

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 2020-21 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- 2020-22 Batch

Semester	Part	Course Component	Subject Name	Credits	Hours	Internal	External	Total
Semester - I	I	Core – I	Micro Economics – I	4	6	50	50	100
	I	Core – II	Indian Economic Development - I	4	6	50	50	100
	I	Core – III	Research Methodology	4	6	50	50	100
	II	Elective – I	Energy Economics	3	6	50	50	100
	II	Elective – II	Mathematics for Economists - I	3	6	50	50	100
	IV	Soft Skills – I	Personality Enrichment	2			100	100
Total Credits -20, Total Hours/ week-30								
Semester - II	I	Core – IV	Micro Economics - II	4	6	50	50	100
	I	Core – V	Indian Economic Development - II	4	6	50	50	100
	I	Core – VI	Statistics for Economists	4	6	50	50	100
	II	Elective – III	Mathematics for Economists - II	3	6	50	50	100
	III	Extra Disciplinary – I	Environmental Economics	3	6	50	50	100
	IV	Soft Skills – II	Work Place Communication Skills	2			100	100
Total Credits -20, Total Hours/ week-30								
Semester - III	I	Core – VII	Macro Economics - I	4	6	50	50	100
	I	Core – VIII	Public Economics – I	4	6	50	50	100
	I	Core – IX	International Economics - I	4	6	50	50	100
	II	Elective – IV	Economics of Development	4	6	50	50	100
	III	Extra Disciplinary – II	Gender Economics	3	6	50	50	100
	IV	Soft Skills – III	Soft Skills – III	2			100	100
	IV	Internship	Internship	2			100	100
Total Credits -23, Total Hours/ week-30								
Semester - IV	I	Core – X	Macro Economics - II	4	6	50	50	100
	I	Core – XI	Public Economics - II	4	6	50	50	100
	I	Core – XII	International Economics - II	4	6	50	50	100
	I	Core – XIII	Monetary Economics	4	6	50	50	100
	II	Core-XIV & XV	Project Work	6	2		100	100
	II	Elective – V	Computer Application for Economics	4	4	50	50	100
	II	Soft Skills – IV	Soft Skills – IV	2			100	100
Total Credits -28, Total Hours/ week-30								
Grand Total Credits -91, Total Hours/ week-120								

SEMESTER – I

CORE-I MICRO ECONOMICS – I

SUBJECT CODE: 19PECO301	THEORY	MARKS: 100
SEMESTER: I	CREDITS: 4	TOTAL HOURS: 90

Objectives:

1. To understand and evaluate modern utility demand theories.

Unit I: Advances in Demand Theory

(18 Hrs.)

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

(18 Hrs.)

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

(18 Hrs.)

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

(18 Hrs.)

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

(18 Hrs.)

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.

PRESCRIBED TEXT BOOKS:

1. Koutsoyiannis. A. : Modern Microeconomics 2nd edition, Macmillan
2. Hal. R. Varian :Intermediate Micro Economics- Modern Approach, 4thedn, W.W. Narton& Company.
3. Salvatore – Micro Economics, 4/e, Oxford University Press, New Delhi, 2002.
4. Dewett.K.K – Micro Economics.

5. Jhingan M.L. and C.Murthy Micro Economics, Vrindha Publication, New Delhi, 2016.
6. W.J.Baumol and Alan Blinder – Micro Economics, Newyork University.

Reference Books

1. Jehle, G. and P. Reny (2001): Advanced Microeconomic Theory, Addison Wesley
2. Mas-Collel, A., M. Whinston and J. Green (1995): Microeconomic Theory, 2nd ed. Oxford University Press
3. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education, Inc., 8th 4. edition, 2007.
5. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South
6. Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th
7. edition, 2007.
8. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th edition, 2007.

WEB REFERENCES:

1. <https://www.khanacademy.org/economics-finance-domain/ap-microeconomics/basic-economic-concepts>
2. <https://www.cliffsnotes.com/study-guides/economics/introduction/economic-policy>

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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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: 19PECO302	THEORY	MARKS: 100
SEMESTER: I	CREDITS: 4	TOTAL HOURS: 90

Objectives:

1. To understand economic development environmental degradation in India.

Unit I: Resource Development in India (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 supply-M1, M2, M3, and M4; L1,L2 and L3.

Unit IV: Poverty and Unemployment (18 Hrs.) 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 (18 Hrs.)

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.

BOOKS FOR REFERENCE

1. Indian Economy: performance and policies - UMA KAPILA
2. India Economy since Independence - UMA KAPILA
3. RuddarDutt and KPM. Sundharam: Indian Economy

Question Paper Pattern:

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Section A	Definition/Principle Answer any 10 out of 12 questions (each in 50 words)	1-12	3	30
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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	

Core-III. RESEARCH METHODOLOGY

SUBJECT CODE: 19PECO303	THEORY	MARKS: 100
SEMESTER: I	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To familiarize the students in nature and scope and methods in research.

UNIT I: Introduction to Research Methodology (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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.

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		Theory	Problems
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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 ECONOMICS

SUBJECT CODE: 19PECO304	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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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.

Text 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 Pearce et al – Sustainable Development – Economics and Environment in the Third World (Earthscan Publications, London, 1990).

BOOKS FOR REFERENCES

1. Charles D. Kolstad (2003), Environmental Economics, Oxford University Press, New York.
2. Nick Hanley, Jason F. Shogren and Ben White (1999), Environmental Economics: In Theory and Practice, Macmillan India Limited, New Delhi.
3. Barry C. Field (1997), Environmental Economics: An Introduction, McGraw-Hill Companies, Singapore.
4. Ulaganathan Sankar (2008), Environmental Economics, Oxford University Press, New Delhi.
5. Rabindra N. Bhattacharya (2005), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
6. Katar Singh and Anil Shishodia (2007), Environmental Economics: Theory and Applications, Sage Publications, New Delhi.
7. Subhashini Muthukrishnan (2010), Economics of Environment, PHI Learning Private Limited, New Delhi.
8. Jhingan, M.L. and Chandar K. Sharma (2007), Environmental Economics: Theory, Management and Policy, Vrinda Publications (P) Ltd., Delhi.
9. A. Jonathan Lesser, Daniel E. Dodds and Richard O. Zerbe Jr. (1997), Environmental Economics and Policy, Addison-Wesley Ltd., New York.
10. Anil Markandya and Julie Richardson (eds.) (1992), the Earthscan Reader in Environmental Economics, Earthscan Publications Ltd., London.
11. M.V. Joshi (2001), Theories and Approaches of Environmental Economics, Atlantic Publishers and Distributors, New Delhi.

Question Paper Pattern:

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Section A	Definition/Principle Answer any 10 out of 12 questions (each in 50 words)	1-12	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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 – II: MATHEMATICS FOR ECONOMISTS – I

SUBJECT CODE: 19PECO305	THEORY	MARKS: 100
SEMESTER: I	CREDITS: 3	TOTAL HOURS: 90

Objectives

- To familiarize the students in mathematical models with solved application

UNIT I: Set Theory and Economics (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 and Company 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.
6. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002
7. Monga, G.S. Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi, 1972.

Journals:

1. Journal of Applied Mathematics
2. Journal of Mathematical Economics

Question Paper Pattern:

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Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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	
		Theor y	Problem s
Section A	Unit – 1	1	1
	Unit – 2	2	1
	Unit – 3	1	1
	Unit – 4	2	1
	Unit – 5	1	1
Section B	Unit – 1	1	
	Unit – 2	1	1
	Unit – 3	1	1
	Unit – 4	1	1
	Unit – 5	1	
Section C	Unit – 1	0	
	Unit – 2	0	1
	Unit – 3	1	1
	Unit – 4	0	1
	Unit - 5	1	1

SEMESTER - II

CORE –IV: MICRO ECONOMICS – II

SUBJECT CODE: 19PECO306	THEORY	MARKS: 100
SEMESTER: II	CREDITS: 4	TOTAL HOURS: 90

Objectives: To understand the students to analyze different modern theories of firm.

Unit I: Modern Theories of the Firm

(18 Hrs.)

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

(18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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. Norton & 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.
5. Jack Hirschleifer (1980) : Price Theory and Applications, 2nd Edition, Macmillan
6. Richard, H. Leftwich : The Price System and Resource Allocation.

Question Paper Pattern:

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Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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: 19PECO307	THEORY	MARKS: 100
SEMESTER: II	CREDITS: 4	TOTAL HOURS: 90

Objectives

- To familiarize the students in agricultural price policy, agricultural credit, food security and PDS.

Unit I: Agriculture (18 Hrs.)

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 (18 Hrs.)

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.

Unit III: Population and Human Development (18 Hrs.)

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 (18 Hrs.)

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: (18 Hrs.)

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. Chakravarthi : 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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		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: 19PECO308	THEORY	MARKS: 100
SEMESTER: II	CREDITS: 4	TOTAL HOURS: 90

Objectives: • To understand the students how to apply probability theory in economics.

UNIT I: Introduction to Probability Distribution (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (χ^2 test) and one-way ANOVA.

UNIT IV: Bi-variate Analysis (18 Hrs.)

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: Multi-variate Analysis Techniques (18 Hrs.)

Multivariate analysis of Variance (ANOVA) and Covariance – Multiple correlation and regression – Conjoint Analysis - Factor analysis – Cluster analysis - test of multinomial experiment – Multidimensional Scaling

Recommended Text:

1. Gupta .S.P. Statistical Methods, Sultan Chand and Sons, New Delhi, 2005
2. Sancheti. DC and Kapoor .VK Statistical Theory-Method and Application, Sultan Chand and Sons, New Delhi, 2005.
3. Shukla .MC & Gulshan.SS, Statistical Theory and Practice. Sultan Chand and Sons, New Delhi, 2000.2. 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. J. Devore: Probability and Statistics for Engineers, 8th ed., Cengage Learning (2012)

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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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	
		Theor y	Proble m s
Section A	Unit – 1	1	1
	Unit – 2	2	1
	Unit – 3	1	1
	Unit – 4	2	1
	Unit – 5	1	1
Section B	Unit – 1	1	
	Unit – 2	1	1
	Unit – 3	1	1
	Unit – 4	1	1
	Unit – 5	1	
Section C	Unit – 1	0	
	Unit – 2	0	1
	Unit – 3	1	1
	Unit – 4	0	1
	Unit – 5	1	1

ELECTIVE – III: MATHEMATICS FOR ECONOMISTS – II

SUBJECT CODE: 19PECO309	THEORY	MARKS: 100
SEMESTER: II	CREDITS: 3	TOTAL HOURS: 90

Objectives:

- To understand the students to analyse Lagrange multiplier method in utility, cost and profit maximization.

UNIT I: Calculus of multivariable functions (18 Hrs.)

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 (18 Hrs.)

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.

UNIT III: Input - Output Analysis and Linear programming (18 Hrs.)

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 (18 Hrs.) 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 (18 Hrs.)

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

1. Edward. T. Dowling: Mathematics for Economists, McGraw – Hill Book Company.
2. Mehta V.L. & Madhani : 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.
6. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002
7. Monga, G.S. Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi, 1972.

Journals:

1. Journal of Applied Mathematics
2. Journal of Mathematical 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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	
		Theor y	Problem s
Section A	Unit – 1	1	1
	Unit – 2	2	1
	Unit – 3	1	1
	Unit – 4	2	1
	Unit – 5	1	1
Section B	Unit – 1	1	
	Unit – 2	1	1
	Unit – 3	1	1
	Unit – 4	1	1
	Unit – 5	1	
Section C	Unit – 1	0	
	Unit – 2	0	1
	Unit – 3	1	1
	Unit – 4	0	1
	Unit - 5	1	1

EXTRA DISCIPLINARY – I - ENVIRONMENTAL ECONOMICS

SUBJECT CODE: 19PECO310	THEORY	MARKS: 100
SEMESTER: II	CREDITS: 3	TOTAL HOURS: 90

Objectives:

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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

Unit – IV: Cost Benefit Analysis (18 Hrs.)

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 (18 Hrs.)

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. Charles D. Kolstad (2003), Environmental Economics, Oxford University Press, New York.
2. Nick Hanley, Jason F. Shogren and Ben White (1999), Environmental Economics: In Theory and Practice, Macmillan India Limited, New Delhi.
3. Barry C. Field (1997), Environmental Economics: An Introduction, McGraw-Hill Companies, Singapore.
4. Ulaganathan Sankar (2008), Environmental Economics, Oxford University Press, New Delhi.
5. Rabindra N. Bhattacharya (2005), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
6. Katar Singh and Anil Shishodia (2007), Environmental Economics: Theory and Applications, Sage Publications, New Delhi.
7. Subhashini Muthukrishnan (2010), Economics of Environment, PHI Learning Private Limited, New Delhi.
8. Jhingan, M.L. and Chandar K. Sharma (2007), Environmental Economics: Theory, Management and Policy, Vrinda Publications (P) Ltd., Delhi.
9. A. Jonathan Lesser, Daniel E. Dodds and Richard O. Zerbe Jr. (1997), Environmental Economics and Policy, Addison-Wesley Ltd., New York.

10. Anil Markandya and Julie Richardson (eds.) (1992), the Earthscan Reader in Environmental Economics, Earthscan Publications Ltd., London.
11. M.V. Joshi (2001), Theories and Approaches of Environmental Economics, Atlantic Publishers and Distributors, 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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: 19PECO311	THEORY	MARKS: 100
SEMESTER: III	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To provide an analytical skill on the theories of consumption function, income and employment, understand the students on how the money is being circulated in an economy. Demand and supply of money.

Unit I: Key Macro Economic Variables (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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.
3. M. L. Jhingan and C. Murthy (2017): Macro Economics, Vrindha Publications, New Delhi

4. R.and A. Salansi (2000) - Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
5. Dornbusch, R.andF. Stanley (1997) - Macroeconomics, McGraw Hill, Inc., New York.
6. Heijdra, B.J. and V.P. Fredericck (2001) - Foundations of Modern Macroeconomics, Oxford University Press, 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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 ECONOMICS -I

SUBJECT CODE: 19PECO312	THEORY	MARKS: 100
SEMESTER: III	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To understand the role of public enterprises in India and analyse different pricing policies followed in public enterprises.

Unit I: Public Finance: Introduction (15 Hrs.)

Meaning and Definition of Public finance- Scope of Public Finance - Similarities and dissimilarities of Public and private finance- Market failure-imperfection - indivisibility- spill over benefit and spill over cost –Externalities - Role of government in Economic Activity

Unit II: Inter- sector al Allocation and Public Choices (15 Hrs.)

Private & public mechanism for allocating resources; types of goods and their characteristics -Private, Public and Merit goods – Principle of maximum social advantage - Public choice-Unanimity-Relative Unanimity-the medium voter theorem-Arrow’s impossibility theorem

Unit III: Theories of public expenditure: (15 Hrs.)

Meaning of Public Expenditure- Classification of Public - Expenditure-Causes of Increase in Public Expenditure- Importance of Public Expenditure – Canons of Public Expenditure-Effects of Public Expenditure-Wagner’s law of Public Expenditure-Wiseman - Peacock Hypothesis on Public Expenditure-Prof. Samuelson’s Pure Theory of Public Expenditure - Trends of Public Expenditure in India

Unit IV: Public Revenue and Theories of taxation (15 Hrs.)

Meaning and Definition of Public Revenue- Sources of Public Revenue-classification of Public Revenue - Meaning and definition of Tax-Characteristics of Tax-Objectives of tax- canons of Taxation- Classification of Taxes- Direct and Indirect Tax, its meaning and merits and demerits of direct and indirect tax – Laffer Curve- Characteristics of Good tax system- Tax Incidence- effects of Taxes. Theories of Taxation – Erik Lindhall’s Theory of Voluntary Exchange-Howard Bowen’s Theory

Unit V: Public Debt (15 Hrs.)

Meaning and Definition Public debt- Objectives of Public debt- Difference between Public debt and private debt -Classification of Public debt –Sources of Public debt – Redemption of Public debt –Effects of Public debt - Principles of Public debt - Burden of Public debt – Trends of Public debt in India.

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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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: 19PECO313	THEORY	MARKS: 100
SEMESTER: III	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To understand and analyse the different international trade theories.

Unit I: International Economics: Introduction (18 Hrs.)

Concept of Inter-regional and International Trade - Theory of Comparative Advantage, Hecksher-Ohlin Theory of trade - Factor Endowment and Factor Price - Leontief Paradox - Empirical verification and relevance of Theories - International Trade under Imperfect Competition

Unit II: Terms of Trade and Economic Growth (18 Hrs.)

Terms of Trade and Economic Growth - Secular determination of terms of trade hypothesis: a critical review - International trade as an engine of growth - Gains from Trade and LDCs - Foreign Trade Multiplier: Trade and Labour Skills Theory by Donald Kessing - Research and Development factor and Structure of Commodity Trade (By Gruber, Mehta and Vernon)

Unit III: Measurement of Gains from Trade (18 Hrs.)

Measurement of Gains from Trade; Concepts of Terms of trade - their uses and limitation - Factors affecting Terms of Trade - Impact of Tariffs - Political economy of Non- tariff Barriers - Trade and Development - Trade as engine of growth - Two Gap analysis: views of Prebisch, Singer and Myrdal.

Unit IV: Balance of Trade and Balance of Payment (18 Hrs.)

Meaning and concepts of Balance of Trade and Balance of Payment - Equilibrium and Disequilibrium in Balance of Payment - The process of adjustment under systems of Gold Standard - Steps to Correct imbalance of payments - traditional and monetary approaches for adjustment in the Balance of Payment - Theory of international reserves - Theory of Foreign Exchange Rate - Purchasing Power Parity Theory – fixed versus flexible exchange rate system

Unit V: Theory of Interventions (18 Hrs.)

Tariffs and development-Impact of tariffs –partial and general equilibrium analysis- Political economy of non-tariff barriers-quotas types-dumping and the economic rationale of dumping.

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.
4. International trade theory and policy – Giancarlo Gandolfo
5. International Economics: Miltiades Chacholiades
6. International Economics – K.C.Rana and K.C.Verma
7. International Economics Francis cherunilam

8. Krugman, P.R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
- Sodirston, Bo. (1991), International Economics, The Macmillan Press Ltd. London.
9. Dana, M.S. (2000), International Economics: Study, Guide and Work Book, (5th Edition), Routledge Publishers, London.

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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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: 19PECO314	THEORY	MARKS: 100
SEMESTER: III	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To familiarize the students to analyse kuznet's inverted U- hypothesis and welfare of Index.

Unit I (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

Agricultural Transformation and rural development – agricultural progress and rural development – the structure of agrarian 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 (18 Hrs.)

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.
3. Thirillwall, A.P. (1978) : Growth and Development, 2ed. Macmillan

Reference Books:

1. Chakravarthy, S. (1982): Alternative Approaches to a theory of Economic Growth, Oxford University Press.

2. Chakravarty, 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.
5. Basu, Kaushik (2003): Analytical development economics: The less developed economy revisited, MIT Press Cambridge.
6. Meier, G.M. and J.E.Rauch (2005), Leading Issues in Economic Development, (8th Edition), Oxford University Press, New Delhi.

□□ Sen, A.K. (Ed.) (1990), Growth Economics, Penguin, Harmondsworth.

□□ Todaro, M.P. and S.C. Smith (2003), (8th Edition), Economic Development, Pearson Education, 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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	

EXTRA DISCIPLINARY – II: GENDER ECONOMICS

SUBJECT CODE: 19PECO315	THEORY	MARKS: 100
SEMESTER: III	CREDITS: 3	TOTAL HOURS: 90

Objectives:

- To understand the students to demonstrate the significance of women studies in socio-Economic development.

Unit - I: Introduction of Gender Economics (20 Hrs.)

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

Unit - II: Theories of Woman Exploitation (25 Hrs.)

Need for theories of women exploitation – Marx and 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 (20 Hrs.)

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 (25 Hrs.)

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
3. Boserup E. (1970), Women's Role in Economic Development, George Allen and Unwin, London.
4. Desai, N. and M.K. Raj (Eds.) (1979), Women and Society in India, Research Center for
5. Women Studies, SNDT University, Bombay
6. Government of India (1974), Towards Equality – Report of the Committee on the Status of
7. Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.

8 Krishnaraj, M., R.M. Sudarshan and A. Shariff (1999), Gender, Population and Development, Oxford University Press, New Delhi.

9. Seth, M. (2000), Women and Development: The Indian Experience, Sage Publications, New Delhi.

10 Wazir, R. (2000), The Gender Gap in Basic Education: NGOs as Change Agents, Sage Publications, 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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 – IV

CORE-X: MACRO ECONOMICS – II

SUBJECT CODE: 19PECO316	THEORY	MARKS: 100
SEMESTER: IV	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To analyse the usage of IS-LM in determining equilibrium of an economy and evaluate the applicability of IS-LM in international trade

Unit I: The IS –LM Model (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

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 (18 Hrs.)

Macro Economics in 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.
3. M. L. Jhingan and C. Murthy (2017): Macro Economics, Vrindha 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. and F. 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	3	30
Section B	Short Answer Answer any 5 out of 8 questions (each in 300 words)	13-19	6	30
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 ECONOMICS-II

SUBJECT CODE: 19PECO317	THEORY	MARKS: 100
SEMESTER: IV	CREDITS: 4	TOTAL HOURS: 90

Objectives

- To understand and evaluate demand revealing schemes of public goods find out applicability of Keynesian case for stabilization.

Unit I: Budget

(18 Hrs.)

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

UNIT II: Fiscal Policy

(18 Hrs.)

Fiscal Policy: Meaning and definition of Fiscal policy- Objectives of Fiscal policy – Instruments of Fiscal policy – role of fiscal policy in controlling inflation - fiscal policy for full employment – limitations of fiscal policy – fiscal reforms in India.

Unit III: Theories of Fiscal Federalism

(18 Hrs.)

Meaning of Federal Finance- Principles of Federal Finance - Theories of Fiscal Federalism- Concepts of Deficits – Deficit Financing – Budget Deficit – Issues of Equity and Efficiency – Designing Equalisation transfers – Conditional and Unconditional grants

Unit IV: Indian Federalism System

(18 Hrs.)

Indian federalism system - Problems of Centre-State Financial relations in India-Imbalance between fiscal Needs and Capacity- Indian federal finance - Finance commission and recommendation of latest Finance commission.

Unit V: Goods and Service Tax (GST)

(18 Hrs.)

Introduction to GST – Meaning, evolution of GST – Salient features of GST - Structures and functions of GST Council - Stages of GST – Issues and Challenges of GST in India – Pro and Cons of GST

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 Countries, Tata McGraw Hill, New Delhi.

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	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: 19PECO318	THEORY	MARKS: 100
SEMESTER: IV	CREDITS: 4	TOTAL HOURS: 90

Objectives

- To demonstrate the developments in International monetary system.

Unit I: Foreign Capital

(18 Hrs.)

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 II: Foreign Exchange Market

(18 Hrs.)

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

Unit III: The Theory of Regional Blocks

(18 Hrs.)

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:

(18 Hrs.) 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

(18 Hrs.)

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 Obstfeld (2005) : International Economics Theory and Policy, 6th Edition, Pearson Education.
4. Bhagwati. J. : International Economics.

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	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: 19PECO319	THEORY	MARKS: 100
SEMESTER: IV	CREDITS: 4	TOTAL HOURS: 90

Objectives:

- To demonstrate the role of money in Keynesian and Post-Keynesian approach

Unit I : Money in Macro Economy (18 Hrs.)

Major issues in Monetary theory - The Classical Approach; Fishers Equation - The Keynesian Approach: Keynes Reformulated Quantity Theory of Money – Critical Evaluation of Keynes Theory of Money and Price - Post – Keynesian Developments: Friedman theory – Empirical Evidence.

Unit II: The Demand for Money (18 Hrs.)

Classical and Neo-Classical Theories of Money: Early Versions. Pigou and Cambridge School, etc., The Dichotomy between the Monetary Theory and Value Theory; Patinkin’s Critique of Neo-Classical Theory. - Money in Keynesian Framework: Liquidity Preference (L-P) Theory and Further Developments in L-P Approach; Tobin, Boumal Models- Friedman, New Monetarism and its Critique

Unit III: The Supply of Money (18 Hrs.)

Monetary Aggregates, Liquidity Aggregates and Divisia Index - H-Theory of Money Supply - Money Multiplier Process and Factors Affecting H - Exogeneity of Money Supply - Money Supply in India: its Components and Trends

Unit IV: Development Financial Institutions (18 Hrs.)

Role, Growth and Structure of Development Financial Institutions in India - Types and Control of Non - Banking Financial Companies (NBFCs) by RBI- International Monetary System: IMF and International Liquidity. European Monetary System – Features of the Maastricht Treaty and Post Maastricht Treaty Developments.

Unit V: Monetary Management and Monetary Policy (18 Hrs.)

Monetary Management – Rules vs. Discretion - Price Targeting vs inflation Targeting vs Exchange Rate Targeting - Monetary Policy – Challenges before Reserve Bank of India - Difficulties of Controlling Money Supply in an open Economy - Further Issues of Monetary Policy and Monetary Management in India

Recommended Text:

1. Jadhav N., Monetary Economics for India, Macmillan India Ltd., 1994
2. Gupta S.B., Monetary Economics: Institutions, Theory and Policy, 1982

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. R.B.I.: Working of the Monetary System in India; Report of Sukumoy Chakravarty Committee, 1985.
4. Aschier, J. and Hsich, Ching Yao: Macro Economics, Income and Monetary Theory, Charles Merrill & Co, Ohio.
5. Report of the Committee on the Financial System 1991 – Narasimhan Committee.

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Introduced Project work in lieu of two papers

(Paper –XIV and Paper – XV)

ELECTIVE-V: COMPUTER APPLICATION IN ECONOMIC ANALYSIS

SUBJECT CODE: 19PECO321	THEORY	MARKS: 100
SEMESTER: IV	CREDITS: 3	TOTAL HOURS: 60

Objectives:

To know the economics application in computer. To understand the use of computer tools in the analysis of statistical and mathematical methods in economics.

Unit – I (12 Hrs.)

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 (12 Hrs.)

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

Unit – III (12 Hrs.)

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 (12 Hrs.)

Introduction – Internet – Intranet – Security issues and solutions – Antivirus programmes – E- mail – Chat – Secured mails.

Unit – V (12 Hrs.)

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
4. Trasa Bradley, Mathematical Economics

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.

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