
SEMESTER IV

4 Papers**Total 100 x 4 = 400 Marks****I. GENERIC/DISCIPLINE CENTRIC ELECTIVE [ECECO401A]:**

(Credits: Theory-04, Tutorial-01)

Marks: 30 (MSE: 20Th. 1Hr + 5Attd. + 5Assign.) + 70 (ESE: 3Hrs)=100	Pass Marks (MSE:17 + ESE:28)=45
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Instruction to Question Setter:Mid Semester Examination (MSE):

There will be **two** groups of questions in written examinations of 20 marks. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type five** questions of five marks each, out of which any three are to be answered.

End Semester Examination (ESE):

There will be **two** groups of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type six** questions of fifteen marks each, out of which any four are to be answered.

Note: There may be subdivisions in each question asked in Theory Examinations

The Mid Semester Examination shall have three components. (a) Two Semester Internal Assessment Test (SIA) of 20 Marks each, (b) Class Attendance Score (CAS) of 5 marks and (c) Class Performance Score (CPS) of 5 marks. “**Best of Two**” shall be applicable for computation of marks for SIA.

(Attendance Upto 75%, 1 mark; 75 < Attd. < 80, 2 marks; 80 < Attd. < 85, 3 marks; 85 < Attd. < 90, 4 marks; 90 < Attd., 5 marks).

A. ADVANCE MATHEMATICAL ECONOMICS**Theory: 60 Lectures; Tutorial: 15 Hrs****Module I: Theory of Optimization**

Conditions for relative maximum and minima values, extreme values, one variable, two variable case, quadratic forms, concavity and convexity of functions, optimization with equality constraints, Lagrange and total differential methods, First and second order conditions, quasi concavity and quasi convexity

Model II: Application of optimization theory:

Utility maximization and consumer demand, Slutsky equation; Compensated and normal demand functions; Homogeneous Production Function Least cost combination of inputs, expansion path Cobb-Douglas Production Function CES production Function Producer's Equilibrium, Constrained Optimization of a producer, Input demand functions; Adding up Theorem

Model III: Market Equilibrium

Single Market equilibrium, Multi Market Equilibrium system, Existence, Stability and Uniqueness of Equilibrium.

Model IV: Application of Matrices

Solution of Non-homogenous and homogenous equations systems, characteristics roots and vectors; linear programming - simplex and graphic method of solution; primal and dual formulation and solution; Game theory – solution with pure and mixed strategies – graphic method, equation method and linear programming method. Input-output analysis – open and

closed models; static and dynamic models, Simon – Hawkins conditions, IS-LM model in a closed economy.

Model V: Growth models and fluctuations

General and particular solutions of first, second and third order linear difference and differential equations, complex numbers and complex roots, Cobweb model, Determination of income and fluctuations in income – Classical and Keynesian macro systems; Static and dynamic multiplier, Trade cycle models of Samuelson and Hicks, Growth models – Harrod, Solow

Basic Reading List

- ☐ A.C. Chiang – Fundamentals of Mathematical Economics, Mc Graw Hill, New York.
 - ☐ R.G.D Allen. – Mathematics for Economics, Mc Milan Press.
 - ☐ Taro Yamane – Mathematics for Economics – An Elementary Survey Prentice Hall of India, Pvt. Ltd. New Delhi.
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OR**GENERIC/DISCIPLINE CENTRIC ELECTIVE****[ECECO401B]:**

(Credits: Theory-04, Tutorial-01)

Marks: 30 (MSE: 20Th. 1Hr + 5Attd. + 5Assign.) + 70 (ESE: 3Hrs)=100**Pass Marks (MSE:17 + ESE:28)=45****Instruction to Question Setter:**Mid Semester Examination (MSE):

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End Semester Examination (ESE):

There will be **two** groups of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type six** questions of fifteen marks each, out of which any four are to be answered.

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B. AGRICULTURAL ECONOMICS**Theory: 60 Lectures; Tutorial: 15 Hrs****Module I: Agriculture and Economic Development**

Nature and scope of agricultural and rural economics: Traditional agriculture and its modernization; Role of agriculture in economic development; interdependence between agriculture and industry-some empirical evidence Models of interaction between agro and the rest of the economy; Agricultural development, poverty and environment.

Module II: Diversification of Rural Economic Activities

Livestock economics- livestock resources and their productivity; Problems of marketing; White revolution; Fishery and poverty development; Forestry, horticulture and floriculture; Issues and problems in rural industrialization and development of agro-based industries.

Module III: Economics of Rural Infrastructure

Use of Land, water and energy; rural transport, communication, banking, extension services, role, modes and problems of rural electrification; rural social infrastructure- education and health and information dissemination.

Module IV: Agricultural Production and Productivity

Agricultural production resource use and efficiency production function analyses in agriculture. Factor combination and resources substitution cost and supply curves size of farm and laws of returns theoretical and empirical findings; Farm budgeting and cost of concepts; Supply. Response of individual crops and aggregate supply; Resource use efficiency in traditional agriculture; Technical change, labor absorption and gender issues in agricultural services.

Module V: Land Reforms and Land Policy

Principles of land utilization; Land distribution structure and trends; Land values and rent; Land tenures and, farming systems- peasant, capitalist, collective and state farming; Tenancy and crop sharing-forms, incidence and effects; Land reform measures and performance; Women and land reforms ; Problems of marginal and small farmers.

Module VI: Rural Labor Market

Rural Labour Supply, Interlocking of factor markets; Mobility of labor and segmentation in labor-markets, marginalisation of rural labor; Nature extend and trends in rural unemployment, Agricultural wages in India, male-female wage differences, Non-Agricultural rural employment-trends and determinants.

Module VII: Rural Finance

Role of capital and rural credit; Organized and unorganized capital market; rural savings and capital formation; Characteristics and sources of rural credit - Institutional and non institutional; reorganization of rural credit- cooperatives, commercial banks, Regional rural banks, Financial Inclusion , Role of NABARD.

Module VIII: Agricultural Prices

Marketing and state Policy; Agricultural markets and marketing efficiency; Marketing functions and costs; Market structure and imperfections regulated marketed and marketable and marketable surplus Behaviour of agricultural price – Cobweb model, Price and income stability; State policy with respect to agricultural marketing Warehousing; Prices, Taxation and crop insurance; Terms of trade between agriculture and non-agricultural Prices; Need for state intervention; Objectives of agricultural Price policy; instruments and evaluation; Food security in India and public distribution system.

Module IX: Agriculture and External Sector

International Trade in agricultural commodities; Commodity agreements- Role of World Trade Organization. Issues in liberalization agreement- of domestic and International trade in agriculture- 6.4. Nature and feature of agri-business; Role of MNCs.; Globalization of Indian economy and problems and prospects of Indian Agriculture Impact of World Trade Organization on Indian Agriculture.

Basic Reading List

- ☐ Bhaduri, A. (1984), The Economic Structure of Backward Macmillan, Delhi.
- ☐ Bilgrami, S.A.R. (1996), Agricultural Economics, Himalan Publishing House, Delhi.
- ☐ Dantwala, M.L.et. al (1991) Indian Agraicultural Development since independence, Oxford and IBM, New Delhi.
- ☐ Government of India (1976), Report on the National Commission on Agriculture, New Delhi.
- ☐ Government of India, Economic Survey (Annual) ,New Delh
- ☐ Gulati, A. and T. Kelly (1999) Trade Liberalization and Indian Agriculture, Oxford University Press, New Delhi.
- ☐ Joshi, P.C. (1975) Land Reforms in India, Trends and Prospective, Allied Publishers, Bombay.
- ☐ Kahlon, A.S. and D.S.Tyagi (1983), Agriculture Price Policy India, Allied Publishers, New Delhi. . Rao, C.H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi. ,
- ☐ Reserve Bank of India, Report on Currency and Finance (Annual), Mumbai.
- ☐ Rudra, A.(1982) Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
- ☐ Saini, G.R.(1979)Farm Size, Resourse Use Efficiency and Income Distribution, Allied Publishers, N. Delhi.

OR**GENERIC/DISCIPLINE CENTRIC ELECTIVE****[ECECO401C]:**

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C. MANAGERIAL ECONOMICS**Theory: 60 Lectures; Tutorial:15 Hrs****Module I: Nature and Scope of Managerial Economics**

Definition of Economics and Managerial Economics-Nature, Scope, functions, Uses and Limitations of Managerial Economics.

Module II: Demand Analysis

Meaning-Law of Demand and its determinants- Meaning, types and degrees of elasticity- Measurement of price elasticity- Meaning- Factors involved in forecasting- Methods of forecasting- Survey method, graphical method and experimental method-criteria for good forecasting.

Module III: Production Analysis

Meaning and the managerial use of a production function.- Law of variable proportions- Iso-quant-properties and the equilibrium .Meaning-Total, Average and Marginal cost(simple problems to calculate these values) Meaning-Total, Average and Marginal revenue (simple problems to calculate these values) Meaning-construction of a break even chart (any one with simple practical application of it)-and the margin of safety.

Module IV: Techniques of Pricing

Full cost pricing- Marginal pricing – Target pricing-Peak load pricing –Going rate pricing- Cyclical pricing-Customary pricing-Product-line pricing-Skimming pricing-Penetrating pricing- Pricing of joint product, new product.

Basic Reading List

- ❑ Joel Dean: Managerial Economics, Prentice Hall of India, 1987.
- ❑ P.L.Mehta: Managerial Economics-Analysis, problems and causes. Sultan Chand & Sons,1992
- ❑ R. L. Varshney and K.L. Maheswari: Managerial Economics. Sultan Chand & Sons,1987.
- ❑ S. Sankaran- Economics Analysis, Margham Publications, Madras,1991.