DIRECTORATE OF DISTANCE EDUCATION

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

New Scheme of Examination
Master of Arts (Economics)
Two Year Programme (Annual)

M.A (Previous)

Paper	Nomenclature	Marks
EC1001	Micro Economics Analysis	100
EC1002	Macro Economics Analysis	100
EC1003	Economics of Growth and Development	100
EC1004	Mathematics for Economics	100
EC1005	Statistical Methods	100

M.A (Final)

Paper	Nomenclature	Marks
EC2001	Indian Economics Policy	100
EC2002	Public Economics	100
EC2003	International Trade and Finance	100
EC2004	Agricultural Economics	100
EC2005	Managerial Economics	100

MASTER OF ARTS (ECONOMICS)

M.A. (PREVIOUS)

MICRO ECONOMICS ANALYSIS
PAPER CODE: EC1001

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Unit-I Nature and scope of Microeconomics. Role and significance of assumptions in economic analysis and appraisal of economic theories. Concepts of equilibrium, partial and general, static, comparative static and dynamic. Analysis of consumer behaviour, demand function, law of demand–Cardinal, Ordinal and Revealed preference approaches. Meaning, types and measurement of elasticity of demand: elementary idea of consumer's surplus: Bandwogon, snob and veblen effect. Consumer behaviour under conditions of uncertainty. Intertemporal consumption choice. Production function. Laws of Production: short period and long period: Internal and External economics and diseconomies. Concept of cost of production. Derivation of short and long run cost curves and their interrelationship. Optimum input combinations. Muitiproduct firm. Technical progress and production function; Hick's classification. Concepts of elasticity of substitution. Properties of CD and CES production functions. Empirical evidence on cost curves.

Unit-II Pricing process and equilibrium of firm and industry under perfect competition, monopoly (including discriminating monopoly and bilateral monopoly); monopolistic competition, oligopoly (including non-collussive eligopoly, duopoly models of Cournot and Bertrand and collussive models dealing with joint profit maximisation, market sharing and leadership phenomena). Kinked demand model and price rigidily. Welfare effects of price control, price support and production quotas. Marginalist debate. Average cost pricing principle. Bain's limit pricing model. Baumol's sales revenue maximization hypothesis (Simple Static model). Behavioural approach (Cyert and March model). Economics of search for information. Markets with asymmetric information.

Unit-III Neoclassical Theory of factor pricing: Under competitive conditions, in case of monopolistic power in product the factor market, bilateral monopoly and in case of monopoly union. Product Exhaustion problem. Rent and quasi rent, interest and profits. Technical process and factor shares. Issues in General equilibrium analysis. Welfare economics. Concept of social welfare-some early criteria-pareto optimality criterion and efficiency conditions-Kaldor, Hicks compensation criterion, Bergson's Social Welfare Function. Idea of theory of second best and Arrow's Impossibility theorem. Perfect competition and welfare maximisation, imperfect competition. Market failure and ways of correcting it.

MACRO ECONOMIC ANALYSIS
PAPER CODE: EC1002

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Unit-1: Determination of Output and Employment: Classical Approach: Keynesian Approach (Two Sector Model, Three Sector Model, and Four Sector Model): Hicks-Hanson Synthesis (Extended Model with Fixed Price Level): Equilibrium income and the interest rate in the product market and money market; Fiscal Policy effects on demand, Monetary Policy effect on demand, the Interaction of Monetary and fiscal policies. Extended model with Variable Price Level; Price and Output Level; Wage price flexibility and the Full Employment Equilibrium; Monetary-Fiscal Policies and the Full Employment Equilibrium.

Unit-2: Behavioural Foundation: Theories of Consumption: The Absolute Income Hypothesis; Relative Income Hypothesis, The Permanent Income. The Life cycle income hypothesize: Theories of Investment: The Present Value Criterion for Investment; The marginal Efficiency of Capital and Investment; The Accelerator Theory; The Financial Theory of Investment; The Demand and Supply of Money: Classical Approach to Demand for Money – Quantity Theory

Approach, Fisher's Equilibrium; Cambridge approach. Theory; Keyne's Liquidity Approach – Transaction, Precautionary and Speculative Demand for Money – Aggregate Demand for Money. Friedman, Pstinkin, Baumal and Money Multiplier.

Unit-3 Inflation, Unemployment, Economic Growth and international Adjustment: Effects of lnflation; Demand side and Supply Side Theories of inflation. Inflation and Unemployment: Pressure Curve, Trade Offs (Trade off and Non Trade Off between Inflation and Unemployment). Adaptive Expectation and Rational Expectations. Economic Growth: Harrod Domar Model, Neo-classical Model with money and without money. International Adjustment: The Determination of National Income in open Economy; The International Transmission of disturbances: Transmission under Fixed Exchange Rates, Transmission under Floating Exchange Rates. Mundell-Fleming Model. Issue in Agriculture Price Policy, Its role and functions, Price determination, Evolution of Agriculture.

ECONOMICS OF GROWTH AND DEVELOPMENT
PAPER CODE: EC1003

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Unit-1: Economic Growth, Economic development and sustainable development; Importance/role of Institutions, government and markets. Perpetuation of underdevelopment,vicious circle of poverty, circular causation, Structural view of underdevelopment. Measurement of development–Conventional, Human development index and quality of life indices. Factors affecting economic growth and development–Natural resources, capital, labour, technology, human resources development and infrastructure. Theories of development: Classical, Marx, Schumpeter and structural analysis of development–imperfect market
paradigm, Lewis model of development, Ranis-Fei model. Dependency theory of development.
Unit-II: Approaches to development: Balanced growth, Critical minimum effort, big push, unbalanced growth, low income equilibrium trap.
Theories of economic growth: Model of growth of Robinson and Kaldor; Harrod Domar model, Instability of equilibrium, Neo-classical growth Solow's model; Steady state growth. Technical Progress–Hicks, Harrod and learning by doing production function approach to the determinants of growth.
Cambridge criticism of neo-classical analysis of growth: The Capital controversy.

Unit-III Sectoral aspects of development: Importance of agricultural and industry in economic development; Trade and development; trade as an engine of growth, two-gap analysis, Prebishch, Singer and Myrdal views, gains from trade and LDCs. Choice of techniques and appropriate technology; Investment criteria; Cost-benefit analysis. Objectives and role of monetary and fiscal policies in economic development; Indicators and measurement of poverty; Techniques of planning; Pian models in India; Planning in a market-oriented economy.
Endogenous growth: Role of education, Research and knowledge, explanation of cross country, differentials in economic development and growth.

MATHEMATICS FOR ECONOMICS
PAPER CODE: EC1004

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Unit-I
Concept of a function and types of functions, solution of linear equations in two variables, quadratic equation and nature of roots, simple applications in Economics. Matrices–Types and simple operations on matrices, multiplication, transpose, trace, adjoint, inverse and rank of matrices. Determinants and their basic properties, Solution of a system of two and three

equations by matrix inverse method and cramer's rule. Input-Output Analysis: Input-Output transactions table, assumptions, technological coefficient matrix, solution of
open input-output model, Leontief Matrix, Hawkins–Simon Conditions. The static open and closed models.
Unit-II
Differentiation – Meaning and economic interpretation of derivative and slope, rules of differentiation, partial and total derivatives– Economic applications. Homogenous functions. Euler's theorem, Problems of maxima and minima of single and multivariable (upto 3) functions; unconstrained and constrained optimisation in simple economic problems; optimization with Langarangian method with upto 2 equality constraints. Simple applications in market equilibrium. Interpretation of marginal, average and elasticity concepts and their relationships.

Integration – Meaning and economic interpretation. Definite and indefinite integration involving single variable function, Simple rules of integration; Application to consumer's surplus and producer's surplus.
Unit-III
Differential equations; Non linear differential equations of the first order and first degree variables are separable, homogenous differential equation, exact differential equation; linear differential equation of first order – homogenous differential equation with constant coefficients, non-homogenous differential equation with constant coefficients, general case; Linear differential equation of the second order with constant coefficient. Difference equations; Homogenous and non-homogenous linear difference equation with constant coefficient; Linear first order, and second order, difference equations with constant coefficients, interaction between the multiplier and acceleration principle.

STATISTICAL METHODS
PAPER CODE: EC1005

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

Unit-I
Measures of central tendency: A.M, G.M., median, quartiles, deciles, percentiles and mode. Measures of dispersion: Range, interquartile range, quartile deviation, mean deviation, standard deviation. Index numbers: Problems and methods of construction of various types of indices, Laspeyres, Passche's and Fisher's
ideal index number; chain-base indices base shifting, splicing and deflating the index numbers. Cost of living index numbers and consumer price index numbers. Time series analysis: Components of time series and their decomposition. Methods of measuring trend, cyclica, seasonal and irregular variations.
Unit-II
Random experiment, random variable sample space, exhaustive events, independent events, mutually exclusive events, equally likely events, simple and compound events, classical, relative frequency, and axiomatic approaches to probability, basic results on probability, conditional probability, Baye's theorem, economic applications of probability and Baye's theorem. Concept and use of mathematical expectation (mean and variance), concept of density function, probability distributions; binomial, poisson and normal distributions, marginal and conditional distributions, properties and interrelationships, fitting of distribution.
Unit-III
Correlation and regression: Simple correlation, Pearson, Spearman's correlation coefficients, multiple and partial correlation analysis, specification of a simple linear regression model, least square estimation of linear regression coefficients, interpretation of correlation and regression coefficients. Sample and Census; methods and types of sampling, sampling error, small and large sample. Concept of an estimator and its sampling distribution; properties of a good estimator, concepts of point and interval estimation, OLS and ML estimators
of regression parameters. Elements of statistical Inference: Parameters and estimates; concepts of sampling distribution of a statistic, standard error, concept of hypothesis testing and tests of significance (z, t, chi square and F test), Type I and Type II errors, level of significance and power of a test. Neyman Pearson lemna.

MASTER OF ARTS (ECONOMICS)
M.A. (Final)
INDIAN ECONOMICS POLICY
PAPER CODE: EC2001

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

UNIT-I
Approaches to economic development and its measurement—sustainable development; Role of State, market and other institutions; Indicators of development—Human development Index (HDI), gender development indices (GDI); Objective and strategy of planning; Failures and achievements of Plans; Developing grass-root-organisations for development—Panchayats, NGOs and pressure groups; Board demographic features of Indian populations; Rural-urban migration; Urbanization and civic amenities; Concept and measurement of poverty — Head count index, poverty gap index, squared poverty gap index and Human poverty index (HPI); Income inequality; Energy; Social infrastructure—education and health; Environment; Regional inbalance; Issue and policies in financing infrastructure development.

UNIT-II
Institutional Structure—land reforms in India; Technological change in agriculture—pricing of agricultural inputs; Terms of trade between agriculture and industry; Agricultural finance policy: Agricultural Marketing and warehousing; Issues in food security — policies for sustainable agriculture; Industrial policy; Public sector enterprises and their performance; Problem of sick unit in India; Privatisation and disinvestment debate; Growth and pattern of industrialisation; Small-scale sector; Productivity in industrial sector; Exit policy — issues in labour market reforms; Approaches for employment generation; Structure and direction of foreign trade; Balance of payments; Issues in export in export policy and FEMA; Exchange rate policy; Foreign
capital and MNCs in India; The progress of trade reforms in India.

UNIT-III
Fiscal federalism-centre-state financial relations; Finances of central government; Finances of state governments; Parallel economy; Problems relating to fiscal policy; Fiscal sector reforms in India; Analysis of price behaviour in India; Financial sector reforms; Interest rate policy; Review of monetary policy of RBI; Money and capital markets; Working of SEBI in India. Rationale of internal and external reforms; Globalisation of Indian economy; W.T.O. and its impact on the different sectors of the economy; Need for issues in good governance; Issues in competition and safety nets in Indian economy.

PUBLIC ECONOMICS
PAPER CODE: EC2002

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

UNIT-I
Economic Rationale of Government, Fiscal functions; Market failures: Imperfections, Decreasing costs, Externalities and public goods; Concepts of Private Goods, Pure Public Goods, Mixed Goods and Merit Goods; Theory of Public Goods: The optional provision of Public Goods, Free Rider's Problem, Lindahl Equilibrium; Public choice and Fiscal decision making, Voting systems, Majority voting.

UNIT-II
Public Expenditure: Structure and Growth of Public Expenditure; Wagner's Hypothesis, Peacock-Wiseman hypothesis; Economic effects of Public Expenditure; Criteria for Public Investment, Social Cost-Benefits analysis: Valuation of benefits and costs, discount rate; Budgeting: Concepts of budgets Reforms in Expenditures budgeting and zero based budgeting; Budget making process in India; Public Expenditure in India; Trends and Issues.

UNIT-III
Theory of Taxation: Various approaches to Taxation, neutrality, equity, ability to pay, benefits principle, revenue maximisation, income maximisation, Analysis of incidence of axes, Efficient tax design: Optional Taxation, Effects of Taxation on work effort, savings, investment and growth; Classification of taxes: Direct and indirect taxes, progressive, proportionate and regressive taxes, Ad-valorem and specific taxes; Tax systems in India: Structure, Composition and various economic issues.

UNIT-IV
Fiscal Federalism: Principles of Multi-Unit Finance; Principles of Grant Design; Indian Fiscal Federalism, Vertical and horizontal imbalances, Assignment of functions and sources of Revenue; Constitutional provisions; Finance Commissions and Planning Commission; Centre-State financial Relations in India, Problems of States' resources and indebtedness; Transfer of resources from Union and States to Local Bodies.

UNIT-V
Fiscal Policy: Instruments and transmission mechanisms: Fiscal policy for stabilisation—automatic vs. discretionary stabilisation; Various concepts of budgetary deficits, Fiscal Deficits in India: extent, trend and implication; Public Debts; Functional Finance and the controversy regarding burden of public debt and its shifting, Public Borrowing, Debt Management.

INTERNATIONAL TRADE AND FINANCE
PAPER CODE: EC2003

Marks: 100   **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

UNIT-I
The pure theory of international trade — Theories of absolute advantage, comparative advantage and opportunity costs, modern theory of international trade; Theorem of factor price equalisation; Empirical testing of theory of absolute cost and comparative cost, Heckscher - Ohlin theory of trade. Kravis and Linder theory of trade, Role of dynamic factors, i.e., change in tastes, technology and factor endowments in explaining the emergence of trade. The Rybezynski theorem—concept and policy implications of immiserising growth; Causes of emergence and measurement of intra-industry trade and its impact on developing economies. Measurement of gains from trade and their distribution; Concepts of terms of trade, their uses and
limitations for less developed countries; Trade as an engine of economic growth; Welfare implication— Empirical evidence and policy issues; The Theory of interventions (Tariffs, Quotas and non-tariff barriers); Economic effects of tariffs and quotas on national income, output, employment, term of trade, income distribution; Balance of payments on trading partners both in partial and general equilibrium analysis. The political economy of non-tariff barriers and their implications; Trade under imperfectly competitive market.

UNIT-II
Meaning an components of balance of payments; Equilibrium and disequilibrium in the balance of payments; The process of adjustment under system of gold standard, fixed exchange rates; Expenditure reducing and expenditure—switching policies and direct controls for adjustment; Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes; A critical review of the Absorption and monetary approaches to the theory of balance payment adjustment; Foreign trade multiplier with and without foreign repercussions and determinations of national income and output; Relative merits and demerits of fixed and flexible exchange rate in the context of growth and development in developing countries. Forms of economic cooperation; Static and Dynamic effects of a custom union and free trade areas.

UNIT-III
International Monetary System and Trade Policies in India
Multialtralism and WTO; Rise and fall of gold standard and Bretton-Woods system; Need, adequacy and determinants of international reserves of IMF; International Monetary System with special reference to Post and developing countries; Reforms of the International Monetary System, and developing countries; Functions of GATT/WTO (TRIPS, TRIMS); Recent changes in the direction and composition of trade and their implication; Rationale and impact of trade reforms since 1991 on balance of payments, employment and growth, Problems of India's International debt; Working and regulations of MNCs in India; Instrument of export promotion and recent import and export policies and agenda for future.

AGRICULTURAL ECONOMICS
PAPER CODE: EC2004

Marks: 100 **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

UNIT-I
Agriculture and Economic Development: Nature and Scope of Agricultural Economics, Role of agriculture in economic development. Interdependence between agriculture and industry, Agriculture in under-developed countries. Approaches to agriculture development: Schultz, Mellor, Boserup, Lewis, Ranis-Fei.

UNIT-II
Agricultural Production and Productivity: Production function, Factor-factor and product-product relationship, Equilibrium of the capitalist farm, peasant family farm and share tenant farm; Analysis of farm management; the production function approach, Farm budgeting and cost concepts; Measures of farm efficiency. Supply response in agriculture, Farm Size and productivity debate.

Agricultural Development and tenurial conditions—Land Reforms in India
Review of Agricultural Development and policy adopted in India. Impact on production, rural employment, income distribution; overview of growth rates of production and productivity of major crops and regional disparities in Agricultural Development; Sustainability of this strategy.

UNIT-III
Issue in Agriculture Price Policy: Its role and functions, Price determination, Evolution of agricultural price policy in India, Terms of trade between agricultural and non public distribution system, Agricultural Marketing, Problems of Marketing agencies, Food Security and public distribution system, Agricultural credit: Sources, problems and government policies since independence, Co-operative movement in India — Organisation, structure and development of different types of co-operative in India.

Model of production, Private and public investment in Agriculture
Indian Agriculture and the world economy: International trade in agricultural commodities, World Trade Organisation and International trade in agriculture, Role of MNCs in agri-business, Impact of WTO on Indian Agriculture.

MANAGERIAL ECONOMICS
PAPER CODE: EC2005

Marks: 100 **Time: 3Hrs**

Note: Examiner will be required to set NINE questions in all. Question No. 1 will be compulsory which consists of 12 short-answer type questions each of 2 marks covering the entire syllabus out of which candidate will be required to attempt ten questions. In addition to Q.No. 1, candidate will be required to attempt four more questions from the remaining eight questions each carrying 20 marks.

UNIT-I
Nature and Scope of Managerial Economics, Economic Theory and Managerial Economics, Market demand and demand forecasting: Market demand, meaning, types and determination, meaning, types and measurement of elasticity of demand, meaning and methods of demand forecasting, Survey methods—export opinion survey method, consumers interviews methods; Statistical methods—trend method, regression method, loading indicator methods, simultaneous equation method.

UNIT-II
Theory of costs and break-even analysis. Various concepts of costs; Nature of cost functions (short and long period); Economics and diseconomics (internal and external); Estimation of cost-output relations; break-even analysis and its uses. Pricing Principles, policies and Practices; Limit pricing principle; Multiple product pricing, pricing in life cycle of a product statutory pricing.

UNIT-III
Capital budgeting and investment decision. Nature of capital budgeting problems, Evaluation of investment decisions. Sources and cost of capital. Alternative functions of business firms; Profit maximisation, sales revenue maximisation (Baumol); balanced growth rate maximisation (marris); managerial utility maximisation (Wiliamson); satisfying behaviour (Cyert and March).