

PROPOSED SYLLABUS - MA (Economics) (External)

(A) Compulsory Courses at M.A. (Previous) :

Paper-I	Micro-economics
Paper-II	Macro-economics
Paper-III	International Economics
Paper-IV	Industrial Organisation and Finance

(B) Compulsory Courses at M.A. (Final) :

Paper-V	Economics of Development & Planning
Paper-VI	Public Finance and Fiscal Policy
Paper-VII	Quantitative Economics
Paper-VIII	Industrial Labour

Paper I : MICRO ECONOMICS

(1) **Introduction:**

Meaning, Nature, scope and methodology of Economics; Basic economic problems : choice and scarcity; Nature and scope of economics- As a science, as an art, pure and applied; positive and normative economics; Methodology of Economics - Deductive and Inductive Methods; Static and Dynamic Analysis; Micro and Macro Analysis; Equilibrium Analysis; Model Building.

(2) **Demand Analysis:**

Utility Approach-Cardinal and ordinal - Measurement problem; Diminishing Marginal Utility and Equi-marginal utility; Indifference curve approach - characteristics, consumer's equilibrium, Hicks and Slutsky Theorems, application of indifference curve analysis in economics; Revealed preference theory; Hicks logical ordering theory; recent developments in demand theory, -Pragmatic approach, linear expenditure system; elasticities (price, cross, income, arc) of demand- theoretical aspects and measurements, application, elasticity of supply, consumer's surplus.

(3) **Theory of Production:**

Laws of Returns - The law of diminishing returns, the law of constant return, the law of increasing returns; The law of returns and public policy; ISO -quants, characteristics etc.; Diminishing marginal rate of technical substitution; Production function - characteristics of some important functions-cobb-Douglas, Quadratic, CES; Decision rules-optimum production, optimum factor combination, optimum product mix; Linear Programming

(4) **Cost and output Analysis:**

Cost concepts; short-run and long run cost - Distinction and relations between different cost curves and their analysis; U and L shapes of average cost curves; modern theory of costs; Recent developments in cost theory.

(5) **Distribution Theory (Theory of factor pricing):**

Theory of distribution : A general view; marginal productivity theory; Euler's theorem; product exhaustion problem; pricing of factors in competitive markets; pricing of factors in imperfectly competitive markets; Theories of rent, wages, interest, profit and relative distribution shares; Recent developments in the theories of distribution; Alternative macro-theory of distribution.

(6) **Theory of product pricing:**

Revenue and cost curves of the firm; Representative firm - Envelope curve; Equilibrium of firm and industry- general, Pricing of products under different markets- perfect competition, monopoly, duopoly, monopolistic competition, oligopoly, monopsony, bilateral monopoly; Theory of Games - zero sum game, decision theory.

(7) General equilibrium and welfare economics:

General equilibrium analysis - Partial and general equilibrium analysis, General equilibrium of exchange, consumption, production, General equilibrium and initial endowments; Welfare and welfare economics; positive economics and welfare economics; value judgments and welfare economics; scope of welfare economics; Pigovian welfare economics, Paretian welfare economics; compensation principle; Bergson-samuelson social welfare function, Arrow's theorem, The theory of second best; Problem of external effect.

(8) Economics of Uncertainty:

Risk and uncertainty in the product market, consumer market and factor market.

References

- (1) Ahuja H.L., Advanced economic theory - Microeconomic Analysis, S. Chand and Company, New Delhi.
- (2) Chopra P.N., Micro economic theory and welfare economics, Kalyani Publishers, New Delhi.
- (3) Deweet K.K., Modern economic theory, S. Chand and Company, New Delhi.
- (4) Hirshleifr J. and Glazer A., Price theory and applications, Prentice Hall, New Delhi.
- (5) Koutsoyiannis A., Modern Microeconomics, Macmillan Press, London.
- (6) Prasad K.N., Lectures on micro-economic theory, Himalaya Publishing House.
- (7) Sen Anindya., Microeconomics-Theory and applications, Oxford University press, New Delhi.
- (8) Seth M.L., Principles of Economics (Micro and Macroeconomics) Lakshmi Narain Agrawal, Agra.
- (9) Stigler, Theory of price, Prentice Hall, New Delhi.
- (10) Stonier A. and Hague D., A Textbook of Economic Theory, Longman group, London.
- (11) Sundharam K.P.M. and Sundharam E.N., Economic Analysis, S. Chand and Sons, New Delhi.
- (12) Samuelson, Economics.

PAPER II : MACROECONOMICS**1. Macroeconomics and National Income Accounting:**

Macroeconomics- Methodology and subject matter- Rationale and importance of aggregative analysis- Micro foundations of macroeconomics- Limitations of Macroeconomic studies- The Classical Tradition: Say's Law- The market clearing assumptions- Macroeconomic policy- The theory of model building.

Definitions and concepts of national income- Importance of national income analysis- Measurement of national income- Keynesian approach to national income and post-

Keynesian development- Circular flow- Flow of funds- Different forms of national accounting- Social accounting- Growth and sectoral breakdown- Problems in preparation of social accounting- Input-output accounting- Balance of payment (BOP) accounting- Use of national income and product accounting.

2. **Money: Monetary Theories:**

Nature and significance of Money: a veil, a form of wealth, a liquid asset- Money and other assets- The significance of money as an asset- Money and monetary economy.

The Quantity theory of Money: The Cambridge School- Keynesian General theory- Post-Keynesian theories: Friedman & Don Patinkin- New Classical School: Rational expectations- J.R. Hicks on Classical and Keynes- Leijon Hufvud on Keynesian economics and economics of Keynes- Recent developments- Neutrality of money- Classical, Keynesian and post-Keynesian views- Conditions of neutrality- Theory of money and prices- Income theory of money and Liquidity theory of money- Redcliff approach- Savings and Investment (S & I) equality: Meaning, Classical, Keynesian and Swedish approach to S&I equality- Transmission mechanism- Integration of money and value theories- Patinkin's real balance effect- Pigou's wealth effect- Monetarism versus Fiscalism- Sources of difference and similarities- Fiscalism- Similarities.

3. **Demand for Money:**

The concept- The Transaction demand- The Asset demand for money: Keynesian and Classical approaches- Wealth approach- Post-Keynesian theories of demand for money: Baumol's Inventory approach, Tobin's Portfolio approach, Friedman's Restatement of Quantity theory, Modigliani's approach- Recent development in the theory.

4. **Supply of Money:**

The concept and constituents- Bank money and bank multiplier- Money multiplier- Exogenous and endogenous variations- Liquid assets and potential money supply- Interest rates- Financial intermediaries and money supply- Money supply and income expansion- RBI approach- Effects of money supply- High powered money- Inside and outside money- Control of money supply- Money market and money market assets/instruments- Recent developments.

5. **Monetary Equilibrium:**

Concept- Walras' theory of general equilibrium- Patinkin's reformulation of theory- Classical dichotomy.

6. **Consumption Function:**

Concept: Properties of consumption function- Keynesian Psychological Law of Consumption and its validity- The functional relationship between income and consumption- Short and long run aspects- Post-Keynesian consumption function hypotheses:

Duesenberry's demonstration effect, Friedman's permanent income hypothesis, Modigliani's life cycle theory- Multiplier: Meaning, working and importance- Leakages- Dynamic or period multiplier- Balanced budget multiplier- Multiplier in the underdeveloped countries.

7. **Theory of Investment:**

Meaning, and determinants of investment- Marginal efficiency of capital (MEC) and investment: Long and short run shifts in investment functions- Interest-elasticity of investment- Impact of inflation- Influence of policy measures on investment- Multiplier and acceleration: empirical evidence- Capital-output ratio approach.

8. **Theory of Interest:**

Interest rates and price expectations- Nominal and real interest rates- Inflationary expectations and interest rates- Theories of interest rates: Classical, Neo-Classical, Keynesian and modern IS-LM theory of rate of interest by Hicks and Hansen and its implications- Wicksellian theory- Structure of rate of interest- Asset prices and interest rates- Term structure- Income, saving and investment and rate of interest- Policy of administered interest rates- Deregulation of interest rates.

9. **Theory of Inflation:**

Concept- Sources of inflationary pressure: Demand-pull, Cost-push factors, Sectoral demand shift- International aspect of inflation- Ratchet inflation- Inflation and economic development- Inflation in less developed countries- Inflationary gap- Inflation and distribution of income- Stagflation- Control of inflation: Income policy, demand restriction, monetary policy, fiscal policy- Philips curve analysis: Relationship between unemployment and inflation- Samuelson and Solow: The natural rate of unemployment hypothesis, Tobin's modified Philips curve- Adaptive expectations and rational expectations.

10. **Monetary Policy:**

The theory of monetary policy: Meaning, instruments, indicators and targets of monetary policy- External versus internal stability- Neutral money policy- Monetary policy and full employment- Cheap money policy- International banking and monetary policy- Constant money supply approach- Long-term objectives of monetary policy- Limitations of monetary policy- Monetary versus fiscal policy- Rules versus discretion (Friedman's views)- Money and business cycles- Role of monetary policy in liberalization and market economy- Monetary policy of the Reserve Bank of India (RBI).

References:

1. Ackley, G. (1978). *Macroeconomics: Theory and Policy*, MacMillan, New York
2. Dornbusch, R. and F. Stanley (1997). *Macroeconomics*, McGraw-Hill Inc, New York.
3. Frisch, H. (1983). *Theories of Inflation*, Cambridge University Press.
4. Ghosh, B.N. and Rama Ghosh (1993). *Modern Macroeconomics: Theory and Policy*, Himalaya Publishing.

5. Gupta, S.B. (1995). Monetary Planning in India, Oxford University Press, New Delhi.
6. Gupta, G.S. (2001). Macroeconomics: Theory and Applications. Tata McGraw-Hill Publishing Company Ltd., New Delhi.
7. Gurley J. and E.S. Shaw (1960). Money in a Theory and Finance, Brookings Institution, Washington.
8. Hall, R.E. and J.B. Taylor (1986). Macroeconomics, McGraw-Hill Inc. New York.
9. Jha, R. (1991). Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
10. Laidler, D.E.W. (1977). Demand for Money: Theory and Evidence, Dum-Don Valley, New York.
11. Leijonhufwud, A. (1968). On Keynesian Economics and Economics of Kynes, Oxford University Press, London.
12. Mankiw, N.G. and D.Romer (Eds.) (1991). New Keynesian Economics, 2 Vols., MIT Press, Cambridge, Massachuttes, USA.
13. Mueller, M.G. (1966). Readings in Macroeconomics, Holt Rinehart & Winston, NY.
14. Patinkin, D. (1965). Money, Interest and Prices, Harper & Row, New York.
15. Lucas, R. (1981). Studies in Business Cycle Theory, MIT Press, Cambridge, Massachuttes, USA.
16. Taylor, L. (1983). Structuralist Macroeconomics, Basic Books, New Longman.

Paper III : International Economics

(1) International economics : The pure theory:

International economics - Importance of the study of international economics as a subject-internal trade and international trade -need for separate theory-classical absolute and comparative costs theories-refinements of the classical theory-opportunity cost approach-Hecksher- Ohlin trade mode-trade and factor prices-empirical testing of the Hecksher-Ohlin theorem-recent developments in the theory of international trade-Kravis and Linder and other theories of trade.

(2) Dynamic factors and trade:

Role of dynamic factors i.e. changes in tastes, technology and factor endowments in explaining the emergence of trade-Hicks on growth and trade-the Rybczynski Theorem-immiserising growth and policy implications - trade as an engine of growth-welfare implications and policy issues

(3) Gains from trade and terms of trade:

Gains from international trade-measurement and distribution of gains-concepts of terms of trade-their uses and limitations-factors affecting terms of trade-secular deterioration of terms of trade-

(4) The theory of intervention and integration:

Free trade vs. protection-agreements for protection-infant industry argument- tariffs, quotas-subsidies-state trading-economic effects of tariffs and quota both in partial and general equilibrium analysis-the political economy of non-tariff barriers and their implications-effective and optimum rates of tariff-tariff and income distribution - the Stolper-Samuelson theorem -trade under imperfectly competitive markets -Economic integrations-meaning-benefits and forms-theory of customs union-trade creation and trade diversion and welfare implications-the Lipsey model, the Vanek model -static and dynamic effects of a customs union- free trade areas.

(5) Economic cooperation-Trade organizations:

Forms of economic cooperation-GATT, EEC, UNCTAD -rationale and economic progress of SAARC/SAPTA and ASEAN regions-rationalism-EU,NAFTA, Multi-lateralism - WTO (TRIPS and TRIMS).

(6) Balance of payments:

Concept-mechanism-equilibrium and disequilibrium in BOP- autonomous and accommodating capital flows - cause of disequilibrium in BOP -types of disequilibrium-adjustment mechanism-Balance of payments-a policy problem- automatic adjustment - expenditure reducing and expenditure switching policies-devaluation-Marshall- Lerner condition -the absorption approach-monetary approach to the BOP-internal and external equilibrium-the Swan diagram-monetary and fiscal policy mix-Mundellian model.

(7) Foreign trade and national income:

Import function-foreign trade multiplier-international propagation of business cycles.

(8) Exchange rate:

Exchange rate-demand and supply of foreign exchange-spot and forward markets for foreign exchange-exchange rate determination theories-the purchasing power parity theory-exchange rate practices-fixed and flexible exchange rate-floating and multiple exchange rates- exchange controls

(9) International capital movements:

Factors influencing international capital movements-portfolio and direct investment-the transfer problem-the theory of direct investment

(10) International monetary system:

Functions-characteristics of a good international monetary system-Bretton wood system-Break down of the Bretton woods system-monetary system after the collapse of the Bretton woods system-proposals for reforming the system- International liquidity-Role of gold and key currencies-adequacy and problem of international liquidity-international monetary fund objectives of IMF -IMF and international liquidity-special drawing rights-

recent developments in international monetary system-the new international economic order.

(11) India's balance of payments:

Recent trends and present position-rationale and impact of trade reforms in India since 1991 on BOP, employment and growth-problems of international debt of India-multinational corporations and India-export promotion and export-financial recent EXIM Policy and agenda for future - recent developments in any of the topics.

References

- (1) Bo Sodersten and Geoffrey Reed, International Economics
- (2) Chacholiades, Miltiades, International Economics
- (3) Salvatore Dominick International Economics
- (4) C.P. Kinderberger International Economics
- (5) P.K. Roy and K.B. Kundu International Economics
- (6) Bulchandani K.R. and Ramani, Mrs. Bhagyan International Economics
- (7) Roy P.N. International trade, theory and practice
- (8) Haberler, Gottfried, Von, The Theory of International Trade
- (9) Snider Delbert A., Introduction to International Economics
- (10) Ronak C. and Verma K.N. International Economics
- (11) Gupta K.R. International Economics
- (12) Lakdawala D.T. & Shah Ramesh B. Antarrashtriya Arthasashtra (in Gujarati)

Paper - IV : INDUSTRIAL ORGANIZATION AND FINANCE

PREAMBLE

This course intends to provide knowledge to students on the basis issues such as productivity, capacity utilization and debates involved in the industrial development of India. The objective is to provide a through knowledge about the economics of industry in a cogent and analytical manner, particularly in the context.

1. Industrial development in India and its importance - Plans and industrial development.
2. Growth pattern of industrial development in India - Determinants of growth - Evaluation of growth pattern.
3. Industrial policy in India - Constraints, achievements, drawbacks, and future challenges.
4. Industries and the environment - The role of industries in environmental protection and pollution in India - Appraisal.
5. Factors governing optimum size of industries.

6. Theory of industrial location - Weber and Sargeant Lorence - Factors affecting location of industries.
7. Industrial finance - Growth and development - Problems of the Indian financial market - Evaluation.
8. Rationalization - Its aspects, advantages and disadvantages - Rationalization and Indian economy - Appraisal.
9. Industrialisation of Indian economy; Merits and demerits of industrialization.
10. New Economic Policy and major issues in industrial development in India.
11. Current economic thinking on industrial economics.

BASIC READING LIST

1. Desai, B. (1999) (3rd Edition), Industrial Economy of India, Himalaya Publishing House, Mumbai.
2. Hay, D and D.J.Morris (1979), Industrial Economics, Theory and Evidence, Oxford University Press, New Delhi.
3. Singh A. and A.N.Sadhu (1988) Industrial Economics, Himalaya Publishing House, Bombay.
4. Bhagwati J. and P Desai, (1972), India: Planning for industrialization, Oxford University Press, London.
5. Chakravarty, S. (1987) Development Planning; The Indian Experience, Oxford University Press, New Delhi.
6. Sandesara, J.C. (1972), Industrial Policy and Planning 1947-1991; Tendencies, Interpretations and Issues, Sage Publications, India Pvt., New Delhi.

MA Final (External)

Paper - V : Economics of Development and Planning

1. Economic growth and development - Concepts - Factors affecting economic growth: capital, labour, technology etc.
2. Desirability of economic growth - A critical evaluation of merits and demerits of economic growth.
3. Measurement of development: Per capital income, human development index, food security, education, health etc.
4. The Classical theory of economic development: Contributions by Adam Smith, Ricardo, Malthus and Mill.
5. The Marxian theory: The materialistic interpretation of history - Theory of surplus value - The Marxian theory and undeveloped countries.
6. The Schumpeterian theory: Schumpeter vision - Economics of capitalist development - Appraisal.

7. The theory of balanced / unbalanced growth: Nurkes' view - Criticisms of balanced growth - Balanced vs unbalanced growth.
8. Myrdal's theory of circular causation - Regional inequalities - International inequalities- A critical appraisal.
9. Growth of models in the Indian planning - All plan models.
10. Harrod - Domar model: Requirements of steady growth - Application of these models to the underdeveloped countries.
11. Meade's model of economic growth Determinants of growth - Steady and critical growth rates.
12. Solow's model: Possible growth pattern - Path of divergence - A critical evaluation.
13. Joan Robinson's model of economic growth: Open model, closed model, state of disequilibrium - Types of Golden Age.
14. Economic Planning : Introduction - Types of Planning.
15. Planning and development in India - the strategy of Indian planning - A critical appraisal
16. Gujarat State: Planning and evaluation - Planning approach at village, block, district and state level - Major issues in planning.
17. Current thinking on economic development.

BASIC READING LIST

1. Adelman, I (1961) Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Chakravarti, S. (1982) Alternative Approaches to the Theory of Economic Growth, Oxford University Press, New Delhi.
3. Chakravarti S. (1987) Development Planning: The Indian Experience, Clarendon Press, Oxford.
4. Higgins, B. (1959) Economic Development, W.W. Norton, New York.
5. Kindleberger, C.P. (1977) Economics Development, McGraw Hill, New York
6. Meier, G.M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.
7. Thriwal, A.P. (1999) Growth and Development, Macmillan U.K.

Paper - VI : Public Finance & Fiscal Policy

The course focuses on a comprehensive overview of modern public economics with a detailed discussion of the role and functions of the government in an economy, public goods, merit goods, externalities, significance of public sector enterprise, pricing and investment decisions of PSU, government expenditures, taxation theory, issues of tax incidence Among other topics the course will present a discussion of cost benefit analysis, issues of fiscal federalism. Selected issues in Indian public finance will also be discussed.

1. Introduction:

Role of government in organized society, overview of modern public economics - government in a mixed economy; public and private sector co-operation or competition government as a tool for operationalising the planning process, private goods, public goods, mixed goods, merit goods, Market failure - imperfections, decreasing costs, monopolies externalities; Pigovian corrective taxes, coasian bargaining common property resources; uncertainty & non existence of future markets, informal asymmetry.

2. Public Choice:

Private & public mechanism for allocating resources; Problems for allocating resources, problems of preference revelation and aggregation of preferences, Voting systems Arrow impossibility theorem, Market failure - provision of social goods, mixed goods, bargaining in small group, economic theory of democracy, politico-eco-bureaucracy, Rent seeking & directly unproductive profit seeking.

3. Rationale of Public Policy:

Meaning of efficiency: Allocation of resources - efficient provision of private social & mixed goods.

Samuelson's same price rule, contributions of Musgrave. Impossibility of decentralized provision of public goods social and merit goods allocation in the budget. Demand revealing schemes for public goods.

Stabilization Policy - Keynesian case, uncertainty and expectations, failure of inter temporal markets, Liquidity preference. Basic problem of instability in developing economy. Role of budgetary policy.

Distribution Policy - Meaning, does equity belong in economics, allocation or distribution: Which comes first, approaches to distributive justice, limits to re-distribution, poverty alleviation role of budgetary policy in Indian in reducing distributional inequalities & regional imbalances.

4. Economics of Public Sector Enterprises:

Role public sector enterprises in mixed economy: pricing and investment decisions, marginal cost pricing, theory of second best, Peak load pricing disinvestments.

5. Public Expenditure:

Wagner's law of increasing state activities, Peacock hypo thesis, Murgrave's views, pure theory of public expenditure, structure and growth of public expenditure. Indian experience, causes of growth; criteria for public investment; social cost benefit analysis - decision rule, fundamentals of project evaluation, types of benefits and costs & their measurement, assigning weight in project selection, discounting, risk and economic change. Programme budgeting and zero base budgeting. Reforms in expenditure management.

6. Taxation:

Meaning of tax, how taxes are different from other sources of revenue, inflation as tax, Types and Classification of taxes, canons of taxes, base of tax, Laffer curve, Benefit & ability to pay approaches of taxes, Trade off between equity and efficiency, Theory of incidence - allocative concepts, Excess burden of taxes, Theory of double taxation, Measurement of deadweight losses; taxable capacity.

7. Public Debt:

Classical view, compensatory aspect of debt policy, Burden of public debt present and future generations; sources of public debt, debt through created money price level & borrowings, crowding out of private investment & activity; problems of deficit financing; different concepts of deficits & their importance, trends of public debt in India. India's debt burden, principles of debt management & repayment.

8. Fiscal Policy:

Objectives & Instruments of fiscal policy - taxpolicy, expenditure policy and overall budget policy.

Impact of tax, expenditure and budget policies on allocation and efficiency, distribution and redistribution, stabilization and growth, interdependence of fiscal & monetary policies. Balanced budget multiple.

9. Fiscal Federalism:

Constitutional provisions, assignment of functions and source of revenue between different layers of government, principles of multi unit finance. Fiscal federalism in India features, vertical & horizontal imbalance. Devolution of resources and grants finance - Commission & Planning Commission; Resources transfers criteria, theory of grants, Center & State financial relations in India problems of state's resources & indebtedness, Resource transfers to local bodies and their role in development, Recent developments in the devolution of resources and responsibilities to local bodies. Reports of Finance Commissions.

10. Indian Experiences:

Sources of revenue of Union. States & local bodies, Indian tax system; major taxes, base of taxes, salient features of important taxes, taxation of agriculture, expenditure tax, service tax, VAT-Modvat, CENVAT, MAT, Reforms in direct and indirect taxes - Recommendations of Raja Chelliah Committee. Non tax revenue.

Budget : Its preparation, significance, analysis & discussion about recent Union & State Government budgets, fiscal sector reforms.

Basic Reading List

1. Auerbach, A. J. and M. Feldstern (Eds)(1985), Handbook of Public Economics, Vol. I, North Holland, Amsterdam.

2. Bagchi, Amresh; Bajaj; J.C. and Byrd, W.A. (1992), States Finance in India, Vikas Pub. House.
3. Buchanan, J.M.C. (1970) The Public Finances, Richard D. Irwin, Homewood
4. Chelliah, Raja (1997) Tax Reforms Committee Final Report, Government of India, Ministry of Finance.
5. Goode, R. (1996) Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
6. Government of India, Ministry of Finance, An Economic and Functional Classification of Central Government Budgets.
7. Government of India, Economic Surveys of different years.
8. Government of India, Speeches of Union Finance Ministers, Ministry of Finance.
9. Jha, R. (1998) Modern Public Economics, Roulledge London.
10. Mankar, V.G. Public Finance - Theory and Practice
11. Menutt, P. (1996) The Economics of Public Choice, Edward Elgar, U.K.
12. Murgave, R.A. and Murgrave P.B. (1976) Public Finance in Theory and Practice, McGraw Hill, Kogakusha.
13. Prasad, R.C. (1987) Agricultural Taxation and Economic Development, Deep and Deep Pub.
14. Sury, M.M. (2000) fiscal policy Developments in India : 1950-2000 Indian Tax Institute.

Gujarati Reference Books

1. R.V.Shashtri, R.C. Joshi, K.J.Munsi, M.V. Joshi, (1993-94) Rastriya Arth Vidhan, Popular Prakashan, Surat
2. Trivedi Ravishankar (anuvadak) (1978) Musgrave, Richard A. Jaher Arthvidhangna Siddhanto, University Granth Nirman Board.

Paper - VII : QUANTITATIVE ECONOMICS

This paper is meant to provide the background knowledge of Mathematics and Statistics to non-mathematical students so as to enable the students to understand the quantitative research work being done in the field of economics. The main objective of this paper is to train the students to use the techniques of mathematics and statistical analysis, which are commonly applied to understand and analyses economic problems, The emphasis of this paper is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. Hence in this paper a student will be initiated into various economic concepts, which are amenable to mathematical treatment. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences from analysis.

1. Concepts and their application in Economic Analysis of (a) Economic Model (b) Diagram (c) Equation - its types (d) Function - its types and (f) Inequality - Linear programming and its graphical solution.
2. Elements of Matrix Algebra and their application in Economic Analysis, Cramer's rule, inverse matrix, Leontief input output Analysis.
3. Elements of differential calculus and their utility in omicanalysis, such as establishment of relationship between AR & MR, AC & MC, AR MR & Elasticity, optimization conditions, estimation of elasticity & Marginal value etc. Meaning of differential, Derivative, Rules of differentiation, Second order derivative, partial derivative, total derivative, total differential and their utility in Economic Theory.
4. Element of Probability - Laws of probability, random variable, Mathematical Expectation - Property of binomial & Normal Distribution, Method of Data collection and presentation of Data, Frequency distribution, Measures of Central Tendency - Measures of dispersion and their application in Economic Analysis, Lorenz curve.
5. Simple correlation and regression and their application in Economic Analysis, Relationship between Attributes.
6. Index numbers, Importance/Utilization of index numbers in Economic Analysis, problems in construction of index numbers, methods of construction of various types of index numbers.

REFERENCE BOOKS :

1. Ching A C Fundamental Methods of Mathematical Economic, McGraw Hills, New York.
2. Gupta S C Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
3. Grewal P S Numerical Methods of Statistical Analysis, S. P. Pvt. Ltd. New Delhi.
4. Bose D. An introduction to Mathematical Economics, H P H, Bombay, Delhi.

Paper - XI : INDUSTRIAL LABOUR

1. Growth and composition of industrial labour in India and its chief characteristics.
2. Nature and characteristics of labour market in developing countries like India - Supply of labour in relationship to growth of labour force.
3. Major labour problems in Indian economy. Housing of labour, wages, compensation, working conditions, Industrial disputes - Approach to industrial peace.
4. Labour legislation in India - Need an principles - Evaluation of labour legislation in India - Impact of labour legislation on industrial relationship.
5. Principles of collective bargaining. Measures to encourage collective bargaining in India Problems of collective bargaining to India.
6. Social security - Organization and financing of social security. Position of social security in India.

7. Trade union movement in India - Present condition of trade unions in India - The future of trade unions in India.
8. Industrial peace - Prevention and settlement measures for industrial unrest - Conciliation, mediation and arbitrations as methods of industrial peace - Role of government in union - management relationships.
9. Employment policy in Five Year Plans and its evaluation.
10. ILO's brief history, constitution, organization, functions and achievements - India and ILO.
11. Current developments in the field.

BASIC READING LIST

1. Despande, L.K. P.R. Brahmanands, E.A.G. Robinson, (Eds.) (1983), Employment Policy in a Developing Economy, Vol. 1 & 2, Macmillan, London.
2. Hicks Jr. (1932), The Theory of Wages, Clarendon Press, Oxford.
3. Lester, R.A. (1964), Economics of Labour, (2nd Edition), Macmillan, New York.
4. McCormick, B. and Smith (Eds.) (1968), The Labour Market, Penguin, Harmondsworth.
5. Memoris, C.B. (1966) Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad.
6. Papola, T.S., P.P.Ghosh and A.N.Sharma (Eds.) (1993), Labour, employment and industrial relations in India, B.R. Publishing Corporation, New Delhi.
7. Punekar, S.D. (1978), Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay.
8. Sharma A.N. and A. Kundu (Eds.) (2001), Informal Sector in India: Emerging Perspectives, Institute for Human Development, New Delhi.
9. Singh, V.B. (1970), Industrial Labour in India, Popular Prakashan, Bombay.