling water and air pollution and forestry policy - People's participation in the management of common and forest lands - Social forestry – Rationale and benefits

### **Module V: Environmental Policy and Environmental Education**

Environmental externalities – Pigouvian taxes and subsidies - marketable pollution permits and mixed instruments - Coase's bargaining solution and collective action- Environmental institutions and movements – Environmental Education: Concept and Significance.

## References:

1. Baumol, W.J. and W.E. Oates (1988), "The Theory of Environmental Policy" (2<sup>nd</sup> Edition) Cambridge University Press, Cambridge
2. Bromley, D.W. (Ed.) (1995) "Handbook of Environmental Economics" Cambridge University Press Cambridge
3. Fisher, AC (1981), "Resource and Environmental Economics" Cambridge University Press Cambridge
4. Hanley, N.J.F., Shorgen and B. White (197), "Environmental Economics in Theory and Practice", Macmillan
5. Hussen, A.M. (1999), "Principles of Environmental Economics", Routledge, London.
6. Jeroen, C.J.M. Van Den Bergh (1999), "Handbook of Environmental and Resource Economics", Edward Elgar Publication Ltd, UK.
7. Kolstad, C.D. (1999), "Environmental Economics", Oxford University Press, New Delhi, D.W. and R.Turner (1991), "Economics of Natural Resource use and Environment", John Hopkins University Press, Baltimore
8. Perman, R. Ma and J.Mc. Mivary (1996), "Natural Resource and Environmental Economics", Longman, London.
9. Sankar,U. (Ed.) (2001), "Environmental Economics", Oxford University Press, New Delhi
10. Adisheshaiah, Malcom,S. (Ed)(1987), Economics of Environment, Lancer International, New Delhi.
11. E.F. Schumacher, (1974), Small is beautiful, ABACUS, London
12. Joseph Pearce (2001), Small is still Beautiful, Harper Collins, London

## **ELECTIVE COURSE IV MANAGEMENT INFORMATION SYSTEMS**

**Objective:** To help the students understand the uses of Information Technology for Business.

### **Module I: Foundation Concepts**

Information system (IS) and technologies – Importance of IS – System concepts – Feedback and control – Components of an IS – IS resources: people, hardware, software, data, network – IS activities: processing, storage, control – Role of IS application – Trends in IS – Types of IS – Managerial challenges – Real world cases.

### **Module II: Competing with Information Technologies**

Strategic IT – Strategic links in the supply chain – Competitive strategy concepts – Strategic uses of IT – Value chain and strategic IS – Using IT for strategic advantage – improving business quality – Real world cases.

### **Module III: Information Technologies**

Managing data resources – Types of data bases :operational, distributed, external, hypermedia db – data warehouses – data mining – db management software – db interrogation – db maintenance – data resource management – challenges – db structures – hierarchical, network, relational, multidimensional, object oriented – Telecommunication and networks – Trends; industry, technology, business application – Internet applications – Business use of interest Real world cases.

### **Module IV: Business Applications**

Functional business systems – Target marketing – IT in business – Marketing systems: interactive marketing, targeted marketing – sales for automation – Manufacturing systems: integrated manufacturing, process control, machine control – Human Resource Systems: HRM and internet, HRM and corporate sector – staffing and training – Real world cases.

### **Module V: Management Challenges**

Security and ethical challenges – ethical responsibility of business professionals: business ethics technology ethics, ethical guidelines – computer crime: hacking, cyber theft, unauthorized use at work, software privacy, piracy of intellectual property, viruses and worms – privacy issues – Other challenges: employment, monitoring, working conditions – Health issues.

**References:**

1. James A.O'brien, 2006, Management Information Systems, Tata McGraw Hill Edition, New Delhi
2. Gerald V. Post & David L. Anderson, 1999, Management Information Systems, Tata McGraw Hill Edition, New Delhi
3. C.S.V. Murthy, 2000, Management Information Systems, Himalaya Publication, Mumbai
4. D.P. Goyal 2000, Management Information Systems, Macmillan Delhi



**ELECTIVE COURSE V**  
**COMPUTER APPLICATIONS IN ECONOMICS (updated on 16-11-2016)**  
**(THEORY ONLY)**

**Objectives:**

1. To enable the students to understand the fundamentals of computers, the MS Word, MS Excel, MS Power Point and Internet.
2. To motivate the students to learn the application of most up-to-date technology in the discipline (Economics).

**Module I : Fundamentals of Computer**

Basic concepts and components of a computer – CPU, input – output devices –bit, byte, data storage, retrieval, hard disk – computer networking and resources sharing – hardware & software.

**Module II: Operating System**

Disk Operating System, Windows & LINUX [Basic ideas only] – operating systems.

**Module III: MS Word & MS Power Point**

Introduction : overview, basic terminology – tool bars, scrolling, word processing, formatting text and document – tabs and sorting – working with graphics, templates – creating a slide show – opening and closing presentations.

**Module IV: MS Excel and Software Packages**

Working with data – managing Excel workbooks & worksheets – formulas and functions – formatting data – creating charts – uses of SPSS for univariate & multivariate analyses.

**Module V: World Wide Web**

Internet basics – search engines – opening e-mail id – downloading text from internet – uses of internet for business and commercial activities.

**References:**

1. Sanders, D.H (1988) Computers Today, McGraw Hill (3<sup>rd</sup> Edition) New York
2. Sinha, (1992), Computer Fundamentals, BPB Publications, New Delhi.
3. Rajaraman V (1996), Fundamentals of Computers, (Prentice Hall of India, New Delhi)
4. Lipschultz M.M and S. Lipschultz (1982) Theory and Problems and Data Processing, Schaum Outline Series, McGraw Hill, New Delhi.
5. Leon and Leon, Internet Basics.
6. Dhanasekaran K, Computer Application in Economics [2010] Vrinda Publications, New Delhi.

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