# UNIVERSITY OF MADRAS
## INSTITUTE OF DISTANCE EDUCATION
## MA ECONOMICS
### Choice Based Credit System
(with effect from the academic year 2018 – 2019)

## SCHEME OF EXAMINATION:

### SEMESTER I

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<td>Core Paper-I</td>
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### SEMESTER II

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<td>Mathematics for Economists</td>
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### SEMESTER III

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### SEMESTER IV

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MA ECONOMICS
Choice Based Credit System
(To take effect from the academic year 2018 – 2019)
REVISED SYLLABUS
SEMESTER – I

CORE PAPER I-MICRO ECONOMICS – I

UNIT I: ADVANCES IN DEMAND THEORY
Modern utility analysis of choices involving risk or uncertainty – Bernoulli, Neumann Morgenstern, Friedman Savage and Markowitz Hypotheses – Revealed preference theory and derivation of demand-indifference curve – Hicks revision of demand theory – Logical ordering.

UNIT II: THEORY OF PRODUCTION
The production Function – Production Function – short and long run – Relation between returns to scale and returns to factor – Cobb-Douglas and CES Production Functions – Single and Multi-product Firms.

UNIT III: THEORY OF COSTS

UNIT IV: THEORY OF THE FIRM: PERFECT COMPETITION/ MONOPOLY

UNIT V: THEORY OF THE FIRM: MONOPOLISTIC COMPETITION AND OLIGOPOLY

RECOMMENDED TEXT:
BOOKS FOR REFERENCE:

CORE PAPER II - INDIAN ECONOMICS – I

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

BOOKS FOR REFERENCE
1. Indian Economy: performance and policies - UMA KAPILA
2. India Economy since Independence - UMA KAPILA
3. RuddarDutt and KPM. Sundharam: Indian Economy
CORE PAPER III- STATISTICS FOR ECONOMISTS

UNIT - I
Probability – Theorems- Addition- Multiplication-Conditional Probability – Bayes Theorem
Mathematical Expectation-Theoretical Distribution– Normal-Binomial and Poisson

UNIT - II
Index Number – Types of Index Numbers – Construction of Consumer Price Index –
Wholesale Price and Production Indices in India.

UNIT - III
Analysis of Time Series – Measurement of Trend – Semi Averages, Moving Averages -
method of Least Square- Simple Correlation – Partial Correlation - Regression

UNIT - IV
Hypothesis Testing, Standard Error – Large Sample Test for Two Means and Two Standard
Deviations – Two Proportion and Confidence Interval Small Sample Test – t-Test – Paired t-
Test-Chi Square Test

UNIT - V
F Test- Analysis of Variance One Way - Two Way Classifications-Design of Experiments-
Latin Squares.

RECOMMENDED TEXT:
1. Gupta .S.P. Statistical Methods, Sultan Chand and Sons,New Delhi, 2005
2. Sancheti. DC and Kapoor .VK Statistical Theory-Method and Application, Sultan Chand and
Sons, New Delhi, 2005.

Core Paper – IV: ENVIRONMENTAL ECONOMICS

UNIT - I: INTRODUCTION
The services provided by the environment for the economic system - Environment for the
economic system - The flow of environmental resource

UNIT - II: ECONOMIC ROOTS OF ENVIRONMENTAL DAMAGE
The market as allocation and mechanism: Conditions for efficient allocation - Market failure
and the environment: E environmental damage as an “eternity”, environment as “Public
good”, The “tragedy of the commons”

UNIT - III: ECONOMIC INSTRUMENTS FOR ENVIRONMENTAL PROTECTION
The concept of “Optimum Pollution” - Limitations of Command-and –Control policy -
Pollution Tax - Tradable permits- Property rights to environmental goods (Coase solution)

UNIT - IV: THE ECONOMIC VALUE OF NATURE
The meaning to economic value: Willingness to pay - Types of environmental value: Use and
non-use values - Cost-benefit analysis - “Stated Preference and revealed preference”
approaches to environmental valuation
UNIT - V: CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT
Sources of climate change, economic consequences of climate change - Economic Policy for climate change: costs and benefits of mitigation and adaptation - Definition of sustainable development, Policy for sustainable development - Poverty –development interrelationship.

BOOKS FOR REFERENCES
10. Anil Markandya and Julie Richardson (eds.) (1992), the Earthscan Reader in Environmental Economics, Earthscan Publications Ltd., London.

Elective paper – I: AGRICULTURAL ECONOMICS

UNIT - I
Agricultural Production and Productivity: Resource use and efficiency - Production function analyses in agriculture - Factor combination and resource substitution - Cost and supply curves - Size of farm and laws of returns - Theoretical and empirical findings - Farm budgeting and cost concepts - Supply response of individual crops and aggregate supply.

UNIT - II
UNIT - III
Diversification of Rural Economic Activities: Livestock economics - Livestock resources and their productivity - Problems of marketing - White Revolution - Fishery and poultry development - Forestry, horticulture and floriculture - Issues and problems in rural industrialization and development of agro-based industries.

UNIT - IV
Agricultural Growth in India: Recent trends in agricultural growth in India - Inter-regional variations in growth of output and productivity - Cropping pattern shifts - Supply of inputs - Irrigation, power, seed and fertilizers - Pricing of inputs and role of subsidies - Distribution of gains from technological change - Role of Public investment and capital formation in Indian agriculture - Strategy of agricultural development and technological progress - Sustainable agriculture - Indigenous practices - Bio-technological practices and growth potential.

UNIT - V

RECOMMENDED TEXT
2. C.B. Mamoria - Agricultural economics.
SEMESTER – II

CORE PAPER V- MICRO ECONOMICS – II

UNIT- I: MODERN THEORIES OF THE FIRM

UNIT – II:DISTRIBUTION THEORIES

UNIT – III: ECONOMICS OF INFORMATION
Asymmetric Information -Moral hazard problem, adverse selection, principal agent problem, implications of asymmetric information, market signaling, information and insurance.

UNIT – IV: GENERAL EQUILIBRIUM THEORY

UNIT – V: WELFARE ECONOMICS

RECOMMENDED TEXT:

BOOKS FOR REFERENCE:
CORE PAPER VI- INDIAN ECONOMICS – II

UNIT-I

UNIT-II
Industrial development and policies – New Industrial policy reforms 1991-its comparison with previous industrial policies - performances of small, medium and large industries in India -employment trends in manufacturing sector -- Industrial development and foreign direct investment – strategies of disinvestment and privatisation – Industrial growth performance in India – pre reform and post reform periods.

UNIT- III
India’s external sector – Export promotion vs import substitution – foreign trade policies - Structural changes in India’s foreign trade during 80 and 90s – India’s services trade – Gold and Oil trade - special economic zones –Balance of payments of India – Exchange rate fluctuations and its impact on Indian Economy – external debt and Indian economy– external sector reforms.

UNIT - IV
Foreign direct investment and portfolio investment in India – Foreign Aid vs Foreign direct investment- Foreign Direct Investment and Economic Development -sectoral performance - – growth trends of foreign direct investment – India-china comparison —performances of foreign institutional investments.

UNIT - V

BOOKS FOR REFERENCE
1. Indian Economy: performance and policies - UMA KAPILA
2. India Economy since Independence  - UMA KAPILA
3. RuddarDutt and KPM. Sundharam: Indian Economy
CORE PAPER VII- MATHEMATICS FOR ECONOMICS

UNIT - I
Matrices – Matrix operations – Commutative Associative and Distributive Laws – Determinants – Rank of a matrix – Matrix Inverse – Cramer’s Rule - Finding the values of unknown variables in the market(Prices)

UNIT - II
Differentiation – one variable-AC,MC-AR,MR –Elasticities-Price-income-cross Elasticities– Conditions for Profit Maximisation and Cost Minimisation

UNIT - III

UNIT - IV
Constrained Optimisation – Use of Lagrange Multiplier Method – Application to Utility Maximisation, Profit Maximisation and Cost Minimisation.

UNIT - V
Elementary Integration Techniques – Indefinite Integrals – Definite Integrals – Economic Applications of Integrals – Consumer’s Surplus and Producers Surplus

RECOMMENDED TEXT

BOOKS FOR REFERENCE

Journals:
1. Journal of Applied Mathematics
2. Journal of Mathematical Economics
Core Paper – VIII: ECONOMETRICS

UNIT - I: INTRODUCTION TO ECONOMETRICS
Origin, definition, objectives and scope of econometrics, limitations of econometrics, Methodology of econometric research, specification and estimation of an econometric model

UNIT - II: ESTIMATION AND REGRESSION ANALYSIS
Basic concept of estimation, desirable properties of estimators, Unbiasedness, Efficiency, Consistency and Sufficiency. Correlation and regression, coefficient of determination, estimation of an equation

UNIT - III: ESTIMATION THEORY AND PROBLEMS
Ordinary Least Squares (OLS) method-assumption, Gauss-Markov theorem standard errors of estimates. Testing of regression coefficient; coefficient of determination-test; problems of heteroscedasticity and auto correlation (1st order); multicollinearity–their consequences, test and remedies.

UNIT - IV: THEORETICAL DISTRIBUTION AND HYPOTHESIS TESTING
Theoretical frequency distribution, basic concept of binomial, Poisson and normal distribution. Hypothesis testing-Design and evaluation of test: Type-I and type-II errors, standard errors.

UNIT - V: LAG MODELS AND SUMMARY VARIABLES
Lag in econometric models-concepts, Koyck model, partial adjustments and adaptive expectation models. Summary variable; Qualitative data, seasonal analysis, use of dummy variables for pooled data and uses.

RECOMMENDEDTEXT:
2. G.S. Madalla, Basic Econometrics.

Elective Paper – II: INDUSTRIAL ECONOMICS

UNIT – I
Meaning of Industrialisation - The role of Industry in Economic Development - Theories of Industry - Hoffman - Chenery and Gerschenkron

UNIT – II
Concept and Organisation of a Firm - Market Structure - Sellers Concentration - Product Differentiation - Entry Conditions - Economics of Scale - Profitability and Innovation

UNIT – III
Theories of Industrial Location - Weber - Sargant Florence - Factors Affecting Location

UNIT – IV
Growth of the Firm - Size and Growth - Growth and profitability of the Firm - Constraints on Growth - Productivity - Efficiency - Capacity Utilisation - Concept - Measurement
UNIT – V
Classification of Industries - Use Based - Resource Based -Industrial Policy in India - Role of Public and Private Sectors - Recent Trends in Industrial Growth - India as a Global Hub - MNCs - Transfer of Technology – Liberalisation –Privatisation

BOOKS FOR REFERENCE:
2. Ahulwalia .I.J.-Industrial Growth in India,
SEMESTER – III

CORE PAPER IX- MACRO ECONOMICS – I

UNIT - I: KEY MACRO ECONOMIC VARIABLES
Aggregate Income- Expenditure and circular flow- computation of GDP – Real Vs – Nominal GDP – Measurement of Cost of Living (CPI and WPI) – Measurement of Unemployment rate

UNIT - II: THEORIES OF CONSUMPTION AND INVESTMENT

UNIT - III: THEORY OF INCOME AND EMPLOYMENT

UNIT - IV: THEORY OF DEMAND FOR MONEY

UNIT - V: THEORY OF SUPPLY OF MONEY:
RBI Approach to money supply: narrow money, broad money, reserve ( high powered) money - open market operations - cash reserve ratio – Fractional banking - repo rate - money multiplier - Money Supply in open economy- market for loanable funds in an open economy - Control of money supply.

RECOMMENDED TEXT:

BOOKS FOR REFERENCE
CORE PAPER X- PUBLIC FINANCE –I

UNIT - I: INTRODUCTION

UNIT -II: PUBLIC GOODS AND PUBLIC CHOICE

UNIT - III: PUBLIC GOOD AND TAXATION

UNIT -IV: TAXATION AND PUBLIC DEBT
Taxation and labour supply, taxation and savings, risk-taking and wealth, general equilibrium (Herberger) models of tax incidence, theory of optimal taxation- Deficit Financing- Concept of Burden of Public debt – Compensatory aspect of debt policy – debt management

UNIT - V: BUDGETING
Budgeting-type of budgeting-public budget, kinds of budgets, zero based budgeting-programme and performance budgeting-Union and State government Budgets-Neutral and compensatory and functional finance-balanced budget multiplier.

RECOMMENDED TEXT:

BOOKS FOR REFERENCE

**CORE PAPER XI- INTERNATIONAL ECONOMICS – I**

**UNIT- I**
Nature and scope of international economics – Inter-regional and International Trade-theories of International trade – Basic concepts: - Community Indifference Curve — offer curve - Classical theories – Adam Smith – David Ricardo — J.S.Mill’s reciprocal theory – Heberler and Opportunity cost theory

**UNIT - II**

**UNIT - III**
Inter- industry trade and Intra-industry trade- differences –global pattern of intra industry trade –An explanation of Intra-industry trade

**UNIT- IV**
Economies of Scale and Trade: Differential products and trade, differences in taste and Trade; The specific factor model – single and two specific factor case – Technological Gap and product cycle models— increasing returns to scale

**UNIT - V**

**RECOMMENDED TEXT:**
1. International Economics – Bo sodersten
2. International economics paulkrugman
BOOK REFERENCES
1. International trade theory and policy – Giancarlo Gandolfo
2. International Economics: Miltiades Chacholiades
4. International Economics Francis cherunilam

CORE PAPER XII- DEVELOPMENT ECONOMICS – I

UNIT - I: INTRODUCTION
Features of less developed economics- Similarities and differences
Distinction between growth and development; Indicators of development: GDP as
development indicator; purchasing power points; Human Development Index

UNIT - II: INEQUALITY, POVERTY & DEVELOPMENT
Measuring inequality: Lorenz curve and Gini co-efficient
Economic growth and inequality: Kuznets inverted U Hypothesis; consequences of inequality
Measuring Poverty: Head count index, income gap index and capability poverty ---
The impact of growth and poverty

UNIT - III: THEORIES OF DEVELOPMENT - I
Adam smith’s Theory
Malthus Theory
Ricordo’s Theory
Marx Theory of Capitalist development

UNIT –IV: THEORIES OF DEVELOPMENT - II
Development with unlimited supplies of labour (Lewis Theory)
Schumplter’s Theory of development
Rostow’s Stages of growth theory

UNIT –V: THEORIES OF GROWTH
Harrod-Damon model
Solow ; growth theory: the convergence hypothesis, Solow residual
New growth theory (Romer)

RECOMMENDED TEXT

BOOKS FOR REFERENCE:

Elective Paper – III: ECONOMICS OF INFRASTRUCTURE

UNIT-I
Infrastructure and economic development – Infrastructure as a public good; Social and physical infrastructure; Special characteristics of utilities. The peak-load, Off-Load Problem, Dual Principle Controversy

UNIT-II

UNIT-III

UNIT-IV
Organization and Financing of Services - Private vs. Public Sector Financing - the fixation of prices of social services-Health, Education and Human Development Concept- scope and relevance of Human Resource Development - Education and Economic Growth - Educational Planning -Social Demand -The case for Universal, Free, Primary Education; Structure of higher education and problems of its financing in India; The issues in education policy – importance of health and its impact on Economic development.

UNIT-V
Infrastructure in Modern India – strategies for Infrastructure development – differences in infrastructure building between China and India – infrastructure investments in India – prioritization of infrastructure sectors for development – Macro perspective of Infrastructure development in India - Infrastructure and Plans.

RECOMMENDED TEXT
BOOKS FOR REFERENCE

SEMESTER – IV

CORE PAPER XIII- MACRO ECONOMICS II

UNIT – I: KEYNESIAN THEORY THROUGH IS-LM FRAMEWORK

UNIT – II: MONETARISM
The Crisis in Keynesian Theory: Stagflation - Expectations Augmented Philips Curve (NAIRU) Policy Implications of Monetarism

UNIT III: NEW CLASSICAL ECONOMICS AND NEW KEYNESIAN ECONOMICS

UNIT - IV: BUSINESS CYCLE:
Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin model, Control of Business Cycles, relative Efficiency of Monetary and Fiscal Policies

UNIT - V: OPEN ECONOMY AND MACRO ECONOMY

RECOMMENDED TEXT:

BOOKS FOR REFERENCE
UNIT - I: PUBLIC POLICY

UNIT - II: PUBLIC EXPENDITURE

UNIT - III: FISCAL FEDERALISM

UNIT - IV: INDIAN FISCAL FEDERALISM

UNIT - V: FISCAL POLICY

RECOMMENDED TEXT:

BOOKS FOR REFERENCE
CORE PAPER XV- INTERNATIONAL ECONOMICS –II

UNIT - I

UNIT - II

UNIT - III

UNIT - IV
International capital movements – Foreign aid and development – Aid vs Trade effects of International capital flows – Internal and external balance –The Mundell-Fleming model– internal and external balance through monetary –fiscal policy mix – fixed exchange rate system and flexible exchange rate system – balance of payments with inflation and unemployment.

UNIT-V

RECOMMENDED TEXT:
1. International Economics – Bo sodersten
2. International economics paulkrugman

BOOK REFERENCES
1. International trade theory and policy – Giancarlo Gandolfo
2. International Economics: Miltiades Chacholiades
4. International Economics Francis cherunilam

CORE PAPER XVI- DEVELOPMENT ECONOMICS – II

UNIT - I: SECTORAL CONTRIBUTION IN DEVELOPMENT
Agricultural sector’s contribution to development and policies for enhancing agriculture’s role in development
Rural-Urban migration: Push and Pull factors.
Manufacturing sector and developmental.
Urban informal sector: Characteristics of the sector and consequences of its growth.

UNIT - II: HUMAN CAPITAL AND DEVELOPMENT
Population: Demographic transition, population – development interrelationship
The role of health in national and economic performance
Education and Economic growth: the return on education; and productivity
Economic rationals for government’s role in providing health care and education in poor economics

UNIT - III: STRATEGIES FOR DEVELOPMENT
Balanced and Unbalanced growth
The role of market and state in development
Strengths and limitations of inward-oriented and outward trade policies
The “Washington Consensus” components and critical evaluation

UNIT - IV: GENDER EMPOWERMENT
The concept of gender empowerment UNDP’s Gender Empowerment Measure
The mutual interrelationship between gender empowerment and economic development
The concept of sustainable development (Brundland definition), policies for sustainable development

UNIT - V: NON-ECONOMIC FACTORS IN DEVELOPMENT
Geography and development; the “internal resource curse” (DUTCH Disease)
Social capital and economic growth
Institution for development: Property rights, “inclusive” political institutions

RECOMMENDED TEXT

BOOKS FOR REFERENCE:

Elective Paper – IV: COMPUTER APPLICATION IN ECONOMIC ANALYSIS

UNIT - I
Introduction to Computers and Peripherals Basic components of computer - CPU, input-output devices, keyboard, mouse and scanner, video display, printers and plotters, data storage and retrieval, hard disk, floppy disk and CDROM; Type of computers and their applications; Computer networking and resource sharing, hardware, software and firmware.

UNIT - II
Data Processing, Techniques and Algorithms Concept of data, record and file; Types of data and data structures, data analysis; File handling and operations like opening, appending and cascading, closing and attribute control; Data storage and retrieval; Data operations; Algorithms like sorting, merging, joining and bifurcation; Database concepts and operation on database; DBMS and RDBMS.

UNIT - III
Statistical Processing Techniques and Methods Series, groups, tables, graphs and objects; Time and frequency series, regression methods and techniques; Regression analysis; Data Validation; Trends and cyclicity forecasting; System equation; Specification; Error and correction strategies, Statistical modeling and descriptive statistics; Distribution functions, Regression statistics.

UNIT - IV
Review of Multivariate models & Factor Analysis:a ) Estimation of Recursive and simultaneous Equations models. Analysis of qualitative data: ANOVA, ANCOVA etc. Multivariate statistical analysis: Multiple correlation and multiple regression; b) Cluster analysis, discriminate analysis etc., Application of Excel, SPSS and LIMDEP for statistical and econometric analysis. Database in Indian Economy: Census, CSO, NSSO, CMIF etc.

UNIT - V
Applications to Finance & Commerce a) On line banking; ATM's Electronic stock exchange; Electronic trading; Data sharing and decimation; Electronic transaction; Document delivery; Authentication and validation transaction processing. b) Electronic trading and marketing; On line shopping and malls, B2B, B2C, B2B and G2B models and their applications; Document and transaction security and digital Signature; Integrated transaction on mobile platforms.

RECOMMENDED TEXT
3. Handbook of Statistic

**BOOKS FOR REFERENCE**