S. S. Jain Subodh P. G. (Autonomous) College, Jaipur
(Affiliated to University of Rajasthan, Jaipur)

M. A. /M. Sc. Economics
Department of Economics

The Department of Economics offers four semesters full-time M.A. Degree Course having eighteen courses in all, out of which fourteen courses are compulsory core courses and four elective core courses. Each paper of three hours duration with maximum 100 marks (70- External, 30- Internal) will fetch credits in first two semesters and & credits in last two semesters

Note: Each question paper shall consist of two parts.

Part A- Shall contain 10 questions carrying 1(one) marks each. The candidate is required to answer each question in 20 words.

Part B - Shall contain Three questions with internal choice carrying 20 marks each.

Courses for Semester — I

Compulsory Core Courses
Paper I — Microeconomic Theory — I
Paper II — Macroeconomic Theory — I
Paper III -Mathematical Methods for Economics

Elective Core Courses
The candidate is required to select any one elective course from the following:
Paper IV (A): Demography-I
Paper IV (B): Mathematical Economics-I

Courses for Semester — II

Compulsory Core Courses
Paper V — Microeconomic Theory — II
Paper VI — Macroeconomic Theory — II
Paper VII — Statistical method

Elective Core Courses
The candidate is required to select any one elective course from the following:
Paper VIII (A): Demography-II
Paper VIII (B): Mathematical Economics — II

Courses for Semester — III

Compulsory Core Courses
Paper- IX — Public Economics- I
Paper - X — International Trade Theory
Paper- XI — Economics of Development and Growth — I
Paper XII — Indian Economy- I

Elective Core Courses
The candidate is required to select any one elective course from the following:
Paper XIII (A): History of Modern Economics
(Contribution of Nobel Laureates in Economics)-I
Paper XIII (B): Econometrics - I

<div align="center">**Courses for Semester IV**</div>

Compulsory Core Courses

Paper XIV - Public Economics- II

Paper XV — Trade Policy and International Monetary System

Paper XVI — Economics of Development and Growth —II

Paper XVII — Indian Economy —II

Elective Core Courses

The candidate is required to select any one elective course from the following:

Paper XVIII (A): History of Modern Economics
            (Contribution of Nobel Laureates in Economics)-II

Paper XVIII (B): Econometrics – II

Paper XVIII (C): Dissertations (Note : Applicable only those students who get minimum of 55% marks in I, II Semester (Aggregate))

Paper I —Microeconomic Theory — I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit—I

Consumer Choice: Utility function and Indifference Curve Analysis- Bad, Neutral, Optical Choice, Corner Solutions. Price, Income and Substitution Effects. Engel Curves. Slutsky Theorm and Derivation of Demand Curve. Consumer Surplus. Elasticity of Demand- Laffer Curve. Network Externalities- Bandwagon Effect, Snob Effect, Veblen Effect, Revealed Preference Theory. Choice under Risk and Uncertainty.

Unit—II

Production Fttnctio n: short and long run. Law of returns and Returns to Scale, Ridge lines, Expansion Path. Forms of Production Function: Cobb-Douglas, Fixed Coefficient and CES. Elasticity of Technical Substitution, Capital and labor Deepening Technical Progress through Isoquants.

Unit—III

Concept of Cost: Short and long Run Cost Curves. Dynamic Changes in Costs — Learning Curve. Modern Theory of Cost Curves. Pricing Under Different Market Structures: Perfect Competition, The Efficiency of a Competitive Market. Price Supports. Monopoly, Social Cost of Monopoly Power. Intertemporal Price Discrimination and Peak-load Pricing, Monopolistic Competition. Bilateral monopoly.

Books Recommended:

1. A. Koutsoyiannis: Modern Microeconomics, Macmillan, London.

2. Robert S. Pindyck and Daniel L. Rubinfeld: Microeconomics, Pearson Education Inc., New Delhi.

3. D. Salvatore: Microeconomic Theory, Oxford University Press, New Delhi.

4. Hal R. Varian: Microeconomic Analysis, W.W. Norton & Company Inc., New York.

Paper II — Macroeconomic Theory — I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

The Origin and Development of Macroeconomics - Classical, Keynes, New Classical and Modern Views; Macroeconomic Variables; National Income- Concepts, Components, Measurement, Inter-relationship between three Measures of National Income; Measurement of Economic Welfare. Circular flow of Income in Two, Three and Four Sector Economy.

Unit-II

Consumption Function- Determinants, Consumption Function Hypotheses: Absolute, Relative, Permanent Income hypotheses and Life Cycle Hypothesis; Investment Function- Neo-Classical Theory of Investment, Stock Market and Tobin's Q ratio and Neo-Keynesian Theory of Investment; Theories of Accelerator.

Unit-III

Classical, Keynesian, and Post Keynesian Theories of Demand for Money - Inventory Theory of Baumol and Portfolio Balance Theory of Tobin; Restatement of Quantity Theory of Money by Milton Friedman and Patinkin's Theory of Demand for Money; Supply of Money — Measurement, Components, Determinants, High-Powered Money A Money Multiplier and Theories of Money Supply.

Books Recommended:

1. Errol D'Souza, Macroeconomics, Pearson Education.
2. Richard, T. Froyen, Macro Economics: Theories and Policies, Pearson Education.
3. P. Edgemond, Macreconomics, PHI, New Delhi.
4. Gregory Mankiw, Macroeconomics, CBS Publishers, New Delhi.
S. Robert J. Gorden, Macroeconomics, Harper Collins.

Paper III -Mathematical Methods for Economics

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Concept of Function; Limit, Continuity and Differentiability of Real Valued Function; Concave and Convex Functions. Derivatives— Simple Differentiation; Maxima, Minima, Point of Inflexion and Applications of Simple Differentiation in Economics, Partial Differentiation and Unconstrained and Constrained Optimization (Two Independent Variable Case), Simple Applications in Economics.

Unit-II

Integration; Indefinite and Definite; Applications, First order Difference and Differential Equations and their Application in Economics.

Unit-III

Matrices and Determinants and their Applications in Economics, Basic Input- Output Model (determination of gross output), Linear Programming (graphical and simplex methods), Game Theory — Two Person Constant and Zero Sum Game (only Saddle Point solution).

Books Recommended:

1. R. G. D. Allen: Mathematical Analysis for Economics, MacMillan, London.
2. Edward T. Dowling: Mathematics for Economics, Schaum's Outline series, McGraw-Hill Book Co., New Delhi.
3. Laxmi Narain Nathuramka: Arthshastra Mem Ganit Ke Prayog (Hindi), RBD Publication, Jaipur.
4. B.C. Mehta and G. M. K. Madnani Mathematics for Economists, Sultan Chand & sons, New Delhi.
5. Alpha C. Chiang: Fundamental Methodsof Mathematical Economics, McGraw-Hill, Tokyo.
6. Balvant Kandoi: Mathematics for Business and Economics with application, Volume — I & II, Himalaya Publishing House.

Elective Core Courses

Paper IV (A) DEMOGRAPHY-I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit - I

Population and Development: Meaning and scope of demography, components of population growth and their interdependence; Sources of population data; Theories of population –Malthus, Optimum theory of population; Theories of demographic transition; Models of Meadows, Enke, Becker and Easterlin; Population and Development.

Unit -II

Structure of Population: Population trends since the twentieth century; International aspects of population growth and distribution; Age and Sex structure in more developed and less developed countries; determinants of age and sex structure; Population pyramids- individual aging and population aging; Population projection

Unit - III

Fertility: Importance of the study of fertility-Total fertility rate, Gross reproduction rate and Net reproduction rate. Levels and trends in developed and developing countries; Factors affecting fertility.

Mortality: Levels and trends in mortality in developed and developing countries; Mortality differences by age & sex, occupation etc. ; Infant mortality; Factors leading to decline in mortality in recent past; Life Tables:- construction and uses.

Books Recommended:
Agarwal S.N. (1972), India,s Population Problem, Tata McGraw- Hill Co., Bombay.

Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.

Bogue, D.J. (1971), Principle of Demography, John Wiley, New York.

Chenery H. and T.N. Srinivasan (Eds.)(1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.

Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.

Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income Countries: A Case Study of India's Prospectus, Princeton University Press, Princeton.

Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.

Paper IV (B) Mathematical Economics-I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Theory of Consumer Behavior- Nature of a Utility Function; Properties of an Indifference Curve; Maximization of Utility; Demand Functions: Ordinary and Compensated, Price and income Elasticity, Elasticity Relations in Demand Analysis and Restrictions on Demand Functions; Slutsky Equation - n- Commodity Case, Elasticity Form and Important Results; Income and Leisure - Derivation of Labor Supply Function and its Properties; Linear Expenditure System- Properties and Derivation of Linear Demand Functions; Homogeneous and Homothetic Utility Functions; Indirect Utility Functions- Properties, Derivation, Roy'S Identity ated Derivation of Direct and Inverse Demand Functions; Consumer's Surplus.

Unit-II

Theory of Firm- Production Function, Properties of a Well Behaved and Homogeneous Production Function : Cobb-Douglas and CES Production Functions, Product Curves, Output Elasticity of Factor Input, Isoquant, Elasticity of Substitution of a Homogeneous Production Function- linearly Homogeneous, Cobb-Douglas , CES Production Function and Special Cases of CES Production Function, Expansion Path; Optimization Behavior of a Firm- Constrained Cost Minimization, Constrained Output Maximization and Profit Maximization.

Unit-III

Input Demand Functions- Properties and Derivation of Producer's Input Demand Functions (through profit maximization); Cost Functions- Properties and Derivation of short run and long run cost function (through profit maximization); Determination of optimum plat size; Perfect Competition- Market demand, Producer's demand, Supply function (Short run and long run), External Economies and Diseconomies, Commodity market equilibrium under perfect competition.

Note: Use of non-programmable calculator is permitted.

Books Recommended:

1. J.M. Henderson and R.L. Quandt: Micro Economic Theory: A Mathematical Approach, McGraw-Hill. London.
2. RGD Allen, Mathematical Economics, Macmillan.
3. B.C. Mehta: Mathematical Economics: Micro Economic Models, Sultan Chand & Sons, NewDelhi.
4. Alpha C Chiang: Fundamental Methods of Mathematical Economics, McGraw-Hill, Kagakusha,Tokyo.

Semester — II

Compulsory Core Courses

Paper-V: Microeconomic Theory – II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Oligopoly Market: Non-Collusive models of Cournot, Bertrand, Edgeworth, Chamberlin and Stackelberg. Cartels and Price Leadership. Baumol's model, Marris's and Williamson's Managerial Theory. Full Cost Pricing, Bain's limit Pricing Theory and Recent Developments Including Sylos-Labini's Model. Behavioral Model of the Firm. Game Theory.

Unit-II

Theory of distribution: Neo Classical Approach, Marginal Productivity Theory, Euler's Theorm. Technical Progress and factor share. Factor pricing under perfect and imperfect competition. Determination of rent , wages, interest and profit.

Unit-III

Welfare Economics: Pigouvian Welfare Economics, Pareto Optimality. Kaldor — Hicks Compensation Principle. Social Welfare Function and Theory of Social Choice — Rawl, Bergson — Samuelson and Arrow's Theorem. Externalities, Public Goods and Market Failure. Asymmetric Information — Market Signaling, Moral Hazard, The Principal- Agent Problem.

Books Recommended:

1 . A. Koutsoyainnis: Modern Microeconomics, Macmillan, London.

2.   Robert S. Pindyck and Daniel L. Rubinfeld: Microeconomics, Pearson Education Inc., Ncw Delhi.

3.   D. Salvatore: Microeconomic Theory, Oxford University Press, New Delhi.

4.   Hal R.Varian: Microeconomic Analysis, W.W.Norton & Company Inc., New York.

Unit-I

Determination of Output and Employment- The Classical and Keynesian models; Multiplier- Concept, Working, Static and Dynamic Multiplier; IS-LM Model- The Interaction of Real and Monetary Sectors of the Economy , Keynesian Version of the IS- LM Model , Neo-Classical Version of the IS-LM Model, Fiscal Policy and Crowding out Effect and Role and Relative Effectiveness of Fiscal and Monetary Policies; Aggregate Supply and Aggregate Demand Model- Neo-Classical Three Sector Model (Pigou Effect) and Keynesian Three Sector Nfodel (Keynes Effect).

Unit-II

Open -Economy Macroeronomics- trade Balance, Exchange Rates and International Monetary System; Mundell-Fleming model: Analysis of Fiscal, Monetary and Trade Policies under Imperfect Capital Mobility and Perfect capital Mobility with Fixed and Flexible Exchange Rate Systems; Classical, Keynesian and Monetarist Approaches to Inflation and Policies to Control Inflation; Phillips Curve Analysis; Expectation Augmented Phillips Curve Analysis; Natural Rate of Unemployment Hypothesis; Role of RBI in Inflation Control, Credit Control and Economic Stability. '

Unit-III

New Classical Macroeconomics- The New Classical Critique of Keynesian Micro Foundations. The Real Business Cycle Theory. Rational Expectations- Solution of a Simple Macroeconomic Model with Rational Expectations and Economic Interpretation.

Books Recommended:

1. Eric Pentacost, Macro Economics: An Open Economy Approach, Macmillan, Indian Edition, New Delhi.

2. Errol D'souza, Macroeconomics, Pearson Education.

3. Richard,T. Froyen, Macro Economics: Theories and Policies, Pearson Education.

4. P. Edgemond, Macreconomics, PHI, New Delhi.

S. Gregory Mankiw, Macroeconomics, CBS Publishers, New Delhi.

6. Robert J. Gorden, Macroeconomics, Harper Collins.

Paper-VII Statistical Methods

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Measures of Central Tendency, Dispersion, Skewness, and Kurtosis, Measurement of Inequality-Lorenz Curve and Gini Co-efficient. Correlation, Simple Regression and Multiple linear regression equation.

Unit-II

Analysis of Time Series and Curve Fitting, Index Numbers. Probability, Mathematical Expectation, Probability Distributions (Binomial, Poisson, and normal)

Module 3

Sample and Survey Methods, Testing of Hypothesis, Application of Z, x^2, F & t' tests, Association of Attributes, Analysis of Variance.

Book Recommended:

1.   S.P. Gupta: Statistical Methods, Sultan Chand & Sons, New Delhi.

2.   Kailash Nath Nagar: Sankhyiki Ke Mool Tatva (Hindi) Meenakshi Prakashan, Meerut.

3.   A.L. Nagar & R.K. Das: Basic Statistics, Oxford University; Press, New Delhi.

4.   D.R. Agarwal: Quantitative Methods, Vrinda Publication

Elective Core Courses
Paper VIII (A) DEMOGRAPHY –II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit -I

Demographic database in India: Study of Census in India-Methodology and characteristics; Nature of information collected in India with emphasis on 2011 Census ; National Family Health survey 1,2 and 3; Rapid Household Survey; Changing characteristics of population in India; Occupational Structure of Indian Population.

Unit -II

Migration and Urbanization: Basic concept and definitions; importance of migration, Types of migration; factor affecting migration. Theories of migration related to internal migration; Urbanization-Growth and distribution of rural-urban population in developed and developing countries with special reference to India.

Unit –III

Population and Development with reference to India: Population, economy and environment linkage; Population, health, nutrition productivity nexus; population and human development issues; Demography and household economic behavior.

Evolution of Population Policy in India: The shift in policy from population control to family welfare, to women empowerment; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and their regulation; The population policy.

Books Recommended:

Agarwal S.N. (1972), India,s Population Problem, Tata McGraw- Hill Co., Bomby.

Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.

Bogue, D.J. (1971), Principle of Demography, John Wiley, New York.

Chenery H. and T.N. Srinivasan (Eds.)(1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.

Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.

Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income Countries: A Case Study of India's Prospectus, Princeton University Press, Princeton.

Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.

Paper VIII (B) Mathematical Economics-II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Monopoly- Maximization of Profit and Sales Revenue, Price Discrimination: Market Discrimination and Perfect Discrimination, Multi-Plant Monopolist, Effect of Various Taxes on Output and Price of a Monopoly Firm, Bilateral Monopoly; Monopolistic Competition Equilibrium: Short Run and Long run; Duopoly and Oligopoly Market Models: The Quasi-Competitive Solution, the Collusion Solution, the Cournot Solution, Stakelberg Solution, the Market Share Solution and the Kinked-Demand Curve Solution Models.

Unit-II

Macroeconomic Models- Keynesian Theory of Income Determination and Derivation of Different Multipliers, Employment and Output Determination With Fixed and Flexible Prices : IS-LM and AD-AS Models, Fleming-Mundell Open Economy Model, Trade Cycles: Multiplier-Accelerator Interaction Models of Samuelson and Hicks; Growth Models: Harrod — Domar Model, Neoclassical Models of Solow & Meade and Kaldor's Mudel.

Unit-III

Linear Programming- Simplex Method; Problem of Degeneracy and Mixed Constraints, Duality Theorems, Complimentary Slackness Conditions, Application of Linear Programming in Economics; Input-Output Analysis- Concepts of Static, Dynamic, Closed and Open Input -Output Models, Hawkins-Simon Conditions of Viability, Determination of Gross Output, Price and Value Added in Open Input -Output Model,
Determination of Goss Output in Closed Input-Output Model; Theory of Games- Two- Person, Constant Sum Games, Zero-Sum Game, Maximin and Minimax, Dominant Strategies, Pure and Mixed Strategies, Saddle Point Solution, Linear-Programming
Formulation of a Matrix Game and Conversion of Game Theory into Linear Programming.

Note: Use of non-programmable calculator is permitted.

Books Recommended:

1. J.M. Henderson and R.L. Quandt: Micro Economic -Theory: A Mathematical Approach, McGraw-Hill. London.

2. R.G.D. Allen, Mathematical Economics, MacMillan.

3. Alpha C Chiang: Fundamental Methods of Mathematical Economics, McGraw- Hill, Kagakusha, Tokyo.

4. R.G.D. Allen, Macroeconomic Theory: A Mathematical Treatment, McGraw-Hill, London.

5. Michael K. Evans: Macroeconomic Activity: Theory, forecasting find Control.

6. David Romer: Advanced Macroeconomics, McGraw-Hill, Singapore.

Semester — III
Compulsory Core Courses
Paper IX Public Economics — I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Nature and Scope of Public Finance, Public Finance and Private Finance, Economic Analysis of Public Policy, Role of Government in the Economic Activity Allocation, Distribution and Stabilization Functions, Private, Public and Merit Goods. Theory of Externalities — External Benefits and Cost — Correction of Externalities, Principle of Maximum Social Advantage,

Public Budgets — Kinds of Budgets, Optimal Budgeting, Balanced and Unbalanced Budgets — Deficit Financing, Zero base budgeting.

Unit-II

Public Expenditure — Hypothesis and evaluation, Effects of Public Expenditure on Production and Distribution, Bowen, Lindhal and Samuelson's Models, Wagner's Law of Increasing State Activities, Weisman-Peacock Hypothesis.

Public Revenue — Canons of Taxation, Different Approaches to the Division of Tax Burden, Incidence and Effects of Taxation, Taxable Capacity, Justice in Taxation, Benefit & Ability to Pay Approaches. Theory of Optimal Taxation — Equal Absolute, Equal-Proportional, Equal-Marginal and least Aggregate Sacrifice principles, Buoyancy and Elasticity of a Tax.

Unit-III

Efficiency and Equity Principles of Taxation; Incentive Effects of Taxation on Labour Supply; Other Distorting Effects of the Tax System; Tax Incidence – Partial and General equilibrium Analysis; Mieszkowski Analysis of Tax Incidence; shifting and incidence of taxation under monopoly and perfect competition.

Books Recommended:

Musgrave R.A and Peacock A.T., " Classics in the Theory of Public Finance", Mcmillan
Boadway, Robin, "Public Sector Economics", Cambridge, Winthrop Publishers
Bruce, Neil, "Public Finance", Addison- Wesley Educational Publishers, Inc.
Jones. Philip and Cullis, Jones, "Public Finance and Public Choice- Analytical Perspectives", Oxford University press
Stiglitz, Joseph, "Economics of the Public Sector", W.W.Norton and Company, new York/London
Rosen, H.S., "Public finance", Tata McGraw Hill
McNutt, P.A., "The economics of Public Choice", Edward Elgar Publishing Inc.
Mueller, D.C., "Public Choice- I,II,III" Cambridge university Press, Cambridge
Downs, A., "An Economic Theory of Democracy", Harper and Row, New York

Paper X International Trade Theory

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Early Trade Theories: Mercantilism, Classical Theory of Trade, Absolute Advantage and Comparative Advantage — Views of Adam Smith, Ricardo, Mill, Haberler, Empirical Testing of Classical Theory.Standard Theory of Trade — Production Possibility Frontier, Community Indifference Curves, Offer Curves, Trade Indifference Curves, Terms of Trade wd Games form Trade.

Unit-II

Factor Endowments and Heckscher — Ohlin Model-factor Price Equalization Theorem, Stolper — Samuelson theorem, Metzler Paradox and Rybczynski Theorem, Empirical verificationof H-O theory, Leontief Paradox, Meade's equilibrium in trade, International trade under Imperfect competition in goods market.

Unit-III

Economic Growth and International Trade — Growth of Factors of Production, Technical Progress, International Factor movements — Labour and Capital Movements and their Effects, Brain Drain, Multinational Corporations and their Role.Free Trade versus Protection, Instruments of Protection and their Effects; Tariffs (Partial and General Eqtiilibrium), Quota, and other Non-Tariff Barriers.

Books Recommended:

l. J. Bhagwati: International Trade, Cambridge University Press, London.

2. R.J.Carbough:International Economics, Cengage Learning; 13edition.

3. D. Salvatore: International Economics, PHI, New York.

4. Rana and Verma: International Economics, Vishal Publishing House Ludhiana (Hindi and English).

Paper XI Economics of Development and Growth — I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Understanding Development: Dividing the World and levels of Development (Development as an Evolving Concept i.e. Development, Growth and Change; Goulet's Core Values of Development; Sen's Conception of Development; Income / Output Based Measures and their Inadequacies; PQLI and HDI as Indicators of Development). Ingredients of Development — Land, labour, Physical and Human Capital, Technological Change, Scalc and Organization, Sustainable Development; Concept, Measures and Problems of Growth, Poverty and Inequalities in LDCs and their Impact on Development.

Unit-II

Theories of Economic Development: Agriculture — Industry Interface — Interdependence between Agriculture and Industry; Industrialization and Urbanization (The models of Lewis Fei and Ranis and Todaro); Balanced Vs Unbalanced growth

Unit-III

Project Evaluation Criteria: Internal Rate of Return, Net Present Value and Cost-Benefit Analysis Social Discount Rate, Shadow Prices of Capital, Unskilled labour and Foreign Exchange, Choice of Techniques, Capital-Output Ratio, Applications of Input-Output Analysis in Planning, Finance of Economic Development – .Domestic and External Resources, Two-Gap Model, International Trade and Development, Types and Approaches of Planning, Plan Models of India.

Books Recommended:

1.   Meier, Gerald M. and James E. Raunch: Leading Issues in Economic Development, Eighth Edition, Oxford University Press, New   York.
2.   Ray, Debraj: Development Economics, Seventh Impression, Oxford University

Press, New Delhi,

3, Thirlwall, A. P: Growth and Development, Eighth Edition, Palgrave Macmillan, New York.
4.   Todaro, Micheal P. and Stephen Smith C: Economic Development, Eighth Edition, Second Impression, Pearson Education, (Singapore) Pvt. Ltd. Indian Branch, Delhi.
5.   Yotopoulos, Pan A . and Nugent Jeffery B: Economics of Development: Empirical Investigations, Harper and Row Publishers, New York.

Paper XII Indian Economy-I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Natural Resource in India- land, Water, Forest and Minerals, Population- Size. Composition, Quality and Growth Trends. Characteristics of Indian Population through Recent Census, Population Policy and Economic Effects of Population Pressure, Poverty, Unemployment and Human Development during Plan Period- Appraisal of Government Measures, India's Human Development Record in Global Perspective

Unit-II

Agricultural Developments in India-Institutional Aspects- land Reforms, Green Revolution Technological Aspects- Agricultural Inputs and Shifts in Production Function, Agricultural Cost and Price Policy, Agricultural Marketing and Credit, Food Policy and Security, Subsidy and Public Distribution System, Capital Formation in Indian Agriculture, Problems in Agriculture- A Need for Second Green Revolution.

Unit-III

Industry- Strategy of Industrial Development and Industrial Policy Reforms, $mall Scale and Cottage Industries, Reservation l'olicy Relating to Small Scale Industries, Sources of Industrial Finance- Banks, Share Market, Insurance Companies, Pension funds, Non-Banking Sources and FDI, Role of Foreign Capital for Direct Investment and Portfolio Investment, Public Sector Reforms, Privatization and Disinvestment.

Books Recommended:

1. Dutt and Sundram: Indian Economy, S. Chand (Latest Ed) (Hindi and English).

2. A.N. Agrawal: Indian Economy, New Age International Pub. (P) Limited, (Latest Ed) (Hindi and English).

3. Laxmi Narayan Nathuramka: Bhartiya Arthshastra, College Book House, Jaipur (Latest Ed).

4. Mishra A Purr: Indian Economy, I-finn:il iiya I°ublistiing House (Latest Ed) (Hindi and English).

5. Twelfth Five Year Plan, Planning Commission.

6. Economic Survey (Latest), GOI.

7. Monthly Bulletins, RBI.

Elective Core Courses

Paper XIII (A) HISTORY OF MODERN ECONOMICS
(Contribution of Nobel Laureates in Economics)-I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

General outline of Mercantilist theories: Physiocracy - Basic principles and policies, natural order, tableau economique; Classical Political Economy: Adam Smith : division of labour, Theory of Value, Economic Development. David Ricardo : Theory of value, Theory of Distribution, Doctrine of Rent, Views on International Trade, Theory of Economic Development and the Stationary State, Critique by Sraffa;

Unit-II

T.R. Malthus: Theory of Population and Theory of Gluts - Critics of Classicism. Karl Marx: Materialistic Interpretation of history, Labour Theory of Value and Surplus Value

Unit-III

Neo-Classical School: Marshall: Consumers' Surplus, Tax bounty analysis, External Economies, Quasi-Rent, Role of time element in value; Pigou: Welfare Economics.Nobel Prize Winners in Economics -Tobin, Markowitz, Myrdal (1974), A.K.Sen (1998), Solow, Meade,

Books Recommended:

Blaug, M 1997, Economic Theory in retrospect, Cambridge Universitypress, Cambridge
Da Costa,G.C:Production,Prices and Distribution(1985)TMH,NewDelhi
Dasgupta A.K.L1985) Epochs of Economic Theory ,Oxford Univ Press,New Delhi.
Ekelund and Hebert :A History of Economic Theory and Method(1990)McGraw Hill Publ Co.New York.
Eatwell,John, Murray Milgate ,Peter Newman(1998):The New Palgrave _A Dictionary of Economics, Macmillan Reference Ltd.
Ghosh and Ghosh; Concise History of Economic Thought, Himalaya.
Gill Richard: (1972)Evolution of Modern Economics,Prentice Hall ofIndia.
Hunt E.K : (:1990) History of Economic Thought, Wodsworth.

Paper XIII (B) Econometrics- I

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Basic Econometrics: Nature, meaning and scope of econometrics; Simple and General linear Regression Model — Assumptions, Estimation (OLS approach) and Properties of Estimators; Derivation of Least Square Parameters; Goodness of Fit and Econometric Inference. Functional Forints of Regression Models: Log-low, Semi-log, Reciprocal Transformation

Unit-II

Violation of Assumptions: Heteroscedasticity; Multicollinearity and Auto-correlation; Specification Problems. Regressions with Qualitative Independent Variables: Dummy Variable Technique; Regression with Binary Dependent Variables: Logit, Probit and Tobit models.

Unit-III

Dynamic Econometric Model: Auto-regressive and Distributed Lag Models — Koyck Model, Partial Adjustment Model, Adaptive Expectations;, Almon Approach to Distributcd Lag models. Method of Instrument Variables

Note- Use of non-programmable calculator is permitted

Books Recommended

Amemiya, T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.
Baltagi, B.H. (1988), Econometrics, Springer, New York.
Goldberger, A.S. (1998), Introductory Econometrics, Oxford University Press, New York.
Gujarati, D.N. (1995), Basic Econometrics (2nd Edition) MC Graw Hill New Delhi.
Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.
Johnson J. (1991), Econometric Methods, MCGraw Hall Book Co. London
Kmenta J. (1998), Elements of Econometrics, University of Michigan Press, NewYork.
Koutsoyiannis, A. (1977), Theory of Econometrics, The Macmillan Press Ltd. London
Maddala G.S.(Ed) (1993), Econometric Methods and application, Aldershot U.K.
Pindyck R.S. and D.L. Rubinfield (1976), Econometric Models and Economic Forecasts, MCGraw Hill Kogakusha Tokyo

Semester — IV
Compulsory Core Courses
Paper-XIV: Public Economics- II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Public Debt — Sources, Effects, Burden and its Management, Theory of Public Debt, Loans and Saving as Sources of Finance for Development. Fiscal Policy, Neutral and Compensatory Fiscal Policy, Functional Finance; Fiscal Policy in Developing Countries, Fiscal Policy for Stabilization — Automatic and Discretionary Stabilizers. Built-in-Flexibility, interdependence of Fiscal and Monetary Policies, Balanced Budget Multiplier, Anti inflationary Policy.

Unit-II

Indian Tax System -Salient features, Major Taxes, Main Trends in the Revenue of the Central and State Governments in India, Non-Tax Revenue, Union Budget of India, Major Trends in Public Expenditure in India (growth and composition), Problem of Budget Deficit and FRBM Act. Pricing Policy in Public Enterprises, Disinvestment and Privatisation Of Public Enterprises in India, Internal and External Public Debt of India.

Unit-III

Fiscal Federalism- theory and Problems of Centre- State Finance Relation in India, Criteria for resource transfer from the centre to states, Finance Commission and devaluation of resource to states, Recent tax reforms in India Recommendation of Raja J. Challiah Committee and Kelkar Committee. Direct Tax code and GST.

Books recommended:

1. R.A. Musgrave and P.B. Musgrave: Public Finance in Theory and practice, New York: McGraw-Hill.
2. R.A. Musgrave: Theory of Public Finance, McGraw-Hill,
3. S.G. Ganguli: Public Finance, The World Press Private Limited.
4. .John Callis and Phillip Jones, Public Finance and Public Choice. Oxford University Press.
S. Harvey Rosen, Public Finance, McGraw Hill Publications.
6. David N. Hyman, Public Finance — A Contemporary Applications of Theory to Policy, Thomson South Western.
7. R.K. Lekhi, Public Finance, Kalyani Publishers.
8. Chelliah and Kelkar Committee Reports.

Paper- XV Trade Policy and International Monetary System

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Political Economy of Protectionism: Trade Policy in Developing Nations- Import Substitution V/s Export Promotion, Strategic Trade Policy in Developed Nations. Trade and Economic Development, Deteriorating Terms of trade of developing Nation - Probisch-Singer Hypothesis, Current Trade Problems of Developing Nations.. International Capital Movement and Factors Affecting it, Various Forms of Foreign Capital and its Role in Economic Development.

Unit-II

Economic Integration - Stages and Forms, Theory of Customs Union Static and Dynamic Effects, Regional Trade Blocks - Bilateral and Multi-Lateral International

Negotiations, Preferential Trade Areas(PTAs) and Free Trade Areas (FTAs). WTO,issues and its impact on trade, IMF, World Bank- Their achievement and failures.

Unit-III

Foreign Exchange Market - Functions and Exchange Rate Determination, Exchange Rate Theories- Mint Parity, Purchasing Power Parity (PPP), Monetary Approach, Fixed and Flexible Exchange Rates, Exchange Controls and Multiple Exchange Rates, Current Exchange Rate Regime, Euro Currency Market. BOP —Accounting, Components, Causes of Disequilibrium and Mechanism of Adjustments, Foreign Trade Multiplier, Devaluation and Marshall -Lerner Condition, Elasticity and Absorption Approaches, External and Internal Balance, Swan Model.

Books Recommended:

1. J. Bhagwati: International Trade, Cambridge University Press, Londoii.

2. R.J. Carbough; International Economics, Cengage Learning; 13 edition.

3. FI. Salvatore: International Economics, PHI, New York.

4. Rana 9fld Vcrma: IntC1T1tlfi€Ifli1 G0l1O111ics, Vishal Publishing House Ludhiana (Hindi and English).

5. Soderston and Reed: International Economics, Falgrave Macmillan; »Rev Ed edition.

Paper XVI Economics of Development and Growth —II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Unit-I

Economic Growth and Structural Change: Structural Changes in the Composition of Gross Domestic Product, Occupational Structure, Structure of Capital Accumulation; and accumulation of Human Capital; Exploring the Relationship between Economic Development and Income Distribution (Kuznets' inverted U —Shaped Curve and Augmented Kuznets' Curve, Denison & Chenery empirical studies), Living in a Heterogeneous World, World-Islands of Prosperity and How the Other Three Quarters live.

Unit-II

– Theories of Growth: Classical Approach: Adam—Smith, Marx and Schumpeter – Neo- Clasical Approach: Robinson, Solow, Kaldor and Harrod-Domar model, Cambridge Criticism of Neoclassical Analysis of Growth, the Capital Controversy. Technological Progress- Embodied and Disembodied Technical Progress, Hicks, Harrod learning by doing, Production Function Approach to the Economic Growth, Growth Models of Kaldor and Pasintti, Optimal Savings and Ramsay's Rule of Accumulation. Romar's Model of Technological Change.

Unit-III

Endogenous Growth; Intellectual Capital, AK Model, Uzawa-Lucas Model — Explanation of Cross Country Differentials in Economic Growth. Economic Isolation and Integration with the Global Market. An Overview of the Economic Functions of the Market and State, Efficiency of the Competitive Market, Market Failure, Government Failure, On the Choice of Economic System, Market Failure in a Dynamic Economy.

Books Recommended:

1. Chenery, Hollis and Moises Syrquin: Patterns of Development: 1950-70, Oxford University Press.
2. Kuznets, S.: Modern Economic Growth, Rate Structure and Spread, Vakils, Feffer and Simons Private Limited, Bombay.
3. Meter, Gerald M. and James E. Rauch : Leading Issues in Economic Development, Eighth Edition, Oxford University Press, New York.
4. Ray, Debraj: Development Economics, Oxford University Press, Delhi.
5. Robert J.Barrow and Xavier Sala-i-Martin: Economic Growth, Prentice-Hall of India, Pvt. Lid., New Delhi.
6. Thirlwall, A. P: Growth and Development, Eighth Edition, Palgrave Macmillan, New York.
7. Thorvaldur Gylfason : Principles of Economic Growth, Oxford University Press.

Paper XVII Indian Economy-II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each

Unit-I

Foreign Trade: Sailent features, Trends, composition,Direction and Organisation, Trade reforms, Liberalization and recent changes in trade policy,MNCs and their impact on Indian Economy, India's BOP position in recent years

Unit-II

Economic planting: Goals, Achievements and Shortcomings ot' Planned Development, Planning and the market. Decentralized Planning: Constitutional Obligations and Panchayati Raj Institutions. Balwant Rat Mehta Committee and Ashok Mehta committee, Financial Aspects of 73 ^{d} and 74' Constitutional Amendments. Problem of Subsidy, National and Per Capita Income — Growth pattern and trends, Aggregate and Sectoral Composition and Change therein, Regional Distribution, Income Inequalities in India.

"

Unit-III

New Economic Policy — LPG and Second Phase of Economic Reforms, Infrastructure Development iii India — Physical Infrastructure (Power, Transport, Communication and Irrigation) and Social Infrastructure (health and education), SEZs

Books Recommonded:

1. Rudra Dutt and Sundaram: Indian Economy, S. Chand (Latest Ed.) (Hindi and English)
2. A. N Agrawal: Indian Econoiiiy, New Age International Pub. (P) Limited, (Latest Ed.) (Hindi and English).
3. Laxmi Narayan Nathuramka: Bhartiya Arthshastra, College Book House (Latest Ed.)
4. Mishra & Puri: Indian Economy, Himalaya Publishing House (Latest Ed.) (Hindi and English)
5. Uma Kapila: Indian Economy, Academic Foundation.

Elective Core Courses

Paper XVIII (A) HISTORY OF MODERN ECONOMICS
(Contribution of Nobel Laureates in Economics)-II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks eachy.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each

Unit-I

Institutionalism: Veblen - Theory of the leisure class, Commons; Frank Knight : Theory of Profit, Risk and Uncertainty; Schumpeter : Vision of Development and the demise of Capitalism

Unit-II

Keynesianism: Principle of Effective demand, consumption function, multiplier, investment function, liquidity preference theory of interest, role of fiscal policy, uncertainty and role of expectations.

Unit-III

Post Keynesian Developments :Hayek - Supply side economics : Arthur Laffer, Evans Monetarism : Milton Friedman' Don Patinkin - An overview of the neo classical economics: Ratex-JF Muth, Robert Lucas, Sargent and Wallace. Nobel Prize Winners in Economics- Tobin, Markowitz, Myrdal (1974)

Books Recommonded:
Blaug, M 1997, Economic Theory in retrospect, Cambridge Universitypress, Cambridge
Da Costa,G.C:Production,Prices and Distribution(1985)TMH,NewDelhi
Dasgupta A.K.L1985) Epochs of Economic Theory ,Oxford Univ Press,New Delhi.
Ekelund and Hebert :A History of Economic Theory and Method(1990)McGraw Hill Publ Co.New York.
Eatwell,John, Murray Milgate ,Peter Newman(1998):The New Palgrave _A Dictionary of Economics, Macmillan Reference Ltd.
Ghosh and Ghosh; Concise History of Economic Thought, Himalaya.

Paper XVIII (B) Econometrics — II

Duration: 3 hrs.
Max. Marks : 70
Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 marks each.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each

Unit-I

Simultaneous Equation Models: The Simultaneous Equation bias and Inconsistency of OLS estimators; The Identification Problem; Rules of identification — order and rank conditions; Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS); 2SLS, K class estimators, 3SLS and ML methods — application.

Unit-II

Time Series Econometrics: Key Concepts, Spurious Regression, Stationary Stochastic Processes, Non -Stationary Processes, Unit Root Tests — Dickey-Fuller Test, Augmented Dickey Fuller Test, Phillips- Perron Test. Properties of AR, MA and ARMA Processes. Co-integration and Error Correction Mechanism (ECM).

Unit-III

Introduction to Planel Data: Panel Data with Fixed and Random Effects. Fixed Effects: Within and Between Group Effects, Unbalanced Panel and Fixed Effects. Randon Effects: GLS, Testing for Random Effects, Estimation of Dynamic Panel Model.

Note: Use of non-programmable calculator is permitted.

Books Recommended:
Amemiya, T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.
Baltagi, B.H. (1988), Econometrics, Springer, New York.
Goldberger, A.S. (1998), Introductory Econometrics, Oxford University Press, New York.
Gujarati, D.N. (1995), Basic Econometrics (2nd Edition) MC Graw Hill New Delhi.
Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.
Johnson J. (1991), Econometric Methods, MCGraw Hall Book Co. London
Kmenta J. (1998), Elements of Econometrics, University of Michigan Press, NewYork.
Koutsoyiannis, A. (1977), Theory of Econometrics, The Macmillan Press Ltd. London
Maddala G.S.(Ed) (1993), Econometric Methods and application, Aldershot U.K.
Pindyck R.S. and D.L. Rubinfield (1976), Econometric Models and Economic Forecasts, MCGraw Hill Kogakusha Tokyo.

Paper XVIII (C) Dissertations