

# **VIMALA COLLEGE (AUTONOMOUS)**

(NAAC Re-accredited(3<sup>rd</sup> Cycle): A Grade, CGPA-3.50)

**Affiliated to University of Calicut**



**M.A. DEGREE PROGRAMME**

**IN**

**ECONOMICS**

**Choice Based Credit and Semester System  
(CUCSS)**

**SYLLABUS, SCHEME, AND MODEL QUESTION PAPERS  
CORE, COMPLEMENTARY and OPEN COURSES  
(2016 ADMISSION ONWARDS)**

**VIMALA COLLEGE  
ENGINEERING COLLEGE P O, THRISSUR  
KERALA- 680009, INDIA**

## **BOARD OF STUDIES –ECONOMICS AND COMMERCE**

**Chairperson** : Dr Vasanthakumari P, Associate Professor, Department of Commerce, N.S.S College, Ottapalam, Palakkad  
Phone- 9447795387

### **Teachers nominated**

**By the principal** : (1) Dr. Vimala M, Assistant Professor & HOD, Department of Economics, Vimala College, Thrissur  
(2) Ms. Rose V J, Assistant Professor&HOD, Department of Commerce, Vimala College, Thrissur  
(3) Smt. Sneha Gopeekrishna, Assistant Professor, Department Of Economics, Vimala College, Thrissur

**Subject experts** : (1) Dr. K.P. Mani, Professor, Dept. of Economics, University of Calicut Dr John Matthai Centre, Aranattukara  
Mobile- 9847235070

: (2) Dr. Paul Kattukaran, Associate Professor, St. Thomas College, Thrissur , Mobile -9446622342

### **Vice Chancellor Nominee**

: Dr.B Johnson, Reader, Department of Commerce and Management Studies University of Calicut Mobile- 9446182862

### **Industry representative** :

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**Illustrious Alumnae** : Sr.Teseena P Emmatty, Assisntant Professor,  
Department of Commerce. Vimala College, Thrissur

## **PREFACE**

The Master of Arts (MA) in Economics is a two-year full-time programme, with each year comprising of two semesters. Regular updating of both curriculum and syllabus in economics is unavoidable because the subject of economics has a rapid growth compared to most of the other fields in social sciences. Accordingly, timely modifications and updation are to be made in the curriculum in tune with the latest developments in economic theories, techniques and methods of analysis and the rapidly changing global economic environment.

The present syllabus is designed after making a thorough review of the existing curriculum. Thoroughly revised contents, evaluation schemes, model question papers and a format to prepare the dissertation are the major components of the new syllabus.

The revised syllabus is the outcome of a series of sittings of the members of the board of studies and consultation with the faculty members handling various papers and experts in the respective areas.

Valuable comments and suggestions given by them have been incorporated in the syllabi before finalizing it.

**Chairman,  
Board of Studies in Economics & Commerce (PG)**

## MA ECONOMICS (CUCSS) 2015-16ADMISSION-SCHEME OF THE COURSE

Semester	Name of the Paper	Credit	Hours/Week #	Total Weight	
				External	Internal
<b>I</b>	CoreCourseI-VPEC1C01 Micro economics : Theory and Applications I	4	7	36	5
	CoreCourseII-VPEC1C02 Macroeconomics : Theories and Policies I	4	6	36	5
	Core Course III- VPEC1C03 Indian Economy : Problems and Policies	4	6	36	5
	CoreCourseIV-VPEC1CO4 Quantitative Methods for Economic Analysis-I	4	6	36	5
<b>II</b>	CoreCourseV-VPEC2C05 Micro economics : Theory and Applications II	4	6	36	5
	CoreCourseVI-VPEC2C06 Macro economics : Theories and Policies II	4	6	36	5
	CoreCourseVII-VPEC2C07 Public Finance: Theory and Practice	4	7	36	5
	CoreCourseVIII-VPEC2C08 Quantitative Methods for Economic Analysis-II	4	6	36	5
<b>III</b>	CoreCourseIX-VPEC3C09 International Trade	4	6	36	5
	CoreCourseX-VPEC3C10 Growth and Development	4	6	36	5
	CoreCourseXI-VPEC3C11 Banking : Theory and Practice	4	6	36	5
	CoreCourseXII-VPEC3C12 Basic Econometrics	4	7	36	5
<b>IV</b>	CoreCourseXIII-VPEC4C13 International Finance	4	6	36	5
	CoreCourseXIV-VPEC4C14 Financial Markets	4	6	36	5
	Electives* VPEC4E01( Advanced Econometrics)	4	6	36	5
	VPEC4E02 (Research Methodology and Computer Applications)	4	6	36	5
	VPEC4PR Dissertation	4	1		
	VPEC4V Viva Voce (a+b) a. Dissertation Viva(2 Credits) b. Theory Viva(2credits)	4			
	<b>Total</b>	<b>72</b>			

**#20 hours are allotted for seminars for each paper per semester.**

**\*Two elective papers selected from the list of 13 elective papers appended.**

# **EVALUATION SCHEMES**

## **INTERNAL EVALUATION**

<b>COMPONENT</b>	<b>WEIGHTAGE</b>
<b>Assignment</b>	<b>1</b>
<b>Seminar</b>	<b>1</b>
<b>Attendance</b>	<b>1</b>
<b>Test Papers(2)</b>	<b>2</b>
<b>Total</b>	<b>5</b>

## **EXTERNAL EVALUATION**

<b>PART</b>	<b>COMPONENT</b>	<b>WEIGHTAGE</b>
<b>A</b>	<b>12Questionsx1/4</b>	<b>3</b>
<b>B</b>	<b>5Questionsx1</b>	<b>5</b>
<b>C</b>	<b>8Questionsx2</b>	<b>16</b>
<b>D</b>	<b>3Questionsx4</b>	<b>12</b>

### **Part A (Multiple Choice Questions)**

**Answer all 12Questions**

(12x $\frac{1}{4}$ Weightage=3Weightage)

### **Part B (Very Short Answer Questions)**

**Answer any 5questions out of 8questions**

(5questionsx1=5Weightage)

### **Part C (Short Answer Questions)**

**Answer any 8 questions out of 11 questions**

(8 questions x2=16Weightage)

### **Part D ( Essay Questions)**

**Answer any 3questions out of 5questions.**

(3questions x4=12Weightage)

**Total= 36Weightage**

## **LIST OF CORE PAPERS**

1. Paper I –VPEC1C01- Micro economics : Theory and Applications I
2. Paper II – VPEC1C02- Macroeconomics : Theories and Policies I
3. Paper III- VPEC1C03- Indian Economy : Problems and Policies
4. Paper IV- VPEC1C04- Quantitative Methods for Economic Analysis-I
5. Paper V- VPEC2C05- Microeconomics : Theory and Applications II
6. Paper VI – VPEC2C06-Macroeconomics:Theories and Policies II
7. Paper VII – VPEC2C07- Public Finance : Theory and Practice
8. Paper VIII – VPEC2C08- Quantitative Methods for Economic Analysis-II
9. Paper IX- VPEC3C09- International Trade
10. Paper X- VPEC3C10- Growth and Development
11. Paper XI- VPEC3C11- Banking : Theory and Practice
12. Paper XII- VPEC3C12- Basic Econometrics
13. Paper XIII- VPEC4C13- International Finance
14. Paper XIV- VPEC4C14- Financial Markets
15. Elective -VPEC4E01- Advanced Econometrics
16. Elective -VPEC4E02- Research Methodology and Computer Applications
17. VPEC4PR Dissertation

## **LIST OF ELECTIVE PAPERS**

### **ELECTIVE PAPERS**

<b>Code</b>	<b>Title of the Paper</b>	<b>Credits</b>	<b>Hours/Week</b>
<b>VPEC4E01</b>	*Advanced Econometrics	<b>4</b>	<b>6</b>
<b>VPEC4E02</b>	*Research Methodology and Computer Applications	<b>4</b>	<b>6</b>
<b>VPEC4E03</b>	Business Economics	<b>4</b>	<b>6</b>
<b>VPEC4E04</b>	Demography	<b>4</b>	<b>6</b>
<b>VPEC4E05</b>	Environmental Economics	<b>4</b>	<b>6</b>
<b>VPEC4E06</b>	Gender Economics	<b>4</b>	<b>6</b>
<b>VPEC4E07</b>	Health Economics	<b>4</b>	<b>6</b>
<b>VPEC4E08</b>	Industrial Economics	<b>4</b>	<b>6</b>
<b>VPEC4E09</b>	Labour Economics	<b>4</b>	<b>6</b>
<b>VPEC4E10</b>	Local Level Planning	<b>4</b>	<b>6</b>
<b>VPEC4E11</b>	Mathematical Economics	<b>4</b>	<b>6</b>
<b>VPEC4E12</b>	Regional Economics	<b>4</b>	<b>6</b>
<b>VPEC4E13</b>	Agricultural Economics	<b>4</b>	<b>6</b>

\*Selected Electives

# **MA ECONOMICS DISSERTATION FORMAT**

## **STRUCTURE OF THE DISSERTATION**

### **Cover Page and Front Page**

- a. Title of the project
- b. Degree for which project is submitted.
- c. Name of the Candidate & Roll Number
- d. Name of the College
- e. Month and year the project is presented

### **Contents**

- a. Certificate of the supervising teacher.
- b. Certificate of the head of the department.
- c. Certificate of the college principal.
- d. Declaration by the student.
- e. Acknowledgement.
- f. Table of Contents
- g. List of Tables
- h. List of Figures
- i. Introductory Chapter
- j. Analysis Chapters
- k. Concluding Chapter
- l. Bibliography
- m. Appendix

## **CONTENTS OF THE INTRODUCTORY CHAPTER**

1. Introduction
2. Statement of objectives
3. Hypothesis(optional)
4. Methodology
  - a. Data sources (primary/secondary)
  - b. Tools of analysis (statistical & mathematical)
5. Scope of the study (sample size & period of study)
6. Significance of the study
7. Limitations of the study
8. Conceptual framework-Optional (specification of terms and concepts)
10. Review of literature (references are to be given in footnotes)
11. Chapter outlines.

## **STYLE OF PRESENTATION**

1. Report Length: 40 to 60 pages excluding Appendix and Certificates
2. Alignment: Justify
3. Font :Times New Roman
4. Fontsize:12
5. Linespacing:1.15

## SEMESTER I

<b>Core Course</b>	<b>Title of the Paper</b>	<b>Credits</b>	<b>Hours/Week</b>
I	Microeconomics: Theory and Applications I	4	7
II	Macro economics : Theory and Policy I	4	6
III	Indian Economy : Problems and Policies	4	6
IV	Quantitative Methods for Economic Analysis-I	4	6

## SEMESTER II

<b>Core Course</b>	<b>Title of the Paper</b>	<b>Credits</b>	<b>Hours/Week</b>
V	Microeconomics: Theory and Applications II	4	6
VI	Macroeconomics: Theory and Policy II	4	6
VII	Public Finance: Theory and Practice	4	7
VIII	Quantitative Methods for Economic Analysis-II	4	6

## SEMESTER III

<b>Core Course</b>	<b>Title of the Paper</b>	<b>Credits</b>	<b>Hours/Week</b>
IX	International Trade	4	6
X	Growth and Development	4	6
XI	Banking : Theory and Practice	4	6
XII	Basic Econometrics	4	7

## SEMESTER IV

<b>Core Course</b>	<b>Title of the Paper</b>	<b>Credits</b>	<b>Hours/Week</b>
XIII	International Finance	4	6
XIV	Financial Markets	4	6
	Elective Paper 1-Advanced Econometrics	4	6
	Elective Paper 2-Research Methodology and Computer Applications	4	6
	Dissertation	4	1



## **Core Course-I**

**MA ECONOMICS (CSS)  
SEMESTER: I**

### **VPEC1C01: MICRO ECONOMICS: THEORY AND APPLICATIONS - I Credit 4**

Total Hours: 100  
Lecture Hours: 80  
SeminarHours: 20

#### **Module I: Consumer Behaviour under Uncertainty and Risk (20 Hours)**

Choice under uncertainty-Bernoulli hypothesis- St. Petersburg paradox-Neumann-Morgenstern hypothesis-Choice under risk- Probability and variability in measuring risk- Risk aversion-Economics of insurance-Risk pooling and risk spreading-Friedman Savage hypothesis-Markowitz hypothesis.

#### **Module II: Recent Developments in Demand Theory (20 Hours)**

Bandwagon effect-Snob effect and Veblen effect- Characteristic approach of Kelvin Lancaster-Demand for durable and nondurable goods-Constant elasticity demand function-Dynamic versions of demand functions- Nerlove, Houthakker and Taylor-Linear expenditure system.

#### **Module III: Theory of Production and Costs (30 Hours)**

Homogeneous production function- Linearly homogeneous production function-Cobb-Douglas production function and CES production function, Trans log Production function and their properties-Technological progress and production function-Economies of scale-Cost functions-Modern theories of costs-Short run costs- Long run costs-Engineering costs-Economies of scope-Learning curve.

#### **Module IV: Theory of Oligopoly Markets (30 Hours)**

Oligopoly- Characteristics- Collusive versus non collusive oligopoly- Non collusive models-Cournot model- Bertrand's model- Chamberlin's model-Kinked demand curve model of Sweezy- Stackelberg's model- Collusive models- Cartels- Price leadership-Mergers- Theory of Games - Basic concepts-Cooperative versus non cooperative game- Zero sum versus non- zero sum game- Prisoner's dilemma- Dominant strategies- Mixed strategies- Repeated games- Sequential games- Nash equilibrium.

## **Module V: Managerial Theories and Theories of Limit Pricing (26 Hours)**

Managerial theories of the firm- Baumol's model-Marris' model-Williamson's model- Theory of limit pricing- Models of Bain-Sylos-Labini-Franco Modigliani-Bhagwati and Pashigian.

### **References**

1. A Koutsoyiannis (1979): Modern Microeconomics- 2nd Edition, Macmillan.
2. Robert Y Awh (1976): Microeconomics: Theory and Applications- John Wiley & Sons.
3. Robert S Pindyck and Daniel L Rubinfeld (2009): Microeconomics- 7th Edition, Pearson India.
4. Dominick Salvatore (2003): Microeconomics: Theory and Applications- 4th Edition, Oxford University Press.
5. Christopher Snyder and Walter Nicholson (2008): Fundamentals of Microeconomics- 1st Edition, Cengage Learning
6. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1st Edition, South Western Cengage Learning.
7. Andrew Schotter (2008): Microeconomics: A Modern Approach- 1st Edition, South Western College.
8. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): Microeconomic Theory- 1st Edition, Oxford University Press.
9. Edgar K Browning and Jacqueline M Browning (1986): Microeconomic Theory and Applications- 2<sup>nd</sup> Edition, Kalyani Publishers.
10. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1st Edition, Tata McGraw-Hill.
11. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: A Mathematical Approach- 8<sup>th</sup> Edition, McGraw-Hill.
12. Watson and Getz (2004): Price Theory and its Uses- 5th Edition, AITBS Publishers and Distributors.
13. Hugh Gravelle and Ray Rees (2004): Microeconomics- 3rd Edition, Pearson Education
14. Jeffrey M Perloff (2012): Microeconomics: Theory and Applications with Calculus- Pearson India.
15. Mark Blaug: Economic Theory in Retrospect- Vikas Publishing

## Core Course-II

### VPEC1C02: MACRO ECONOMICS: THEORY AND POLICY-I

Credit4

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

#### **Module I: Micro Foundations of Monetary Theory (18 Hours )**

Classical dichotomy- Say's identity- Say's equality-Inconsistency between Say's law and the quantity theory of money- Walrasian system- Arrow-Debreu Model-Samuelson's overlapping generations' model-Money illusion-Keynes effect and Pigou effect.

#### **Module II: Demand for and Supply of Money (25 Hours )**

Demand for Money: Nominal versus real cash balances- The Neoclassical theory-Keynes liquidity preference theory- Friedman's restatement of the quantity theory of money- Baumol's inventory theory- Portfolio balance theory-Liquidity theory (Radcliff- Sayer's version and Gurley and Shaw version) - Patinkin's real balance effect- Supply of money- Measures of money supply-The H theory of money supply- Money multiplier process-Behavioral and endogenous money supply models- Fisher effect.

#### **Module III: Theories of Consumption and Investment (20 Hours)**

Consumption function: Keynes' psychological law- Absolute income hypothesis-Permanent income hypothesis – Life cycle hypothesis and Relative income hypothesis-Kuznets's consumption puzzle- Fisher's inter-temporal choice model- Investment function- Neo-classical Theory of investment- Tobin's q-ratio-Accelerator theory of investment (simple and flexible acceleration models).

#### **Module IV: Macroeconomic Equilibrium ( 20 Hours)**

Macroeconomic equilibrium analysis: One sector neo-classical model-One sector Keynesian model- Goods market and IS curve- Money market and LM curve- IS-LM general equilibrium- Neo-Classical and Keynesian versions-Neo-classical synthesis-Three sector IS-LM model

#### **Module V: Macroeconomic Policy ( 25 Hours )**

Macroeconomic policies- Objectives of macroeconomic policies-Target variable and instrument variable- Monetary Policy- Instruments- The issue of central bank autonomy-Rules versus discretion-The Taylor rule- Time inconsistency of policy- Fiscal policy- Instruments-Policy lags- Inside and outside lags- Fiscal policy and budget deficit-Crowding out effect and government budget- Effectiveness of monetary and fiscal policy using IS-LM framework- Income policy- Stabilization policy

## References

Gregory Mankiw (2008): Macro economics-WorthPublishersNY,6<sup>th</sup>ed.

1. Richard T Froyen (2005): Macroeconomics: Theories and Policies- Pearson (LPE), Seventhed.
2. Rosalind Levacic and Alexander Rebman (1982): Macro economics : An Introduction to Keynesian- Neoclassical Controversies-2<sup>nd</sup>ed. Macmillan.
3. Eric Pentacost : Macro economics-An Open Economy Approach - Macmillan.
4. Rudiger Dornbusch, Stanley Fisher and Richard Startz (2004) : Macroeconomics- Tata Mc Graw Hill,9<sup>th</sup>ed.
5. Errol D'Souza (2008) : Macro economics-Pearson Education.
6. Macro economics: Theory and Policy Harcourt Publishers, NewDelhi.
7. Veneries and Sebold (1977): Macro economics: Models and Policies John Wiley & Sons.
8. Gurley J and Shaw E S (1960): Moneyina Theory of Finance - Washington: Brookings Institution.
9. Samuelson and Nordhaus (1998) : Macroeconomics-16<sup>th</sup>ed. Irwin Mc GrawHill.
10. Robert J Gordon: Macro economics-Eastern Economy Edition.
11. Edward Shapiro: Macroeconomics- Galgotia Publications, NewDelhi.
12. Mervyn K.Lewis and Paul D Mizen (2000) : Monetary Economics –Oxford University Press.
13. Mervyn K Lewis and Paul D Mizen (2000) Monetary Economics – Oxford University Press
14. Jagdish Handa (2000) Monetary Economics - Routledge

**Core Course- III**  
**VPEC1C03: INDIAN ECONOMY: PROBLEMS AND POLICIES**  
**Credit 4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: Growth and Structural Changes of the Indian Economy (28 Hours) (removed a topic 'Distribution of National Income among four factors of production')**

Economic growth in India-Contribution of different sectors to GDP and employment -Trends in India's national income- Trends in savings and investment since reforms –Regional disparity in growth and development-Analysis of poverty in India-Migration-Unemployment and inequality since reforms-Environmental degradation-HDI related indicators of India-Millennium Development Goals-Inclusive growth in India.

**Module II: Economic Planning in India (30 Hours)**

Planning and economic development-Objectives of planning-Techniques of planning-Planning in a market oriented economy-Achievements of planning-Agricultural development under the plans-Industrial development under the plans-Foreign trade under the plans - Population policy and demographic changes under the plans-Parallel economy in India-Evaluation of Five Year Plans-NITI Aayog.

**Module III : Economic Reforms Since 1991(25 Hours )**

Background of economic reforms-Industrial policy reforms-Trade policy reforms-Fiscal policy reforms-Financial sector reforms-Foreign investment policy reforms-Second generation economic reforms-An appraisal of India's economic reforms.

**Module IV: Kerala Economy (25 Hours )**

Structural changes of Kerala economy-Kerala model of development-Agricultural performance-Industrial backwardness-Health and education-Migration and foreign remittances-Economic impact of Gulf emigration on Kerala Economy-Decentralization-Achievements of decentralization-Poverty and unemployment in Kerala-State finances of Kerala-Fiscal crisis of Kerala-Causes and consequences.

## References

1. Vijay Joshi and IMD Little: India: Macro economics and Political Economy: 1964-1991 OxfordUniversityPress,NewDelhi1994.
2. Uma Kapila(ed): Indian Economy Since Independence- Academic Foundation, New Delhi2004.
3. VijayJoshiandI.M.DLittle:India'sEconomicReforms:1991-2001-OxfordUniversityPress,New Delhi,1996.
4. V M Dandekar and Nilakant Rath: Poverty in India-Indian School of Political Economy, Pune, 1971.
5. Sanjeev Kumar: Foreign Direct Investment in India-B R Publishing CompanyDelhi,1996.
6. Balasubramanyan: Selected Issues in Development Economics-Oxford University Press, London, 1993.7.
7. Jagdish Bhagwati: India in Transition- Oxford University Press, Delhi, 1994.
8. Dr. S Murthy: Structural Reforms of Indian Economy- Atlantic Publishers, 1995.
9. H W Singer, Neelambar Hatti and Rameshwar Tandon (eds): Trade Liberalisation in the 1990's- Indus Publishing Company, New Delhi, 1990.
10. Jagdish Bhagwati and TN Srinivasn: Foreign Trade Regimes and Economic Development: India- NBER, New York, 1986.
11. Isher Judge Ahluwalia and IMD Little (ed): India's Economic Reforms and Development: Essays for Manmohan Singh- Oxford University Press, Delhi, 1998.
12. KR Gupta (Ed): Liberalization and Globalization of Indian Economy- Atlantic Publishers, New Delhi 1995.
13. Deepak Lal: India in the World Economy- Oxford University Press, 1999.
14. Datt. R. (2001): Second Generation Economic Reforms in India- Deep and Deep Publications, New Delhi.
15. Mahendra K Premi (2009): India's Changing Population Profile- National Book Trust, New Delhi.
16. B A Prakash (Ed): Indian Economy Since 1991-Pearson Education.
17. Shanker Acharya and Rakesh Mohan (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, New Delhi.
18. Jayaraj D and Subramanian S (2010): Poverty, Inequality and Population- Oxford University Press, New Delhi.
19. Mahendradev S (2010): Inclusive Growth in India- Oxford University Press, New Delhi.
20. CT Kurien: Poverty, Planning and Social Transformation in India- Allied Publishers, Delhi, 1978.
21. BA Prakash (Ed): Kerala's Economic Development: Issues and Problems- Sage publishers, New Delhi, 1999.
22. ET Mathew (1997): Employment and Unemployment in Kerala- Sage publishers, New Delhi.
23. George K K (1999): Limits to Kerala Model of Development- CDS, Trivandrum.
24. Sunil Mani, Anjii Kochar, Arun M Kumar: Crouching Tiger Sacred Cows- D C Books, Kottayam.
25. K Rajan: Kerala Economy: Trends during the Post-reform Period-Serial Publishers, New Delhi.
26. CDS (1975): Poverty Unemployment and Development Policy: A Case Study of Selected Issues with Reference to Kerala- CDS, Trivandrum.

27. K.K. George and K.K. Krishnakumar (2012): Trends in Kerala State Finances-1991-92 to 2012-13: A Study in the Backdrop of Economic Reforms in India-Working Paper N0.28- Centre for Socio-economic & Environmental Studies-Kochi (available online).
28. RBI Annual Reports.
29. Ministry of Finance: Economic Survey-Variou s Issues.
30. RBI: Handbook of Statistics on Indian Economy- Various Issues.

## Core Course-IV

### VPEC1C04: QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS I Credit4

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

#### **Module I : Matrices & Determinants (24 Hours )**

Types of Matrices- Operations of matrices- Determinants- Properties of determinants-Minors and cofactors- Ad joint of a matrix- Inverse of a matrix- Rank of a matrix-Solution of a system of linear equations using matrices- Cramer's rule – Characteristic equations – Characteristic Roots – Applications in Economics

#### **Module II: Applications of Differential Calculus (26 Hours )**

Applications- Rate of change and the derivative- Derivative and slope of a curve-Rules of differentiation involving functions of different variables- Partial and total differentiation- Differentials and derivative- Differentials and point elasticity- Total derivatives- Economic applications of partial and total differentiation and differentials.

#### **Module III: Optimisation (20 Hours )**

Unconstrained maxima and minima with single and several variables (problems up to 2 variables) and its applications-Optimization with equality constraints –Lagrange multiplier method-**Application in Economics**

#### **Module IV: Integration (14 Hours )**

Methods of integration- Integration by parts- Simple applications in Economics.

#### **Module V: Probability Theory (24 Hours )**

Concept- Permutations - Combinations- Definition classical, empirical-Axiomatic approaches- Addition and multiplication laws- Conditional probability- Bayesian probability-Bayes's



theorem - random variable- Probability functions- Mathematical expectation- Moments.

## References

1. Taro Yamane (1973): Statistics: An Introductory Analysis- Harper & Row.
2. Hoel P G(1971):Introduction to Mathematical Statistics- John Wiley & Sons.
3. RGD Allen: Mathematical Analysis for Economics.
4. Simpson & Kafka: Basic Statistics.
5. Dowling E.T(1992):Introduction to Mathematical Economics- Schaum's Outline Series, Mc Graw Hill, NewYork.
6. Tulsian P.Cand Vishal Pandey: Quantitative Techniques- Pearson Education, NewDelhi.
7. S.P.Gupta: Statistical Methods- S Chand and Sons, NewDelhi.
8. Hooda R.P: Statistics for Business and Economics- Macmillan, NewDelhi.
9. Alpha C Chiang: Fundamental Methods of Mathematical Economics- 2<sup>nd</sup>Ed.-Inter National Student Edition, McGraw-Hill.
10. Sreenath Baruah : Basic Mathematics and its applications in Economics – MacMillan India

**Core Course-V**  
**II SEMESTER**  
**VPEC2C05: MICRO ECONOMICS: THEORY AND APPLICATIONS-II**  
**Credit 4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: General Equilibrium and Welfare Economics ( 20 Hours)**

Elements of general equilibrium analysis-General equilibrium of exchange- General Equilibrium of production- Welfare economics-Pareto optimality-Kaldor-Hicks compensation criterion- Social welfare function-Scitovsky criterion - Theory of second best-Arrow's impossibility theorem-Rawls theory of justice-Sen's theory of welfare.

**Module II: Externalities and Public Goods (24 Hours)**

Externalities- Negative and positive externalities in consumption and production – Externalities and inefficiency - Ways of correcting market failure-Externalities and property rights-Coase theorem-Tragedy of commons-Public goods-Characteristics-Provision of public goods-Public goods and market failure.

**Module III-Macro Theories of Distribution (20 Hours )**

Theories of Ricardo, Marx, Kalecki and Kaldor-Euler's theorem and adding up problem

**Module IV-Economics of Information (24 Hours)**

Search cost-Searching for the lowest price-Search and advertising- Asymmetric information: Market for lemons- Implications of asymmetric information - Adverse selection- Insurance markets- Market signalling- Moral hazard- Principal-agent problem-The efficiency wage theory.

**Module V - Input Output Analysis and Linear Programming (20 Hours )**

Input-output analysis-Technical coefficients- Hawkin-Simon condition-Leontief's open system-closed system-Linear Programming-Statement of the linear programming problem-Graphical solution-Simplex method.

**References**

1. A Koutsoyiannis (1979): Modern Microeconomics- 2<sup>nd</sup> Edition, Macmillan.
2. Robert Y Awh (1976): Microeconomics: Theory and Applications- John Wiley & Sons.
3. Robert S Pindyck and Daniel L Rubinfeld (2009): Microeconomics- 7<sup>th</sup> Edition, Pearson India.
4. Dominick Salvatore (2003): Microeconomics: Theory and Applications- 4<sup>th</sup> Edition, Oxford University Press.
5. Christopher Snyder and Walter Nicholson (2008): Fundamentals of Microeconomics- 1<sup>st</sup>

Edition, Cengage Learning.

6. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1<sup>st</sup> Edition, South Western Cengage Learning.
7. Andrew Schotter (2008): Microeconomics: A Modern Approach- 1<sup>st</sup> Edition, South Western College.
8. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): Microeconomic Theory- 1<sup>st</sup> Edition, Oxford University Press.
9. Edgar K Browning and Jacqueline M Browning (1986): Microeconomic Theory and Applications- 2<sup>nd</sup> Edition, Kalyani Publishers.
10. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1<sup>st</sup> Edition, Tata McGraw-Hill.
11. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: A Mathematical Approach- 8<sup>th</sup> Edition, McGraw-Hill.
12. Watson and Getz (2004): Price Theory and its Uses- 5<sup>th</sup> Edition, AITBS Publishers and Distributors.
13. Hugh Gravelle and Ray Rees (2004): Microeconomics- 3<sup>rd</sup> Edition, Pearson Education.
14. Jeffrey M Perloff (2012): Microeconomics: Theory and Applications with Calculus- Pearson India.

**Core Course-VI**  
**VPEC2C06: MACRO ECONOMICS: THEORY AND POLICY-II**  
**Credit4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: Theories of Inflation and Unemployment (30 Hours )**

Keynesian and monetarist approach to inflation- Structuralist theory of inflation-Phillips Curve- Short run and long run Phillips curve-The natural rate of unemployment hypothesis-Modified Phillips curve- Adaptive expectation hypothesis- Augmented Phillips curve- NAIRU-Okun's Law- Costs of Inflation- Inflation targeting- Anti-inflationary measures-Unemployment and labour market- Demand for and supply of labour- Neoclassical labour market equilibrium- Keynesian labour market- Underemployment equilibrium-Wage rigidity versus wage flexibility- Search theory- DMP (Diamond, Mortenson, Pissarides) model.

**Module II: Theories of Business Cycles (20 Hours )**

Business cycles- Monetary theory of Hawtrey- Over investment theory of Hayek-Innovation theory of Schumpeter- Models of Samuelson, Hicks and Kaldor-Keynesian theory of business cycle- The real business cycle theory- Political business cycle theory-Current global recession

**Module III: Modern Developments in Macroeconomics (30 Hours)**

A. Classical School

The new classical macroeconomics- An overview of major themes in Monetarism-Rational expectations hypothesis- Lucas' surprise supply function- The inter-temporal substitution model- Policy ineffectiveness argument- The Lucas critique- Supply-side macroeconomics- Supply shocks and stagflation- Laffer curve- Policy implications-The Dynamically Stochastic General Equilibrium model(DSGE).

B. Keynesian School

Disequilibrium Keynesians: Re-interpretation of Keynes by Clower and Leijonhufvud-The dual decision hypothesis- Rationing model of Malinvaud-Post Keynesians: Kalecki's pricing theory- Financial instability theory of Minsky- The New Keynesians: Nominal Rigidities-Real Rigidities- Small menu cost model- Implicit wage contract model- Efficiency wage theories-Insider-outsider model and hysteresis- Coordination failure- Policy implications

## **Module IV: Monetary and Fiscal Policy in the Open Economy (28 Hours )**

Mundell-Fleming model- The case of imperfect capital mobility-Monetary policy under fixed exchange rates- Fiscal policy under fixed exchange rates-Monetary policy under flexible exchange rates- Fiscal policy under flexible exchange rates-The case of perfect capital mobility- Policy effects under fixed exchange rates- Policy effects under flexible exchange rates.

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5. Eric Pentacost: Macroeconomics-An Open Economy Approach-Macmillan.
6. Rudiger Dornbusch: Stanley Fisher and Richard Startz (2004) Macro economics-TataMc Graw Hill, 9<sup>th</sup>ed.
7. Hargreaves Heap S.P (1992): The New Keynesian Macroeconomics: Time, Belief and Social Independence Edward Elgar Publishing.
8. D'Souza , Errol(2008):Macroeconomics-Pearson Education.
9. Fred R Glahe, (1985): Macro economics: Theory and Policy-Harcourt Publishers, New Delhi.
10. Veneries and Sebold, (1977): Macro economics: Models and Policies-John Wiley & Sons.
11. Samuelson and Nordhaus(1998):Macroeconomics-16<sup>th</sup>ed. Irwin McGraw Hill.
12. Robert J Gordon: Macroeconomics-Eastern Economy Edition.
13. Edward Shapiro: Macro economics-Golgotha Publications, New Delhi.
14. Brian Showdown, Howard Vane and Peter Wynarczyk (2001):A Modern Guide to Macro economics: An Introduction to Competing Schools of Thought-Edward Elgar
15. Brian Showdown, Howard Vane and Peter Wynarczyk (2001): A Modern Guide to Macroeconomics: An Introduction to Competing Schools of Thought- Edward Elgar.
16. Mervyn K.Lewis and Paul D Mizen (2000): Monetary Economics- Oxford University Press.
17. Jagdish Handa (2000): Monetary Economics- Routledge.

## Core Course-VII

### VPEC2C07: PUBLIC FINANCE: THEORY AND PRACTICE

Credit4

Total Hours: 100

Lecture Hours: 80

Seminar Hours: 20

#### **Module I: Budgeting (23 Hours)**

Performance, programme and zero based budgeting-Stages involved in the preparation, presentation and execution of government budget-Budget deficit concepts and its measures- Problem of fiscal deficit-Corrective measures-FRBM Act

#### **Module II: Public Revenue (23 Hours)**

Theory of tax – Partial and general equilibrium analysis –Shifting and incidence of tax-Musgraves approach-Elasticity and buoyancy-Taxable capacity –Theory of optimal taxation-Distributional considerations in public finance-Compensatory finance-Functional finance-Balanced budget multiplier

#### **Module III: Public Expenditure and Debt (30 Hours)**

Theories of public expenditure -Wagner's law-Wiseman-Peacock hypothesis-Critical limit hypothesis –Structure and growth of public expenditure of centre and states-Developmental and non developmental – Plan and non- plan expenditure - Control and management of public expenditure. Concept of subsidy-Financing social infrastructure and human development-Public debt-Sources, burden and its management-Macro economic impacts of deficits-Debt burden and inter-generational equity- Sustainability of public debt-Domar stability condition

#### **Module IV: Fiscal Federalism (20 Hours)**

Theory of fiscal federalism- Theory of intergovernmental transfers-Fiscal decentralization-Center state financial relations –Problems of center-state financial relations in India-Vertical and horizontal imbalance in inter governmental transfers in India.

#### **Module V: Case for Public Sector And Indian public finance (30 Hours)(Module I and VI are merged to Module V)**

The role of government in economic activity-Allocation, distribution and stabilization functions-Market failure and rationale for government intervention-Concepts of private, public and merit goods - Club goods-Externalities-Tiebout hypothesis-merit goods-Pigovian tax-Property rights and Coase theorem Indian tax system: Revenue of the union, states and local bodies-Major taxes in India-Non tax revenue of center, state and local bodies- Reforms in direct and indirect taxes-Trends in revenue, expenditure and public debt in the post reform period-Fiscal crisis--Reports of finance commissions in India-Analysis of the latest union and Kerala budgets.

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1. Robin. W. Boadway :Public Sector Economics.
2. Due and Fridlander : Government Finance.
3. P.H.Jackson and C.V. Brown: Public Sector Economics.
4. David Hyman (2005):Public Finance-Thomson South western.
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6. Richard.A. Musgrave: Theory of Public Finance.
7. Mankar: Public Finance in Theory and Practice.
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10. Divedi. D.N: Readings in Public Finance.
11. Duff L. (1997): Government and Markets- Orient Longman- New Delhi.
12. R.Goode (1986): Government Finance in Developing countries- Tata McGraw Hill.
13. Atkinson A and J Stiglitz (1980): Lectures in Public Economics- McGraw Hill.
14. Bailey S.J (2004): Public Sector Economics- Macmillan.
15. Ragabendara Jha (1999): Modern Public Economics- Routledge, London.
16. Singh S K (1986): Public Finance in Developed and Developing Countries- S. Chand and Company Ltd, New Delhi.
17. Rosan S Harve: Public Finance- Irwin Publications in Economics, USA.
18. John Cullis and Philip Jones (2010): Public Finance and Public Choice- Oxford.
19. S K Singh: Public Finance in Theory and Practice-S Chand Publishing.
20. Harvey Rosen and Ted Gayer (2012): Public Finance-Tata McGraw Hill.
21. Holley Ulbrich (2011): Public Finance in Theory and Practice-Routledge.
22. RBI Bulletin

## Core Course-VIII

### VPEC2C08 : QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS-II Credit4

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

#### **Module I: Probability Distributions (28 Hours)**

Discrete distribution- Distribution function- Properties of distribution functions-Mathematical expectation- Binomial distribution- Mean of binomial distribution-Variance of binomial distribution- Skewness and kurtosis of binomial distribution-Fitting of binomial distribution-Poisson distribution- Mean of Poisson distribution-Variance of Poisson distribution-Fitting of Poisson distribution (concept and applications only).

#### **Module II: Continuous and Normal Distributions (20 Hours)**

Concept of continuous distribution- Normal distribution- Properties of normal distribution- Importance of normal distribution- Area under normal distribution- Problems in normal distribution using normal distribution tables- Lognormal distribution (concept and applications only).

#### **Module III: Sampling Distributions (20 Hours)**

Sample- Theory of sampling distributions- Standard error-Sampling distribution of Sample mean- Chi square distribution- Student distribution- F distribution-Central limit theorem.

#### **Module IV: Estimation Theory (20 Hours)**

Point estimation- Properties of point estimation- Interval estimation- Confidence intervals-Test of hypothesis- Null and alternative hypothesis- Type I and Type II errors-Critical region-Level of significance-*P Value*- Power of a test- Critical value- Neymann Pearson Lemma.

#### **Module V: Testing (20 Hours)**

Testing Mean of a population- Testing equality of means of two populations-Test of proportion



of success of a population- Testing of equality of two population proportions-t test for the population mean- t test for the equality of two population means- Paired t test- $\chi^2$  test for independence and goodness of fit-ANOVA.

## References

1. Taro Yamane: Statistics: An Introduction.
2. Hoel P G: Introduction to Mathematical Statistics.
3. YP Agarwal: Basic Statistics, Statistics for Behavior Sciences.
4. K X Joseph: Quantitative Techniques.
5. Tulsian P. Cand Vishal Pandey: Quantitative Techniques-Pearson Education ,NewDelhi.
6. S.P.Gupta: Statistical Methods-S Chand and Sons,NewDelhi.
7. Hooda R.P: Statistics for Business and Economics- Macmillan,NewDelhi.
8. Simpson & Kafka: Basic Statistics.

**Core Course-IX  
SEMESTER: III**

**VPEC3C09: INTERNATIONAL TRADE  
Credit4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: International Trade and Economic Development (20 Hours)**

Importance of trade to development-Trade as an engine of growth-Contributions of trade to development -Terms of trade-Types-Terms of trade and economic development.

**Module II: Developments in Trade Theories (28 Hours)**

Offer Curves-Reciprocal demand theory-Opportunity cost analysis-Factor intensity Factor abundance- Heckscher- Ohlin Theory- Leontief Paradox- Factor intensity reversal-Factor Price Equalization Theorem- Stolper Samuelson theorem- Metzler Paradox-Economies of scale and international trade- Imperfect competition and international trade-Product differentiation and international trade- Technological gap and product cycle models-Transportation cost and international trade.

**Module III: Economic Growth and International Trade (20 Hours)**

Growth of labour and capital- Rybczynski theorem-Technical progress (neutral ,labour saving and capital saving)- The effect of growth on trade- Immiserising growth-Dutch disease-Prebisch-Singer Thesis-Myrdal's views-Two gap analysis-Foreign trade multiplier.

**Module IV: International Trade Policies (20 Hours)**

Import substitution versus export orientation-Export instability and economic development-Trade restrictions- Tariffs-Partial and general equilibrium analysis-Optimum tariff -Effective rate of protection-Non tariff barriers and new protectionism-Import quotas-Effects of an import quota-Comparison of quota and tariff-International cartels-Dumping and anti dumping duties-Exchange control-Export subsidies - Countervailing tariff-Voluntary export restraints-Technical standards-Administrative and other regulations-Strategic trade policy.

**Module V: Economic Integration (20 Hours)**

Economic Integration - Theories of customs union-Trade creating customs union-Trade diverting customs union-Static welfare effects of customs union-Dynamic benefits from customs union -European union -NAFTA-WTO-South Asian Association of Regional Co-operation

(SAARC)-Association of South East Asian Nations (ASEAN).

## References

1. Dominick Salvatore: International Economics-11<sup>th</sup> Edition John Wiley & Sons (2014).Cengage Learning.
2. Giancarlo Gandolfo : International Trade-SpingerInternationalEdition-2006.
3. Kindleberger, C.P: International Economics- R.D. Irwin, Homewood.
4. Bhagwati, J.N(Ed): International Trade: Selected Readings- MIT Press, 1987.
5. Robert J Carbaugh (2011): Global Economics- Cengage Learning.
6. Giancarlo Gandolfo: International Trade- Spinger International Edition- 2006.
7. Dennis R Appleyard and Alfred J Field: International Economics- McGraw Hill.
8. Appleyard and Field: International Trade: Theory and Policy.
9. Richard .E. Caves and Harry G. Johnson: Readings in International Economics.
10. Corden .W.M: Recent Developments in the Theory of International Trade- Princeton University Press.
11. Thomas A. Pugel: International Economics-McGraw Hill.
12. James C Ingram and Robert M Dunn: International Economics-John Wiley and Sons.
13. Richard Caves, Jeffrey Frankel and Ronald Jones: World Trade and Payments-Pearson Education.
14. Theo Eicher, John Mutti and Michelle Turnovsky (2009): International Economics-Routledge.

**Core Course-X**  
**VPEC3C10: GROWTH AND DEVELOPMENT**

**Credit4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: Concept and Measurement of Economic Growth and Development (24 Hours)**

Concepts of growth and development-Indicators of economic development-National income-Per capita income-PQLI-Human development index-Gender related development index-Gender empowerment index- Human poverty index and deprivation index - Inequality in income distribution-Kuznets inverted U hypothesis-Lorenz Curve and Gini-coefficient-Development gap-Development as freedom-Perpetuation of under development-Structural view of under development-Vicious circle of poverty.

**Module II: Grand Theories of Economic Growth (20 Hours)**

Theories of Adam Smith –David Ricardo- Thomas Malthus-Karl Marx and Joseph Schumpeter- Comparison of the theories of economic growth-Ricardo and Marx-Schumpeter and Marx-Schumpeter and Ricardo-Marx and Schumpeter.

**Module III Models of Economic Growth (24 Hours)**

Harrod- Domar growth model-Knife-edge equilibrium-Neo Classical model of Solow-Growth models of Joan Robinson, Meade and Kaldor-Convergence hypothesis-Extensions of simple growth model-Vintage model-Solow-Phelps model-Dependency theory of development- Arguments against the neo-liberal propositions-Institutions and economic growth-Endogenous growth theory.-Plan Models in India

**Module IV: Partial Theories of Economic Growth and Development (20 Hours)**

Critical minimum effort thesis- Balanced vs. unbalanced growth-Surplus labour and Lewis's theory- Fei-Ranis model-Theory of big push-Concept of dualism- Technological, social, geographical and financial-Myrdal-Backwash and spread effect-Circular and cumulative causation-Centre-periphery thesis- Todaro model.

**Module V: Environment and Development (20 Hours)**

The limits to growth-The techno centre approach- Brudtland commission approach to suitable

development-Sustainable development-International environmental issues(Trade and environment-Rio declaration-Kyoto Protocol)-Climate-economy interaction-Martin Weitzman's Dismal Theorem.

## References

1. Thirlwal, AP (2003): Growth and Development: With Special Reference to Developing Economies- Palgrave Macmillan, Seventh Edn.
2. B.H. Dholakia, R.H. Dholakia: Theory of Economic Growth and Technical Progress: An Introduction –Mac millan 1998.
3. Michael.P.Todaro: Economic Development in the Third World- Orient Longman.
4. Debraj Ray (2003): Development Economics- Oxford India Paperbacks, OUP.
5. Rune Skarstein (1997): Development Theory: A Guide to Some Unfashionable Perspectives- OUP.
6. Ahulwalia and IMD Little: India's Economic Reforms: Essays for Dr Manmohan Singh.
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8. R.T.Gill: Economic Development: Past and Present- Prentice Hall of India Pvt.Ltd, New Delhi.
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10. Everette Hagen (1975): The Economics of Development.
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12. Irma Adelman (1961); Theories of Economic Growth and Development- Stanford University Press.
13. Todaro and Smith, S.C: Economic Development- Pearson.
14. Amartya Sen (1970): Growth Economics: Selected Readings- Penguin Books.
15. Hywel Jones (1976): Introduction to Modern Theories of Economic Growth- McGraw-Hill.
16. Charles P Kindleberger (1958): Economic Development- Tata McGraw-Hill, New York

**Core Course-XI**  
**VPEC3C11: BANKING: THEORY AND PRACTICE**  
**Credit4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I- Central Banking (20 Hours)**

Structure and functions of central banks-Federal Reserve System-Bank of England-European Central Bank- Reserve Bank of India-Monetary policy-Objectives and instruments-Liquidity management - Autonomy of the RBI – Monetary sector reforms in India since 1991- monetary and credit policy of RBI –Impact of RBI’s monetary policy on economic growth and inflation

**Module II- Specialized Financial and Investment Institutions (20 Hours)**

Development financial institutions (IFCI, IDBI, IIBI, SIDBI) Specialized financial institutions (EXIM Bank-National Housing Bank – NABARD, MUDRA bank) Specialized investment institutions (Pension funds-Hedge funds-Mutual funds-UTI)-Non Banking Financial Companies-Investment banks-Merchant banks. **ICICI, Provident Fund**

**Module III- Banking Sector Reforms in India Since 1991 (20 Hours)**

Context, need and objectives-Implementations of the Narsimham Committee recommendations-Priority sector lending-Asset classification-Non-performing assets-Capital adequacy norms-Regulation of the banking sector-Board for Financial Supervision-Credit Information Bureau of India Limited (CIBIL)-Banking Ombudsman.

**Module IV- International Banking (20 Hours)**

International banking-Reasons for the growth of international banking-Off shore banking-Multinational banking -Bank for International Settlements (BIS) –World Bank-Asian Development Bank-New Development Bank (BRICS bank).

**Module V- Commercial and Cooperative Banks (28 Hours)**

Structure of commercial banks-Public sector banks-Private sector banks-New generation banks-Foreign banks-Functions of commercial banks-Commercial banks and credit creation-Branch expansion programme and policy-Deposit mobilization and sectoral allocation of bank credits-Priority sector lending-Social banking-Lead bank scheme-Cooperative banks-Central cooperative banks-State cooperative banks- Land development banks-Regional rural banks. **Financial inclusion initiatives.**

**Seminars- Different Committees and Basel Norms in the Banking Sector Reforms**

## References

1. MH de Kock: Central Banking-Universal Book Stall, New Delhi.
2. Meir Kohn (1996): Financial Institutions and Markets-Tata Mc Graw Hill.
3. Roger Le Roy Miller and David Van Hoose(1993):Modern Money and Banking-Mc Graw-Hill International.
4. Jawed Akhtar and Shabbir Alam: Banking System in India: Reforms and Performance Evaluation-NewCenturyPublications,NewDelhi.
5. Y.V. Reddy: Monetary and Financial Sector Reforms in India- UBSPD, New Delhi.
6. Suraj.B. Gupta: Monetary Planning for India.
7. K. Rao: Management of Commercial Banks.
8. Harendra Badhav (ed): Challenges to Indian Banking: Competition, Globalisation and Financial Markets- Mac millan.
9. N.S. Kher: Non-Performing Advances in Banks, Skylark, New Delhi.
10. Hansen and Kathuria (ed.) A Financial Sector for the 21<sup>st</sup> Century OUP.
11. Muraleedharan (2009) Modern Banking: Theory and Practice- PHI Learning Private Limited.
12. Shekhar and Shekhar: Banking Theory and Practice-Vikas Publishing House Limited.
13. Bharati V Pathak (2011): The Indian Financial System- Pearson Education.
14. RBI: Report on Trend and Progress of Banking in India.
15. Report of the Committee (Narsimham) on the Financial System Nov., 1991.
16. Raghuram Rajan Committee Report on Financial Sector Reforms- Planning Commission.

## Core Course-XII

### VPEC3C12: BASIC ECONOMETRICS

Credit4

Total Hours: 100  
Lecture Hours: 80  
Seminar Hours: 20

#### Module I: Nature and Scope of Econometrics

Econometrics- Economic theory and mathematical economics-Methodology of econometrics-Specification-estimation-evaluation- Uses of econometrics.

#### Module II: Regression Models

The concept of PRF- Significance of stochastic error term- The SRF-Problem of estimation-Method of ordinary least squares- Assumptions underlying the method of least squares- Properties of estimators- Gauss Markov theorem-Coefficient of determination  $r^2$ -Normality assumption- Hypothesis testing- t and F test procedures - Prediction- Regression through the origin- Functional forms of regression models, log-log, log-lin, lin- log and reciprocal models - The three variable model- OLS estimation of partial regression coefficients-Multiple coefficient of determination  $R^2$  and adjusted  $R^2$ - Hypothesis testing-Testing the overall significance of the regression model –F test-Testing the equality of two regression coefficients-Restricted least squares- General k variable regression model-Matrix approach to estimation and derivation of the properties of OLS estimators- Exercises on Estimation-Reporting, interpretation and evaluation.

#### Module III: Econometric Problems

Multicollinearity- Nature, consequences, detection and remedial measures-Autocorrelation- Nature, consequences, detection, and remedial measures- Heteroskedasticity-Nature, consequences, detection and remedial measures.

#### Module IV: Lagged Models

Auto regressive and distributed-lag models-Role of lag in economics-The Koyck approach-The adaptive expectations model-Stock adjustment model-Estimation of auto regressive models-The method of instrumental variable (IV) –Durbin test-Almon approach to distributed lag models.

#### Module V: Simultaneous Equation Models

Introduction to simultaneous equation system – Identification problem –Rules of identification – Rank order conditions-Zero restriction in the non stochastic case-Recursive system-Maximum likelihood estimation-Naïve, limited information, full information approaches-Indirect least Squares-Two stage least squares and K class estimators-Errors in variable-Instrumental



variables-Three stage least squares-forecasting and policy analysis.

## References

1. Damodar N Gujarati and Dawn C Porter(2009): Basic Econometrics, Fifth edition, McGraw Hill International Edition.
2. James H Stock and Mark W Watson (2008): Introduction to Econometrics, Pearson, Addison Wesley.
3. Christopher Dougherty (2007): Introduction to Econometrics, Third edition, Oxford University Press.
4. G S Maddala (2002): Introduction to Econometrics, Third Edition, John Wiley and Sons.
5. Robert S Pindyck and Daniel L Rubinfeld (1998): Econometric Models and Economic Forecasts- Fourth Edition, Mc Graw Hill international Edition.
6. Jeffrey M Wooldridge (2006): Introductory Econometrics: A Modern Approach, Third Edition, Thomson South Western.
7. Chandan Mukherjee, Howard White and Marc Wuyts (1998): Econometric and Data Analysis for Developing Countries- First Edition, Routledge.
8. Johnston J: Econometric Methods- McGraw Hill.
9. AH Studenmund: Using Econometrics: A Practical Guide- Fifth Edition, Pearson Education

**Core Course-XIII**  
**IV SEMESTER**  
**VPEC4C13: INTERNATIONAL FINANCE**  
**Credit4**

Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20

**Module I: Balance of Payments (24 Hours)**

Balance of payments – Components –Equilibrium and disequilibrium in BOP-Methods of correcting BOP deficit – Adjustment mechanisms -Automatic, price and income adjustments-Elasticity approach-Marshall-Lerner condition-Absorption approach-Monetary approach-J curve effect-Currency convertibility-Current and capital account convertibility-The Indian experience- FEMA.

**Module II : Exchange Rate and Theories of Exchange Rate (24 Hours)**

Exchange rate-Nominal, Real, Effective, NEER, REER-Exchange rate systems-Relative merits and defects of fixed and flexible exchange rates-Hybrid exchange rates- Exchange rate in India-Purchasing power parity theory-Monetary approach-Asset market (portfolio balance) model-Exchange rate overshooting.

**Module III: Foreign Exchange Market (30 Hours)**

Foreign exchange market-Functions-Participants-Stability of foreign exchange markets-Spot and forward market-Currency futures and options-Swap market-Foreign exchange risk-Hedging-Speculation-Stabilizing and de-stabilizing –Currency arbitrage-Policy adjustments-Expenditure changing and expenditure switching policies-Internal and external balance under alternative exchange rate regimes-Assignment problem-Swan diagram-Mundell-Fleming model-The policy mix under fixed and flexible exchange rates.

**Module IV: International Capital Flows (24 Hours)**

Portfolio investment and direct investments –Motives for capital flows- Effect of international capital flows- Multinational corporations-Advantages and disadvantages of MNCs-Foreign investment in India since1991.

**Module V: International Monetary System (24 Hours)**

International monetary system- The gold standard and its breakdown- Bretton Woods system and its breakdown- Present international monetary system- European monetary union- Euro-Optimum currency areas- Currency boards-Dollarization.

**References**

- 1.Dominick Salvatore: International Economics-JohnWileyandSons.

2. Keith Pilbeam: International Finance-Macmillan.
3. BoSoderstenandGeoffreyReed:International Economics-Macmillan ,London.
- 4.Paul R Krugman and Maurice Obstfeld:International Economics:TheoryandPractice-Pearson Education, Singapore.
5. Thomas A .Pugel: International Economics-TMH.
6. Michael Melvin : International Money and Finance-Pearson Education.
  
7. James CIngram and Robert M Dunn:International Economics-John Wiley and Sons.
8. Keith Pilbeam:Finance and Financial Markets-Palgrave.
9. Dennis R Appleyard and Alfred J Field:International Economics-McGraw Hill.
10. Robert J Carbaugh(2011):Global Economics-Cengage Learning.
- 11.Giancarlo Gandolfo : International Finance and Open Economy Macroeconomics-Springer.
12. Vanden Berg:International Finance and Open Economy Macro economics-World Scientific.
13. Lawrence Copel and : Exchange Rates and International Finance-Pearson Education.
14. M Levi : International Finance-McGraw Hill.
15. Richard Caves, Jeffrey Frankel and Ronald Jones:World Trade and Payments-Pearson Education.
17. Sumati Varma : Currency Convertibility:Indian and Global Experiences-NewCentury.
18. Theo Eicher , John Mutti and Michelle Turnovsky (2009): International Economics-Routledge.

## **Core Course-XIV**

### **VPEC4C14: FINANCIAL MARKETS**

**Credit 4**

**Total Hours: 90**

**Lecture Hours: 70**

**Seminar Hours: 20**

#### **Module I: Financial Markets (20 Hours)**

Functions of financial markets-Types of financial markets-Participants in financial markets-Role of financial intermediaries – Financial innovation-Financial inclusion and inclusive growth

#### **Module II: Money Market (20 Hours)**

Functions of money market-Instruments of the money market-Call money-Bill of exchange-Commercial bills-Treasury bills-Commercial paper-Interbank market-Federal funds-Negotiable certificate of deposits-Banker's acceptance-Repurchase agreements-Money market mutual funds-Features of a developed money market-Structure of Indian money market- Money market reforms in India since 1991.

#### **Module III: Capital Market (24 Hours)**

Functions of capital market-Primary market-Instruments of the primary market-Secondary market –Functions –Instruments of the secondary market-Demutualization of stock exchanges-Trading mechanism of the stock exchanges-Liquidity products (margin trading, short sales, securities lending and borrowing)- Foreign institutional investment-Participatory notes(P-notes)-Insider trading-Investor protection-Credit rating-Capital market institutions-Depositories-Discuss and Finance House of India-Stock Holding Corporation of India-Securities Trading Corporation of India-SEBI –Functions and powers-Capital market reforms in India since 1991.

#### **Module-IV Derivatives Market (24 Hours)**

Types of derivatives-Participants in the derivative markets-Uses of derivatives-Options-Types of options-Uses of options-Platforms for options trade-Trading mechanics-Option premium-Profits and losses with options-Stock options and stock index options in India-Futures-Types of futures(stock index futures-foreign currency futures-interest rate futures-commodity futures)-Uses of futures-Market mechanics-Market participants-The clearing process-Stock futures and stock index futures in India-Difference between options and futures-Swaps-Interest rate swaps-Foreign currency swaps.

## **Module V: Global Financial Markets (20 Hours)**

Instruments-American Depository Receipts (ADR)-Global Depository Receipts (GDR)-Foreign Currency Convertible Bonds (FCCB) – External commercial borrowings-International bonds-Euro bonds -Euro notes-Euro commercial papers-Euro dollars-Euro currency market-Reasons for the growth-Features-Effects of the euro currency market.

### **References**

1. Anthony Santomero and David Babel (2001): Financial Markets, Instruments and Institutions-McGraw Hill Higher Education.
2. Keith Pilbeam (1998): Finance and Financial Markets-Palgrave.
3. Anthony Saunders and Marcia Millon Cornett (2007): Financial Markets and Institutions : A Modern Perspective-TATA McGraw Hill.
4. Fabozzi, Modigliani , Jones and Ferri (2002): Foundations of Financial Markets and Institutions-Pearson Education.
5. Jeff Madura (2008): Financial Markets and Institutions-Cengage Learning.
6. Stephen Valdez and Julian Wood (2003):An Introduction to Global Financial Markets-Palgrave Macmillan.
7. Robert A Strong (2002): Derivatives : An Introduction-Thomson South-Western.
8. John C Hull (1995): Introduction to Futures and Options Markets-Prentice Hall India.
9. Sunil K Parameswaran (2003): Futures Markets-Tata McGraw Hill.
10. Michael Durbin (2006):All About Derivatives-Tata McGraw Hill.
11. Giancarlo Gandolfo:International Finance and Open Economy Macro economics-Springer.
12. Rajesh Chakrabarti and SankarDe(2010):Capital Markets in India-Response Sage New Delhi.
13. S Gurusamy(2009):Financial Markets and Institutions-McGraw Hill Higher Education.
14. H R Machiraju(2010):Indian Financial System-Vikas Publishing House New Delhi.
15. Y.V.Reddy: Monetary and Financial Sector Reforms in India-UBSPD, New Delhi.
16. Bharati V Pathak(2011):The Indian Financial System-Pearson Education.
17. National Stock Exchange of India (NSE): Indian Securities Market : A Review-Various Issues.

**Elective Course I  
SEMESTER IV**

**VPEC4E01- ADVANCED ECONOMETRICS**

**(Credit4)**

**Total Hours: 90  
Lecture Hours: 70  
Seminar Hours:20**

**Module I: Dummy Regression Models (20 Hours)**

ANOVA models- ANCOVA models- Dummy variable trap-Dummy variables and seasonal analysis- Piecewise linear regression. The linear Probability Model (LPM )- The logit Model-The Probit Model- Tobit Model.

**Module II: Time Series Econometrics (24 Hours)**

Stochastic processes, stationary versus non stationary stochastic processes-Unit roots-Trend stationary versus difference stationary stochastic processes- Spurious regression-Testing for unit roots-Dickey Fuller and Augmented Dickey Fuller tests-Co integration and error correction models- Engel Granger Test, Random Walk Model, Error Correction Mechanism.

**Module III: Modelling Stochastic Processes (24 Hous)**

The Box Jenkins methodology- AR, MA, ARMA and ARIMA models-Estimation and forecasting- Vector auto regression(VAR)- Measuring volatility-The ARCH and GARCH models.

**Module IV: Panel Data Regression Models (20 Hours)**

Fixed Effects Regression Model- The Random Effects Model, Random Coefficient Model

**Module V: Econometric Application in India (20 Hours)**

Agriculture- Industry- Monetary Economics- Macro Economic modeling- International Economics - Limitations of Econometric Approach.

**References**

1. Damodar N Gujarati and Dawn C Porter (2009):Basic Econometrics-Fifth Edition, McGraw Hill International Edition.
2. James H Stock and Mark W Watson (2008): Introduction to Econometrics-Pearson Addison Wesley.

3. Christopher Dougherty (2007): Introduction to Econometrics, Third Edition, Oxford University Press
4. Robert S Pindyck and Daniel L Rubinfeld(1998): Econometric Models and Economic Forecasts- Fourth Edition, McGraw Hill International Edition.
5. Jeffrey M Wooldridge(2006)-Introductory Econometrics: A Modern Approach-Third Edition, Thomson South Western
6. Chandan Mukherjee, Howard White and Marc Wuyts(1998): Econometric and Data Analysis for Developing Countries-First Edition ,Routledge
7. Gary Koop (2005):Analysis of Economic Data-Second Edition, John Wiley and Sons 8: Kerry Patterson (2000): An Introduction to Applied Econometrics: A Time Series Approach- First Edition Palgrave.
9. Jack Johnston and John Dinardo (1998): Econometric Methods-Fourth Edition, The McGraw Hill Companies.
10. William H Greene (2003):Econometric Analysis Fifth Edition, Pearson Education  
WalterEnders(2004):Applied Econometric Time Series-Second Edition, Wiley India Edition.
11. Richard Harris and Robert Sollis(2006):Applied Time Series Modelling and Forecasting- First Edition, Wiley Student Edition.

**Elective Course II  
IV SEMESTER**

**VPEC4E02: RESEARCH METHODOLOGY AND COMPUTER APPLICATIONS  
(Credit 4)**

**Total Hours: 90  
Lecture Hours: 70  
Seminar Hours: 20**

**Module I: Fundamentals of Research Methodology (26 Hours)**

Meaning of research- The relation between theory and research- Scientific and social research- Pure and applied research- Special features of social research- Different approaches in social research.

**Module II: Formulation of Research Problem (26Hours)**

Formulation of null and alternative hypothesis- Research design and methods- Exploratory, diagnostic and experimental studies- Deductive and inductive method- Static and dynamic method- Historical and dialectical method- Case study method-Interdisciplinary research.

**Module III: Data Collection and Data Analysis (30Hours)**

Data Collection Methods-Primary Data, Secondary Data - Random, stratified, multistage, systematic, cluster, quota and judgment sampling- Formulation of Questionnaire, Qualities of a Good Questionnaire, Types of Questionnaire, Piloting the Questionnaire, Steps in Preparing Questionnaire-Interview Schedule-Data Compilation, Coding- processing of data- Data analysis techniques- Drawing inferences from analysis- Report writing procedures. , -Types of reports- Methods of footnotes and referencing

**Module IV: Computer Applications (26Hours)**

Estimation of mean, median and mode-Standard deviation and coefficient of variation- Presentation of graphs- Line, sub divided, multiple, pie graphs- Estimation of growth rates- Estimation of trend equations- Estimation of regression equations- Introduction to EXCEL, SPSS.

**References:**

1. William J Goode and Paul K Hatt (1981): Methods in Social Research- McGraw- Hill.
2. Pauline V Young: Scientific Social Surveys and Research- Prentice Hall India Pvt Ltd.



3. C R Kothari (2004) Research Methodology: Methods and Techniques- New Age International.
4. W Lawrence Neuman (2006): Social Research Methods: Quantitative and Qualitative Approaches- Pearson.
5. Wilkinson and Bhandarkar (2002) Methodology and Techniques of Social Research- Himalaya Publishing House.
6. Marc Blaug: The Methodology of Economics, or How Economics Explain- Cambridge University Press.
7. Wilkinson and Bhadarkar: Research Methodology.
8. Modern Language (2009) The MLA Handbook for Writers of Association of America, Research Papers.
9. Sarma KVS (2001): Statistics Made Simple: Do it Yourself on PC- Prentice Hall India Pvt. Ltd, New Delhi

**Elective Course III**  
**VPEC4E03:BUSINESSECONOMICS,**

**(Credit4)**

Total Hours : 90  
Lecture Hours : 70  
Seminar Hours : 20

**Module I: Growth of the Firm**

Growth strategy-Constraints on growth-Alternative growth strategies-Internal expansion-External expansion- Vertical integration- Diversification-Merger-Growth through strategic alliance- Multinational corporation-Types of multinationals-Problems facing the multinationals.

**Module II: Demand Forecasting**

Demand forecasting- Need for demand forecasting-Types of demand forecasting- Short term and long term forecasting -Quantitative and qualitative forecasts -Explanatory versus time series forecasting- Basic steps involved in a forecasting task -Criteria of a good forecasting method-Survey methods and statistical methods.

**Module III: Financial Statements and Profit Planning**

Time value of money-Present value and discounting- Sources of business finance- Financial statements (income statement-balance sheet-statement of retained earnings-statement of cash flows)-Financial ratios (liquidity, activity, debt, profitability and market ratios)- Breakeven analysis- Operating leverage.

**Module IV: Risk Analysis and Capital Budgeting**

Risk analysis-Types of risks- Risk return indifference curves-Risk management- Adjusting the valuation model for risk-Certainty equivalent adjustment- Risk adjusted discount rate- Decision trees -Computer simulation-Capital budgeting- Need for capital budgeting- Steps in capital budgeting- Capital budgeting and decision rules-Net present value- Internal rate of return-Payback period- Benefit cost ratio- Cost of capital- Capital rationing and profitability index.

**Module V: Pricing of Goods and Services**

Price discrimination- Pricing and the product life cycle-Pricing of multiple products- Products with interdependent demands-Joint products- Fully distributed versus incremental cost pricing-Ramsey pricing- Tying-Product bundling- Peak load pricing- Mark up pricing-Rigid pricing-Flexible pricing- Special designs pricing-Charm pricing- Seasonal pricing- Progressive pricing-Two-part tariff-Prestige pricing-Price lining-Price matching-Auction pricing-New product pricing (price skimming, penetration pricing, going rate pricing)- Transfer pricing.

**References**

1. John Sloman and Mark Sutcliff: Economics for Business- Third Edition, Pearson Education.
2. Mark Hirschey: Managerial Economics- Cengage Learning India.
3. Lila J Truett and Dale B Truett: Managerial Economics- John Wiley & Sons.
4. Spyros Makridakis, Steven C. Wheelwright, and Rob J Hyndman: Forecasting Methods and Applications- Third Edition, John Wiley & Sons.
5. Dominick Salvatore: Managerial Economics- Fourth Edition, Thomson Asia Pvt. Ltd.
6. Lawrence J Gitman: Managerial Finance- Tenth Edition, Pearson Education.
7. H Craig Peterson W Cris Lewis: Managerial Economics- Fourth Edition, Prentice Hall of India.
8. Paul G Keat and Philip K Y Young: Managerial Economics- Pearson Education.
9. R R Barthwal: Industrial Economics- New Age International (P) Ltd.
10. D N Dwivedi: Managerial Economics- Seventh Edition, Vikas Publishing House

**Elective Course IV**  
**VPEC4E04: DEMOGRAPHY**

**(Credit4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Concepts and Measures of Population Changes**

Meaning and scope of demography-Components of population growth and their interdependence –Measures of population change- Growth, structure and distribution and sources of population data- Demographic data in India- Censuses ,Civil Registration System and Sample Surveys- Sample registration-Methods and drawbacks –Measures of fertility and mortality-Standardized birth rates and death rates-Concepts of life table-Meaning of its column and uses-Population distribution-Population projections-Stable, stationary and quasi stable population.

**Module II: Sex and Age Structure**

Patterns of sex and age structure in developed and less developed countries-Determinants of sex and age structure-Demographic effects of sex and age structure-Ageing and younging of population.

**Module III :Fertility, Nuptiality ,Mortality**

*Fertility:* Levels and trends –Factors affecting fertility in developed and LDCs-Differential fertility –Ecological factors-Regional differences –Urban –rural -Socio-economic factors-Educational attainment, economic status, occupation of husband ,employment status of wife, religion, caste, race, etc.

*Nuptiality:* Concepts –Analysis of marital status from census-Mean age at marriage-Synthetic and decadal synthetic cohort methods-Mean age at widow hood and divorce-Trends in age at marriage-Change in age pattern of marriage.

*Mortality:* Levels and trends of mortality in developed and LDCs-Sex and age patterns of mortality-Fetal and infant mortality-Stillbirth, abortion and prenatal mortality-Levels and trends of infant mortality –Factors affecting –Mortality differentials -Rural ,urban, geographical, occupational, ethnic ,etc.-Factors in mortality declines in developed and LDCs.

**Module IV: Migration**

Basic concepts and definitions –Importance of migration in the study of population-Types of migration –Internal, international, temporary migration-Effects of immigration and

emigration-Socio-economic aspects of migration-Theories concerning internal migration-Costs and benefits of internal migration and out migration.

### **References**

1. U.N: The Determinants and Consequents of Population Trends.
2. A.A .Bhende and T. Kanikar: Principles of Population Studies-Himalaya,1982.
3. D.J .Bogue :Principles of Demography-Wiley,1971.
4. B.D .Misra : An Introduction to the Study of Population-South Asian Publishers,1980.
5. S.Nagarwal: India's Population Problem-Tata McGraw Hill,1985.
6. Government of India :Census of India and Related Monographs and Reports.
7. U.N: Methods of Measuring Internal Migration-1979.

**Elective Course V**  
**VPEC4E05: ENVIRONMENTAL ECONOMICS**  
**Credit 4**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Basic Concepts**

Basic concepts of environmental economics- Property rights in environment- Pollution rights- Habitats, resources, amenities- Collectively consumed goods and services- Spill over costs- Social efficiency- Economic efficiency- Sustainability- Bio-diversity-Ozone layer- Environmental quality- Environmental accounts- Externalities.

**Module II: Normative Theory of Environmental Regulation**

The theory of externalities-Measurement of externalities- The basic theory of environmental policy- The choice among policy instruments- Environmental policy under uncertainty- Market imperfections- Properties of the Pigovian solution to the problem of externalities- Pigouvian levy as a tax equal to marginal damages at the optimal outcome.

**Module III: Design and Implementation of Environmental Policy**

Problems of measurement-Obstacles to determination of environmental policy- Second best approaches- Standards of targets for environmental quality- Design of regulatory system- Choice of policy instruments- Experience with economic incentives for environmental management- Legal liability as an economic instrument for environmental protection- Environmental federation- Enforcement policy on patterns of international trade- Command and control vs. economic incentives.

**Module IV: Measuring the Benefits and Costs of Pollution Control**

Defining the value of change in environmental quality- Indirect methods of measuring the benefits of environmental quality- The advertising behaviour approach- Weak complementarity approach- Hedonic market methods- Contingent valuation method- Application of valuation techniques.

**Module V: Review of Empirical Work in Environmental Economics**

Four categories of non-market benefits-Health benefits of pollution control- Recreation benefits of pollution control- Visibility benefits of pollution control- Ecological benefits of pollution control- Benefits of pollution control to agriculture.

### **Module VI: Costs and Benefits of Environmental Programs**

Use of benefits- Cost analysis in environmental standards- Need for B-C analysis of environmental standards- Welfare loss from setting incorrect standards- Distribution of costs and benefits- Who pays for pollution abatement and who benefits from it- Environmental economics and environmental policy-Use of economic analysis and economic incentives in environmental management.

### **Module VII: Development and Sustainability**

Notion of development- Notion of sustainability-Variables of the ecological system- Rules that govern the interactions of these variables-Operational meaning of sustainability- Defining the target state- Measure of sustainability-Case of agricultural system- Soil technology- Crop production and environmental changes-Environmentally (Eco) friendly technology and development-Value of sustainable path- Use and constraints of natural resources accounting and auditing- Methodologies for pricing natural resources- an overview -Case studies of sustainable development (based on man and the biosphere series- Studies sponsored by the UNESCO).

### **References:**

1. Joseph J Seneca and M K Taussig: Environmental Economics.
2. P Abelson: Cost Benefit Analysis and Environmental Problems.
3. P Nikamp: Theory and Application of Environmental Economics, Vol. I
4. P Nikamp: Environmental Economics, Vol. I
5. H Siebert: Economics of Environment: Theory and Policy.
6. D N Thompson: The Economics of Environmental Protection.
7. A M Freeman (etc) Economics of Environmental Policy.
8. C C Park: Environmental Policies: An International Review.
9. R Costanza: Ecological Economics.
10. Charles D Kolstad (2003): Environmental Economics- OUP.

**Elective Course VI**  
**VPEC4E06: GENDER ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Introduction to Gender Studies**

Concepts of gender and sex-Feminity and masculinity-importance of women studies- Patrilineal and matrilineal systems and its relevance to present Indian society- Demography of female population in India-Age structure, mortality rates-Inter-state variations in sex ratio- Causes of declining sex ratio- Measurement of fertility and its control-UNDP's gender related measures.

**Module II: Women and Labour Markets**

Factors affecting female entry in labour markets-supply and demand for female labour in developed and developing countries, particularly in India- Female work participation in agriculture, non-agriculture rural activities, informal sector, cottage and small industries, organized industry and service sector- Wage differentials and its determinants- Gender, Education, Skill, Productivity, Efficiency -Impact of technology and modernization on women's work participation- Effects of globalization and liberalization on women.

**Module III: Tools of Women Empowerment**

Women and education- GER ratio in India -Addressing gender inequalities in education- Gender equity in health-Access to nutrition-Women's participation in decision making -Role of civil society -Role of NGO's in empowering women- Gender and Community Economic Development(CED)-Self-Employed Women's Association(SEWA)- Shramshakti-Kudumbashree in Kerala.

**Module IV: Social Security and Social Protection for Women**

Measures for gender well being- Entitlements, ensuring economic independence and risk coverage, access to credit and insurance market- Review of legislation for women's entitlements in India -Importance of 73rd Amendment of constitution in gender empowerment-Protection of property rights- schemes for safety net for women- Effectiveness of collective bargaining-Public and private programmes to improve women's health-National Commission for Women(NCW)-The National Credit Fund for Women-Mahila Samridhi Yojana (MSY)-National policy for empowering women- International measures to protect women's' rights-U.N Decade for women -UN convention on CEDAW and DEVAW.

**References**

1. Sen, Sujatha (2012): Gender Studies- Dorling Kindersley (India) Pvt.Ltd, New Delhi.
2. Sen, Suvarna (2006): Gender and Development- ICFAI University Press, Hyderabad.



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4. Dutta, Nandita and, Sumitra Jha (2014): Women and Agricultural Development- Pacific Book, New Delhi.
5. Dutta, Nandita and Sumitra Jha (2014): Women Social Work and Social Welfare- Pacific Books International, New Delhi.
6. Jitendra Ahirrao (2013): Entrepreneurship and Rural Women in India- New Century Publications, New Delhi.
7. A.Venkateswarlu, et al. (2013): Dimensions of Female Sex Ratio::Interstate Variations in India- Serials Publications, New Delhi.
8. Desai, N and M.K Raj (1974): Women and Society in India- SNDT University, Mumbai.
9. Krishna Raj .M, Sudarshan.R.M, and Shariff.A (1999): Gender, Population and Development- Oxford University Press, New Delhi.
10. Seth .M (2000): Women and Development: The Indian Experience- Sage Publications, New Delhi.
11. Srinivasa.K, and A.Shroff (1998): India Towards Population and Development Goals- OUP, New Delhi.
12. Wazir, R, (2000): The Gender gap in Basic Education: NGO's as Change Agents- Sage Publications, Delhi.
13. Sen, Amartya. (1990): More than 100 Million Women are Missing- New York Review of Books, vol.37, No.20, 1990.
14. UNRISD, (2004): Gender Equality: Striving for Justice in an Unequal World- UNRISD, France, 2004.
15. ILO (2002): Women and Men in the Informal Economy: A Statistical Picture- ILO.
16. Govt. of India (1974): Towards Equality-Report of the Committee on the Status of Women in India- Dept of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
17. Govt.of India (2009): Gender Equality and Women Empowerment in India- National Family Health Survey 2005-06 (NFHS-3), IIPS, Mumbai.
18. John Mary .E (1996): Gender and Development in India- EPW, 31(47), PP 3071-77).
19. Pal, Manoranjan et.al (Ed) (2011): Health, Nutritional Status and Role of Women in India- Oxford University Press, New Delhi.
19. E Boserup (1970): Women's Role in Economic Development- George Allen and Unwin, London.

**Elective Course VII**  
**VPEC4E07: HEALTH ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: The National and International Health Scene**

Health output and input indicators and their correlation with the level of economic development and with the public expenditure on health-Sources of health statistics and a critical appraisal of their usefulness and limitations.

**Module II: Resource Allocation in the Health Sector**

Resource allocation problems in private and government hospitals- Resource allocation problems facing a private practitioner-The problem of multiple services of a hospital- Pricing of these services and the choice of the mix of services- The trade-offs between quantity and quality- Production function- Productivity-Efficiency and equity considerations applied to the hospital sector- Spatial distribution of health care facilities and services-The demand for health services and the role of the physician- The impact of pharmaceutical companies and health insurance on this demand.

**Module III: Evaluation of Benefits and Costs of Health Services**

Private benefits and private costs of providing health services- The failure of the market to provide essential health services- The provision of health services by the government-The application of benefit cost analysis to public health and family planning projects- The role of health in economic development- Value of output lost due to number of sick days- Benefits and costs (both private and social) of training professional manpower such as physicians, dentists, pharmacists and nurses.

**Module IV: Financing of Health Service**

Theory and practice- Review of per capita and public expenditure on health services over time and in different parts of the country- An analysis of the sources of public funds for health- The need for a general health insurance- Need for a social health insurance for the savings and the aged- A comparative analysis of alternative payment systems such as health insurance, prepayments scheme, savings-linked insurance system etc.-Financing health services through specific (health cess) and general (direct and indirect taxes) local government revenues- The role of government financing institutions in financing health.

## **Module V: Issues in Health Economics**

Growth in expenditure of personal health services- Characteristics of health services- Healthcare problems, public's and economist's views- Analysis of demand for health services and supply of it-Tastes and preferences- Relative prices- Full-cost pricing- Rising healthcare costs- Supply, demand and reform approaches-Productivity and efficiency of private and public health services- Laissez-faire approach to healthcare industry-Issues in the Indian healthcare system.

## **Module VI: Health and Nutrition: Indian Experience**

Socio-economic and political setting-Improvement in health status, a historical analysis- Factors affecting health-Nutritional status- Changes in morbidity pattern and trends immortality

1. Reform- World Bank Policy Study, Washington, 1987.
2. David Daren: National Health Insurance: Benefits, Costs and Consequences- Brookings Institutions, 1975.
3. Lindsay Cotton M (Ed.): New Directions in Public Health Care: A Prescription for the
4. 1980s- Institute for Contemporary Studies, San Francisco, 1980.
5. Russel L.B: Technology in Hospitals: Medical Advance and their Diffusion- Brookings Institution.
6. Panikar P.G. and C.R. Soman: Health Status of Kerala- Centre for Development Studies, Thiruvananthapuram.
7. CDS: Poverty, Unemployment and Development Policy- 1975, UN, NY.
8. Panikar P.G.K: Resources not the Constraint on Health Improvement-A Case Study of Kerala- EPW, No.44, 1979.
9. Panikar P.G: Inter-regional Variations in Calorie Intake- EPW, Special No 1980.
10. Government of Kerala: Report of the High Power Committee on Health Service- Thiruvananthapuram, 1979.

**Elective Course VIII**  
**VPEC4E08: INDUSTRIAL ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: A Prelude to Industrial Economics**

Market structure-conduct-performance paradigm-Alternative schools of thought- Market concentration and monopoly power-Causes and measurement-Market concentration and performance-Extent of market concentration in India-Recent trends-Vertical integration, diversification and merger (motives and measurement).

**Module II: Location Analysis**

Factors determining location-Approaches to industrial location analysis-Theoretical (geographical and economic theories) and operational approaches-Industrial location pattern in India.

**Module III: Technological Change**

Measurement-Trend and impact of technological change in Indian industries- Problems related to R & D and innovation- Trends in total factor productivity.

**Module IV: Industrial Finance**

Sources (internal and external)-Financial Statements- Analysis of financial ratios and their interrelatedness- Standards for comparison of financial ratios-Problems of financial analysis.

**Module V: Industrial Efficiency**

Determinants of productive and economic efficiency- Measurement of the efficiency level.

**Module VI: Industrial Development Government Regulation of Industries**

Pattern of industrialization since independence-Changing structure of industries- Debates on industrial stagnation-Issues in industrial development in the context of globalization- Evolution of industrial policy- Performance of licensing policy-Rationale of delicensing- Regulation of monopolies.

**References:**

1. Roger Clarke: Industrial Economics- Basil Blackwell, New York, 1985.
2. Hay D A and Morns D J: Industrial Economics: Theory and Evidence- Oxford, 1979.
3. Barthwal R R: Industrial Economics- New Age International Pvt. Ltd., New Delhi, 1995.
4. Smith D M: Industrial Location: An Economic and Geographic Analysis- John Wiley, New York, 1971.
5. Lave L B: Technological Change: Its Conception and Measurement- Wiley, 1966.
6. CDS: Balakrishnan P and Pushpangadan K: Total Factor Productivity Growth in Indian Manufacturing: A Fresh Look- Working Paper No. 259, Thiruvananthapuram, 1994.
7. Prasanna Chandra: Financial Management-Theory and Practice- Tata McGraw Hill, New Delhi, 1995.
9. Harvey Leibenstein: Allocative Efficiency vs. X-Efficiency- American Economic Review, 56, 1966, pp. 392-415
10. Uma Kapila: Indian Economy Since Independence- Academic Foundation, New Delhi, 1992.
11. Buleshkar A V, Mithani D M (Ed.): Structural Changes and Issues of Indian Economy- Himala Publishing House, New Delhi, 1990.
12. Sach S J and Varshney A (Eds.): India in the Era of Economic Reforms: A Political Economy- Oxford University Press, 2000.
13. Ahluwalia I J and Little I M D (Eds.): India's Economic Reforms and Development- Oxford University Press, 2000.. Ahluwalia I J: Industrial Growth in India- Oxford University Press, 1985.

**Elective Course IX**  
**VPEC4E09: LABOUR ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Labour Market**

Nature and characteristics of labour markets in developing countries like India- Paradigms of labour market-Classical, neo-classical and dualistic- Analysis of demand and supply forces- Demand for labour relating to size and pattern of investment, choice of technology and government labour policies and their orientation- Supply of labour in relation to growth of labour force- Labour market process.

**Module II: Employment**

Employment and development relationship-Importance of employment in the context of poverty in the developing countries- Concept and measurement of unemployment- Causes- Issues relating to employment, rationalization, technological, change and modernization- Rural unemployment and educated unemployment-Employment policy under the five year plans- Evaluation of employment policy in India.

**Module III: Wage Determination: Theory and Practice**

Classical, neo-classical and bargaining theories of wage determination- Concepts of wages- Fair living- Minimum wages- Problems of implementation of minimum wages -Wage determination by sectors- Urban and rural organized and unorganized sectors- Wage and nonwage components of labour remuneration-Wage and productivity and wage and inflation relationship-Productivity and profit sharing schemes- Wage differentials in terms of firm, industry, occupation, region, sex and skills-Wage standardization - Wage policy in India.

**Module IV: Industrial Relations and Trade Unions**

Growth of industrialization and emergence of unionism- Theories of labour movement- Growth, structure and pattern of trade unions in India- Achievements and failures of trade union movements- Determinants of industrial disputes- Steps to achieve peace- Methods of present and settle industrial disputes-Collective bargaining, conciliation, arbitration adjudication- Grievance settlement- Labour participation in management.

**Module V: State and Labour**

Increasing role of state in the determination of labour matters- Labour policy of the government in the past-Social security and labour welfare measures adopted by governments- Important labour legislation in India and their implications- Impact of ILO- Government policy towards labour and trade unions- Agricultural labour-Child labour- Labour in then unorganized sector-VRS policy.

## References

1. Hunter and Mulvey: Economics of Labour- Macmillan, 1983.
2. A Freeman: Labour Economics- 1982.
3. R A Lester: Economics of Labour- Macmillan, 1964.
4. C R Mc Connell and S L Brue: Contemporary Labour Economics- McGraw Hill, 1986
5. B Mc Cormic and Smith (Ed): The Labour Market- Penguin, 1968.
6. L Reynolds: The Structure of Labour Markets- Harper, 1951.
7. E B Jakubauskas and N A Palomba: Manpower Economics- 1973.
8. A Rees: Economics of Work and Pay- 1978.
9. N Das: Unemployment, Full Employment and India- Asia, 1960.
10. L K Deshpande, P R Brahmanand and E A G Robinson (Ed.): Employment Policy in Developing Economy- Macmillan, 1983.
11. R Jolley et al. (Eds): Third World Employment: Problems and Strategy- Penguin, 1973.
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13. A K Sen: Employment, Technology and Development- Oxford University Press, 1975.
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17. Subrahmaniam: Wages in India- Tata McGraw Hill, 1977.
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19. B K Madan- The Real Wages of Industrial Labour in India- Management Development Institute, New Delhi, 1977.
20. Sandesara and Deshpande: Wage Policy and Wage Determination in India
21. S Palekar: Wage Policy and Economic Development- Asia, 1978.
22. C A Myers: Industrial Relations in India- Asia, 1958.
23. S D Punekar: Labour Welfare, Trade Unionism and Industrial Relations- Himalaya, 1978.
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25. A Rees: Economics of Trade Unionism- Nisbet, 1962.
26. H A Turner: Wage Trends, Wage Policies and Collective Bargaining- Cambridge, 1965.
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 32. Ray Marshall and Richards (Ed): An Anthology of Labour Economics: Readings and Commentaries- Wiley, 1972.

**Elective Course X**  
**VPEC4E10 LOCAL LEVEL PLANNING**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Planning**

Types-Decentralised planning in India- Problems of planning from below- Priority rating and time framing-Assessment of funds-Strategy- Target setting- Resource allocation- Integration- Inter-sectoral-Spatial planning-Multilevel planning-Inter tier integration- Decentralised planning in Kerala-People's campaign for 9<sup>th</sup> Plan- Methodology-People's participation- Phases- Issues.

**Module II: History of Local Governance**

Gramaswarj-Balwanth Rai Metha Committee-Ashok Mehtha Committee-73<sup>rd</sup> and 74<sup>th</sup> constitutional amendments-Features-Gramasabha-Kerala Panchayat Raj Act 1994-Kerala Municipalities Act 1994-Institutional arrangements-Three tier system-Grama, Block, District panchayat- Municipalities- DPC.

**Module III: Projects**

Types of projects- Scheme- Programme- Plan- Project format-Aspects of project preparation: technical, institutional, social, commercial, financial, economic-Project cycle- Identification- Preparation-Analysis-Appraisal-Implementation-Evaluation-Benefit-cost analysis- Appraisal criteria-Payback period- Accounting rate of return- Debt service coverage ratio-Net present value- IRR- CPM/PERT- People's participation and process evaluation.

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  16. IMD Little and J.M. Mirrles: Project Appraisal and Planning for Developing Countries.
  17. Government of Kerala: Committee on Decentralisation of Powers- SEN Committee, 1998.
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  19. FAO: District Planning: Lessons from India- 1995.
  20. FAO: Participatory Monitoring and Evaluation- 1988.
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  25. V.M. Dandekar et al: Fact-finding Report on Regional Imbalance in Maharashtra- MEDC, Bombay, 1984.
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  31. E M S Namboodiripad: The National Question in Kerala- PPH, 1952.
  32. K N Raj and Michel Tharakan: Agrarian Reforms in Kerala and its Impact on the Rural Economy- ILO, 1981.
  33. P G K Panikar, T N Krishnan and N Krishnaji: Population Growth and Agricultural Development- A Case Study of Kerala- FAO, 1978.
  34. P G K Panickar and C R Soman: Health Status of Kerala: Paradox of Economic Backwardness and Health Development- CDS, 1984.
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Krishnan, OUP, 1993.

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**Elective Course XI**  
**VPEC4E11: MATHEMATICAL ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I Theory of Consumer Demand**

Utility maximization- derivation of demand functions – Elasticity- measurement -Slutsky equation -Direct and cross effects - Homogeneous and homothetic utility functions - Indirect utility function - Roy's identity - Linear expenditure systems -Constant elasticity models.

**Module II Theory of Production**

Production Function – Producers equilibrium – derivation of input demand functions - Cobb-Douglas production function - CES production function -VES production function- Translog production. Cost function: Derivation of cost as a function of output-Duality - Shepherd's lemma- derivation of supply function- generalized Leontief cost function - Technological progress and production function.

**Module III Theory of Markets**

Mathematical treatment of market equilibrium- Single goal firm and multiple goal firms- Mathematical treatment of equilibrium under different market situations.

**Module IV Linear Models**

Linear programming: Primal and dual problem - General linear programme - Complementary slackness theorem - Simplex solution-Input Output Analysis: Open and closed, static and dynamic Leontief system -Technological viability -Hawkins-Simon's conditions for viability- Theory of Games: Two person zero-sum game - Pure and mixed strategy - Saddle point theorem.

**References:**

1. Allen R.G.D (1956): Mathematical Economics- Macmillan Co. Ltd.
2. Birchenhall C and Grout P (1984): Mathematics for Modern Economics- Philip Allen. Harness and Noble Books, Oxford.
3. David. F Heithfield and Soren Wibe (1987): Introduction to Cost and Production Functions- Macmillan Education Ltd.
4. Eugene Silberberg (1990): The Structure of Economics: A Mathematical Analysis- Second Edition, McGraw Hill International Ltd.
5. J.M Henderson and R.E Quandt (1980): Microeconomic Theory: A Mathematical Approach- McGraw Hill International Ltd.

6. Michel D. Intriligator (1980): *Econometric Models, Techniques and Applications*- Prentice Hall of India Ltd.
7. Alpha C. Chiang (1988): *Fundamental Methods of Mathematical Economics*- McGraw Hill International Edition.
8. Amitabh Kundu, et. al (1976): *Input Output Framework and Economic Analysis*- Centre for the Study of Regional Development, New Delhi.
9. Krishna K.L (ed.) (1987): *Econometric Applications in India*- Oxford University Press, New Delhi.

**Elective Course XII**  
**VPEC4E12: REGIONAL ECONOMICS**  
**(Credit 4)**

**Total Hours: 90**  
**Lecture Hours: 70**  
**Seminar Hours: 20**

**Module I: Regional and Spatial Microeconomic Theory**

Concept of region- Time and space as variables in economic analysis of a region -Spatial microeconomic theory- Theory of location- Price equilibrium in geographically separated and interlinked markets- Spatial monopolistic competitions-Spatial price discrimination-Alternative objectives of the firm with regard to locational choice- Locational interdependence- Hotelling's formulation and its critique- Economies and diseconomies of agglomeration- Transport cost on location- Views of Weber, Sargent Florence, E M Hoover, Colin Clark.

**Module II: Spatial Macroeconomic Theory**

Spatial macroeconomics- Regional social accounting theory- Short run regional income determination -Interregional income-Multiple income determination in a multi regional economic system-Marginal growth theories-Difference in regional income trends in per capita income-Survey of recent techniques for regional analysis-Views of Christaller, Losch, Perroux, Isard -Dynamic theory of regions.

**Module III: Regional Economic Policy**

Regional income accounts-Regional planning and development- Views of Perloff, Dunn, Lampard and Muth-Regional growth of income-Long term tendencies-Spread effects and backwash effects-Regional economic policy-Formulation of interregional objectives-Channalisation approach towards backward regions-Level of inter regional disparities- Role of finance commission in regional financial allocation.

**Module IV: Regional Imbalances and Policies**

Regional characteristics in India and imbalances- Regional development programs to reduce imbalances in India-Policies to reduce regional imbalances in India -Dandekar Committee on regional imbalances.

**Module V: Kerala Economy: Past, Present and Future**

Overview of social, political and economic situation in Travancore, Cochin and Malabar before the formation of Kerala-Migration to Malabar- Emergence of indigenous capitalist class-

Commercialization of agriculture-The rise of plantation sector- Economic development policies of the state of Travancore-Structural characteristics of Kerala economy and changes in them since 1956-Strength and weakness.

**Agriculture:** Land reforms- Co-operative movement-Institutional and informal credit system- Food crops/cash crops sector- Area, production, productivity and price trends- Cost structure- Rural employment/ unemployment and wages- Food security.

**Industry:** Structural characteristics-Strength and weaknesses-Formal/informal sectors- Growth of unorganized sector-Modernization of traditional industries- the case of coir-Industrial productivity and wage rates-Industrial relations-Trade union movement- Infrastructure-Power energy-Transport and communications-Banking-Education, Healthcare- Development issues

**External Sector:** Exports, imports and balance of trade-Gulf migration and remittances-Implications of Government of India's policies on Kerala economy-Kerala Model of Development-Strength and weaknesses-Major issues in Kerala's development- Problems and prospects.

## **References**

1. H W Richardson: Regional Economics- 1969.
2. H W Richardson: Regional Economics -A Reader- 1969.
3. H W Richardson: Elements on Regional Economics- 1969.
4. T Wilson (Ed.): Papers on Regional Development- 1965.
5. L Needlemana (Ed.): Regional Analysis- 1968.
6. H S Perloff, E S Lampard and R F Muth: Region's Resources and Economic Growth- 1960.
7. J R Myer: Regional Economics: A Survey in Economic Theory- Vol. II, 1968.
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## Elective Course XIII

### VPEC4E13: AGRICULTURALECONOMICS

(Credit4)

Total Hours: 90

Lecture Hours: 70

Seminar Hours: 20

#### **Module I: Agriculture in Economic Development**

Nature and scope of agricultural economics- Agriculture and economic development, Models of agricultural development (Schultz, Lewis, Fei & Ranis, Jorgenson, Todaro, Mellor, and Boserup) - Interdependence between agriculture and industry- Terms of trade between agriculture and industry.

#### **Module II: Economic Decisions in Agriculture**

Production- Factor-product relationship - Production functions- Cobb Douglas, CES & Spillman- Factor-factor relationship- Product-product relationship- Resource-use efficiency- Farm-size productivity debate- Capital formation in agriculture- Public versus private investment- Complimentarily versus substitutability debate- Classification of costs- Farm planning and farm budgeting- Systems of farm organization.

#### **Module III: Behaviour of Demand, Supply and Agricultural Prices**

Price determination of agricultural commodities-Elasticity of demand and supply of agricultural commodities- Cob-web theorem- Nerlovian supply response model-Prices instability- Role of public intervention in price determination and distribution of agricultural commodities- Agricultural price policy in India- Instruments of price policy- Crop insurance- CACP- Output subsidy- PDS- Food inflation.

#### **Module IV: Agricultural Marketing**

Agribusiness- Market structure of agricultural commodities- Marketed and marketable surplus- Distress sales- Defects of markets- Regulated markets- Co-operative markets- Market intelligence- Futures trading.

#### **Module V: Structural and Institutional Changes in Indian Agriculture**

Area, production & productivity trends- Changing cropping pattern- Factors affecting cropping pattern- Agricultural development under five year plans- Green revolution- Agricultural inputs- HYV seeds- Farm mechanization- Fertilizer use efficiency- Crop irrigation technology- Input subsidies- Second green revolution- Ever green revolution- ICAR-Land reforms- Institutional and non-institutional sources of agricultural credit- NABARD- Co-operative credit, Rural indebtedness- Agricultural labour and wages- National Agricultural Policy 2000- National Commission on Farmers- WTO and Indian agriculture- DOHA Agreement.

## References

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6. Hanumantha Rao C .H: Agricultural Production Function, Costs and Returns in India- Tata McGraw Hill1965.
7. Joshi P. C:Land Reforms in India: Trends andProspects-AlliedPublishers,NewDelhi,1975.
8. Majumdar N A and Kapila Uma : Indian Agriculture in the New Millennium-Changing Perspective and Development Policy-Vol.I&II,AcademicFoundation,NewDelhi,2006.
9. Mohammed, Munir, Rehman(Ed):Fifty Years of Indian Agriculture-Concept,NewDelhi,2007.
- 10.Vyas V Y: India's Agriculture Structure, Economic Policies and Sustainable Development-AcademicFoundation,NewDelhi,2003.
11. C A Robertson :Introduction to Agricultural Production Economics and Farm Management.
12. Kapila Uma: Indian Economy-Academic Foundation, New Delhi, 2005.
- 13.Karl Eicher & Lawrence Witt: Agriculture in Economic Development- Vora & Co.,Bombay, 1970.
- 14.Soni R N:Leading Issues in Agricultural Economics-Shoban Lal Nagin Chand, Jalandar,1998.
15. Singh & Sadhu :Agricultural Problems in India-Himalaya,Bombay,1986.
- 16.S.Ghatak. & K.Ingersent:Agriculture and Economic Development-New Delhi.Select Book Service Syndicate.
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**VIMALA COLLEGE (AUTONOMOUS), THRISSUR**  
**FIRST SEMESTER M.A DEGREE EXAMINATION**  
**Economics**  
**VPEC1C01- MICROECONOMICS :THEORY AND APPLICATIONS 1**

**Time:3 Hours**

**Maximum Weightage: 36**

**PART A Multiple choice questions (answer all questions)**

1. Linear expenditure system has been popularised by.....  
A) stones B) Marshall C) pigou D) none
2. according to Baumol's sales maximization model profit constraint is determined.....A)exogenously B)Endogenously C) cost D) none
3. A rule or action undertaken by a player in a game is.....  
A) strategy B) profit C)luxury D) none
4. A game in which gain of one player comes at the expense and is exactly equal to the loss of the other player is called.....  
a) non zero sum game B) zero sum game C) positive zero sum game D) negative Zero sum Game
5. In pragmatic approach of demand which assumption of the classical approach is used to express demand as a homogeneous function of degree zero?  
A) utility function B) no money illusion C) characteristic approach D) none
6. Game theory was introduced by.....  
A) Marshall B) pigou C)samuelson D) None
7. In the attribute theory of demand budget constraint is called .....  
A) Budget line B) efficiency frontier C)product Ray D) None
8. The slope of revenue curve is equal to the ratio of.....  
A) price of factors B )price of commodities c) price of inputs D) none
9. Elasticity of substitution of cobb Douglas production function is .....  
A) 1 B) 2 C) 0 D) none
10. The characteristic approach of demand function is introduced by.....



- A) Kelvin Lancaster B ) marshall C) Pigou D ) None
11. In cournot's model of duopoly the firm considers rival will keep their .....constant.  
A) price B )quantity c ) input D)None
12. Entry preventing price is called.....  
A) equilibrium price B) limit pricing C)Market Pricing D)factor pricing

(12X1/4=3 weightage)

**PART B Very Short Answer Questions. Answer Any Five**

13. Write a short note on Snobb effect.
14. Explain the concept of game?
15. Illustrate learning Curve.
16. Graphically explain the long run AC curve
17. Constant elasticity of demand function-Discuss
18. Define Veblen effect
19. St.petersburg paradox
20. Explain Fredman Savage Hypothesis (5X1=5weightage)

**PART C Short Answer Questions. Answer Any Eight**

21. What is Economies of Scope.
22. Explain Cournot Duopoly model
23. Explain the theory of transaction cost
24. Risk pooling and risk spreading -compare
25. Linear Homogeneous production function
26. State Nash equilibrium
27. Define Co-operative and Non Co-operative game.
28. What is Technical Progress?
29. State Prisoner's Dilemma.
30. What do you mean by mixed and dominant strategies.
31. State the properties of Cobb Douglas production function-  
(8X2=16 weightage)

**Part D. Essay questions. Answer any three**

32. Explain the Neumann-Morgenstern Hypothesis.
33. Explain the Limit pricing model of Bain.

34. Compare and contrast between the limit pricing models of Pashigian and Bhagavati.
35. State the managerial model of Williamson.
36. State the traditional and modern theory of cost curves. illustrate

(3x4=12 weightage)

**VIMALA COLLEGE (AUTONOMOUS) THRISSUR**  
**FIRST SEMESTER M.A DEGREE EXAMINATION**  
**VPEC1C02:MACRO ECONOMIC THEORY AND POLICY- I,**

**Time: Three Hours**

**Maximum Weightage;**

**36**

**PART A**

**Answer all questions .Each carries ¼ weightage**

1. Wages and prices do not adjust quickly to restore general equilibrium is a property of ( classical economics, Keynesian economics, Monetary economics, supply side economics)
2. An increase in demand for money shifts the LM curve ( left ward, rightward, no shift, none)
3. When a Govt budget is surplus the effect is ( inflationary, deflationary, increased taxation, increased employment)
4. The size of the money multiplier is larger when ( the less interest elastic is the demand for money, the more interest elastic is the demand for money, less interest elastic is the demand for investment goods, none of these)
5. The effect of a decline in the price level which increases real net wealth and thus causes an increase in consumption is known as ( Keynes effect, Pigou effect, Real balance effect, none of these)
6. Real Income means ( goods and services money income can buy, benefits in kind, standard of living, non of these )
7. If the MPC falls as income rises then the consumption function is (linear, Non linear, non proportional, none of these)
8. Which of the following is not a conjecture of Keynes Consumption function (  $C=f(y)$ ,  $0 < MPC < 1$ , MPC & APC is proportional, as  $y$  increases  $c/y$  falls)
9. The rate of change in APC is known as \_\_\_\_\_( $c/y$ ,  $s/y$ ,  $c/s$ , none of the above)
10. The idea of rational expectations was first put forth by \_\_\_\_\_.(Lucas, Clover, Pigou, Samuelson)
11. Absolute Income hypothesis put forward by.....(Keynes ,Friedman, Duesenberry, None of these)
12. Relative income hypothesis is contributed by \_\_\_\_\_(Duesenberry, Keynes, Freidman, Solow)

(12x1/4=3 weightage)

**PART B (Very Short Answer Questions) Answer any five questions .**

**Each carries 1 weightage)**

13. Define Keynes effect.
14. What is Tobin's Q ratio.
15. Define Deficit Financing
16. Factors affecting Investment Function.
17. Describe fisher effect
18. Explain Permanent income hypothesis
19. Examine the absolute income hypothesis
20. Explain the real balance effect

(5X1=5 weightage)

**PART C (Answer any ten questions Each carries 2 weightage)**

21. Distinguish between Pigou effect and Keynes effect
22. What are the elements of liquidity theory
23. Explain the taylor's rule.
24. Write a note on intertemporal choice model
25. Critically examine the classical theory of investment
26. Explain the crowding out effect
27. What are the determinants of Investment
28. Describe Keynesian three sector model of ISLM
29. Explain budget deficit
30. Explain Baumol's inventory theory
31. Classical Theory of one sector model

(8x2=16weightage)

**PART D (Answer any three- each carries 4 weightage)**

32. Evaluate Neo-Classical theory of Investment
33. Explain various monetary policy instruments.
34. Examine simple and acceleration models of accelerator theory of investment.
35. Explain the relative efficiency of Fiscal and Monetary policy in the Classical and Keynesian system using ISLM frame work
36. Explain quantity theory of money.

(3x4=12 weightage)

**VIMALA COLLEGE (AUTONOMOUS) THRISSUR  
FIRST SEMESTER M A DEGREE EXAMINATION  
ECONOMICS  
VPEC1C03:INDIAN ECONOMY PROBLEM & POLICIES**

**Time: Three Hours**

**Maximum :36 Weightage**

**Part A . Answer all questions**

1. The Finance Minister who started new economic reform was:  
a. Manmohan Singh    b. Chidambaram    c. Jyothi Basu    d. Jayalalitha
2. Rolling plan was first advocated by :  
a. P.C Mahalanobis    b. Gunnar Myrdal    c. Y.H Melagam    d. Benjamin S.Bloom
3. When was Indian Banking Act came into force?  
a.1948    b.1949    c.1950    d.1951
4. Which one of the following was second planning period?  
a. 1956-61    b.1957-62    c.1958-63    d. 1959-64
5. The Book “Planned Economy of India “ is written by  
a. M.Visweswaraya    b. Gunnar Myrdal    c. Gustav Cassel    d. Henri George
6. The office of the Controller of Capital Issues was abolished in the year  
a.1988    b.1993    c. 1992    d.1994
7. Financial Year starts in India  
a. First March    b. First January    c. First April    d. First July
8. SEBI was made a statutory body in  
a. 1991    b.1992    c.1993    d.1994
9. Which sector has the lowest share of Net Domestic Product in Kerala for the year 2013-14  
a. Primary    b. Secondary    c. Tertiary    d. Services
10. World Trade Organization came into existence in  
a. 1.1.1986    b. 1.1.1994    c. 1.1.1995    d. 1.1.1993

11. NITI AAYOG came into force on  
a. First January 2015 b. First January 2016 c. First January 2014 d. None of the above
12. Parallel Economy is also known as  
a. Black Economy b. White Economy c. Brown Economy d. Gray Economy

(12x1/4=3 weightage)

**Part B Answer any Five Questions**

13. List out the objectives of planning
14. What is regional disparity?
15. What are the reasons for migration from Kerala ?
16. Concept of inclusive growth
17. Indicators of HDI
18. List out the reasons for economic reforms in India
19. Trends in National Income in India
20. NITI Aayog

(5X1=5 weightage)

**Part C Answer any Eight Questions**

21. Explain population policy
22. Why is Kerala Industrial backward
23. Discuss the objective and strategy of FT P 2004-2009?
24. Explain the features of decentralized planning in Kerala
25. Explain Millennium Development Goals
26. Explain Regional Disparity in India
27. Discuss the poverty trend in Kerala
28. Bring out the new trade policy reforms
29. Explain financial sector reforms
30. What are the measures taken to unearth black economy
31. Explain the savings and investment in India since reforms.

( 8X2=16weightage)

**Part D Answer Any Three**

32. Evaluate the major achievement in Kerala model of growth
33. Critically evaluate the five years plans of India
34. Critically evaluate the new industrial policy
35. Explain the growth and structural change of Indian economy since independence
36. How far the external sector reforms have improved the B.O.P situation in India.

(3x4=12 weightage)

**VIMALA COLLEGE (AUTONOMOUS), THRISSUR**  
**SECOND SEMESTER M.A DEGREE EXAMINATION**  
**Economics**

**VPEC2C05- MICROECONOMICS :THEORY AND APPLICATIONS II**

**Time:3 Hours**

**Maximum Weightage: 36**

**PART A Choose the correct answers (answer all questions )**

1. Based on Hawkin simon condition all leading diagonal elements of the matrix  $i-A$  should be----  
a) positive B) negative C) 1 D) none
2. Tragedy of commons was popularized by.....  
A) marshall B) Pigou C) samuelson D) None of the above
3. input output analysis was formulated by.....  
A) Leontief B) samulson C) sen D) None
4. *A theory of justice* was published in the year 1971 by.....  
A) Rawls B) samulson C) sen D) None
5. compensation criteria was suggested by.....  
A) Hicks B) Scitovisky C) sen D) None
6. Assymmetric information is absent only in .....market  
A) monopoly B) perfect Competition C) Oligopoly D) none
7. Social welfare function was first introduced by.....  
A) pareto B) Pigou C) Sen D) none
8. 'Social Choice and individual values' was published by.....  
A) Arrow B) Pigou C) Sen D) none
9. the possibility that an individual's behavior may change because she/he has insurance is an example of  
a. adverse selection                      b. principle agent problem  
c. moral hazard                              c. none of these
10. The envelope to utility possibilities frontier at pareto optimum points of production and exchange is called.....  
a. grand utility possibility frontier              b. compensation curve  
c. contract curve                                      d. point of bliss
11. Free riders problem is associated with.....  
a. public goods                                      b. common goods  
c. public utilities                                      c. all the above

12.If consumer sector is not included in an input-output analysis then the system is also known as .....

- a.viable
- b.closed
- c.open
- d.none of the above

(12x1/4=3 weightage)

**PART B Very Short Answer Questions. Answer Any Five**

- 13.State Market for lemons ?
- 14.what do you mean organic composition of capital ?
- 15.Explain Scitovizky Criterion?
- 16.Explain the marginal and surplus principle ?
- 17.pareto optimality?
- 18.Arrows Impossibility Theorem.
- 19.Define Externalities ?
- 20.Social Welfare Function.

(5x1=5weightage)

**PART C Short Answer Questions. Answer Any Eight**

- 21.Basic Concepts of Marxian distribution Theory.
- 22.State Principle agent Problem
- 23.Efficiency wage Theory.
- 24.How is equilibrium attained in asset market?
- 25.Adverse selection?
- 26.State Rawl's Theory of Justice.
- 27.Define CAPM?
- 28.Hawkin Simon conditions?
- 29.Tragedy of commons?
- 30.Problem of moral Hazard?
- 31.state Input-Output Analysis

(8x2=16 weightage)

**Part D. Essay questions. Answer any three**

- 32.Substantiate Ricardian Theory of justice
- 33.Derive Euler's theorem
- 34.Critically evaluate Leontief's Open and closed model.
- 35.state Ricardo's theory of distribution.
- 36. Explain linear programming.

( 3x4=12 weightage)

**VIMALA COLLEGE (AUTONOMOUS) THRISSUR**  
**SECOND SEMESTER M.A DEGREE EXAMINATION**  
**PAPER II-MACRO ECONOMICS THEORY AND POLICY- II ,VPEC2CO6**

**Time: Three Hours**

**Maximum Weightage; 36**

**PART A**

**Answer all questions .Each carries ¼ weightage**

1. In the Mundell-Fleming model under fixed exchange rates, the automatic adjustment process produces BOP equilibrium as  
( the LM curve shifts along the fixed IS and BP curves , the IS curve shifts along the fixed LM and BP curves , the BP curve shifts along the fixed IS and LM curves , the IS, LM, and BP curves all shift )
2. Under flexible exchange rates, a depreciation of the home currency will shift the \_\_\_\_\_ curves to the \_\_\_\_\_.  
(IS and LM; right , IS and LM; left , IS and BP; right , IS and BP; left)
3. The Mundell-Fleming model is a model of  
( a large open economy ,a small open economy, a small open economy in the short-run , a small open economy in the long-run , a large open economy in the short-run)
4. According to Hawtrey trade cycle is purely a \_\_\_\_\_ phenomenon.  
(monetary, real, fiscal, none of these)
5. According to Keynes fluctuations in economics is due to  
(Fluctuations in effective demand, changes in price, changes in demand, changes in supply)
6. Laffer curve depicts the relation between( tax and income, tax and incidence, tax and poverty, tax rate and tax revenue)
7. Real business cycle theory assumes (wages are constant,prices are constant, both wages and prices constant, wages and prices flexible)
8. Natural rate of unemployment is the concept introduced by ( Friedman, Phelps, Philips, Keynes)



9. NAIRU stands for \_\_\_\_\_(non accelerating inflation rate of unemployment, non accelerating investment rate , non accelerating unemployment rate, none of the above)
10. The philips curve shows an inverse relation between \_\_\_\_\_( inflation& unemployment, investment & unemployment, income& unemployment, none of the above)
11. The RBC theory is associated with.....economics(Classical, Keynes, Neoclassical, Monetarist)
12. Dual decision hypothesis is contributed by \_\_\_\_\_( Robert Clover, Keynes, Samuelson, Freidman) (12x1/4=3 weightage)

**PART B (Very Short Answer Questions) Answer any five questions .**

**Each carries 1 weightage)**

13. What is Laffer Curve?
14. What is insider-outsider model?
15. Explain NAIRU
16. What isThe Lucas supply function?
17. Describe small menu cost model
18. Explain Philips curve
19. Explain Real business cycle Theory
20. Explain dual decision

( 5x1=5weightage)

**PART C (Short Answer Questions ,Answer any eight questions Each carries 2 weightage)**

21. Distinguish between Nominal rigidities and Real rigidities
22. What is Lucas surprise supply function
23. Explain the insider-outsider model
24. Write a note on DSGE
25. Critically examine natural rate of unemployment hypothesis
26. Explain Laffer curve
27. What are the determinants of Investment
28. Describe Supply side macro economics
29. Explain financial instability theory
30. Explain Keynesian inflation
31. Explain Innovation theory of Schumpeter

(8x2=16weightage)

**PART D (Answer any three- each carries 4 weightage)**

32. Evaluate Keynesian and monetarist theory of inflation
33. Critically examine neo classical and Keynesian labour market equilibrium

34. Explain different theories of business cycle.
35. Explain wage rigidity versus wage flexibility.
36. Explain Mundell Fleming Model

(3x4=12 weightage)

**VIMALA COLLEGE (AUTONOMOUS) THRISSUR  
SECOND SEMESTER MA DEGREE EXAMINATION  
ECONOMICS**

**PUBLIC FINANCE THEORY AND PRACTICE (VPEC2C07)**

Time: Three Hours

Maximum-36 weightage

**Part A. Answer all questions.**

1. Who deals with income and expenditure of public authorities?  
a) Public finance b) Private finance c) Local Govt. d) None of these
2. Funds not belonging to the Government are called  
a) Contingency Fund b) Private Accounts c) Consolidated Fund d) Public
3. Grants from the Centre to the States under the recommendations of Finance Commission are known as  
a) Plan grants b) Development assistance c) Statutory grants d) Discretionary grants
4. Which are the three inter-related activities involved in the process of Capital Formation?  
a) Savings, Finance and Donation b) Savings, Loan and Investment c) Donation, Loan and Investment d) Savings and Finance
5. The distribution of the burden of paying a tax is called  
a) Sharing of tax burden b) Shifting of the tax c) Incidence of a tax d) Tax capitalization
6. A public good is  
(a) a good that the public must pay for. (b) nonrival in consumption. (c) more costly than a private good. (d) paid for by the government
7. The objective of taxation by the Government are  
a) Raising revenue for the state b) To maintain economic stability c) To remove disparities in the distribution of income d) All of the above
8. Which of the following is not a direct tax?  
a) Personal Income Tax b) Service tax c) Wealth Tax d) Corporate Income Tax
9. Transfer Payments include  
a) Old Age Pension b) Subsidies c) Wealth Tax d) Corporate Income tax
10. The following is an example of commercial non-tax revenue  
a) Gifts and Grants b) Fees c) Fines d) Surpluses
11. On what broad aspect of commodities are indirect taxes imposed, a) Production b) Sales c) Movement d) All of the above

12. The following is not a characteristic of a tax.

a) It is a compulsory payment b) Every tax involves a sacrifice by tax payer c) There is a quid-pro-quo between the tax payer and the Government. d) Refusal to pay tax is a punishable offence.

(12x1/4=3 weightage)

**Part B. Very Short Answer . Answer any five**

13. Define indirect tax ?

14. What are the characteristics of a direct tax ?

15. Write a note on Special assessment

16. What is Incidence of tax?

17. Distinguish between PPBS and ZBB

18. What is FRBM Act?

19. Explain the concept of Fiscal deficit

20. Explain the major taxes in India

(5x1=5 weightage)

**Part C Short Essay. Answer any Eight**

21. Write a note on public goods

22. Examine Wagner's law

23. Explain the concept of Balanced Budget Multiplier

24. Explain the Tiebout Hypothesis

25. Explain Market failure and rationale for Government intervention

26. Distinguish between Merit Goods and Club goods

27. What are the measures to overcome Public debt?

28. Examine the trends in Revenue and expenditure

28. What impact does Positive and Negative Externalities have upon the provision of Public Goods?

30. Explain the vertical and horizontal imbalances in intergovernmental transfers.

31. Explain Pigovian Tax

(8x2=16 weightage)

**Part C. Essays. Answer any three.**

32. Critically examine the latest Union Budget and its implications on the economy

33. Examine critically the role of Finance Commission in India

34. Critically examine the Centre-State Financial Relations

35. Examine the Role of Government in economic activity

36. Explain the theories of Public Expenditure

(3X4=12 weightage)

