GURU NANAK COLLEGE (AUTONOMOUS)

(Affiliated to University of Madras and Re-Accredited at 'A' Grade by NAAC)

Guru Nanak Salai, Velachery, Chennai – 600042.

M.A. Economics

(SEMESTER PATTERN WITH CHOICE BASED CREDIT SYSTEM)

Syllabus

(For the candidates admitted in the Academic year 2018-19 and thereafter)

VISION

❖ To uphold high standards of academic excellence in teaching and research.

❖ To grow to gain wide-spread recognition for Post-Graduate and Ph.D. programmes.

❖ To promote academic activities like research, internships, training, etc.

❖ To organize International/National Seminar/Workshop programmes to facilitate interaction with academicians and experts.

❖ To focus on a set of skills relevant to strengthening students' competency to gain employment.

MISSION

➢ To provide students with a strong theoretical foundation in Economics.

➢ To train and equip students with the requisite skills to carry out Applied Economics Research.

➢ To promote experiential learning through the application of knowledge to new challenges.

➢ To provide the social capital necessary for establishing a healthy society by instilling values, ethics and confidence in young minds.

➢ To provide students with a strong foundation in economic theory, strengthened by critical thinking and sharp analytical skills required for policy analysts.

Programme Outcomes

⊙ **PO1**: To analyse different economic and environmental problems and provide solutions to improve our Green Growth

⊙ **PO2**: To critically analyse Keynesian and modern economic approach to solve all macroeconomic problems.

⊙ **PO3**: To develop employability and research skills identify more socio-economic problems and provide solutions through several research activities

⊙ **PO4**: To find out different ways by which improve the contribution of women in economic development

⊙ **PO5**: To maintain stability in exchange rate, examine different international trade policies.

Programme Specific Outcome

○ **PSO1**: To evaluate macroeconomic policies including fiscal, monetary and international trade to maintain stability and analyse different environmental policies to reduce global warming, improve sustainable development and Green GDP.

○ **PSO2**: Analyse central and state budget and plans to maintain strong and healthy fiscal federalism in India.

M.A Economics
Course Structure 2018-20 Batch

Semester	Part	Course Component	Subject Name	Credits	Hours	Internal	External	Total
I	III	Core – I	Micro Economics – I	4	6	50	50	100
	III	Core – II	Indian Economic Development - I	4	6	50	50	100
	III	Core – III	Research Methodology	4	6	50	50	100
	III	Elective – I	Energy Economics	3	6	50	50	100
	III	Elective – II	Mathematics for Economists - I	3	6	50	50	100
	IV	PIV PG Skill	Essentials of Language and Communication Skill	2			100	100
Total Credits -20, Total Hours/ week-30								
II	III	Core – IV	Micro Economics - II	4	6	50	50	100
	III	Core – V	Indian Economic Development - II	4	6	50	50	100
	III	Core – VI	Statistics for Economists	4	6	50	50	100
	III	Elective –III	Mathematics for Economists - II	3	6	50	50	100
	III	Elective -IV	Environmental Economics	3	6	50	50	100
	IV	PIV Practical PG	Computing Skill	2			100	100
Total Credits -20, Total Hours/ week-30								
III	III	Core – VII	Macro Economics - I	4	6	50	50	100
	III	Core – VIII	Public Economics - I	4	6	50	50	100
	III	Core – IX	International Economics - I	4	6	50	50	100
	III	Elective – V	Economics of Development	3	6	50	50	100
	III	Elective -VI	Health Economics	3	6	50	50	100
	IV	Soft Skill Internship	Summer Internship	2		50	50	100
	IV	PIV PG Skill	Managerial Skills	2			100	100
Total Credits -22, Total Hours/ week-30								
IV	III	Core – X	Macro Economics - II	4	5	50	50	100
	III	Core – XI	Public Economics - II	4	5	50	50	100
	III	Core – XII	International Economics - II	4	5	50	50	100
	III	Core – XIII	Monetary Economics	4	5	50	50	100
	III	Core-XIV	Financial Economics	4	3	50	50	100
	III	Core -XV	Gender Economics	4	3	50	50	100
	III	Elective – VII	Computer Application for Economics	3	4	50	50	100

	IV	PIV PG Skill	Spoken and Presentation Skills	2			100	100
		Total Credits -29, Total Hours/ week-30						
		Grand Total Credits -91, Total Hours/ week-120						

SEMESTER-I

CORE-I - MICRO ECONOMICS – I

Subject Code: 16PECOC01	Theory	Marks: 100
Semester: I	Credits 4	Total Hours : 90

Course Objective

This paper enables the students to understand the basics of micro economics and to solve the problems of micro economics and their related issues.

Unit I: Advances in Demand Theory

Modern utility analysis of choices involving risk or uncertainty – Bernoulli ,Neumann Morgenstern, Friedman Savage and Markowitz Hypotheses- Revealed preference theory and derivation of demand-indifference curve-Hicks revision of demand theory-Logical ordering- Recent developments in demand theory.

Unit II: Theory of Production

The production Function – Production Function – short and long run – Relation between returns to scale and returns to factor – Cobb-Douglas and CES Production Functions –Single and Multi-product Firms.

Unit III: Theory of Costs

Total Revenue, Marginal Revenue. Cost Functions – The Traditional Theory of Cost: Short- Run Costs; Long-Run Costs-'The Envelope Curve' – Modern Theory of Costs: Short- Run
Costs; Long-Run Costs-'The L-Shaped' Scale Curve – The Relevance of the Shape of Cost Curves in Decision-making.

Unit IV: Theory of The Firm: Perfect Competition/ Monopoly

Market Structure – Perfect Competition – Assumptions – Short-Run Equilibrium – Long-Run Equilibrium – Dynamic Changes and Industry Equilibrium. Definition – Demand and Revenue – Equilibrium of the Monopolists: Short-Run Equilibrium – Long-Run Equilibrium – Comparison of Pure Competition and Monopoly – the Multi-plant Firm – Bilateral Monopoly – Price Discrimination.

Unit V: Theory of The Firm: Monopolistic Competition and Oligopoly

Monopolistic Competition – Equilibrium of the Firm – Excess Capacity – Selling Cost – Comparison with Pure Competition. Oligopoly: Non-Collusive Oligopoly – Cournot; The Kinked-Demand and Stackelberg Models. Collusive Oligopoly – Cartels – Price leadership.

Recommended Text:

1. Koutsoyiannis. A. : Modern Microeconomics 2nd edition, Macmillan
2. Hal. R. Varian : Intermediate Micro Economics- Modern Approach, 4th edn,
   W.W. Narton & Company.

3.	Dwivedi	: Micro Economic theory and applications, Pearson.

Reference Books:
1.	Baumol.W.J., (1978): Economic Theory and Operations Analysis, Prentice Hall of
	India.
2.	Cohen. K.J. and Cyert. R.M. (1976): Theory of the Firm, Prentice Hall of India.
3.	Ferguson, C.E., (1968): Micro Economic Theory, Cambridge, University Press,
	London.
4.	Green, H.A.J (1974): Consumer Theory, 2nd Edition, Macmillan.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE- II - INDIAN ECONOMIC DEVELOPMENT AND POLICY – I

| Subject Code: 16PECOC02 | Theory | Marks: 100 |
| Semester: I | Credits 4 | Total Hours : 90 |

Course Objective
This paper enables the students to understand the basics of economic development and policy of India and to solve the problems of economic policy and their issues.

Unit I: Resource Development in India
Resource profile of India – Policies relating to the development of land, forest, water, fisheries and mineral resources – Economic development and Environmental degradation – Land degradation and Soil erosion – deforestation – faulty utilization of water resources

Unit II: Planning
Plan Concepts-Indian Planning-concept of mixed economy, objectives of planning, perspective planning - Decentralised planning – indicative Planning – District Planning – Local Planning - Indian plan models: Mahalanobis, and Input – Output, Multi – sectoral models, minimum needs - evaluation and appraisal of five years plans

Unit III: National Income
Concept and measurement of National Income-Trend in National Income - Sectoral contribution to GDP since Independence-Real Vs. Nominal-Measurement of Inflation-Inflationary Trend in India Concepts of Money suppy-M1, M2, M3, and M4; L1,L2 and L3.

Unit IV: Poverty and Unemployment
Poverty - Measurement of poverty Line – Poverty Trend in India Regional disparities in incidence of poverty-Planning for Poverty Eradication-Public Policies Relating to Income and Asset Distribution – Concept and measurement employment and unemployment; Rural Vs urban employment-non farm employment-migration issues

Unit V: Trade Policies
Trade policies: import substitution and export promotion – Recent Policies Changes - Technology Transfer – Reforms in Exchange Rates - role of foreign capital – Foreign Direct Investment (FDI) and Its Implications on Indian Economy.

Recommended Text:
1. 1 Dutt and Sundaram(2007) :Indian Economy, S.Chand & Company
2. 2. Dhingra. I.C.(2006)   : Indian Economy, S.Chand & Company.
3. Chakravarty, S. (1987) :Development Planning: The Indian Experience, OUP, New Delhi.

Reference Books
1. J. Bhagwati andS. Chakravarthy : Indian Economic Analysis: A. Survey.
2. A. K. Das Gupta : Planning and Economic Growth
3. Bhagwati and Desai : Planning for Industrialization

Question Paper Pattern:

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Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
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Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

Core-III. RESEARCH METHODOLOGY

Subject Code: 16PECOC03	Theory	Marks: 100
Semester: I	Credits 4	Total Hours : 90

Course Objective
This paper enables the students to understand the basics of research methods and to solve the problems of methodology and research issues.

UNIT I: Introduction to Research Methodology

Meaning and Objectives of Research - importance, applications and limitations of social science research - An overview of the different steps in research process - Selection of the topic and formulation of the research problem in Economics - Research Design: Pure, Applied, Action and Evaluation Research - Meaning of methodology.

UNIT II: Research Method

Sampling Design: Probability and non-Probability Sampling - **Sources of Data:** Primary and Secondary Sources - Methods of Data Collection: Census and Sample Survey - Data Collection Instruments: Observation, Interview, Schedules and Questionnaires.

UNIT III: Analysis of Data

Analysis of data: Meaning, elements and types of Analysis - Editing, Processing, Consolidation and Tabulation Application of Techniques – **Measurement Scales and Scaling Techniques:** Meaning, classification and importance of scaling technique

UNIT IV: Testing of Hypothesis

Testing of hypothesis – Procedure for testing hypothesis - one tailed and two tailed tests – Basics of the important parametric and non-parametric tests (Z test, t-test, F-test, Chi Square (χ^2) test and ANOVA) - Basic awareness of SPSS

UNIT V: - Interpretation and preparation of the report

Interpretation and Research presentation: Objectives of presentation of report and Methods of Report Writing and Presentation of report - Essential of a Good Report – Problems – Guidelines - Style and Mechanics of Writing Research Reports – Types of Research Reports - Structure of Research Report –Appendices – Footnote - Bibliography.

Recommended Text
1. Goode, W.J. (1952) and Hatt, P.K. :Method in social Research, McGraw-Hill.
2. Kothari. C.R.(2005)   :Research Methodology: Methods and Techniques,

Wiley Eastern limited, New Delhi.
3. C. Murthy (2010)   : Research Methodology , Vrindha Publication, New Delhi

Books for Reference
1. Cochran W.G (1963)   : Sampling Techniques (Second Edition) JohnWiley & sons.

2. Donald R.Cooper;   : Business-Research   Methods, Tata McGraw Hill New Delhi

3. Forces and Bircher (1973)   : Social Research Methods. Prentice   Hall Inc.

4. Hicks, J.R. (1979)   : Casualty in Economics.

5.Basil Blackwell. Kiplinger,   : Foundations of Behavioral Research.

6. kurien, C.T. (ed) (1973)   : A guide to Research in Economics, Sangam Publishing 7. Murthy, M.N (1967)   : Sampling Theory and Methods. Statistical Publishing Society.

8. Young, P (1966)   : Scientific Social Surveys and   Research, Prentice hall.

Question Paper Pattern:

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	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

ELECTIVE – I: ENERGY ECONOMCIS

Subject Code: 17PECOE01	Theory	Marks: 100
Semester: I	Credits 3	Total Hours : 90

Objectives:

This paper enables the students to understand the basics of energy economics and to solve the problems of energy and environmental issues.

Unit – I: Introduction to Energy Economics

Natural Resources – classification – importance – Role of Natural Resources in Economic Development – Energy Resources – Types and classification – Properties of Energy – Forms of Energy – Emergence of Energy Economics – Its nature and scope – Energy indicators – Energy Economics relation with other branches.

Unit – II: Energy and Development

Role of Energy in Economic Development – Energy Intensity and Energy Elasticity – National and International comparison –Low, Middle and High Income Economies – Role of International Institutions – OPEC, OAPEC, IEA, and World Bank.

Unit – III: Energy and Environment
Energy Crisis causes, consequences – Remedial measures – Environmental Crisis – causes, consequences, remedial measures – Impact of Energy Consumption and Production on Environment with illustrations – Role of Energy and Environmental Economists in solving Energy and Environmental Crisis.

Unit – IV: Energy Conservation and Energy Management
Energy Planning and Energy Conservation: Meaning, objectives and importance – Energy Management – Meaning, Objectives and Importance – Recent Developments – Energy
Auditing – Energy Accounting – Energy Pricing and Taxes – Role of Economists in Promoting Sustainable Energy Management. M.A. Economics: Syllabus (CBCS)

Unit – V: India's Energy Profile
Indian Energy Sector – Organizational Structure – Energy Supply (Coal, Lignite, Oil, Gas and Powers – Hydro, Nuclear, Thermal) – Energy Demand (Agriculture, Industry, Transport, Domestic, etc) Renewable Energy Sources and Technology (Solar, Wind, Biogas, Biomass, Geothermal, OTEC, Tidal,

Wave Hydrogen, Fuel Cell, Bio-diesel) – Renewable Energy Programs – Energy under Five Year plans – Energy issues and policy options for India.

Reference Books

1. Agarwal, M.C. and Monga, J.R. – Economic and Commercial Geography, (National Publishing House, New Delhi, 1992).
2. Agarwal, S.K. – Environment and Natural Resources Economics (Scott Foresman & Co., London, 1985).
3. Common, M. – Environmental and Resource Economics (Longman, London, 1996).
4. David Pearct et al – Sustainable Development – Economics and Environment in the Third World (Earths Can Publications, London, 1990).

Question Paper Pattern:

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Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
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	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

ELECTIVE – II: MATHEMATICS FOR ECONOMISTS – I

Subject Code: 16PECOE02	Theory	Marks: 100
Semester: I	Credits 3	Total Hours : 90

Course Objective

This paper enables the students to understand the basics of mathematical economics and to solve the problems of mathematics in economics and related issues.

UNIT I: Set Theory and Economics

Set Theory**:** Concept of Sets and notation for Sets – Relations between Sets - Operation on sets and Laws of set Operations - The real-number system - Properties of real numbers - solutions of Quadratic equations - Solutions of Linear Equations in two variables.

UNIT II: Relations and Functions

Relations and Functions: Functions of one variable - straight line, parabola, rectangular hyperbola Exponential and logarithmic functions. Concave and Convex functions - Indifference, Iso-quant and Transformation Curves - Application in business Economics.

UNIT III: Introduction to Simple Derivatives

Derivatives and their interpretation - Concept of Limit - techniques of derivatives –

Derivative and slope of a curve – Continuity and differentiability of a function - Relationships among Total, Average and Marginal Revenue and Cost - Elasticity of Functions - Conditions for Extremum of Functions of one variable and Functions of two variable.

UNIT IV: Applications of differential calculus

Applications of differential calculus - Rules of differentiation for a function of one variable – Differentiation involving two functions of the same variable and different variable - Partial differentiation: First and Second-order partial derivatives - Total differentials and total derivatives - Derivatives of implicit function and explicit functions

UNIT V: Differentiation and its applications in Economics

Unconstrained optimization: functions with two variables - Economic objectives of optimization – maxima and minima: identifying maxima and minima turning points – Maximum Total Revenue – Maximum Profit - Minimum Average Cost – Average and Marginal product of Labour - Properties of Homogenous Functions – Uses of Homogenous Functions in Economics.

Recommended Text

1. Edward. T. Dowling: Mathematics for Economists, McGraw – Hill   Book Company.

2. Mehta V.L. & Madnani : Mathematics for Economists, Sultan Chand and Sons.

Books for References:

1. Allen R.G.D. :Mathematical Analysis for Economists, Macmillan andCompany Limited, London.
2. Chiang A.C. : Fundamental Methods of Mathematical Economics, Mcgraw – Hill Book Company.

3. Stafford.L.W.T. :Mathematics for Economist, The English Language Book Society and Macdonald and Evans Limited, London.
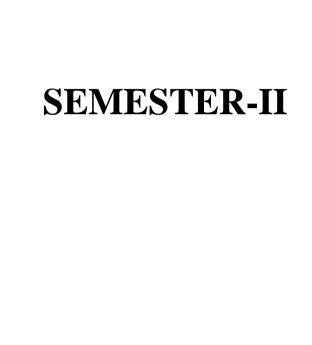4. Mabett. A.J. :Mathematics for Economists, Macmillan Master Series.

5. Weber : Mathematics for Economists.

Question Paper Pattern:

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Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
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		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	1	2
	Unit – 4	1	1
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	1	
	Unit – 3	1	1
	Unit – 4		1
	Unit – 5		1
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3		2

	Unit – 4		1
	Unit - 5	1	

SEMESTER-II

CORE –IV: MICRO ECONOMICS – II

| Subject Code: 16PECOC04 | Theory | Marks: 100 |
| Semester: II | Credits 4 | Total Hours : 90 |

Course Objective
This paper enables the students to understand the basics of micro economics and to solve the problems of micro economics and their related issues.

Unit I: Modern Theories of the Firm

Baumol's Theory of Sales Revenue Maximisation – Marris 's Model of the Managerial Enterprise – O. Williamsons's Model of Managerial Discretion – the Behavioural model of Cyert and March.

Unit II: Distribution Theories

Macro theories of distribution – Ricardian, Marxian, Kalecki and Kaldor's – Marginal productivity theory – Product Exhaustion theorem – Elasticity of Technical Substitution – Theory of distribution in imperfect product and factors markets – Determination of wages, interest and profit

Unit III: Economics of Information

Economics of Information- Moral hazard problem, adverse selection, principal agent problem, implications of asymmetric information, market signaling, hidden information modeling, efficiency wage model, information and insurance.

Unit IV: General Equilibrium Theory

Two Sector Model of General Equilibrium: Assumptions – Static Properties of a General Equilibrium State – General Equilibrium and the Allocation of Resources and Money.

Unit V: Welfare Economics
Criteria of Social Welfare: The Pareto-Optimality Criterion – The Kaldor-Hicks 'Compensation Criterion' – the Bergson Criterion 'Social Welfare Function' – Maximisation of Social Welfare.

Recommended Text:

1. Koutsoyiannis. A. : Modern Microeconomics 2nd edition, Macmillan
2. Hal. R. Varian : Intermediate Micro Economics- Modern Approach, 4th edn,
       W.W. Narton & Company.
3. Dwivedi : Micro Economic theory and applications, Pearson.

Reference Books:

1.   Baumol.W.J., (1978),Economic Theory and Operations Analysis, Prentice Hall of
      India.
2.   Cohen. K.J. and Cyert. R.M. (1976),Theory of the Firm, Prentice Hall of India.
3.   Ferguson, C.E., (1968),Micro Economic Theory, Cambridge, University Press,
      London.
4.   Green, H.A.J (1974),Consumer Theory, 2nd Edition, Macmillan.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE-V: INDIAN ECONOMIC DEVELOPMENT AND POLICY - II

| Subject Code: 16PECOC05 | Theory | Marks: 100 |
| Semester: II | Credits 4 | Total Hours : 90 |

Course Objective

This paper enables the students to understand the economic development and policy in India and to solve the problems of economic development and policy and their related issues.

Unit I: Agriculture

Agriculture growth at National and State levels – Institutional and technological policy – green revolution – agricultural price policy, agricultural credit – Food Security – Public Distribution System(PDS) – Agricultural Finance – Agricultural Marketing – inter-sectoral terms of trade – WTO and its implications.

Unit II: Industry

Industry growth at National and State levels – Over view of earlier Industrial policies (1948 - 1990) - Industrial policy since 1990 – pattern of industrial growth – productivity trends, modernization, small Vs large industry – Special Economic Zones – Industrial Finance**.**

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Unit III: Population and Human Development
Population and Development – National Population Policy (2000) – Demographic Dividend - Human development indicators: review of change since early fifties –wide regional variations – demographic trend in India and dividend –health services, Health policy; Education Policy; Financing of Health and Education.

Unit IV: Infrastructure Development in India

Infrastructure and economic development – Economic Infrastructure – Energy, Power, Transport, Communication, Science and Technology – Policies

pertaining to Economic Infrastructure development – Financing of Infrastructure development – PPP Model – Financing institutions – International collaborations.

Unit V: Indian Public Finance:

Finances of Central and State governments – an overview of Central budgets – trends – public debt of India – deficit financing in India – Fiscal reforms – Fiscal Responsibility Act – recommendations of tax and expenditure commissions – Centre – State financial relations – Constitutional provisions relating to fiscal and financial powers of the states – financial aspects of Sarkaria Commission – The Finance Commission awards – Centre- State conflict of finance.

Recommended Text:
1   Dutt and Sundaram(2007)   :Indian Economy, S.Chand & Company
2.   Dhingra. I.C.(2006)   : Indian Economy, S.Chand & Company.
3.   Chakravarty, S. (1987)   :Development Planning: The Indian Experience, OUP,

                                  New Delhi.

Reference Books

1.   J. Bhagwati andS. Chakravarthy :   Indian Economic Analysis: A. Survey.
2.   A. K. Das Gupta : Planning and Economic Growth.
3.   Bhagwati and Desai : Planning for Industrialization.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
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Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	

	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

Core-VI. STATISTICS FOR ECONOMISTS

Subject Code: 16PECOC06	Theory	Marks: 100
Semester: II	Credits 4	Total Hours : 90

Course Objective

This paper enables the students to understand the basics of statistical methods and to solve the problems of statistics and their related issues.

UNIT I: Introduction to Statistics in Economics

Meaning and definitions of **probability** (sample space-events) - Laws of addition and multiplication - Conditional probability - Bay's theorem (statement) - Binomial, Poisson and Normal distribution;

UNIT II: Sampling Technique

Basic concepts of **Sampling**, Different types of sampling-Sampling and Non-sampling errors - Sampling Distributions-Standard error - point estimation - properties of estimators (Unbiasedness, consistency and efficiency)

UNIT III: Hypothesis Testing and Data Analysis

Hypothesis testing - Null and alternative hypothesis - type I and type II errors-level of Significance - p-value - concept of confidence intervals (CI) - Hypothesis Testing procedure based on Z test (large sample test), - t test and F-test (Small sample tests) - test for independence of attributes ($\square^2$ test) and one-way ANOVA.

UNIT IV: Bi-variate Analysis

Correlation and regression: simple correlation, Pearson, spearman's correlation coefficients, multiple and partial correlation analysis, specification of a simple linear regression model, least square estimation of linear regression

coefficients, interpretation of correlation and regression coefficients and their properties.

UNIT V: Time Series Analysis and Index Numbers

Introduction to Time series: components of time series - estimation of trend (moving averages, least square method for linear and exponential trend) - measuring cyclical and seasonal variation - **Introduction to index numbers**: weighted and unweighted index numbers (price and quantity index numbers) - consumer price index number - concept of deflation and real wages (income).

Recommended Text:
1. A.M. Mood, F.A. Graybill and D.C. Boes (1973) : Introduction to theory of Statistics, 3rd ed.McGraw Hill. 2. S.P. Gupta (1983): Statistical Methods, 19th ed. Sultan Chand and sons, New Delhi. **Books for Reference:**
1. D.N. Elhance (2004) : Practical problems in statistics, Kit Mahal, Allahabad.
2. A.L. Nagar and R.K. Das :Basicstatistics,OxfordniversityPress, New Delhi.
3. M.R. Spiegal and L.J. Stephens (1999) : Theory and Problems of Statistics, Tata McGraw Hill Co, Ltd.
4. R.Veerachamy : Quantitative Techniques for Economists, New Age International P. Ltd.
5. R.J. Wonnacott and T.H. Wonnacott (1985): Introductory Statistics, 4th (Ed.) John wiley, New York.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	1	2

	Unit – 4	1	1
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	1	
	Unit – 3	1	1
	Unit – 4		1
	Unit – 5		1
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3		2
	Unit – 4		1
	Unit - 5	1	

ELECTIVE – III: MATHEMATICS FOR ECONOMISTS - II

| Subject Code: 16PECOE03 | Theory | Marks: 100 |
| Semester: II | Credits 3 | Total Hours : 90 |

Course Objective

This paper enables the students to understand the basics of mathematics in economics and to solve the problems of mathematics and their related issues.

UNIT I : Calculus of multivariable functions

Calculus of multivariable functions, higher order derivatives, constrained optimization with upto two variable - equality constraints - Constrained Maxima and Minima – Use of Lagrange Multiplier Method – Application to Utility Maximisation: consumer demand – Micro (two goods, one period) and consumer demand - Macro (one goods, two periods)

UNIT II: Matrix

Matrices – Properties and types of matrices Matrix operations – Commutative Associative and Distributive Laws – Determinants – Rank of a matrix – Matrix Inverse – Solutions for simultaneous equations upto 3 equations - Cramer's Rule.

1. Edward. T. Dowling   :Mathematics for Economists, Mcgraw – Hill Book Company.
2. Mehta V.L. & Madnani   :Mathematics   for   Economists,   Sultan   Chand   and
Books for References: Sons.

1. Allen R.G.D.   :Mathematical Analysis for Economists,
                                     Macmillan andCompany Limited, London.
2. Chiang A.C.   :Fundamental Methods of Mathematical
                                     Economics, Mcgraw – Hill Book Company.

3. Stafford.L.W.T.   :Mathematis for Economist, The English Language
                            Book Society and Macdonald and Evans Limited,

UNIT III: Input - Output Analysis and Linear programming

Input - Output Analysis: Static open model – Closed model - Economic implications - Transport and Assignment model - Leontieff Model - **Linear programming:** Basic concept, Nature of feasible, basic and optimal solution; Solution of linear programming problem through graphical and simplex method - Primal and Dual.

UNIT IV: Game Theory

Basic Concept of a game theory – Classification and Description of Games - Two person Zero sum game - value of a game; strategies - simple and mixed - Dominance rule - Solution of a game by linear programming.

UNIT V : Integration Techniques

Definition of integration – Basics rules of Integration Techniques – Indefinite Intergrals – methods of indefinite intergrals - Definite Intergrals – Economic Applications of Integrals – Consumer's Surplus – Producer's Surplus.

Recommended Text

                            London.
4. Mabett. A.J.   :Mathematics for Economists, Macmillan Master
                            Series.
5. Weber   : Mathematics for Economists.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	

	Unit – 3	1	2
	Unit – 4	1	1
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	1	
	Unit – 3	1	1
	Unit – 4		1
	Unit – 5		1
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3		2
	Unit – 4		1
	Unit - 5	1	

EXTRA DISCIPLINARY – I - ENVIRONMENTAL ECONOMICS

Subject Code: 16PECOE04	Theory	Marks: 100
Semester: II	Credits 3	Total Hours : 90

Course Objective

To know the impact of Economics on the Environment

To understand the use of Economic Tools in the analysis of environmental issues and policy making

Unit – I: Definition and Scope of Environmental Economics

Introduction – Economics and Environment – Definition of Environmental Economics – Scope and Significance of Environmental Economics: Environment Inter-linkages – Market failure and Externality – Accounting for the Environment – Pareto Optimality – Individual Choice Vs Social Choice.

Unit – II: Resource Economics

Natural Resources: Types and Classification – Economics of Natural Resources Exploitation – Market Structure and the exploitation of Non-Renewable Resources – Conservation of Resources: Definition and Meaning– Methods of Conservation – Material Substitution – Product Life Extension – Recycling – Optimum Recycling – Waste Management.

Unit – III: Environment and Sustainable Development

The Environmental Costs of Economic Growth – Limits to Growth – Sustainable Development – Brundtland Commission - Sustainable Industrialization – Pollution abatement and Control.

Unit – IV: Cost Benefit Analysis

Cost Benefit Analysis: Definition – Advantages & Limitations of Cost Benefit Analysis – Methods for Valuing Environmental Costs and Benefits: Environmental Impact Assessment: Meaning & Measurement.

Unit – V: Policy Measures

Basic Approach to Environmental Policy – Problem of Pollution Control – Moralsuasion – Direct Control – Regulation – Prohibition – Fiscal techniques – Effluent Charges and Subsidies – Common Effluent Treatment Plant.

Reference Books:

1. Kolstad, Charles, Environmental Economics, Oxford University Press, New Delhi – 2001.
2. Sankar, U, Environmental Economics, Oxford University Press, New Delhi, 2001.
3. Sengupta, Ramprasad, Ecology and Economics, Oxford University Press, New Delhi, 2001.
4. Bhattacharya, Rabindra, N. Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi, 2001.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	

	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

SEMESTER-III

CORE-VII - MACRO ECONOMICS - I

Subject Code: 16PECOC07	Theory	Marks: 100
Semester: III	Credits 4	Total Hours : 90

Course Objective
This paper enables the students to understand the basics of macroeconomics and to solve the problems of macro economy and their related issues.

Unit I: Key Macro Economic Variables
Aggregate Income- Expenditure and circular flow- computation of GDP – Real Vs – Nominal
GDP – Measurement of Cost of Living (CPI and WPI) – Measurement of Unemployment rate

Unit II: Theories of Consumption and Investment

The Consumption function and its determinants – Hypotheses of Absolute, Relative and
Permanent Incomes and Life Cycle. The Investment function and its determinants. The Saving function and Marginal Efficiency of Capital. Investment Function – Marginal Efficiency of Investment, Multiplier Analysis, Accelerator and Investment behavior concepts of super multiplier.

Unit III: Theory of Income and Employment

Basic assumptions of the classists, Says Law of Market, Classical theory of Employment saving and Investment theory wage and price flexibility criticisms of classical theory- Keynesian theory of employment and income , The concept of under employment –
Aggregate demand – Effective Demand

Unit IV: Theory of Demand for money

Theory of Money : Quantity theory money Fischer's and Cambridge equation, Keynesian theory of money – Modern Quantity theory of money – Milton Friedman – Patinkin's Real Balance Effect – Tobin's Portfolio analysis, Crisis in Keynesian economics and the revival of monetarism.

Unit V: Theory of Supply of Money

Supply of Money - A Behavioural Model of Money Supply Determination, RBI Approach to money supply, High powered money and money multiplier, Money Supply in open economy, Control of money supply.

Recommended Text:

1. Branson, W.A. (1989): Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
2. Shapiro, E. (1996): Macroeconomic Analysis, Galgotia Publications, New Delhi.

Reference Books

1. Ackley, G. (1978) : Macroeconomics: Theory and Policy, Macmillan, New York.
2. Blackhouse, R.and A. Salansi (2000) Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
3. Dornbusch, R.andF. Stanley (1997): Macroeconomics, McGraw Hill, Inc., New York.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE-VIII - PUBLIC FINANCE -I

Subject Code: 16PECOC08	Theory	Marks: 100
Semester: III	Credits 4	Total Hours : 90

Course Objectives
This paper enables the students to understand the basics of public finance and to solve the problems of public finance and their related issues.

Unit I: Public Finance: Introduction
Public Finance and Public Economics - Government in Mixed Economy – Public and Private Sectors – Cooperation or Competition – Role of Public Enterprises in India – Pricing Policies of Public Enterprises – Administered prices – Peak load pricing – Marginal cost pricing.

Unit II: Welfare Economics

Welfare foundation of public economics – Pareto optimality – Arrow's social welfare function – Majority Rule – Intensity of Preference – Transaction cost and non-market decision making - Market failures- Theory of Second best.

Unit III: Public Good and Taxation
Public goods and externalities, merit goods, Samuelson theory, free rider problem, Lindahl solution, Coasian theory, theory of clubs, median voter theorem, theory of rent seekingTaxation :Theories of Taxation — Concept of Excess Burden of Taxes – Classical and Modern views – direct Vs. Indirect taxes, efficiency and equity, dead weight loss (income tax, commodity tax)

Unit IV: Taxation and Public Debt
Taxation and labour supply, taxation and savings, risk-taking and wealth, general equilibrium (Herberger) models of tax incidence, theory of optimal taxation- Deficit Financing- Concept of Burden of Public debt – Compensatory aspect of debt policy – debt management

Unit V: Budgeting
Budgeting-type of budgeting-public budget, kinds of budgets, zero based budgetingprogramme and performance budgeting-Union and State government Budgets-Neutral and compensatory and functional finance-balanced budget multiplier.

Reference Books

1. Atkinson, A.B. and J.E. Siglitz (1980) : Lectures on Public Economics, Tata McGraw Hill, New York.

2. Auerbach, A.J. and M. Feldstern (Eds.) (1985): Handbook of Public Economics, Vol. I, North Holland, Amsterdam.
3. Buchanan, J.M. (1970): The Public Finances, Richard D. Irwin, Homewood.
4. Goode, R. (1986)Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE - IX INTERNATIONAL ECONOMICS – I

Subject Code: 16PECOC09	Theory	Marks: 100
Semester: III	Credits 4	Total Hours : 90

Course Objective
This paper enables the students to understand the basics of international economics and to solve the problems of international trade and policy and their related issues

Unit I: International Economics: Introduction
Nature and scope of International Economics: Pure theory of International Trade Theories of Absolute cost Advantage, Comparative cost Advantage theory and J.S.Mill's reciprocal theory. Neo Classical theory of Haberler, Opportunity cost Advantage theory. Basic concepts – Community indifference curves and Offer curves. Modern theory of International Trade – Heckscher - Ohlin contribution – factor price equalization theorem-factor prices and factor reversals – obstacles to factor price equalization.

Unit II: Measurement of Gains

Terms of Trade – different concepts of Terms of trade – Determinants of Terms of trade – static and dynamic gains from trade – Samuelson on gains from trade – Immiserising growth – Technical progress and trade – Hicksian graphical analysis – neutral, capital saving and labour saving technologies and its impact on terms of trade.

Unit III : Theory of Interventions
Tariffs and development-Impact of tariffs –partial and general equilibrium analysisPolitical economy of non-tariff barriers-quotas types-dumping and the economic rationale of dumping.

Unit IV: Foreign Capital

Role of foreign capital in economic development – issues in foreign capital in economic development – theory of direct investment – issues in foreign direct investment – Multinational Corporations – Transfers and Capital movements – interest rate and capital movements – foreign aid.

Unit V: Foreign Exchange Market
Introduction: structure and functions of foreign exchange market- methods of foreign payments - concepts of Spot and Forward exchange Rate - Determinants of Exchange Rate under Fixed and Flexible Exchange rate - Regime and Role of hedging in the determination of exchange rate - Theory of Interest Rate parity

Recommended Text

1. M.C.Vaish & Sudama Singh : International Economics, Oxford & IBH.
2. K.C.Rana and K.N.Verma(2004-05) :International Economics, Vishal Publishing Co. Jalandhar.
3. Francis Cherunilam (1998) : International Economics, 3rd Edition, TataMcGraw Hill Publishing company.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

ELECTIVE – IV - ECONOMICS OF DEVELOPMENT

Subject Code: 16PECOE05	Theory	Marks: 100
Semester: III	Credits 3	Total Hours : 90

Course Objective
This paper enables the students to understand the basics of development economics and to solve the problems of development economics and their related issues.

Unit I

Poverty, inequality, and Development – measuring inequality and poverty – poverty, inequality, and social welfare – Kuznets'inverted-U Hypothesis – Growth and inequality – Rural poverty – women and poverty – Ahluwalia – Chenery Welfare Index.

Unit II

Population Growth and Economic Development: Causes, consequences – and controversies – population growth and the quality of life – the causes of high fertility in developing countries – the consequences of High fertility – goals and objectives.

Unit III

Roles of Education and Health – Investing in education and health: the human capital approach – child labour – the gender gap: women and education – educational systems and development – health systems and development.

Unit IV

Agricultural Transformation and rural development – agricultural progress and rural development – the structure of agrian system in the developing world – the economics of agricultural development: transition – subsistence farming: Risk Aversion – improving small scale agriculture – conditions of rural development – macroeconomic instability, IMF stabilization policies and their critics.

Unit V
The nature of development planning and the role of the state – planning in mixed developing economics – the rationale for development planning – fiscal

policy for development – macrostability and resource mobilization – state owned enterprises. Military expenditures and economic development.

Recommended Text

1. Adelman, I (1961) : Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Michael P. Todaro and Stephen C. Smith (2003): Economic Development, Pearson Education Pte. Ltd., Singapore.

Reference Books:

1. Chakravarthy, S. (1982): Alternative Approaches to a theory of Economic Growth, Oxford UniversityPress.
2. Chakravarthy, S. (1989): Development Planning: The Indian Experience, Clarendon Press.
3. Chatak, S. (1986) An Introduction to Development Economics, Allen and Unwin.
4. Kindleberger, C.P. (1977) : Economic Development 3ed McGraw Hill.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	

Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

ELECTIVE – VI: HEALTH ECONOMICS

Subject Code: 16PECOE06	Theory	Marks: 100
Semester: IV	Credits 3	Total Hours : 90

Course Objective
This paper enables the students to understand the basics of health economics and to solve the problems of health economics and their related issues.

Unit – I: Introduction
Demand for Health and Health Care Welfare economics of medical care, production of health, demand for health and health care, equity, efficiency and the need, link between development and health, investing in health for economic development, public-private partnership and the role of state

Unit – II: Health Production Function
Nature of production function, different types of production function and their applications, national and international perspective, distributional inequities in opportunity and commercialization of medical and paramedical education, cost escalation in the health care system, easy access and availability to appropriate technology, need for regulation and control.

Unit – III: Health Care Incentives and Financing
Goals of health care provision and financing, competitive health insurance and risk adjustment, demand and supply of health insurance, asymmetric information and agency, market insurance, self-insurance and protection, employment based insurance, health insurance in India

Unit – IV: Measuring and Valuing Health Outcomes
Measurement of health state utilities, QALYs and its alternatives- different approaches of valuing health, multi-attribute utility instruments and their development

Unit – V: Health Care in India
Various health indicators and its recent trend, health care expenditures, target of health care and achievements, different options for financing healthcare, taxation, user fees, health insurance, role of urban and rural local bodies, role of non-governmental organizations, economic impact of HIV/AIDS in India and gender issues

Reference Books:
1. Folland, S., A.C. Goodman and M. Stano, Economics of Health and Health Care, fifth edition, Pearson Prentice Hall, 2006
2. Culyer, A. J. and J.P. Newhouse (eds.), Handbook of Health Economics, Volumes 1A & B, North-Holland, 2000
3. Zweifel, P., Health Economics, Oxford University Press, 1997
4. CII-Mckinsey Report, Healthcare in India: The Road Ahead, 2004.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions Theory	No. of Questions Problems
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

SEMESTER-IV

CORE-X: MACRO ECONOMICS – II

Subject Code: 16PECOC10	Theory	Marks: 100
Semester: IV	Credits 4	Total Hours : 75

Course Objective

This paper enables the students to understand the basics of macro economics and to solve the problems of macro economy and their related issues.

Unit I: The IS –LM Model

The neo-classical and Keynesian version of IS-LM models – Interaction of Real and Monetary Sector- Fiscal and Monetary Policy analysis in IS – LM model – Pigou effect and Real balance effect in IS-LM model – Trade policy in IS-LM models.

Unit II: Theory of Inflation and Unemployment

Theory of Inflation: Concept – Types – Categories, Excess demand Inflation Keynesian Income Expenditure approach, Inflationary gap –Phillips curve Controversy, Tobins modified Phillips Curve, Policies to control inflation- Natural Rate of Hypothesis and its implication of Monetary Policy.

Unit III: Business Cycle

Business Cycle: Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin model, Control of Business Cycles, relative Efficiency of Monetary and Fiscal Policies

Unit IV: Post – Keynesian Macro Economics

Walrasian and Keynesian Adjustment mechanism – Reinterpretation of Keynes – Dual Decision hypothesis - Neo-Keynesian quantity constraint models – micro theoretic foundation for wage and price rigidity – small menu cost – Efficient wage theory – staggered wage setting – insider – outsider model – models of coordination failure.

Unit V: Macro Economics in an Open Economy

Macro Economics is an open Economy, Mundell Flemming Model – New Classical Macro Economics –Policy Implications of New Classical Approach. Macro Economic Policy Goals, Full Employment – Price Stability – Economic Growth – Monetary and Fiscal Mechanism in the Indian Context.

Recommended Text:

1.   Branson, W.A. (1989): Macroeconomic Theory and Policy, (3rd Edition), Harper and
        Row, New York.
2.   Shapiro, E. (1996): Macroeconomic Analysis, Galgotia Publications, New Delhi.

Reference Books

1. Ackley, G. (1978) : Macroeconomics: Theory and Policy, Macmillan, New York.
2. Blackhouse, R.and A. Salansi (2000) Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
3. Dornbusch, R.andF. Stanley (1997): Macroeconomics, McGraw Hill, Inc., New York.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE– XI: PUBLIC FINANCE –II

Subject Code: 16PECOC11	Theory	Marks: 100

| Semester: IV | Credits 4 | Total Hours : 75 |

Course Objective
This paper enables the students to understand the basics of public finance and to solve the problems of public finance and their related issues.

Unit I: Public Policy
Demand revealing schemes for public goods – Contribution of Clarks, Groves and Leyard, Tiebout model, theory of club goods, stabilization policy – Keynesian case for stabilization policy: Uncertainty and expectations, Failure of inter – temporal markets.

UNIT II: PUBLIC EXPENDITURE
Public Expenditure – Wagner's Law – Wiseman – Peacock Hypothesis – Structure and Growth of Public Expenditure – Evaluation of Public expenditure – Cost Benefit Analysis – Shadow Prices – Discount Rate – Reforms in Public Expenditure –Performance Budgeting – Programme Budgeting - Zero Base Budgeting – Appraisal of Public Expenditure Policy in India.

Unit III: Fiscal Federalism
Fiscal federalism: Theories of Fiscal Federalism- Concepts of Deficits – Deficit Financing – Budget Deficit – Issues of Equity and Efficiency – Designing Equalisation transfers – Conditional and Unconditional grands.

Unit IV: Indian Fiscal Federalism
Indian federalism- Tax assignments to Centre and States-–Particular Taxes – Personal income Tax – Corporation Income Tax – Capital Gains Tax –Union Excise Duties - MANVAT, MODVAT –VAT –Service tax; Tax Evasion –State Taxes- Appraisal of Tax Policies of India-Goods; tax reforms in India-Goods and services tax.

Unit V: Fiscal Policy
Objectives – Fiscal and monetary policies – Fiscal policy for stabilization – Automatic Vs Discretionary stabilization – Alternative measures of Resource mobilization and their impact on growth, distribution and prices.

Recommended Text:

1.   Bhargava (2004) : Public finance, Its Theory and working in India, Chaitanya Publishing House.
2.   Musgrave, R.A. (1959): The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo
3.   Musgrave, R.A. and P.B. Musgrave (1976) : Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.

Reference Books

1.   Atkinson, A.B. and J.E. Siglitz (1980) : Lectures on Public Economics, Tata McGraw Hill, New York.

2.   Auerbach, A.J. and M. Feldstern (Eds.) (1985): Handbook of Public Economics, Vol. I, North Holland, Amsterdam.
3.   Buchanan, J.M. (1970): The Public Finances, Richard D. Irwin,   Homewood.
4.   Goode, R. (1986)Government Finance in Developing Coutnries, Tata McGraw Hill, New Delhi.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE - XII: INTERNATIONAL ECONOMICS – II

Subject Code: 16PECOC12	Theory	Marks: 100
Semester: IV	Credits 4	Total Hours : 75

Course Objective
This paper enables the students to understand the basics of international economics and to solve the problems of international trade and policy and their related issues.

Unit I: Balance of Payment
Balance of Payment and National Income – foreign trade multiplier and National Income – Repercussions of Balance of payment disequilibrium and stability problem – BOP and exchange rate determination – Purchasing Power Parity Theory – fixed versus flexible exchange rate system – developments in international monetary system. Balance of Payment and disequilibrium - Balance of Payment disequilibrium and corrective measures – Automatic mechanisms under fixed and flexible exchange rates – Recent developments in exchange rate management.

Unit II: Balance of Payment (Continued)
Devaluation: elasticity approach, income absorption approach –monetary approach – exchange controls – means of achieving internal and external equilibrium – Fiscal and monetary mix.

Unit III: The Theory of Regional Blocks
Forms of economic cooperation - Reforms for the emergence of trading blocks at the global level – Static and dynamic effects of a customs union and free trade areas – Rationale and economic progress of SAARC/SAPTA and ASEAN regions – Problems and prospects of forming a customs union in the Asian Region – European Union – Functions of GATT/WTO (TRIPs/TRIMs) – UNCTAD – IMF – World Bank and Asian Development Bank – Their achievements and failures.

Unit IV: International Monetary System:
International Monetary System: Problems in International Monetary System – International debt - International Liquidity – I.M.F. and Special Drawing Rights – Euro-dollar market. – Recent developments and issues in regional common currencies.

Unit V: Alternative Theories of Trade
Alternative theories of Trade – Economies of Scale, Imperfect competition and International trade. Monopolistic competition –Technology imitation gaps and Product cycles

Recommended Text

1.   M.C.Vaish & Sudama Singh : International Economics, Oxford &   IBH.
2.   K.C.Rana and K.N.Verma(2004-05)   :International Economics, Vishal Publishing Co. Jalandhar,.
3.   Francis Cherunilam (1998) : International Economics, 3rd   Edition, TataMcGraw Hill Publishing company.

Reference Books:

1.   Bo Sodersten.(1980): International Economics.
2.   Kindleberger, C.P.: International Economics, 5th Edition.

3.	Paul R. Krugman and	Maurice Obstfed (2005)	: International Economics Theory and Policy, 6th Edition, Pearson Education.
4.	Bhagawati. J, : International Economics.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions Theory	No. of Questions Problems
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE–XIII: MONETARY ECONOMICS

Subject Code: 16PECOC13	Theory	Marks: 100
Semester: IV	Credits 4	Total Hours : 75

Course Objective

This paper enables the students to understand the basics of monetary economics and to solve the problems of monetary economic theory and their related issues.

Unit I

Money in Macro Economy: The Classical Approach; The Keynesian Approach: Post – Keynesian Developments – Empirical Evidence.

Unit II

The Demand for Money: The Classical Approach: The Keynesian Approach: Post – Keynesian Developments – Empirical Evidence.

Unit III

The Supply of Money: The Classical version; The New View of James Tobin – Theories of Interests – Monetary Policy.

Unit IV

Monetary System in India - Financial Intermediaries: Implications for the Theory and Policy of Money.

Unit V

International Monetary System: Problems and Prospects.

Recommended Text:

1.   Vaish. M.C. (1995)   : Monetary Theory, Ratan Prakashan Mandir
2.   Sundaram. K.P.M. (2000)   : Money, Banking and international Trade, Sultan and Chand, New Delhi.

Reference Books:

1.   Laidler, D.E.W.: The Demand for Money: Theories and Evidence, Allied publisher (Pvt) Ltd.
2.   Pierce, D.G. and Shaw, D.M. : Monetary Economics: Theories, Evidence and Policy. Butter Worths, London.
3.   Graham Bird : The International Monetary System and the Less Developed Countries.
4.   R.B.I.: Working of the Monetary System in India;   Report of Sukumoy Chakravarthy Committee, 1985.
5.   Aschiem, J. and   Hsich, Ching Yao: Macro Economics, Income and Monetary Theory, Charles Merrrill & Co, Ohio.
6.   Friedman, M: The Role of Monetary Policy, A.E.R.,   March 1968.
7.   Johnson, H.G.: Essays in Monetary Economics, Alien and Unwin, London.
8.   Report of the Committee on the Financial System 1991 – Narasimhan Committee.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total
Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions Theory	No. of Questions Problems
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE – XIV FINANCIAL ECONOMICS

Subject Code: 16PECOC14	Theory	Marks: 100
Semester: IV	Credits 4	Total Hours : 45

Course Objective

This paper enables the students to understand the basics of financial economics and to solve the problems of financial institutions and their related issues.

Unit I

Money market – **B**anks - regulation of working capital finance.

Unit II

Capital market – structure – characteristics – primary, secondary markets – market intermediaries, stock brokers, under writers – depository's credit rating agencies.

Unit III

Stock market system – trading, listing, regulation of stack market operations – market efficiency – NSE- OTC. Online trading system – SEBI Guidelines for capital issues – pricing – insider trading – investor protection.

Unit IV

Derivative markets – options and futures – trading system – pricing derivatives – risk hedging through derivatives – derivative market in India – its regulations.

Unit V

An over view of financial markets – legal and regulatory frame work – financial sector reforms – SEBI –SCRA- various segments of financial markets - Venture Capital Financing, Mutual Funds – finance information system(FIS).

Recommended Text
1.   Bhole : Financial Institutions and Markets, TMH.
2.   M.Y. Khan, (2001) : Financial Services, TMH.

Reference Books:
1.   Fabozzi, (2002): Foundations of Financial Markets and Institutions, Pearson Education, New Delhi.
2.   James C. Van Horne, (2002) : Financial Management and Policy,   Prentice Hall of India Pvt. Ltd. New Delhi.
3.   Kuchhal S.C. : Financial management : An Analytical and Conceptual Approach – Chaitanya publishing House, Allahabad.
4.   P.V. KulKarni : Financial management, Himalaya Publishing House.
5.   Panday, I.M.: Financial Management, Vikas Publishing House Pvt. Ltd.,
6.   Prasanna Chandra: Financial Management: Theory and Practice – Tata McGraw Hill Publishing Co. Ltd., New Delhi.

Question Paper Pattern:

Section	Question Component	Numbers	Marks	Total

Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
Section B	**Short Answer** Answer any 5 out of 8 questions (each in 300 words)	13-19	8	**40**
Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	
	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

CORE: XV GENDER ECONOMICS*

Subject Code: 16PECOC15	Theory	Marks: 100
Semester: IV	Credits 4	Total Hours : 45

Course Objective

This paper enables the students to understand the basics of gender economics and to solve the problems of gender and their related issues.

Unit - I: Introduction

Nature and Significance of Women Studies – Distinction between economic and Noneconomic Dimensions of Women Studies – Some key Concepts – Exploitation, Deprivation, oppression, Gender Display index and HDI, HPI and GEM

Unit - II : Theories of Woman Exploitation

Marx – Engel's Theory of Exploitation – Exchange theory and Exploitation – Perspectives of Gary. S Becker and Amartya Sen on Women Exploitation

Unit - III: International Concern for Women Development

Role of UNO and World bank in Women's Development – Significance of International Women's Year and Decade – International Conferences on Women

Unit - IV: Women and Economic development

Women contributions to economic development – Women in Agriculture and industry and in Services – development programmes for Empowering Women under India's Five Year Plans Unit - V : Women and Entrepreneurship Emergence and Growth of Women Entrepreneurship – Motivating factors – Role of State – progress and Performance of Women Entrepreneur Schemes – problems and prospects of Women Entrepreneurship.

Reference Books:
1.   Maithreyi Krishnaraj, Gender Population and Development
2.   R.K.Sen and Anita Banaerji, Women and Economic Development

Question Paper Pattern:

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Section A	**Definition/Principle** Answer any 10 out of 12 questions (each in 50 words)	1-12	2	**20**
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Section C	**Essay** Answer any 4 out of 6 questions (each in 1200 words)	20-25	10	**40**

Distribution of Questions:

Sections	Units	No. of Questions	
		Theory	**Problems**
Section A	Unit – 1	3	

	Unit – 2	2	
	Unit – 3	3	
	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	

ELECTIVE-V: COMPUTER APPLICATION IN ECONOMIC ANALYSIS
COMPUTER APPLICATION IN ECONOMIC ANALYSIS

Subject Code: 16PECOE07	Theory	Marks: 100
Semester: IV	Credits 3	Total Hours : 60

Course Objective

This paper enables the students to understand the basics of computer application in economics and to solve the application in economics and their related issues.

Unit – I

Brief History of Computer – Application of Computer in Business – Parts of Computer – Steps in Programming – Algorithms – Flow Charts – Overview of Operating Systems – Computer Languages.

Unit – II

MS Office – MS Word – MS Excel – MS Powerpoint – MS Outlook – MS Access

Unit – III

Introduction of E-Commerce – Electronic data Interchange B to C transaction – B to B transaction – Electronic Payment – Protocol – SET Secured Electronic Transaction – Certification of Authentication – Electronic cash payment.

Unit – IV

Introduction – Internet – Intranet – Security issues and solutions – Antivirus programmes – Email – Chat – Secured mails.

Unit - V

Business related packages like Tally, SPSS, Video Conferencing – Tele meeting, Tele fax, Net meeting, Voice mail.

Recommended Text

1.   Sanders, D.H. (1988): Computers Today, McGraw Hill (3 rd Edition),New York.
2.   Sinha, P.K. (1992)   : Computer Fundamentals, BPB Publications, New Delhi.
3.   Handbook of Statistical

Books for Reference

1.   Rajasekaran, S. (1986):   Numerical Methods in Science and Engineering, A.H. Wheeler, Allahabad.
2.   Rajasekaran, S. (1986): Numerical Methods in Science and Engineering, A.H. Wheeler, Allahabad.

3.   Sanders, D.H. (1988): Computers Today, McGraw Hill (3 rd Edition), New York.
4.   Sinha, P.K. (1992): Computer Fundamentals, BPB Publications, New Delhi.

Question Paper Pattern:

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Distribution of Questions:

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	Unit – 4	2	
	Unit – 5	2	
Section B	Unit – 1	2	
	Unit – 2	2	
	Unit – 3	2	
	Unit – 4	1	
	Unit – 5	1	
Section C	Unit – 1	1	
	Unit – 2	1	
	Unit – 3	2	
	Unit – 4	1	
	Unit - 5	1	