



UNIVERSITY OF CALICUT

Abstract

M.A.Applied Economics under CUCSS- in affiliated colleges- Scheme and Syllabus approved implemented with effect from 2012 admission- orders issued

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UNIVERSITY OF CALICUT (G & A- IV - B)

U.O.No. 279/2013/CU

Dated, Calicut University.P.O, 05.02.2013

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Read:-1. U.O.No GAI/J1/1373/08 DATED 23-07-2010

2..Minutes of the meeting of the Board of Studies in Economics (PG) held on 18-10-2012 (itemno.1)

3.Orders of Vice Chancellor in the File of even No. dated 05-02-2013

ORDER

Vide paper read first above, Calicut University Credit Semester System has been introduced at PG level in the affiliated colleges of Calicut University with effect from 2010 admission onwards.

Vide paper read 2nd above, the Board of Studies in Economics (PG) at its meeting held on 18-10-2012 had approved the syllabus of M.A. Applied Economics to be implemented with effect from 2012 admission.

Vide paper read 3rd above, the Vice Chancellor after having considered the matter and in view of urgency, has approved the minutes of the meeting of the Board of Studies in Economics (PG) held on 18-10-2012, exercising the powers of Academic Council subject to ratification by the Academic Council.

Sanction has therefore been accorded to implement the syllabus of M.A Applied Economics (CUCSS) offered in the affiliated colleges with effect from 2012 admission.

Orders are issued accordingly.

The syllabus is uploaded in the University website.

Sd/-

Kumari Geetha V

Deputy Registrar

Forwarded / By Order

Sd/-

Section Officer

To

The Principal,

St Marys College, Thrissur

Copy to:PA to CE/ Ex/EG/ EX 4/DR-AR PG Sn/Pg Tabulation Sn/Library/System

Administrator with a request to upload the syllabus/ GAI F Sn/SF/DF/FC

**MA APPLIED ECONOMICS- (CUCSS)**

**REGULATION, SCHEME, SYLLABUS**

**2012 ADMISSION ONWARDS**

**MA APPLIED ECONOMICS - 2012 ADMISSION ONWARDS**

**REGULATION AND SCHEME**

**ELIGIBILITY (REGULAR P.G PROGRAMME)**

Candidates with BA Economics, BSc Mathematics, BSc Statistics and any other other recognized undergraduate course with Economics as a significant component in its core/ major/main course

## **COURSE OF STUDY**

The course of study is 4 semesters and shall comprise of the subjects as prescribed in the syllabus

**MA APPLIED ECONOMICS (CUCSS) 2012 ADMISSION ONWARDS - SCHEME OF THE COURSE**

Semester	Name of the Paper	Credit	Hours		Total hours	Total Weight	
			Lecture Hours	Seminar hours		External*	Internal*
I	Core Course I- Microeconomic Theory	4	70	20	90	36	5
	Core Course II- Macroeconomic Theory	4	70	20	90	36	5
	Core Course III- Quantitative Techniques for Economic Analysis	4	70	20	90	36	5
	Core Course IV- Development Issues of Indian Economy (With special reference to Kerala)	4	70	20	90	36	5
II	Core Course V- International Economics	4	70	20	90	36	5
	Core Course VI- Financial Markets	4	70	20	90	36	5
	Optional I- Security Analysis and Portfolio Management	4	70	20	90	36	5
	Optional II- Environmental Economics	4	70	20	90	36	5
III	Core Course VII- Operations Research for Economic Analysis	4	70	20	90	36	5
	Core Course VIII- Econometrics	4	70	20	90	36	5
	Optional III- Health Economics	4	70	20	90	36	5
	Optional IV- Computer Application in Economic Analysis	4	70	20	90	36	5
IV	Core Course IX- Mathematical Economics	4	70	20	90	36	5
	Core Course X- Project Formulation and Evaluation	4	70	20	90	36	5
	Optional V- Agricultural Economics	4	70	20	90	36	5
	Optional VI- Population Studies	4					
	Valuation of Dissertations	4					
	Viva Voce 1. Based on the Dissertation(2 credits) 2. Based on theory papers taught for the four semesters (general viva)(2 credits)						
	<b>Total</b>	<b>72</b>					

**MA ECONOMICS (CUCSS) 2010 ADMISSION- SCHEME OF THE COURSE**

Semester	Name of the Paper	Credit	Hours		Total hours	Total Weight	
			Lecture Hours	Seminar hours		External*	Internal*
I	Core Course I- Microeconomic Theory	4	70	20	90	36	5
	Core Course II- Macroeconomic Theory	4	70	20	90	36	5
	Core Course III- Quantitative Techniques for Economic Analysis	4	70	20	90	36	5
	Core Course IV- Development Issues of Indian Economy (With special reference to Kerala)	4	70	20	90	36	5
II	Core Course V- International Economics	4	70	20	90	36	5
	Core Course VI- Financial Markets	4	70	20	90	36	5
	Optional I-	4	70	20	90	36	5
	Optional II-	4	70	20	90	36	5
III	Core Course VII- Operations Research for Economic Analysis	4	70	20	90	36	5
	Core Course VIII- Econometrics	4	70	20	90	36	5
	Optional III-	4	70	20	90	36	5
	Optional IV-	4	70	20	90	36	5
IV	Core Course IX- Mathematical Economics	4	70	20	90	36	5
	Core Course X- Project Formulation and Evaluation	4	70	20	90	36	5
	Optional V-	4	70	20	90	36	5
	Optional VI-	4					
	Valuation of Dissertations	4					
	Viva Voce 3. Based on the Dissertation(2 credits) 4. Based on theory papers taught for the four semesters (general viva)(2 credits)						
	<b>Total</b>	<b>72</b>					

### **CORE PAPERS:**

01. Microeconomic Theory
02. Macroeconomic Theory
03. Quantitative Techniques for Economic Analysis
04. Development Issues of Indian Economy (With special reference to Kerala)
05. International economics
06. Financial Markets
07. Operations Research for Economic Analysis
08. Econometrics
09. Mathematical Economics
10. Project formulation and Evaluation

### **OPTIONAL PAPERS:**

01. Security Analysis and Portfolio Management
02. Environmental Economics
03. Health Economics
04. Computer Application in Economic Analysis
05. Agricultural Economics
06. Population Studies

### **Components of Internal Evaluation**

	<b>Component</b>	<b>Weightage</b>
A	Assignment	1
B	Seminar	1
C	Attendance	1
D	Test Paper	2

### **Components of External Evaluation**

#### **Part A (Objective Type Questions)**

	<b>Component</b>	<b>Weightage</b>
A	4 Questions x 1/4	1
B	4 Questions x 1/4	1
C	4 Questions x 1/4	1
D	4 Questions x 1/4	2

#### **Part B (Short Answer Type Questions) out of 14 Questions answer any ten Questions**

10 Questions x 2 = 20 Weight

#### **Part C (Essay Type Questions) out of 5 Questions answer any three Questions**

3 Questions x 4 = 12 Weight

**Total = 36 Weight**



# **M.A. DEGREE IN APPLIED ECONOMICS (CUCSS) 2012 Admission onwards - SEMESTER COURSE**

## **CORE PAPERS:**

01. Microeconomic Theory
02. Macroeconomic Theory
03. Quantitative Techniques for Economic Analysis
04. Development Issues of Indian Economy (With special reference to Kerala)
05. International economics
06. Financial Markets
07. Operations Research for Economic Analysis
08. Econometrics
09. Mathematical Economics
10. Project formulation and Evaluation

## **OPTIONAL PAPERS:**

01. Security Analysis and Portfolio Management
02. Environmental Economics
03. Health Economics
04. Computer Application in Economic Analysis
05. Agricultural Economics
06. Population Studies

## **SEMESTER - 1**

### **CORE PAPERS**

## **Core Paper – 1: MICROECONOMIC THEORY**

**(Credit 4)**

**Total Hours: 90**

**Lecture Hours: 70**

**Seminar Hours: 20**

### **Module -1**

Theory of consumer choice: Individual behavior in the face of risk and uncertainty — choice between insurance and gambling — expected utility, risk aversion and risk preference — Neumann-Morgenstern method of constructing utility index — Friedman-Savage hypothesis — household portfolio decisions under conditions of uncertainty (risk reduction through diversification of portfolio) — the mean-variance analysis — the state preference theory.

Recent developments in the theory of market demand: Hick's logical ordering theory of demand — constant elasticity demand function — distributed lag models of demand (general form only) — linear expenditure systems.

### **Module - II**

Theory of production : Production function — homogeneous production function — Cobb-Douglas production function — CES production function — surrogate production function — fixed coefficient production function — technical progress and production function — equilibrium of the multi product firm in terms of production possibility curve and isorevenue curve — linear programming — input-output analysis.

### **Module - III**

Duopoly and Oligopoly : Characteristics of duopoly and oligopoly — interdependence and indeterminateness of demand curve under oligopoly — collusive and non-collusive models — Cournot's model — Edgeworth's model— Bertrand's model — Chamberlin's model — Stackelberg's model — Sweezy's kinked-demand model — price leadership models of low-cost price leader, dominant firm price leader and barometric price leadership — cartels aiming at joint profit maximization and market sharing cartels — theory of games — Baumol's theory of sales revenue maximization — Marris's model of managerial enterprises — Williamson's model of managerial discretion.

### **Module - IV**

Theory of product pricing and income distribution: Basic assumptions underlying the traditional theory of pricing — Hall and Hitch report and the full cost' pricing principle — attack on marginalist price determination — average cost pricing: the markup rule — Bain's limit-pricing theory — models of Sylos-Labini and Franco Modigliani.

Ricardian and Marxian theories of income distribution — degree of monopoly' theory of Kalecki — neo-Keynesian model of Kaldor — modified model of Pasinetti — technical progress and factor shares — product-exhaustion theorem: Euler's product-exhaustion theorem — Clark-Wicksteed-Walras product- exhaustion theorem.

## Module - V

General equilibrium and welfare economics — partial and general equilibrium — Walrasian general equilibrium - existence, uniqueness and stability of general equilibrium.

Criteria of social welfare — Pareto optimality criterion — perfect competition and Pareto optimality — Kaldor-Hicks compensation criterion — Scitovsky criterion — theory of second best.

## REFERENCES

- 1) H.A. John Green, *Consumer Theory*, Mac Millan, 1976, Chapters -13,14 and 15
- 2) Hicks, *A revision of Demand Theory*, Oxford University Press, 1956
- 3) David Laidler, *Introduction to Microeconomics*, Heritage Publishers, New Delhi, 1981, Chapter-7
- 4) Robert. H. Frank, *Microeconomics and Behaviour*, Irwin Me Graw - Hill, 2000, Chapter - 6
- 5) Robert Y Awh, *Microeconomics : Theory and Applications*, John Wiley and Sons, 1976, Chapter - 3
- 6) David Begg, Stanley Fisher and Rudiger Dornbusch, *Economics*, Me Graw - Hill Publishing Company, 1994, Chapter - 14.
- 7) Richard G. Lipsey and K. Alec Chrystal, *Principles of Economics*, Oxford University Press, 1999, Chapter- 12
- 8) William J. Baumol, *Economic Theory and Operations Analysis*, Prentice Hall of India Pvt. Ltd., 1982, Chapter- 22.
- 9) Koutsoyiannis, *Modern Microeconomics*, Mac Millan, 1983, Chapter-2.
- 10) C. da Costa, *Value and Distribution in Neoclassical and Classical Systems*, Himalaya Publishing House, Second Edition, 1992, Chapters 2,11
- 11) Kalman J. Cohen and Richard M. Cyert, *Theory of the Firm : Resource Allocation in a Market Economy*, Prentice Hall of India Pvt. Ltd., New Delhi, 1981, Chapter 16.

- 12) Henderson and Quant, *Microeconomic Theory : A Mathematical Approach*, Me Graw-Hill, 1971, Chapters 3,5,9.
- 13) Peter Calvo and Geoffrey Waugh, *Microeconomics : An Introductory Text*, Tata Me Graw-Hill, 1979, Chapter-12
- 14) Asimakopulus, *An Introduction to Economic Theory, Microeconomics*, Oxford University Press, Delhi, 1978, Chapter- 15
- 15) Luigi L Pasinetti, *Growth and Income Distribution, Essays in Economic Theory*, Cambridge University Press, 1974, Chapter- 4.

**Supplementary reading :**

Hal R. Varian, *Intermediate Microeconomics*, Third Edition, W.W. Norton, New York.

**Core Paper – II: MACROECONOMIC THEORY**

**(Credit 4)**

**Total Hours: 90**

**Lecture Hours:70**

**Seminar Hours:20**

**Module -1**

The Development of Macroeconomics - Micro-foundations of Macroeconomics - Models of closed economy - One sector Neoclassical and Keynesian models - the ISLM model - Keynesian and Neoclassical versions.

Fiscal and monetary policy analysis in an ISLM model - the labour market - Neoclassical and Keynesian labour market equilibrium - Three sector macro model – Neo classical and Keynesian versions - Policy implications

**Module - II**

Open economy model — Balance of payments and Keynesian analysis - Absorption and BOP - Keynesian approach to BOP - effect of devaluation on BOP, Marshall - Lerner condition - Mundel- Fleming model.

### **Module - III**

Demand for money; Monetarist counter developments - Friedman's Restatement of the Quantity Theory - Keynes' Theory - Patinkin Theory

Supply of Money: Financial inter-mediation and the supply of money - behavioural model of money supply determination - inside money and outside money - Gurley and Shaw thesis.

### **Module - IV**

Dynamics of the real sector - consumption - theories of consumption – absolute income hypothesis - permanent income hypothesis - life cycle hypothesis - wealth and consumption function - the consumption function in macro models.

Investment: Capital investment and rate of interest - the term structure of interest rates - Tobin's q-ratio, accelerator theory of investment -policy measures which affect investment

### **Module – V**

Controversies in macroeconomics: a) Walrasian general equilibrium models b) Keynesian counter revolution - dual decision hypothesis c) Neo-Keynesian quantity constrained models d) out put and inflation - the natural rate theory - the Phillip's curve, e) the Neo-classical macroeconomics f) supply side economics, g) some Indian themes in Macroeconomics -Macroeconomic character of the Indian economy.

### **REFERENCES**

1. C. Harcourt (ed.), *The Micro Economic Foundations of Macroeconomics* -Macmillan 1997.
2. Brian Snowdon and Howard R. Vane, *A Macroeconomic Reader* Routledge, New York, 1997.
3. Karl Brunner and Allan H. Meltzer, *Money and Economy*, Issues on Monetary

Analysis - University of Cambridge, New York, 1993.

4. Steven E. Landsburg and Lauren J. Feinstone, *Macroeconomics*, Me. Graw Hill Pub. New York, 1997.

5) R. Levasic and A. Reibmann, *Macroeconomics*, Macmillan Pub. 1982.

6) Me J Surrey (ed),. *Macroeconomic Themes*, Oxford University Press, 1997.

7) Edward Shapiro, *Macroeconomic Analysis*, 1978.

8) Richard T. Froyen, *Macroeconomics*, Maxwell Macmillan

9) Harry G. Johnson, *Selected Essays in Monetary Economics*, George Allen and Unwin.

10) Juankar P.N., *Investment, Theories and Evidence*, Macmillan, 1972

11) Fred R. Glahe, *Macroeconomics Theory and Policy*, Harcourt Publishers, New Delhi, 1985.

12) L. Harris, *Monetary Theory*, Me. Graw Hill, 1985

13) Muller M.G. (ed), *Readings in Macroeconomics*, 1971

14) Bennett T. Me. Callum, *Monetary Economics, Theory and Policy* Macmillan, 1989

15) William H. Branson, *Macroeconomics Theory and Policy*, Princeton University.

16) Dornbusch R. and Fischer, *Macroeconomics*

17) Prabhat Patnaik (ed), *Macroeconomics*, Oxford University Press, Delhi, 1999.

18) Veneries and Sebold, *Macroeconomics*, Models and Policies.

# QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS

(Credit 4)

**Total Hours: 90**

**Lecture Hours: 70**

**Seminar Hours: 20**

## **Module -1**

Matrix Algebra : Matrices and Vectors - Rank of a Matrix - Matrix and Vector Operations - Laws of operations - Identity and Null Matrices -Transpose and Inverse - Non-singularity of Matrix - Determinants and their properties - Computation of Inverse using determinants - Solution of simultaneous equations using Cramer's Rule.

## **Module - II**

Standard Distribution : Probability Theory - Addition and Multiplication Theorem - (Conditional Probability] - Mathematical Expectations - Standard Distribution - Binomial - Poisson - Normal -Lognormal - Pareto Distribution - Properties and applications.

## **Module - III**

Population and Sample : Random Sampling - Parameter and Statistic – Sampling from Normal Population - Sampling Distribution and Standard Error - Distribution of  $x, t, C^2$

and F- Central limit theorem - Statement and application.

## **Module – IV**

Theory of estimation : Point estimation - Basic concepts - Unbiasedness, consistency, efficiency and sufficiency - Interval estimation -Basic concepts – Confidence interval for mean, difference of means based on large and small samples.

## **Module - V**

Tests of hypothesis: Basic concepts - Null and alternative hypothesis -Simple and Composite hypothesis - Two types of errors - Tests concerning means of large and small samples - Tests for difference between means based on large and small samples – Tests concerning proportion and tests of variance using F and one way Anova - Tests of Goodness of fit and independence of attributes.

### **Module – VI**

Research methodology: Meaning of research - Objectives - Types of research - Research methods Vs. methodology - Research and scientific methods - Research process - Defining research problems - Selection of research problem - Research design – Need for and feature of a good research design.

Note: Sixth Module is not for written examination

### **REFERENCES**

1. Taro Yamane, *Mathematics for Economists*, Printice Hall of India, New Delhi
2. Murray S. Spiegel, *Statistics*, Schaum Series
3. Murray S. Spiegel, *Probability Schaum Series*
4. C.R. Kothari, *Research Methodology- Methods and Techniques*, Wiley Eastern Limited
5. Alpha C. Chiang, *Fundamental Methods of Mathematical Economics*, Me. GrawHill, 1984.

### **CORE PAPER – IV**

#### **DEVELOPMENT ISSUES OF INDIAN ECONOMY**

**(WITH SPECIAL REFERENCE TO KERALA)**

**(Credit 4)**

**Total Hours: 90**

**Lecture Hours: 70**

**Seminar Hours: 20**



## **MODULE-I:**

Growth Vs Change: Structural changes in agriculture, industry and tertiary sectors of Indian Economy -Structural transformation from Nehruvian socialism to market friendly economy.

## **MODULE-11:**

Demography, Poverty and unemployment -Population statistics- sex ratio-gender discrimination- HDI, HPI - Demographic changes - Problem of ageing and health. Concept of poverty - Approaches to poverty by Bardan, B.S.Minhas, Dandekar and Rath Planning Commission, Amartya Sen - Entitlement and standard of living approach - Environment, gender & poverty - Capability of poverty- Changing trends & magnitude of unemployment.

## **MODULE-III:**

Agriculture & Industry -Inter-relationship between Industry & Agriculture. New agricultural policies - Agreement on Agriculture with reference to India - Intellectual Property Rights - Patenting - trademarks - Impact of WTO on Indian Agriculture viz.-food crops, commercial crops - Issues of self-sufficiency -Household food security. Industrial policy of 1991-Impact of Liberalization, Privatization and Globalization on Indian industry including small scale and traditional industries.

## **MODULE- IV:**

India & World Economy-Economic crisis - Economic reforms - Fiscal reforms (Raja Chelliah report, Kelkar report) - Financial reforms - Narasimham report (1991, 98) –Public sector reforms - BOP reforms - second generation reforms- India in a global economy - WTO - Capital flows - TRIMs - TRIPs - Boxes.

## **MODULE-V:**

Kerala Economy Traditional issues -A profile of Kerala Economy since its formation –Kerala Model of Development - Structural changes in Kerala economy- Demographic changes - Issues of sex - ratio - gender discrimination - ageing - health - migration -immigration - labour culture- Emerging issues- Kerala and WTO - Impact on crop pattern - food crops - cash crops - issue of food self sufficiency - household food security - Education – Social sector -Fiscal crisis in Kerala - Nature and conditionality of development loans to Kerala - rural infrastructural development in Kerala - Micro credit units - Peoples' plan - role of Panchayat Raj - Impact of cultural and ayurvedic tourism - mass media.

## **REFERENCES**

1. Pranab Bardhan: The Political Economy of Development in India; Oxford University Press.

New Delhi, 1994.

2. C.T.Kurian: Poverty Planning and Social Transformations-An Alternative in Development Planning; Allied Publishers, New Delhi, 1978

3. V.M. Dandekar: The Indian Economy 1947-97; transforming traditional Agriculture Vol.1

4. Bimal Jalan: Indian Economic Crisis: The Way Ahead; Oxford University Press, New Delhi 1992.

5 India's Economic Policy Preparing for the 21st Century; Penguin, New Delhi, 1996.

6. A.P.Thirwall: Growth and Development, 6th Edition Macmillan Press Ltd., 1999

7. Vijay Joshi: IMD Little; India's Economy Reforms; Oxford University Press, New Delhi, 1991-2001

8. M.A Oommen: Essays on Kerala Economy.

9. B.A.Prakash: Kerala Economy-Problems and Prospects; Sage Publications, New Delhi 1994.

10. P.Surendran: The Kerala Economy; Vrinda publications Delhi, 1999 & 2002,

11. Uma Kapila Indian Economy Since Independence; Vol.1, II, & III, Academic foundation. New Delhi.

12 Recent Developments in Indian Economy, Part 3&4 Academic Foundation, New Delhi. 1994 & 1995.

13. R.K. Sinha: Economic Development Planning and Policy in India, Deep & Deep, 1998

14. Robert.E.B.Lucas and Gustaf.F. Papanek; Indian Economy-Recent Development and Future Prospects. Oxford University Press, New Delhi, 1989

15. P.P.Pillai: Kerala Economy-Four Decades of Development. 1994

16. Terry Byres, Major Debates on Indian Economy.

17. Amartya Sen, Poverty and Famine-An Essay on Entitlement and Deprivation. Oxford University Press. New Delhi, 1982.

18 The Standard of Living: Tanner Lectures - Cambridge University Press, 1987.

19. Development as Freedom. Oxford University Press, 1999.

20. India Development and participation, Oxford University Press, 2002.

21. Brahmananda and Panchamuki: Development Process of Indian Economy; Himalaya Publishers, 1987.

22. S.S.Tarapore . Issues in Financial Sector Reforms, UBS Publishers' Distributors Ltd. New Delhi: 2000.

23. C.Ranga Rajan. Indian Economy; UBS Publishers Distributors Ltd; New Delhi , 1998.

24. Rudrar Dutt & KPM Sundaran: Indian Economy, S.Chand & Company Ltd, New Delhi, 2004.

25. A.D.N. Bajpai, S.K. Chaubey, N.G.Pendsc, S.K. Shrivastava; .Emerging Trends in Indian Economy. Atlantic Publishers & Distributors, New Delhi, 1995.
26. A.C.K. Nambiar: Socio-Economic Conditions of Gulf Migrants, Commonwealth Publishers, New Delhi
27. Ruddar Dutt; Second Generation Economic reforms in India; Indian Economic Association
28. A.Banerjee & S.K. Singh: Banking and Financial sector reforms in India; Indian Economic Association
28. M.R.Aggarwal International Intuitions and Economic Development of Underdeveloped Countries; Indian Economic Association.
29. Alluwalia , Isher Judge &Williainson, John (ed):The South Asian Experience with Growth.
30. Various Issues of FPW. Economic Survey. Kerala Calling , Development Review. Yojana.
31. South Indian Development Report, Oxford University Press, 2001.

**Core Paper - V**

**OPERATIONS RESEARCH FOR ECONOMIC ANALYSIS**

**Module -1**

Operations Research: Meaning and scope - Linear Programming problem: Mathematical formulation - solution by graphical and simplex method - duality – dual problem - economic interpretation of dual problem - solution of dual problem.

## **Module – II**

Transportation problem: General structure of the problem transportation tables - solution of transportation problem - assignment problems - method for solving assignment problems.

## **Module – III**

Nonlinear programming - algebraic forms - constrained maxima and minima - Kuhn-Tucker analysis - Kuhn-Tucker conditions - its interpretation and theoretical applications - quadratic programming - methods of solving quadratic programming.

## **Module – IV**

Decision theory: Basic concepts - decision rule - decision making under certainty, under risk, under uncertainty - Harwicz oc criterion, expected opportunity loss - expected value of perfect information (EVPI) Bayesian Decision Theory - decision tree - game theory : meaning - the zero -sum games - two person zero sum games - pay-off matrix - maximin and minimax principle - saddle points - mixed strategies – optimal mixed strategies and the saddle point theorem - graphical solution of  $2 \times n$  and  $M \times 2$  games - dominance property - reducing the game problem to L.P.P., n-person games (concept only).

## **Module – V**

PERT and CPM: Basic concepts - construction of networks - critical path – event times, float and slack, time cost - trade off, resource allocation and scheduling – resource leveling - resource smoothing, project control, updating - difference between PERT and CPM

## **REFERENCE**

1. William J. Baumol, *Economic Theory and Operations Analysis* -Prentice Hall of India, New Delhi, 1999
2. Rao S.S., *Optimisation Theory and Applications*, New Age International.
3. Taha. H.A, *Operations Research - An Introduction*, Me. Millan.
4. Kanthi Swarup,. Gupta and Man Mohan, *Operations Research*, Sultan Chand & Sons
5. Philips Ravindran and Solberg, *Operations Research, Principles and Practice*, John Wiley.
6. Gross and Harris, *Fundamentals of Queing Theory*, Jon Wiley.

## **MODULE-I**

Determinants of Trade - Classical theories of trade - Absolute differences in costs - Comparative costs - Opportunity costs - Reciprocal demand- Heckscher-Ohlin theory - Leontief paradox - Factor price equalization theorem - Stolper - Samuelson theorem - Rebezynski theorem- The terms of trade- Factors effecting the terms of trade- Offer curve- box diagram.

## **MODULE - II**

New theories of International Trade- Economic growth and international trade-production effects- consumption effects-combined production and consumption effects of growth — Theory of Immiserising growth - Prebish- singer model - Application to developing countries.

## **MODULE-III**

Commercial policies of trade - Tariffs - Effects of tariffs under partial and general equilibrium perspective - optimum tariffs - Tariffs retaliation - Tariff and welfare - Quotas - Dumping -Tariffs and non-tariff constrains- Free trade and protection -Economic integration - Customs union - Trade creation and trade diversion.

## **MODULE- IV**

Balance of payment - Accounting method - Adjustment theory-Exchange depreciation and devaluation - Internal and external balance - Theories of Balance of payment- The Elasticity approach- The Marshall - Lerner Mechanism- The Absorption approach- The Monetary approach— Foreign trade multiplier — Foreign Exchange rate policy- Fixed Exchanges - Flexible Exchanges- Exchange rate regimes.

## **MODULE-V**

International trade and World Trade Organization - Multinationals-IMF --World Bank-ADB and developing countries - India's foreign trade and balance of payments- Foreign trade policies-FERA and FEMA -Associations of regional co-operation- SAARC-Significance of regional trade organizations.

## **REFERENCES .**

1. Chacoliades: International trade, Theory and Policy, Mc.Graw Mills, 1978.
2. Kindeberger C.B'.International Economics, Taraporewala and Sons, Bombay.
3. Sodersten.B.O: International Economics, Macmillan, London, 1980.
4. Deepak Nayyar: Trade and Industrialisation, Oxford University Press, 1997.
5. Jagadish Bhagavathi: Writings on International Economics (ed) Balasubramanyam, Oxford University Press.
6. Meier G.M: Internat ional Economics of Development, Harper and Row, New York, 1968
- 7 Problems of a World Monetary Policy: Brettonwood and After; Macmillan, London.

8. Bardhan P.K: Economic Growth Development and Foreign Trade Wiley New York, 1970.
9. Jagdish Bhagavathi and Ronald W.Jones: Trade Balance of Payments and Growth,  
North Halland Nayyar
10. A Stream of Windows: Unsetting Reflections on Trade, Immigration and Democracy; OUP.
11. Mundell.R.A: The Appropriate Use of Fiscal and Monetary Policy for International External Stability, IMF. Staff Papers; 1962.
12. Scammel W: International Policy,; Brettonwoods and Vfter; Macmillan, London. 1975.
13. Machlup,F: International Monetary Economics, George Alien and Unwin, London; 1970.
14. Evan Luard: The Management of the World Economy,. Macmillan, London; 1983.
15. M.R. Aggarval: Internat ional Institutions and Economic Development of Underdeveloped Countries; Indian Economic Association,
16. Nagesh Kumar: Foreign Direct Investment and the WTO; OUP.

## **CORE PAPER VII - FINANCIAL MARKETS**

### **Module I. Financial System**

The Financial system - an overview, Financial Markets, Financial Institutions and Instruments - Structure of Indian Financial System - Indian Money Market, features, submarkets, money market instruments - Discount and Finance House of India- Money market reforms

### **Module II. Capital Market**

Investment setting, spectrum of investment, features of investment avenues, guidelines for investment. Risk-return relationships - Capital Market Structure, Primary and Secondary Markets, Players in the primary and secondary markets - Stock Exchanges - Capital Market Reforms in India.

### **Module III. Regulatory and Promotional Institutions**

Role of RBI in promotion and regulations - Monetary and credit policies - Narasimham Committee Report and further developments -- SEBI - highlights of SEBI's performance --Internationalization of Financial Services in India - Domestic financial deregulation and capital account liberalization — Innovations in banking scenario

## **Module IV. Commercial Banks and NBFIs**

Evolving role of commercial banks - functions and role of NBFIs – Insurance Companies, UTI, Small Savings and Provident Funds, Mutual Funds - Miscellaneous NBFIs -Merchant Banking, Venture Capital, Lease Finance, Factoring, Hire-Purchase Finance, Housing Finance, Depository Services - Micro Finance in India.

## **Module V. Technical analysis of Finance.**

Time value money, discounted cash flows, NPV - Futures. Options, Derivatives and Swaps - Portfolio Theory - Markowitz model and Capital Asset Pricing Model – Portfolio Management.

## **References**

1. L. M. Bhole, 'Financial Institutions and Markets. Structure, Growth and Innovations, Tata Mc **Graw Hill**
2. Michael Baye and Dennis W Jansen, "Money Banking and Financial Markets, An Economic Approach', Texas and A M University.
3. Prasanna Chandra, "Managing Investments", Tata McGraw Hill.
4. Y. Venugopai Reddy.' Economic Policy in India - Managing Change' VBSPD Pvt. Ltd.
5. James A Hanson, Sanjay Kathuria, "India. A Financial Sector for the 21st Century' Oxford University press.
6. Meir Kohn, "Financial Institutions and Markets" Tata McGraw Hill.
7. V. A. Avadhani, "Financial Economics - Theory and Practice1' - Millennium Ed. Himalaya Pub.
8. Tannan M. L. "Banking Law and Practice in India1', India Law House
9. Anthony Saunders. Marcia Millon Cornett. "Financial Markets and Institutions, A modern Perspectives , Tata Me Graw Hill.
10. M Y Khan , 'Indian Financial system'. Tata McGraw Hill

Reading of the Journal of Indian Institute of Banking and Finance, RBI Bulletins, EPW and other periodicals is essential for updating information on the topic.

## **Core Paper – VIII: ECONOMETRICS**

### **Module -1**

Definition and scope of Econometrics — methodology of econometrics — nature and sources of data for econometric analysis — contribution of econometric methods to the development of Economics — limitations of econometric methods.



## **Module - II**

Two - variable regression analysis : Method of 'ordinary least-squares' — properties of OLS estimators — the Gauss-Markov theorem — estimation and testing — multiple regression analysis : estimation and testing -problems of multicollinearity, heteroscedasticity and autocorrelation ; sources, detection, consequences and remedial measures.

## **Module – III**

Dummy variables : Regression on dummy variables - dummy variable trap – the LPM, Logit, Probit and Tobit models - estimation - application.

## **Module – IV**

Simultaneous equation models: Simultaneous equation bias and inconsistency of OLS estimators — structural and reduced form equations — the identification problem: order condition and rank condition for identification — simultaneous equation methods: method of 'indirect least squares' and method of 'two-stage least squares' — maximum likelihood method — estimation.

## **Module – V**

Application : Demand - production - cost - supply functions – simple econometric models.

## **REFERENCES**

- 1) Damodar N. Gujarati, *Basic Econometrics*, McGraw - Hill, 1995,
- 2) Michael D. Intriligator, *Econometric Models, Techniques and Applications*, Prentice Hall of India, New Delhi, 1980.
- 3) A. Koutsoyiannis, *Theory of Econometrics, An Introductory Exposition of Econometric Methods* (Second edition), Me Millan.
- 4) Johnston . J. *Econometric Methods*, McGraw Hill Book Company, New York, 1972.
- 5) Klien L.R. *A Text Book of Econometrics*, Prentice Hall Inc., Englewood Cliffs. New Jersey, 1974
- 6) Maddalla G.S. *Econometrics*, McGraw Hill, New York, 1977.
- 7) Desai, Meghand, *Applied Econometrics* McGraw Hill Book Co., New York 1976.
- 8) K.L. Krishna, *Econometrics*, Oxford University Press, 1998
- 9) Klien L.R., *Introduction to Econometrics*, Prentice Hall Inc., Englewood Cliffs. New Jersey.
- 10) Damodar N. Gujarati, *Essentials of Econometrics*, McGraw - Hill, 1992.

## Core Paper- IX: MATHEMATICAL ECONOMICS

### Module - 1 (Theory of Consumer Demand)

Maximization of utility - demand functions - Elasticity - Properties of demand functions - Slutsky equation - Direct and cross effects - Separable and additive utility functions - Homogeneous and homothetic utility functions - Indirect utility function - Duality in consumption - Roy's identity- Linear expenditure systems, addilog demand system - Constant elasticity models - The problem of choice involving risk – Expected utility - Risk and insurance.

### Module - II (Theory of Production)

Production function - Cob-Douglas production function - CES production function - VES production function - Translog production - Cost function : Derivation of cost as a function of output -Input demand function- generalised Leontief cost function - shepherd's lemma - Technological progress - Embodied and disembodied technology- Neutrality.

### Module - III (Monopoly and Imperfect Competition)

Monopoly and profit maximisation - Price discrimination - Taxation and monopoly - Multiple plant and multiple product monopoly - Revenue maximization monopoly - monopoly in the input market - Cournot- Nash model - Stackelberg model - Sweezy model.

### Module - IV (Optimization over time)

Basic concept - Multi period consumption - Investment theory of firm – interest rate determination - Investment theory and role of time - Retirement and role of durable equipment.

### Module - V (Linear Models )

Theory of games: Two person zero-sum game - Pure and mixed strategy – Saddle point theorem.

Linear programming: Primal and dual problem - General linear programme - Complementary slackness theorem,- Simplex solution.

Input output analysis: Open and closed Leontief system - Hawkins –Simons condition.

## REFERENCES

1. Allen R.G.D, *Mathematical Economics*, Macmillan Co. Ltd., 1956
2. Allen R.G.D, *Macroeconomic Theory*, Macmillan Co., Ltd., 1967.
3. Amitabh Kundu, et. Al, *Input Output framework and Economic Analysis*, Centre

for the study of Regional Development, New Delhi, 1976.

4. Birchenhall. C. and Grout. P. *Mathematics for Modern Economics* Philip Alien.

Harness and Noble Books, Oxford, 1984.

5. David. F. Heathfield and Soren Wibe, *Introduction to Cost and Production*

*Functions*, Macmillan Education Ltd., 1987.

6. Eugene Silberberg, *The Structure of Economics a Mathematical Analysis* (Second Edition), Me, Graw Hill International (ed). 1990.

7. J.M. Henderson and R.E.Quandt, *Microeconomic Theory a Mathematical Approach*, Me. Graw Hill International Ltd, 1980.

8. Leontief. W.W., *The Structure of American Economy 1919-1939*, Vora and Co. Publishers (Pvt.) Ltd., Bombay., 1971.

9. Krishna K.L. (ed.) *Econometric Applications in India*, Oxford University Press, New Delhi, 1997.

## **OPTIONAL PAPERS**

### **Optional Paper - I**

#### **COMPUTER APPLICATION IN ECONOMIC ANALYSIS**

##### **Module – I**

Introduction to computers - Generations and classifications of computers - computer organization - hardware-- software and firmware -data base management system - [basic concepts of DBMS - kinds of data base - conventional filing system – data models] data base file - record fields- basic concepts of data processing - introduction to networks - types of networks - internet - intranet - e-mail - e-commerce, multimedia - impact of computers on modern society.

##### **Module – II**

Introduction to operating system - functions of operating systems - types of OS - multi-programming - time sharing and real time operating systems - application of software packages - word processor and spread sheets - introduction to excel - data entry - building formulae and functions -formatting and calculation - graphs and charts.

##### **Module – III**

Economic Data: Classification - frequency distribution - relative frequency distribution, cumulative frequency distribution, relative cumulative frequency distribution, frequency tables, Lorenz Curve - pictorial presentation of data - histograms, pie charts, graphs and time series plots, [practice with Excel or SPSS).

## Module – IV

Descriptive Measures: Measures of central location: Mean, mode, median - comparison - geometric mean, harmonic mean; measures of spread: range, variance, standard deviation; Bivariate data - measures of association: scatter plots, correlation, simple linear regression, (practice with Excel or SPSS)

## Module – V

Analysis of time series; Trend analysis, smoothing, seasonal variation - ratio to trend - link relatives, cyclical fluctuations; Index Numbers; methods of construction - simple, chain, weighted - deflating time series, shifting and splicing, test of adequacy (Practice with Excel or SPSS).

## Modules – VI

Further Topics: Optimization - linear optimization - (linear programming); financial mathematics - simple interest, compound interest; growth rates calculation; discounting techniques - present value, net present value (NPV), internal rate of return (IRR) [Practice with Excel or SPSS].

## REFERENCES

1. Leon Alex and Mathews Leon, *Fundamentals of Information Technology*, Leos Press and Vikas Publishing House Pvt. Ltd., New Delhi.
2. Guy Hart Davis, *Word 2000*, BPB Publications, New Delhi (ABC series can also be used )
3. Gene, *MS Excel 2000*, BPB Publications, New Delhi (ABC series can also be used)
4. *Office 2000 - Made easy, CD ROM, SSI, Software Solution International.*
5. David Whigam, *Quantitative Business Methods using Excel*, Oxford University Press, 1998.
6. Chandan. S. Jit, *Statistics for Business and Economics*, Vikas Publishing House Pvt. Ltd.. 1998
7. Prem S. Mann, *Statistics for Business and Economics*, Wiley 86 Sons, New York.
8. R.J. Wonnacott and T.H. Wonnacott, *Introductory Statistics for Business and Economics*, Wiley, New York.

## Books for Additional Reading

1. Saxena S. MS. *Office 2000*. Vikas Publication, New Delhi.
2. Hutchinson S & Coulthard. G. (1997), *Microsoft Office 97 Professional*, Me Graw Hill (available latest version can be used )
3. Gupta. S.P. *Statistical Method*, Sultan Chand & Sons.
4. Barrow. M. (1996), *Statistics for Economics, Accounting and Business Studies*, 2<sup>nd</sup> edition, Longman.

5. Chakravarti et. al. *Handbook of Methods of Applied Statistics : Techniques of*

*Computation, Descriptive Methods and Statistical Inference*, Vol. 1, John Wiley & Sons, New York.

## **Optional Paper 2**

### **SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

#### **Module – I**

Nature and scope of Investment Management - Investment setting - risk and return - investment avenues - outline of Indian capital market – investment management - functions of investment management - managed portfolio – portfolio management in India.

#### **Module – II**

Portfolio analysis -- total risk and its components - risk in finance theory - source of risk - classification - diversification of risk - portfolio risk and return - security analysis - macro, industry and company analysis.

#### **Module – III**

Technical analysis: fundamental Vs technical analysis - tools - Dows theory - price, volume and other indicators of market - price indicators of individual stock - price volume analysis of individual stock.

#### **Module – IV**

Efficient market theory - concept of efficient security - Cootner's price value interaction model - Samuelson's continuous equilibrium model - random walk theory - efficient market hypothesis.

#### **Module – IV**

Risk and required rates of return on equities - ex-post and ex-ante rates of return on equities - standard deviation as a measure of risk - measurement of rate of return and risk for a portfolio - the capital asset pricing model - issues behind capital asset pricing model.

#### **REFERENCE**

1. Avandhani V,A., *Investment and Securities Market in India*, Himalaya Publishing House 1992.
2. Prassanna Chandra, *The investment Game How to Win* T.M.H. 1992.
3. Brigham E.F. and Gapinski L.C., *Financial Management Iliery and Practice*, The Drydress Press, New York 1991.
4. Fischer D.E. and Jordhan R.J., *Security Analysis and Portfolio Management .*, Prentice Hall of India, 1992
5. Jack Clark Francis, *Investment Analysis and Management*, McGraw Hill Book Company, New York 1937
6. Donald E Fischer and Ronald J Jordan, *Security Analysis and Portfolio Management*, Prentice Hall of India, 1995
7. N.J. Yasaswy, *Equity Investment Strategy*, TMH 1986.

### **Optional Paper – 3: ENVIRONMENTAL ECONOMICS**

#### **MODULE-I**

Economy and the environment - Inter linkages - Biotic and a biotic component of environment - Material Balance approach - Laws of Thermodynamics – Environmental Ethics.

#### **MODULE-II**

Economics of natural resources and conservation of resources resource taxonomy - Renewable and non-renewable resources -Forest resources - Managing renewable and non-renewable resources - optimum resources extraction.

#### **MODULE-III**

Economics of -sustainable development - Indicators of sustainability - designing a new material economy -Market failure and public policy - Incomplete markets - Externalities - Non exclusion and commons - Non rivalry and public goods - Cost benefit analysis – accounting for the environment - Environment Impact Assessment (EIA).

#### **MODULE-IV**

Environmental degradation - pollution - types - Plastic pollution - Disposal of reactive wastes and dangers of radiation - Water conflicts - Forest conflicts - Ganga Action Tran boundary pollution problems and international externalities - Global warming and green houses gases -

Ozone depletion † Acid rain - Deforestation and desertification - Decline of bio diversity - International Environment Agreements: Montreal Protocol – Global Environmental Facility - 1991 - Kyoto Protocol, Earth Summit, Doha Summit.

## **MODULE-V**

Economic Incentives for environmental Protection – Price rationing: Charges and subsidies - pollution taxes and control of pollution - Liability rules: non compliance fees - bonds and deposit refunds - quantity rationing - marketable permits - Property rights - Evaluative criteria -Environmental management.

## **REFERENCES**

1. Nick Hanley, Jagonf, Shogern and Benwhite, Environmental Economics; Macmilian 1997.
2. Lester R. Brown - Eco-economy, Orient .Longman private Limited, 2002.
3. Ravindra N. Battacharya, Environmental Economics; Oxford University Press, 2001,
4. Vandana Shiva, Ecology and the Politics of Survival, United Nations University press, 1991.
5. V.S. Mahajan, Environmental Planning, Machinery and management; Deep. & Deep publications, 1991,
6. R.P. Misra, Environmental Ethics, Concept Publishing House
7. Dore and Mount. Global Environmental Economics
9. Perman, Roger, Yue Ma, James, M.C. Gilvrary and Michael Common, Natural Resource and Environmental Economics, Longman 1999.
10. Buchholz, .Rogene. Principles of Environmental Management, prentice hall 1998.
11. World Bank, World Development reports; Washington, 1992.
14. Mishan E.J., Elements of cost - benefit analysis; UNWIN, University Books, 1972.
15. Nordhans, Managing the Global commons: The economics of Climate Change; Cambridge MIT Press, 1994.
16. Pearce D.W.. and Turner, R.K, Economics of Natural Resources and the Environment; Johns Hopkins University Press, 1990.

## **Optional Paper – 4: POPULATION STUDIES**

### **Module -I**

Population studies - Nature and scope - Sources of population data –World population, growth and distribution - Population growth in Kerala and India - Important theories of population - Malthusian, Optimum and Demographic transition theories of population.

#### **Module – II**

Demographic transition since independence - concepts of mortality and fertility - Can poverty determine fertility - Fertility and age at marriage –Education and fertility - Population aging in Kerala.

#### **Module – III**

Basic formal demography - Data collection - Age and sex structure Period and cohort fertility - Migration, marriage and reproductivity Economic consequences of out migration - Urbanization and trends.

#### **Module – IV**

Population trends in modern Economic growth - Mass education and fertility decline - Co-operation, Inequality and the family (Amartyasen -Population projection and estimation.

#### **Module – V**

India's population policies - Population growth and socio-economic development, environment and health - Conceptual issues and linkages with environment and health –

#### **REFERENCES**

1. K.C. Sacaria and S. Irudayarajan, *Kerala's Demographic transition - Determinants and consequences*, Sage Publications, 1991.
2. Asha A. Bhande and Tara Kanikkar, *Population studies*, Himalaya Publishing House, 1988.
3. Prasad P.K., *Population Planning, Policy and Programme*, 1990 Deep and Deep Publications, New Delhi.
4. Colin Neuwel, *Methods and Models in Demography*, Belhaven Press, London,1998.
5. Manar Chaffers, Mohan Munasingha and Rabin Ganguly, *Environment and Health in Developing Countries*, A.P.H. Publishing Corporations, 1998.
6. Peter R. Cox, *Demography*, Universal Book Stall, New Delhi, 1989.
7. P.G.K. Panikar and C.R. Soman, *Health Status of Kerala*, Centre for Development studies, Trivandrum, 1985.
8. Demeny and Geoffrey Menicoll, *Population and Development*, Earth Scan Publications, 1998.
9. K.D. Gaur, *Management of Poverty Alleviation in India*, Manak Publications,1998.



## **Optional Paper – 5: AGRICULTURAL ECONOMICS**

### **Module 1**

Role of agriculture in economic development - Theories of agricultural development – Shultz Mellor, Lewis and Boserup  
- inter relationship between agriculture and industry

### **Module II**

Agricultural Development in India. - Agricultural policy since independence - institutional and technological changes - impact of agricultural development on environment-Organic farming-agricultural biotechnology -problems of agricultural development -New Economic Policy and agriculture - Agricultural Policy 2000 –National Commission on Farmers -WTO Agreements on Agriculture - Trade liberalization and agricultural exports - challenges and prospects.

### **Module III**

Agricultural Production Economics - Production relationships - systems and types of farming -agricultural subsidies - rationale for input subsidies in Indian agriculture – risk and uncertainty in farming -crop insurance - futures trading - Agricultural credit and marketing - structure and problems of credit in India - present system agricultural marketing in India

### **Module IV**

Demand and supply of agricultural products - Characteristics of demand and supply - supply response - perverse supply response in traditional agriculture - cobweb theorem.

Agricultural prices - behavior of agricultural prices - stabilization of agricultural prices - agricultural price policy and food security in India

### **Module V**

Agricultural performance of Kerala-trends in agricultural growth - land reforms – current problem of the agricultural sector - emerging constraints and prospects of agricultural development in the liberalized globalised era -Group farming - prospects of lease land farming.

### **References:**

1. T.W.Shultz - Transforming traditional Agriculture" New Haven, London Yale University Press 1965
2. J.W.Mellor - The Economics of Agricultural Development. Vora &Co Bombay S.Ghatak. & K.Ingersent - Agriculture and Economic Development New Delhi.

Select Book Service Syndicate

3. W.A.Lewis - " Economic Development with unlimited supplies of labour"
4. Karl Eicher & Lawrence Witt - Agriculture in Economic Development Vora & Co Publishers Pvt. Limited
5. C.E.Bishop & W.D.Toussiant - Introduction to Agricultural Economic Analysis
6. O.S.Srivastava - .Theoretical Issues in Agricultural Economics Allied Publishers Pvt, Ltd.
7. R.N.Soni - Leading Issues in Agricultural Economics. Vishal Publishing Co.
8. R.K.Lekhi, Joginder Singh. - Agricultural Economics.Kalyani Publishers
9. R.Desai - Agricultural Economics.Himalaya Publishing House
10. S.A. R.Bilgrami -An Introduction to Agricultural Economics. Himalaya Publishing House
11. Sadhu&Singh - Fundamentals of Agricultural Economics. Himalaya Publishing House
12. B.P,Tyagi Agricultural Economics and Rural Development. Jai Prakash & Co.Meerut 19.
13. C.A.Robertson -An Introduction to Agricultural Production Economics and Farm Management
14. E.O. Heady. - Economics of Agricultural Production and Resource use. Prencide Hall 1961
15. C.H.Hanumantha Rao - Agricultural Production Function Costs and returns in India. Tata McGraw Hill 1965
16. P.C.Joshi.- Land Reforms in India ,Trends and Prospects. Allied Publishers
17. S.S Acharya &D.S.Agarwal -Agricultural Price Analysis and Policy. Oxford & IBH Publishing Co.Ltd
18. A.S. Kalthon.&D.S Tyagi - Agncultural Pnce Policy in India, .Allied Pubishers New Delhi
19. P.C.Malhothra - Stabilisation of Agricultural Prices in India
20. Uma Kapila - Understanding the Problems of Indian Economy. Academic Foundation
21. Uma Kapila - Indian Economy Since Independence Academic Foundation
22. M.A.Oommen - Kerala Economy Since Independence. Oxford & IBH Publishing Co.
23. BAPrakash (ed) - Kerala Economy Problems and Prospects Sage Publications New Delhi
24. M.A.Oommen(ed) - Kerala's Development Experience II Institute of Social Science, Concept Publishing Co.
25. B.A.Prakash. (edited) - Kerala's Economic Development, Performance and Problems in the Post Liberalization Period .Sage Publications New Delhi
26. G.S Bhalla - "Globalisation & Agricultural Policy in India" Indian Journal of Agricultural Economies' Vol. 50.No.1 January March 1995.
27. C.H.Hanumantha Rao -" Liberalization of Agriculture in India" Indian Journal of AgriculturalEconomics, Vol.50.No,3 July September 1995
28. D.Rudrappan.- "Economic Reforms and Agriculture" Yojana Vol.47.No.11. November 2003
29. Dr.P.Bhattacharya & Dr. Krishna Bihan - "Scope of Organic Farming in India" Yojana,Vol.47,No.11 November 2003

30. C. H. Hanumantha Rao - "WTO and Viability of Indian Agriculture" Economic & Political Weekly, September 8-14, 2001, Vol. XXXVI No 36

31. Dr. P. K. Singh - "Reforms in the Agricultural Sector" Yojana Vol. 47, No. 11, November, 2003.

32. Dr. Swami Prakash Srivastava - "Biotechnology industry- and its future role in Indian Economy" Yojana, Vol. 47, No. 11, November 2003.

### **Optional Paper – 6: HEALTH ECONOMICS**

**I.** Health and Health Economics-Health and development-Economics of health in developing countries-Actors and factors affecting health status.

**II.** Government, Health and Medical Care - Reasons for Government Interventions -Public goods-externalities-demand side externalities-supply side externalities - taxes and subsidies as corrective instruments - market solutions for externalities-redistribution function of government-demand side and supply side subsidies-macro health economics.

**III.** Urban health-urban health care in India - impact of urbanization on health - emerging issues in the urban health care-Environment and health- Environmental health programs -Ageing of population - issues in India and Kerala-Morbidity transition in India and Kerala-Issues in Kerala's health status.

**IV.** Malnutrition -its measurement and consequences -economic reforms and Health sector in India-NGO's in health care in India- Health as an investment in Human development in India.

**V.** Govt. as health insurer – Why does the govt. produce health insurance?

Relation ship between health insurance and the demand for medical service-coinsurance, indemnity insurance-Non economic determinants of demand for medical services-Impact of insurance and non- economic factors on the, demand for medical services. Health insurance as a social security -Historical evolution health insurance in India-delivery of medical care under insurance-its merits and demerits.

### **References**

1. Urban health system, P. K. Umashankar, Girish Misra, Reliance publishing house, New Delhi.

2. Urbanization and implication for child health, potential for action WHO, Geneva 1988.

3. Economic and social aspects of population ageing in Kerala, United Nations, New York 1992.

4. Public health and poverty of reforms. Ed. by Imrana quadder etc. Sage publications

5. Health Insurance in developing countries. Ed by Aviva Row, Brian Abel Smith etc.

Oxford and IBH publishing company Ltd. New Delhi 1990.

6. Cities of Hunger, Urban malnutrition in developing countries, Jane Pryer and Nigel crook, Published by Oxfam, Oxford 1988.

7. Health and Development Ed. By David R Phillip and Yola Verhasset. Routledge, London 1994.
8. Health Economics, Theories, Insights and Industry Studies by Rexford E Santerre and Stephen P Neun.The Dryden press,Dryden 2000
9. The Economics of Health in developing countries.EC.by Kenneth Lee & Anne Mills, Oxford University press 1985.
10. Health Sector Reform in Developing countries. Peter Herman Ed. 1995 Harvard school of public health, Boston.
11. Environmental pollution and health hazards in India.Ed.by R.kumar.Ashish publishing house, New Delhi. 1987.
12. The urban health crisis. strategies for health for all in the face of rapid urbanization. WHO, Geneva 1993.
13. Health Transition in Kerala, PGK Panicker, KRPLD, Discussion paper No. 10 1999.
14. Utilization of health services in Urban kerala, A socio Economic study, K.Gangadharan, Serials Publications, New Delhi,2005.
15. Health Strategies and population Regulation Vol .1 and Vol II. Ed.by Yu Jing Yuan etc. B.R.Publishng Corporation, Delhi. 2001.
16. NGO's The New Lexicon of health Ashoko Kumar Sarkar, Concept Publishing Company, Delhi. 2005.
17. Health Economics. fundamentals and flow of funds. Thomas E Getzen. John Wiley & sons.Inc. 1997.

## **OPTIONAL PAPER – 7: PROJECT FORMULATION AND EVALUATION**

### **Module - 1**

Project formulation and analysis - nature and scope - project analysis, an overview - capital expenditures - phases of capital budgeting - levels of decision making - facets of project analysis - key issues in project analysis - objectives of capital budgeting - resource allocation, criteria, tools, approaches and issues - generation and screening of project ideas - scouting for project ideas.

### **Module - II**

Project analysis and evaluation - market and demand analysis - methods of demand forecasting - qualitative, time series, and casual methods - technical analysis materials and inputs - product mix - plant capacity - project charts and layouts – work schedule - financial analysis - project cost - sources of finance - estimates - cost of production - break-even point - cash flow statements - balance sheets.

### **Module - III**

Measuring project cash flows - components - biases in cash flow C estimation - time value of money - cost of capital - basic concepts, premises and rationale - cost of capital in practice - appraisal criteria, net present value, benefit cost ratio - internal rate of return - pay back period - accounting rate of return - assessment of various methods – risk analysis - types and measures of project risk - sensitivity analysis - Monte Carlo simulation - decision tree analysis - risk analysis and selection of a project.

### **Module -IV**

Special decision situations - choice between mutually exclusive projects - determination of economic life- inflation and capital budgeting - firm risk and market risk - social cost benefit analysis - multiple projects and constraints - options and flexibility - cumulative factors.

### **Module - V**

Project Management - network techniques of project management - PERT model and CPM model - network cost system - project review -performance evaluation. Problems wherever required in each module from 2<sup>nd</sup> to 5<sup>th</sup> shall be worked out.

Students will be required to workout problems compulsorily. Question from each module will be set accordingly.

### **REFERENCE**

1. Prasanna Chandra, *Projects, Planning, Analysis, Selection Implementation and Review*, Tata McGraw Hill Publishing Co., New Delhi 1995.
2. Ajith K. Dasgupta & D.W. Pearce, *Cost Benefit Analysis*, Macmillan ELBS London 1978.
3. Bussey L.E., *The Economic Analysis of Industrial Projects*, Prentice Hall, Englewood, 1978.
4. William J. Baumol, *Economic Theory and Operations Analysis*, Prentice Hall Englewood, 1978.
5. Brealey, R. & S. Myers, *Principles of Corporate Finance*, McGraw Hill, New York, 1991.
6. Prasanna Chandra, *Financial Management - Theory and Practice*, Tata McGraw Hill, New Delhi, 1993.
7. Charnes. A & W.W. Cooper, *Management Models and Industrial Applications of Linear Programming*, John Wiley & Sons, New York, 1961.
8. Gass, S.I. *Linear Programming: Methods and Applications*, McGraw Hill, New York, 1969.
9. Haley, C.W. and L.D. Schall, *The Theory of Financial Decisions*, McGraw Hill, New York.

10. Little I.M.D. and J.A Mirrlees, *Project Appraisal and Planning for Developing Countries*, Hienemann Educational Books, London, 1974.
11. Lutz, F. & Lutz, *The Theory of Investment of the firm*, Princeton University Press, 1951.
12. Masse, P. *Optimal Investment Decisions : Rules of Action and Criteria for Choice*, Prentice Hall, Englewood, 1962.
13. Miller R.W., *Schedule Cost and Profit Control with PERT*, McGraw Hill, New York, 1963.
14. Mize J.H. & J.G. Cox, *Essentials of Simulation*, Prentice-Hall, England.
15. Moder, J.J. and C.R. Philips, *Project Management with CPM and PERT*, Reinhold Publishing Corporation, New York, 1964.

**Journals:**

1. *Economic & Political Weekly*, Bombay
2. *Commerce*
3. *Financial Management, Winter and Summer*
4. *Business today*
5. *Journal of Finance*
6. *Indian Journal of Accounting*
7. *Chartered Accountant*, Journal of CA's Association

**MA APPLIED ECONOMICS - 2012 ADMISSION ONWARDS**

**REGULATION AND SCHEME**

#### **ELIGIBILITY ( REGULAR P.G PROGRAMME )**

Candidates with BA Economics, BSc Mathematics, BSc Statistics and any other recognised undergraduate degree with Economics as a significant component in its core /major/main course.

#### **COURSE OF STUDY**

The course of study is 4 semesters and shall comprise of the subjects as prescribed in the syllabus

**MA APPLIED ECONOMICS – (CUCSS)**



**REGULATION, SCHEME, SYLLABUS**

**2012 ADMISSION ONWARDS**