BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI – 620 024
M.A. Applied Economics – Revised Course Structure under CBCS
(For the candidate admitted from the academic year 2008-2009 onwards)

Semester	Course	Course Title	Ins. Hrs / Week	Credit	Exam Hrs	Marks Int.	Marks Ext.	Total
I	Core Course – I (CC)	Micro Economics Analysis – I	6	5	3	25	75	100
	Core Course – II (CC)	Macro and Monetary Economics I	6	5	3	25	75	100
	Core Course – III (CC)	Mathematical Methods for Economic Analysis	6	5	3	25	75	100
	Core Course – IV (CC)	Public Economics	6	4	3	25	75	100
	Core Course – V (CC)	Statistical Methods for Economic Analysis	6	5	3	25	75	100
		Total	30	24				
II	Core Course – VI (CC)	Micro Economic Analysis - II	6	4	3	25	75	100
	Core Course – VII (CC)	Macro and Monetary Economics II	6	4	3	25	75	100
	Core Course – VIII (CC)	International Economics	6	4	3	25	75	100
	Core Course – IX (CC)	Agricultural Economics	6	4	3	25	75	100
	Elective Course – I (EC)	Computer Applications in Economics	6	4	3	25	75	100
		Total	30	20				
III	Core Course – X (CC)	Economics of Growth and Development	6	4	3	25	75	100
	Core Course – XI (CC)	Environmental Economics	6	4	3	25	75	100
	Core Course – XII (CC)	Industrial Economics	6	4	3	25	75	100
	Elective Course – II (EC)	Econometrics	6	4	3	25	75	100
	Elective Course – III (EC)	Indian Economic Development	6	4	3	25	75	100
		Total	30	20				
IV	Core Course – XIII (CC)	Research Methodology	6	4	3	25	75	100
	Core Course – XIV (CC)	Economics for Competitive Examination	6	4	3	25	75	100
	Core Course – XV (CC)	Project Work Viva voce 20 marks Dissertation 80 marks	6	10	-	-	-	100
	Elective Course - IV (EC)	Personnel Management	6	4	3	25	75	100
	Elective Course - V (EC)	Advertising Management	6	4	3	25	75	100
		Total	30	26				
			120	90				2000

CORE COURSE – I - MICRO ECONOMIC ANALYSIS – I

Module-1 : 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-2 : 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 progress and production function; Cobb-Douglas, CES, VES and Translog 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 - 3 : 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 - 4 : Monopolistic Competition and Oligopoly Models

Monopolistic competition – general and Chamberline 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 and basing point price system) models; Price and output determination under monopsony and bilateral monopoly; Workable competition – Structure, conduct and performance norms – Concept of Contestable Market and global competition (Baumol).

Module - 5 : 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; Behavioural model of the firm; Game theoretic models.

Reference:

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

CORE COURSE - II - MACRO AND MONETARY ECONOMICS–I

Module -1 : 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 -2 : Consumption Function

Keyne's 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 -3 : Investment function

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

Module -4 : 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 -5 : 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.

Reference:

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), Macroeconomic Theory and Policy, (3rd 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. Fredericck (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 Themes, Oxford University Press, Oxford.

CORE COURSE III - MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS

Module -1 : Terminology, Concepts and tools

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 -2 : 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 -3 : Integration

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

Module -4 : Matrices

Fundamentals of linear algebra-martix, solving equations- Crammer's rule-Uses-Input-output analysis.

Module -5 : Linear Programming

Basic Concepts, formulation of an LP problem-feasible, basic and optimal solution-graphic and simplex methods-formulation of the dual of a programme and its interpretation-Applications of LP technique.

Reference:

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 for 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.

CORE COURSE - IV - PUBLIC ECONOMICS

Module -1 : 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 -2 : Public Expenditure

Wagner's law of increasing state activities; Wiesman-Peacock hypothesis; Pure theory of public expenditure; Structure and growth of public expenditure; 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 -3 : Taxation and Public Debt

Theory of incidence; Alternative concepts on incidence– Allocative and equity aspects of individual taxes; Benefit and ability to pay approaches; theory of optimal taxation; 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 -4 : Fiscal Policy

Objectives of fiscal policy-full employment, anti-inflation, economic growth, redistribution of income and wealth; interdependence of fiscal and monetary policies; Budgetary deficit and its implications; 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; Budget Estimate, and Revised Estimate – Plan and non-plan expenditures.

Module -5 : 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.

Reference:

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 (Eds.) (1985), Handbook of Public Economics, Vol.1, 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, Kogakhusa, 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.

CORE COURSE - V - : STATISTICAL METHODS FOR ECONOMIC ANALYSIS

Module -1 : Univariate Analysis

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

Module -2 : Regression Analysis

Correlation, regression, simple, multiple, linear (simple problems) – OLS-assumptions-violation of assumptions - heteroscedasticity, autocorrelation and multicollinearity (concepts only). Interpretation of Co-efficients-Introduction to non-linear regression.

Module -3 : Probability and distributions

Elementary probability theory, concepts, binomial, Poisson and normal distribution.

Module -4 : Sampling Distributions

Sampling distribution, standard error-testing of hypothesis: $\chi2$, 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-Base shifting –conversion of current price data into constant price data- price index numbers in India – Components of time series - Moving averages-Straight line trend-Deseasonalisation of data – Seasonal Index.

Reference:

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.

CORE COURSE VI : MICRO ECONOMIC ANALYSIS – II

Module -1 : 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 – Ricardian, Marxian, Kalecki and Kaldor's.

Module - 2 : Welfare Economics

Pigovian welfare economics; Pareto optimal 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 - 3 : 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 (Stolper-Samuelson theorem), relationship between output mix and real factor prices, effect of changes in factor supply in closed economy (Rybczynski theorem), production and consumption – Introduction of contributions of Arrow and Debreu to General equilibrium analysis.

Module - 4 : 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, optimal consumption under uncertainty.

Module – 5 : 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.

Reference:

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

CORE COURSE - VII - MACRO AND MONETARY ECONOMICS–II

Module -1 : Neo-Classical and Keynesian Synthesis

Neo –Classical and Keynesian views on interest; the IS –LM model; 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.

Module -2 : 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.

Module -3 : Macroeconomics in an Open economy

Mundell-Fleming model-Asset markets, expectations and exchange rates; Monetary approach to balance of payments.

Module - 4 : 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 -5 : New Classical macro economics

The new classical critique of micro foundations, the new classical approach; Policy implications of new classical approach-empirical evidence.

Reference:

1. Ackley, G. (1978), <u>Macroeconomics : Theory and Policy</u>, Macmillan, New York.

2. Blackhouse, R. and A. Salansi (Eds.) (2000), <u>Macroeconomics and the Real World</u> (2 Vols.), Oxford University Press, London.

3. Branson, W.A. (1989), <u>Macroeconomic Theory and Policy</u>, (3rd Edition), Harper and Row, New York.

4. Bornbusch, R. and F. Stanley (1997), <u>Macroeconomics</u>, McGraw Hill, Inc., New York.

5. Hall, R.E. and J.B. Taylor (1986), <u>Macroeconomics</u>, W.W. Norton, New York.

6. Heijdra, B.J. and V.P. Fredericck (2001), <u>Foundations of Modern Macroeconomics</u>, Oxford University Press, New Delhi.

7. Jha, R. (1991), <u>Contemporary Macroeconomic Theory and Policy</u>, Wiley Eastern Ltd., New Delhi.

8. Romer, D.L. (1996), <u>Advanced Macroeconomics</u>, McGraw Hill Company Ltd., New York.

9. Scarfe, B.L. (1977), <u>Cycles, Growth and Inflation</u>, McGraw Hill, New York.

10. Shapiro, E. (1996), <u>Macroeconomic Analysis</u>, Galgotia Publications, New Delhi.

11. Surrey, M.J.C. (Ed.) (1976), <u>Macroeconomic Themes</u>, Oxford University Press, Oxford.

CORE COURSE - VIII - INTERNATIONAL ECONOMICS

Module - 1 : Theory of International Trade

The pure theory of international trade – Theories of absolute advantage, comparative advantage and opportunity costs, modern theory of international trade; Theorem of factor price equalization; Empirical testing of theory of absolute cost and comparative cost – Leontief Paradox – Heckscher-Ohlin theory of trade. Kravis and Linder theory of trade, Role of dynamic factors, i.e., changes in tastes, technology and factor endowments in explaining the emergence of trade; The Rybczynski theorem – concept and policy implications of immiserizing growth; Causes of emergence and measurement of intra-industry trade and its impact on developing economies.

Module - 2 : Measurement of Gains and Theory of Interventions

Measurement of gains from trade and their distribution; Concepts of terms of trade, their uses and limitations; Hypothesis of secular deterioration of terms of trade, its empirical relevance and policy implications for less developed countries; Trade as an engine of economic growth; Welfare implications – Empirical evidence and policy issues; The Theory of Interventions (Tariffs, Quotas and non-tariff barriers); Economic effects of tariffs and quotas on national income, output, employment, terms of trade, income distribution; Balance of payments on trading partners both in partial and general equilibrium analysis. The political economy of non-tariff barriers and their implications; nominal, effective and optimum rates of tariffs – their measurement, impact and welfare implications; Trade under imperfectly competitive market.

Module -3 : Balance of Payments

Meaning and components of balance of payments; Equilibrium and disequilibrium in the balance of payments; The process of adjustment under systems of gold standard, fixed exchange rates and flexible exchange rates; Expenditure-reducing and expenditure-switching policies and direct controls for adjustment; Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes; Foreign trade multiplier with and without foreign repercussions and determination of national income and output; Relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in developing countries.

Module - 4 : Globalisation : Trends and Implications

Rise and fall of gold standard and Bretton-woods system; Need, adequacy and determinants of international reserves; Conditionality clause of IMF; Emerging International Monetary System with special reference to developing countries; Reform of the International Monetary System, India and developing countries.

Theory of short-term capital movements (FDI and FII) and East-Asian Crisis and lessons for developing countries; International trade and financial institutions – Role of GATT/WTO (TRIPS, TRIMS), UNCTAD, IMF, World Bank and Asian Development Bank – Their achievements and failures; WTO and World Bank from the point of view of India.

Module -5 : Trade Policies in India

Trade problems and trade policies in India during the last five decades; Recent changes in the direction and composition of trade and their implications; Rationale and impact of trade reforms since 1991 on balance of payments, employment and growth. Problems of India's international debt; Working and regulations of MNCs in India; Instruments of export promotion and recent import and export policies and agenda for future.

Reference:

1. Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge
   University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New
York.
3. Chacholiades, M. (1990), International Trade : Theory and Policy, McGraw Hill,
   Kogakusha, Japan.
4. Dana, M.S. (2000), International Economics : Study, Guide and Work Book,
   (5th Edition), Routledge Publishers, London.
5. Dunn, R.M. and J.H. Mutti (2000), International Economics, Routledge, London.
6. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
7. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
8. King, P.G. (1995), International Economics and International Economic Policy : A
   Reader, McGraw Hill International, Singapore.
9. Krugman, P.R. and M. Obstfeld (1994), International Economics : Theory and Policy,
   Glenview, Foresman.
10. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J.,
New York.
11. Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.
12. Joshi, V. and I.M.D. Little (1998), India's Economic Reforms, 1991-2000, OUP, New
Delhi.

CORE COURSE – IX – AGRICULTURAL ECONOMICS

Module -1 – Nature and Scope of Economics

Agricultural development – A prelude to industrialization – Role of agriculture in Indian
Economy - Agricultural development under Five Year Plans – Productivity in agriculture
– Causes for low products

Module -2 – Structural and Institutional changes in agriculture

New agriculture strategy – New Economic policy and agriculture – Mechanisation –
Advantages and Limitations – Farm size and efficiency – Land Reforms – Measures –
Progress – Suggestions for improvement

Module -3 – Agricultural Finance and Agencies

Capital formation in agriculture – Sources of Agricultural Finance – Rural indebtedness –
causes – Debt relief activities – Role of Rural credit institutions.

Module -4 – Agricultural Marketing

Present state of agricultural Marketing – Role and Functions of efficient marketing system – Marketable surplus – Agricultural price policy – Regulated Markets – Co-operative marketing – Procurement and Public distribution

Module - 5

Problem of Agricultural Labour – causes for poor conditions of agricultural labour – Problem of Unemployment and under employment – Government measures.

Study Materials

1. Bishop & Toussanit – Introduction to Agr. Eco. Analysis   Toppan Com., Ltd.,
2. Dhingra I.C.   – Indian Economy   S.Chand & Com.
3. Mellor J.W.   - The Eco Agricultural Eco Analysis   Toppan Com.,Ltd.,
4. Memoria   - Agricultural problem of India   Kitab mabul
5. Sadhu & Singh   - Fundamentals in Agriculture

.Journals

1. **Economic and Political weakly**
2. **Indian Economic Journal**
3. **Kurukshetra – Rural Development Department**
4. **Statistical outline of India Tata Services Ltd., Bombay**
5. **Yojana**

ELECTIVE COURSE I – COMPUTER APPLICATIONS IN ECONOMICS

Module -1 : Introduction to Computers

Evolution, Generations and classification of computers – Hardware and Software – CPU and its functions – Input and Output devices – Application of computers in Economics and Business.

Module -2 : Operating Systems

Simple DOS commands – fundamentals of window operating.

Module -3 : Word Processing

Word basics – formatting text and document – working with headers, footers and footnotes – Tabs, tables and sorting – working with graphics – Templates and wizards – creating macros and menus – mail merge.

Module -4 : Spreadsheets and Statistical Packages

Excel basic – Arranging worksheets – functions – chart and its features – graphics – command macros – worksheet as database – what if projects. 8PSS – operation – regressions – ANOVA.

Module -5 : World wide WEB

Internet basics – Browsing Internet-using search engines – opening E-mail ID, sending and checking E-mail – downloading text from Internet.

Reference:

1. Sanders, D.H. (1988), Computers Today, McGraw Hill (3rd 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. Lipschutz, M.M. and S. Lipschultz (1982), Theory and Problems of Data Processing, Schaum's Outline Series, McGraw Hill, New Delhi.
5. Leon and Leon, Internet Basics.

CORE COURSE X - ECONOMICS OF GROWTH AND DEVELOPMENT

Module -1 : Economic Growth-1
Economic Growth and development- Factors affecting economic growth: 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.

Module -2 : Economic Growth -II
Technical Progress-embodied and disembodied technical progress; Hicks, Harrod; learning by doing, production function approach to the economic growth; Growth models of Kaldor and Pasinetti, optimal savings and Ramsay's rule, golden rule accumulation, Tobin, Patinkin and Jhonson endogenous growth; Intellectual capital of learning, education and research;

Module -3 : 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 -4 : 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 -5 : 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;

Reference:

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), <u>Surveys in Development Economics</u>, Blackwell, Oxford.
6. Kindleberger, C.P. (1977), <u>Economic Development</u>, (3rd Edition), McGraw Hill, New York.
7. Meier, G.M. (1995), <u>Leading Issues in Economic Development</u>, (6th Edition), Oxford University Press, New Delhi.
8. Myint, Hla (1965), <u>The Economics of Underdeveloped Countries</u>, Preager, New York.
9. Todaro, M.P. (1996), (6th Edition), <u>Economic Development</u>, Longman, London.
10.Thirwal, A.P. (1999), (6th Edition), <u>Growth and Development</u>, Macmillan, U.K.

CORE COURSE - XI - ENVIRONMENTAL ECONOMICS

Module -1 : Nexus between Economics and Environment

Material balance principle- resilience and carrying capacity- Externalities and market inefficiency – externalities as missing markets; Property rights and externalities, non-convexities and externalities; Pareto optimal provision of public goods – Lindahl's equilibrium, preference revelation problem and impure and mixed public goods, common property resources.

Module -2 : The Theory of Environmental Policy

Environmental externalities – Pigouvian taxes and subsidies, marketable pollution permits and mixed instruments (the charges and standards approach), Coase's bargaining solution and collective action; Informal regulation and the new model of pollution control, Monitoring and enforcement of environmental regulation, Environmental institutions and grass root movements; Global environmental externalities and climatic change – Tradable pollution permits and international carbon tax, Trade and environment in WTO regime.

Module -3 : Economics of Natural Resource Management and Sustainable Development

Theories of optimal use of exhaustible and renewable resources; Issues in biodiversity-Environmental and development trade off and the concept of sustainable development; Integrated environmental and economic accounting and the measurement of environmentally corrected GDP; Macroeconomic policies and environment.

Module -4 : 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 -5 : Environmental and 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; The institutions of joint forest management and the joint protected area management; Social forestry – rationale and benefits.

Reference:

1. Baumol, W.J. and W. E. Oates (1988), <u>The Theory of Environmental Policy,</u> (2nd Edition) Cambridge University Press, Cambridge.
2. Bromely, D.W. (Ed.) (1995), <u>Handbook of Environmental Economics,</u> Cambridge University Press, Cambridge.
3. Fisher, A.C. (1981), <u>Resource and Environmental Economics,</u> Cambridge University Press, Cambridge.
4. Hanley, N. J. F. Shogern and B White (1997), <u>Environmental Economics in Theory practice</u> Macmillan.
5. Hussen, A.M. (1999), <u>Principles of Environmental Economics, Routledge,</u> London.
6. Jeroen, C.J.M Van Den Bergh (1999), <u>Handbook of Environmental and Resource Economics,</u> Edward Elgar Publication Ltd., U. K.
7. Kolstad, C.D. (1999), <u>Environmental Economics,</u> Oxford University Pearce, D.W. and R. Turner (1991), <u>Economics of Natural Resource Use and Environment</u>, John Hopkinns University Press, Baltimore.
8. Perman, R. Ma and J. McMivary (1996), <u>Natural Resource and Environmental Economics,</u> Longman, London.
9. Sankar, U. (Ed.) (2001), <u>Environmental Economics</u> Oxford University Press, New Delhi.
10. Adiseshaiah, Malcolm. S (Ed.) (1987), <u>Economics of Environment,</u> Lancer International, New Delhi.

CORE COURSE - XII - INDUSTRIAL ECONOMICS

Module -1 : Patterns and Structure

Process and pattern of industrialisation – Industrial structure and change – Alternate patterns – Hoffman's Hypothesis of Market Economies – Simon Kuznets' Interpretation of secular changes in industrial development – Industrialisation in Planned Economies – Key Role of Capital Goods Sector – HB Chenery's pattern of industrial change.

Module -2 : Market Structure

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

Module -3 : 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, ratio analysis.

Module 4 : Industrial Labour

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

Module -5 : Project Planning and Appraisal

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

Reference:

1. Barthwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi.

2. Cherunilam, F. (1994), Industrial Economics : Indian Perspective (3rd 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 (5th Edition), Chaitanya Publishing House, Allahabad.

6. Singh, A. and A.N. Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay.

7. Mamoria and Mamoria (2000), Dynamics of Industrial Relations in India (15th Edition), Himalaya Pub. House, Mumbai.

ELECTIVE COURSE II – ECONOMETRICS

Module – 1 : Introduction

Econometrics – definition – objectives, characteristics and scope of Econometrics – Limitations – Tools and methods of study-economic and econometric models – Time series and cross section models.

Module - 2 : Statistical Inferences

Properties of estimators – methods of estimation-least squares estimation – Maximum likelihood estimation – Testing of Hypothesis.

Module - 3 : Single Equation Models

Simple Regression-least squares estimation-standard error-Hypothesis testing – confidence interval – two variable non-linear relationship – multiple regression – Gauss Markov Theorem – Testing of Hypothesis and Confidence intervals - problems.

Module - 4 : Problems in OLS Estimation

Autocorrelation – multi co linearity – heteroscedasticity – specification problem and bias – errors in variables – dummy variables – lag models – problems.

Module - 5 : Simultaneous Equations

Simultaneous equation model – reduced form – final form – methods of identification – estimation: Indirect least squares method – two stage least squares estimation – maximum likelihood estimation.

References:

1. Damodar Gujarati, Basic Econometrics, McGraw Hill, New Delhi, 1984.

2. Singh, S.P., Parashar, K and Singh, H.P., Econometrics, S.Chand & Co, New Delhi, 1981.

3. William H. Greene, Econometric Analysis, Prentice Hall, New Hersey, 1993.

4. Koutsyiannis, A (1989), Theory of Econometrics, Macmillan, New Delhi.

5. Salvatore, Dominick, Statistics and Econometrics, Schaum Series.

ELECTIVE COURSE – III – INDIAN ECONOMIC DEVELOPMENT

Module – 1   Natural Resources and Population

Natural Resources – Meaning and Importance – Forest resources – Energy resources – Mineral resources – water resources – Environmental degradation – Indian population size, density and distribution – problem of urbanization – National population policy – the concept of Human capital and its development.

Module – 2   Poverty and Unemployment

Poverty – its dimensions, nature and causes – Poverty alleviation programmes – Unemployment and its types – New Employment Policy in X Plan – 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 – 3   Foreign Trade and WTO

Direction of foreign Trade – Balance of payments – The New Economic Reforms – India's foreign Trade Policy – WTO – Features and assessment – Globalization: Features and problems.

Module – 4   Agricultural and Industrial Sectors

Technological change in Agriculture – pricing of agricultural inputs and outputs – Agricultural marketing – New agricultural policy – issues in food security – policies for sustainable irrigation – new industrial policy – Problem of sick units – privatization and disinvestments – Labour market reform.

Module – 5   Planning in India

Objectives – achievements and shortcomings – agriculture, industry and social sectors – Plan performance to tackle poverty, inequality and unemployment.

Reference:

1. Agrawal, A.N. (2004) Indian Economy, Wishwa Prakashan, New Delhi

2. Ahluwalia, I.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. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.

4. Bawa, R.S. and P.S. Raikhy (Ed.) (1997), <u>Structural Changes in India Economy</u>, Guru Nanak Dev University Press, Amritsar.

5. Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), <u>Development Experience in the Indian Economy :</u> Inter-State Perspectives, Bookwell, Delhi.

6. Chakravarty, S. (1987), <u>Development Planning : The Indian Experience</u>, Oxford University Press, New Delhi.

7. Dantwala, M.L. (1996), <u>Dilemmas of Growth : The Indian Experience</u>, Saga Publications, New Delhi.

8. Datt and Sundaram (2002), <u>Indian Economy</u>, S. Chand & Co., New Delhi.

9. Dhigra C. (2003), <u>The Indian Economy,</u> Sultan Chand & Sons, New Delhi

10. Government of India, <u>Economic Survey</u>, (Annual), Ministry of Finance, New Delhi.

11. Jalan, B. (1992), <u>The Indian Economy – Problems and Prospects</u>, Viking, New Delhi.

12. Parkh, K.S. (1999), <u>India Development Report (Annual)</u>, Oxford University Press, New Delhi.

13. Reserve Bank of India, <u>Report of Currency and Finance</u>, (Annual).

14. Dreze, Jean and Amarta Sen (1999), <u>India : Economic Development and Social Opportunity</u>, OUP, New Delhi.

15. Datt Ruddan and K.P.M. Sundaram (2001), <u>Indian Economy</u>, S. Chand & Co., New Delhi.

16. Alagh, Y.K. (1995), <u>Indian Development Planning and Policy</u>, Vikas, New Delhi.

CORE COURSE – XIII – RESEARCH METHODOLOGY

Module -1

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 – Basic categories in scientific method – Facts – Concepts – Causality – Uncertainty – Probability – Dialectical and Historical Materialism.

Module -2

Methods of Research – Falsification and verification criterian (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 -3

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 -4

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 - 5

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

Reference:

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 – XIV – ECONOMICS FOR COMPETITIVE EXAMINATIONS

Module I: Micro and Macro

Consumer behaviour

>   Marshallian Analysis
>   Indifference Curve Analysis
>   Revealed preference Approach

Theory of Product Pricing

Production and Cost
Pure competition, Monopoly and Oligopoly
Monopolistic competition

National Income Accounting – Basis concepts Demand and Supply of Money – Price and Inflation.

Moudle II: Banking, Public Finance and Industrial Economics

Public, Private and Joint Factors – Cottage and Small Scale Industry – Sources of Industrial Finance – Industrial Policy and Location – RBI, Commercial and Co-operative Banks – Specialized and Financial and Investment Institutions – Union – State Financial relationship.

Moudle III: Agriculture, Co-operation and Rural Economics

Land Reforms – Agricultural Fomammce – Technology in agriculture – Co-operative movement in India – Role of NABARD and RRB, Economic and Social Infrastructure, Transport – Power – Education. Drinking water – Health – Sanitation – Rural Housing – Environmental Issues.

Module IV: Planning, Development and demography

Techniques and methods of Indian Five year plans – Indian population problem and policy – Urbanisation and problem of slums – Role of Women in Economic Activity – Basic Economic Indicators in India – Unemployment and Role of Trade Unions poverty analysis and alleviation schemes.

Module V: International Economic Co-operation – Export promotion and Import substitutions – New Economic Policy – Foreign Trade and Balance of Payments – Role of Multi national in India.

Study Materials:

1. I.C. Dhingra – The Indian Economy
2. Human Development Report
3. John W. Mellor – The New economics of growth
4. A strategy for India and Developing Report
5. India Year Book
6. Manorama Year Book
7. Sankaran S – Indian Economy
8. Alak Ghosh – Indian Economy

ELECTIVE COURSE IV – PERSONNEL MANAGEMENT

Module I : Personnel Management – Meaning – Scope – Importance - Characteristics - Objectives – Pre-requisites – Tools and Techniques – Functions - Classifications – Functional areas – Personnel policy – Procedures and Programmes – Organisational Structure – Personnel records – Reports – Audit and Research

Module II: Human Resource Planning – Recruitment and selection procedures – Psychological testing – Interviews – Placement and induction – Promotion – Demotion – Transfer – Separation – Absenteeism – Turnover – Training – On the job – Off the job techniques.

Module III: Job Evaluation – Objectives – Principles – Basic procedure – Advantages – Limitations – Job evaluation methods – Salary Administration purpose – Rules – Influencing factors – Wage and Salary – Good wage plan – Wage differentiates – Rewards and Incentives – Types and features – Employee Benefits and Services.

Module IV: Functions of Group dynamics – Types of groups – Characteristics – Functions and goals – Meaning and types of human needs – Objectives of motivation – Job security – Job loading – Job achievement – Quality of work – Guidelines for motivating employees and managers – Objectives of communication – Functions and responsibility of a leader – Need for grievance procedure – Aims of disciplinary action – Guidelines of a disciplinary action.

Module V: Causes and procedure for dispute settlement objectives of industrial relations – Role and objectives of Trade union – Essentials of a successful Trade union – Industrial accidents – Industrial Health – ILO'S model of Employees safety.

STUDY MATERIALS

1. Mamoria CB and Utai Pareek – Personnel Management
2. Pavar – Personnel Management
3. Agarwal R.D. – Dynamics of Personnel Management of India
4. Dale – Personnel Management

ELECTIVE COURSE V – ADVERTISEMENT MANAGEMENT

Module I: Introductory aspects of Advertisement

Meaning of advertising – Purpose and functions – Objectives and role – Advertising in Marketing Mix – Advertisings process – Economic and Social implications of Advertisement

Module II: Creativity and its role

Creativity – Meaning and sources – Development of creative strategy – Trend in creative communication – Contemporary advertising – Government Regulation – Restrictions.

Module III: Advertising strategy & Planning and Organisation – Contribution of advertising – Strategy – Level of decision making – Factors influencing organizational features – organizational approach.

Module IV: Advertising Budget and Research

Advertising budget – Advertisement as Investment – Advertisement Budget Making process – Advertisement Appropriation practices – advertising Research – Fundamentals of Qualitative and Quantitative Research

Module V: Future Trend in Advertisement

Future trend of Advertisement – Role of Advertising Agents – Competition among Agencies – Ethics and Morale of advertisement – Role of technology in advertising. Global marketing and Advertising.

References:

1. Bastia, G.R. & N.R. Sharma, (1996) Effecting Advertising Marketing and Sales Management, Mangal Deep Publication, Jaipur
2. Kumar, K.J., K.C. Sethia, G.V. Subramnian and V.G. Suchank (1999), Advertising Theory and Practice, Himalaya Publishing House, Mumbai
3. Mathur, U.C. (2002) Advertising Management, New Age International Publishers, New Delhi
4. Patel, J.S.K (1988) Salesmanship & Publicity, Sultan Chand & sons, New Delhi
5. Sontakki, C.N., (1989)Advertising, Kalyani Publishers, Ludhiana

- - -