

M.A. Economics (2 years)
Semester-I
MAECO-E-211
Quantitative techniques in Economics

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

Unit-I

Functions: Concept and types of functions; Linear and Quadratic, Logarithmic, and Exponential function; Limits, Continuity and derivatives; Rules of differentiation and its economic applications. Rules of Partial differentiation and its economic applications. Elasticity and their types.

Unit II

Problem of maxima -minima in single and multivariable function; Unconstrained and constrained optimization in simple economic applications. Concept of integration and its economic application.

Unit III

Concept of Matrix and their types, simple operations on matrices, matrix inversion and rank of matrix; Determinants and their properties. Solution of simultaneous equations through Cramer's rule and Matrix inverse method and their economic applications.

Unit IV

Difference equations – Solution of first and second order difference equations; Applications in trade cycle models; Growth models and lagged market equilibrium models.

Note: The total marks for each paper will be 100 including 30 marks for internal assessment.

The question paper for end term examination will consist of nine questions of 14 marks each. The first question will be compulsory having seven parts of 2 marks each, covering the whole syllabus. In addition, eight more questions will be set comprising two questions from each unit. The students shall be required to attempt one question from each unit.

Suggested Reading:

- Mathematics for Economics by Michael Hoy et al, PHI, New Delhi, 2004.
- Quantitative Methods for Business and Economics by Adil H. Mouhammed, PHI, New Delhi, 2003.
- Quantitative Methods by D.R. Aggarwal
- Basic Mathematics for Economists by R.C. Joshi, New Academic Publishing
- Leontief, W. (1936) Quantitative input-output relations in the economic systems of the United States. Review of Economics and Statistics, Vol 18, pp.105-125.
- Miller, R.E. and P.D. Blair (1985) Input-Output Analysis: Foundations and Extensions. Prentice-Hall, Englewood Cliffs, New Jersey.
- Proops, J., Faber, M. and Wagenhals, G. (1993) Reducing CO2 Emissions: A Comparative Input-Output Study for Germany and the UK, Springer-Verlag, Heidelberg.
- Aggarwal, H.S. : Modren Micro -Economics, Konark, New Delhi, 1998.
- Taro Yamane, Mathematics for Economists, PHI, 1973.
- Quantitative Techniques in Management by N.D. Vohra, TMH.
- Operations Research by R. Wagner
- Operations Research by Hamdy A. Taha
- Allen R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press, London.
- Black, J. and J.F. Bradley (1973), Essential Mathematics for Economists, John Wiley and Sons.

- Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics (3rd Edition), McGraw Hill, New Delhi.
- Croxton, F.E., D.J. Cowden and S. Klein (1973), Applied General Statistics, Prentice Hall, New Delhi.
- Gupta, S.C. and V.K. Kapoor (1983), Fundamentals of Applied Statistics, S. Chand and Sons, New Delhi.
- Marketing Research by Kinnear and Taylor, McGrawhill.
- Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book, London.

M.A. Economics (2 years)
Semester-II
MAECO-E-221
Statistical Methods in Economics

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

Unit-I

Basic concepts and definitions of probabilities: Laws of Addition and multiplication; Conditional probability; Basic concepts of sampling: random and non random sampling. Normal distribution and its properties.

Unit-II

Parameter and statistics; concepts of sampling distribution of a statistic, standard error, hypothesis testing, test of significance, Type I and Type II errors, level of significance, z, t, chi-square and F tests.

Unit-III

Concept of estimators and its desirable properties. Estimation of simple, compound and exponential growth rates.

Unit-IV

Correlation and regression analysis; Simple correlation, Pearson, spearman's correlation coefficients. Partial and Multiple correlation analysis and multiple regression analysis, specification of a simple linear regression model, least square estimation of Linear regression coefficients, interpretation of correlation and regression coefficients and their properties. Coefficient of multiple determination.

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Suggested Readings:

- Gupta S. C. "Fundamentals of Statistics" S. Chand & Sons, New Delhi (1993)
- Spiegel, Murry R "Theory and problems of Statistics" (Schaum's outline series, McGraw Hill) (1992)
- Karmal P. H. and Polasek M. "Applied Statistics for Economists (4th edition), Pitman, Australia.

M.A. Economics (2 years)
Semester-III
MAECO-C-232
International Trade-I

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

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 equalization; Kravis and Linder theory of trade.

Unit-II

The Rybczynski theorem-concept and policy implications of immiserizing growth; Causes of emergency 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.

Unit-III

The theory of interventions (Tariffs, Quotas and non-tariff barriers); Economic effects of tariffs and quotas on national income, output, employment, terms of trade, income distribution and Balance of payments on trading partners both in partial and general equilibrium analysis. Trade under imperfectly competitive market.

Unit-IV

Meaning and 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 and flexible exchange rates; Expenditure-reducing and expenditure-switching policies and direct controls for adjustment.

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Suggested Readings:

- Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Massachusetts.

- Carbouth, M. (1999), International Economics, International Thompson Publishing, New York.
- Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
- Dana, M.S. (2000), International Economics: Study Guide and Work Book (5th Edition), Rutledge Publishers, London.
- Dunn, R.M. and J.H. Mutt (2000), International Economics, Rutledge Publishers, London.
- Kenen, P.B. (1994), The International Economy, Cambridge University Press, London
- Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
- King, P.G. (1995), International Economics and International Economic Policy: A Reader, McGraw Hill International, Singapore.
- Krufnan, P.R. and M. Obstfeld (1994), International Economic: Theory and Policy, Glenview, Foresman.
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J. New York.
- Soderston, BO (1991), International Economics, The Macmillan Press Ltd., London.

M.A. Economics (2 years)
Semester-IV
MAECO-C-242
International Trade -II

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

Unit-I

Foreign trade multiplier with and without foreign repercussions and determination 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. Form of economic cooperation; Static and Dynamic effects of a custom union and free trade areas.

Unit-II

International Monetary System and Trade Policies in India: Multilateralism and WTO; Rise and fall of gold standard and Bretton-Wood system and its collapse; Need, Adequacy and determinants of international reserves; Conditionality clause of IMF; Emerging International Monetary System with special reference to Post Maastricht developments and developing countries; Reforms of the International Monetary System; Optimum currency Areas-Theory and impact in the developed and developing countries.

Unit-III

GATT 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.

Unit-IV

Problems of India's International debt; Working and regulations of MNCs in India, Instrument of export promotion and recent import and export policy.

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- Carbooth, M. (1999), International Economics, International Thompson Publishing, New York.
- Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
- Dana, M.S. (2000), Int, London.'

- Dunn, R.M. and I.H. Muernational Economics: Study Guide and Work Book (5th/1 Edition), Rutledge Publisherstt (2000), International Economics, Rutledge Publishers, London.
- Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
- Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
- King, P.G. (1995), International Economics and International Economic Policy: A Reader, McGraw Hill International, Singapore.
- Krufnran, P.R. and I, l. Obstfeld (1994), International Economic: Theory and Policy, Glenview, Foresman.
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J. New York.
- Soderston, BO (1991), International Economics, The Macmillan Press Ltd., London.

M.A. Economics (2 years)
Semester-II
MAECO-OE-2
Indian Economy: Issues, Outlook and Prospects (Open Elective)

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

Unit 1

Basic characteristics of the Indian economy as developing Economy: Major issues of development, Indian economy in the pre-British period, Economic consequences of British conquest. Decline of Indian Handicrafts and progressive Ruralization of the Indian economy. Commercialization of agriculture Post Green Revolution.

Unit II

Agricultural Economics: Its scope and nature, Difference between the agriculture and industry, Role of agriculture in economic development, contributions of industry to the development of agriculture, Interdependence of agriculture and industry, agricultural price policy for developing countries.

Unit III

Industry and Economic Development: Role of the Industrialization & Pattern of the Five year plan. Role of small scale industries in Indian Economy. Privatizations, liberalization and globalization. Its impact on Indian economy

Unit IV

Importance of Foreign Trade for developing Economy. India's Balance of Payments on Current Account. Current Export and Import policy, Impact of WTO on various aspects of Indian Economy. WTO, subsidies and agriculture.

Note: The total marks for each paper will be 100 including 30 marks for internal assessment.

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Suggested Readings:

- Bardhan. P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
- Brahmanada, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy: Inter-State Perspectives, Bookwell, Delhi.
- Datta, R. and K P. M. Sundhram (latest edition), Indian Economy. S. Chand & Company Ltd. New Delhi.
- Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.

- Mishra, S.K and V.K. Puri Indian Economy-151 Development Experience, Himalaya Publishing House, Mumbai, Latest Edition.
- Rudra Ashok, Indian Plan Models.
- Todaro, P. Development Planning: Models and Methods.
- United Nations, Guidelines for Project Evaluation.
- Wadhwa, C.D.(ed.), Some Problems of India's Economic Policy, 1987.
- Choudhary, Pramit (ed.), Aspects of Indian Economic Development, 1971.
- Rao, Hanumantha, C.H., Technological change and Distribution of Gains in Indian Agriculture, 1980.
- Ahluwalia, I.J., Industrialising Growth in Indian Stagnation since Mid 60's 1985.
- Kapila, Uma (ed.) Indian Economy Since Independence, 1993.
- Dholkia, B.H., Sources of Economic Growth.
- Jalan, Bimal (ed.), The Indian Economy Problems and Prospects.
- Chaudhari, Pramit. The Indian Economy : Poverty and Development, 1978.
- Brahamanda, P.R. and Panchmukhi, V.R.(ed.) The Development Process of the Indian Economy, Himalaya Publishing House, Bombay, 1987.
- Dantwala, M.L., Indian Agriculture Development since Independence, Oxford, IBH Pub. Co., New Delhi, 1991.
- Uppal, J.S. Indian Economic Problems- An Analytical Approach (ed.), Tata McGraw Hill, New Delhi (reprint), 1987.
- Saini, G.R: Farm Size, Resource use efficiency and Income Distribution, Allied Publishers Pvt. Ltd., New Delhi, 1979.
- Swamy, D.S. The Political Economy of Industrialization, Sage Publications, Delhi, 1994.
- Soni, R. N. Leading Issues in Agricultural Economics, Vishal Publishing Company.

M.A. Economics (2 years)
Semester-I
MAECO-E-214
Economics of Environment-I

Max. Marks: 100
External Examination: 70
Internal Assessment: 30
Time: 3 Hours

Unit-I

Economy and Environment; market failure in case of environmental goods---incomplete markets, externalities, non-exclusion, non-convexities and asymmetric information; Externalities in production and consumption and their internalization; Economic instruments for environmental protection; Price rationing ---pollution charges, ambient charges, product charges and subsidies.

Unit-II

Economic instrument for environmental protection; Quantity rationing---marketable pollution permits; liability rules---non compliance fees, deposit refund system and performance bonds; Evaluative criteria of and practical conditions or the use of economic incentives; mixed instruments; Coase Theorem; monitoring and enforcement of environmental regulations.

UNIT-III

Water resource planning in India; Resettlement and rehabilitation of the displaced; Pani Panchayat model; Subsidies; controls and use of natural capital in India; Environment and energy policy.

UNIT-IV

Environmental cost of economic growth; Estimation of marginal cost of abatement for designing the pollution tax; Concept of sustainable development; Sustainability rules; System of integrated environmental and economic accounting (SEEA); Solow-Hartwick approach to sustainability.

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Suggested Readings:

- Baumol, YAN and W.R. Ostes (1998).
- The Theory of Environmental Policy, Cambridge University Press.
- Bromely, D.W. (ed) (1995). Handbook of Environmental Economics, Blackwell, London.
- Hanley, N. and C.J. Roberts (ed.) (2002).
- Issues in Environmental Economics, Blackwell, Oxford, Macmillan.
- Kolstad, C.D. (1999) Environmental Economics, Oxford, New Delhi.
- Sankar, U. (ed.) (2001) Environmental Economics An Indian Perspective, Oxford, New Delhi.
- Sengupta, R.P. (2001) Ecology and Economics : An approach to Sustainable Development, Oxford, New Delhi.
- Chadha, G.K. (ed.) (2001) WTO and Indian Economy, Deep & Deep, New Delhi.
- Goodstein, E.S. (2002) Economics and the Environment, John Wiley, New York.
- Kadakodi, G.K. (2004) Environmental Economics in Practice, Oxford, New Delhi.