Course Structure for MA Economics under New Pattern of CBCS For the Session 2021-22 onwards

Total Courses from within the Department of 6 credit each:	**16**
Courses from Swayam of 4 credits	**1**
Open choice Course from other Departments of 4 credits each:	**1**
From courses within the Department of Economics:	**96 Credits**
From Swayam and Open Choice courses in other Departments:	**8 Credits**
Total Credits:	**104 Credits**

The Programme Structure and the Credits for M. A Economics be also modified as under:

Total Credit	104
Credits to be earned from the Programme	96
Foundation, Core and Elective Courses **(Based on intensive innovative and participatory teaching and learning including tutorials and seminar presentation)**	6 credit each
Credits to be earned from courses offered by other departments/Swayam	8
Credits of course open for students throughSwayam in Semester III and one offered by other departments, but not available for students of their own Programme in Semester IV	One course of 4 credits in Semester III & IV

Programme Structure: M.A (Economics). Foundation, Core and Elective Courses of 6 Credit each

Semester I (All Compulsory)		Semester II (All Compulsory)	
Foundation Courses i. Microeconomics : PSECTC101 ii. Macroeconomics : PSECTC102 **Core Courses** iii. Mathematical Methods in Economics: PSECTC103 iv. Development Economics : PSECTC104		**Core Courses** i. Advanced Microeconomics : PSECTC201 ii. Advanced Macroeconomics : PSECTC202 iii. Statistical Methods : PSECTC203 iv. Indian Economic Policy : PSECTC204	

Semester III		Semester IV	
Core Courses **(Compulsory)** i. International Economics : PSECTC301 ii. Theory of Economic Growth : PSECTC302 **Swayam Course** i. One Swayam Course		**Open Choice Courses** i. Indian Economic Policy and Planning : PSECTO418 ii. Financial Institutions and Markets : PSECTO419 **Elective Course (Stream A)** **(One course to be opted)** i. International Political Economy : PSECTE401 ii. Demography and Climate Change : PSECTE402 iii. Urban Economics : PSECTE403	**Elective Course (Stream B)** **(One course to be opted)** i. Public Economics : PSECTE404 ii. Economics of Capital Market : PSECTE405 iii. Economics of Innovation : PSECTE406 iv Health Economics and Policy : PSECTE407

| Elective Course (Stream A)
 (One course to be opted)
 i. Demography: PSECTE303 <br> ii. Industrial Economics : PSECTE304 <br> iii. Transport Economics : PSECTE305 <br> iv. Econometrics ó I : PSECTE306 | Elective Course (Stream B)
 (One course to be opted)
 i. Environmental Economics : PSECTE307 <br> iii. Financial Economics : PSECTE308 <br> iii. Agricultural Economics : PSECTE309 <br> iv. Mathematical Economics : PSECTE310
 v. History of Economic Thoughts :PSECTE313 | Elective Course (Stream C)
 (One course to be opted)
 i. Energy Economics : PSECTE408 <br> ii. Indian Industry : PSECTE409 <br> iii. Asian Economic Development : PSECTE410 <br> iv. Econometrics ó II : PSECTE411 <br> v Urban and Regional Economics : PSECTE412 | Elective Course (Stream D)
 (One course to be opted)
 i. Natural Resource Economics : PSECTE413 <br> ii. LabourEconomics : PSECTE414 <br> iii. Indian Agriculture : PSECTE415 <br> iv. Economics of Gender : PSECTE416
 v. Theory of Games and Information : PSECTE417 <br> vi. Research Methodology : PSECTE420 |

NOTE:

A student may take Econometrics - II only if he/she has already Econometrics - I, in the previous semester.

In semesters III and IV the student has to choose one Elective Course from each stream. In addition, he/she has to choose one course through Swayam portal in Semester III and one Open Course in Semester IV from courses offered by other Departments.

** Open Course, available only for students enrolled in other Programmes.

Open Choice Courses in IV Semester
i. Indian Economic Policy and Planning : PSECTO418
ii. Financial Institutions and Markets : PSECTO419

Programme Outcomes

At the end of the M.A Economics programme, the student will have acquired the following things

PO1: Development of Critical insight and building rational thinking.

PO2: Develop and demonstrate required skills to get absorb in job market

PO3: Acquaintance with different ICT tools and their use in modern era.

PO4: Acquire the skills to think locally but act globally.

PO5: Cultivate the aptitude for future research and development in an ethical way.

PO6: Discover and distinguish different economic viewpoints and draw own inferences.

PO7: Adapt and become ardent towards Gender equality.

PO8: Demonstrate and built an Environment sensitive aptitude.

Programme Specific Outcome

After the completion of the M.A Economics (Two Years Degree Programme), the student will be able to

PSO 1: Assess economics as a unified whole, rather than as a series of disconnected ideas.

PSO2: Appreciate the relevance and limitations of the theories and principles of economics.

PSO3: Identify, choose and master in the specialized field of economics.

PSO4: Identify different international, national, regional and local economic issues and problems and carry out independent research.

PSO5: Use different statistical tools and techniques and shall collect the data, analyze and draw inferences about various statistical hypotheses.

PSO6: List and formulate different theoretical as well as empirical issues relating to Economic growth and development.

PSO7: Evaluate different government policies and comprehend how economic theory and practice fits into the larger socio- economic and environmental goals.

Semester I

Foundation Courses

Detailed Syllabus

Course No: PSECTC101 **Title: Microeconomics**
Credits: 6 **Maximum Marks: 100**
  a) Major Examination: 60
  b) Minor Tests- I & II: 20 each

Duration of Major Examination: 3:00 hrs

Syllabus for the Examination to be held in December 2021to December 2023

Course Outcome:
- To understand economics as a coherent whole, and to reinforce its usefulness through the applications to the real-world problems and their solutions.
- To learn demand and supply phenomena, consumer and producer behaviour, and the markets and itøs functioning.
- To equip students to characterize the market (decide which market or markets best suit the problem being analyzed, and identify the decision makers - buyers and sellers who interact there.
- To enable students to describe the conditions necessary for equilibrium in the market, and a method for determining that equilibrium.
- To enable students to determine and explore how events or government policies change the market equilibrium.
- To help the students learn how to think like economists, and in a very natural way so that they see economics as a unified whole, rather than as a series of disconnected ideas.

UNIT – I: Theory of Demand and Supply

Scarcity and Individual Choice, Opportunity Cost, Scarcity and Social Choice, Opportunity Cost and Societyøs Trade Offs, Societyøs Production Choices, Production Possibilities Frontier and Opportunity Cost, Operating Inside Production Possibilities Frontier, Resource Allocation: Reasons and Methods, Market and its Characteristics, Law of Demand, Law of Supply, Equilibrium Price and Quantity, Equilibrium with Change in Demand and Supply

Elasticity of Demand, Price Elasticity of Demand, Slope of Demand Curve, Elasticity Approach: Calculating Price Elasticity of Demand, Categorizing Demand, Elasticity and Straight-Line Demand Curves, Elasticity and Total Revenue, Determinants of Elasticity, Time Horizons and Demand Curves, Income Elasticity of Demand, Cross-Price Elasticity of Demand, Price Elasticity of Supply

UNIT – II: Theory of Consumer Behaviour

Consumer Choice: Budget Constraint, Changes in Budget Line, Consumer Preferences, Consumer Decisions: Marginal Utility Approach, Combining Budget Constraint and Preferences, Consumer Decisions with Change in Income and Price, Consumer's Demand Curve, Income and Substitution Effects, Consumers in Markets

Indifference Curve Approach: Indifference Curve and Marginal Rate of Substitution, Properties of Indifference Curve, Indifference Map, Indifference Curve and Consumer Decision Making, Change in Income and Consumer Decisions, Deriving Demand Curve with Indifference Curves, Consumer Decision and Revealed Preference Approach, Consumer Surplus

UNIT – III: Theory of Production and Cost

Production Function, Short-Run versus Long-Run Production Decisions, Production in Short Run, Marginal Returns to Labour, Concept of Cost, Sunk Costs, Explicit versus Implicit Costs, Cost in Short Run: Measuring Short-Run Costs, Shape of Marginal Cost Curve, Relationship between Average and Marginal Costs, Production and Cost in Long Run, Relationship between Long-Run and Short-Run Costs, Explaining the Shape of *LRATC* Curve

Concept of Isoquant and its Properties, Marginal Rate of Technical Substitution, Isocost Lines, Properties of Isocost Lines, Least-Cost Input Combination, Firms Decisions: Goal of Profit Maximization, Firm's Constraints: Demand Curve Facing Firm, Cost Constraint, Profit-Maximizing Output Level: Total Revenue (TR) and Total Cost (TC) Approach, Marginal Revenue (MR) and Marginal Cost (MC) Approach, Profit Maximization Using Graphs: TR-TC Approach, MR-MC Approach, Dealing with Losses: Short Run and Shutdown Rule, Long Run and Exit Decision

UNIT – IV: Theory of Markets

Perfect Competition: Characteristics and Profit Maximization, Profit-Maximizing Output Level: TR-TC Approach and MC-MR Approach, Measuring Profit or Loss, Firm's Short-Run Supply Curve and Shut Down Price, Competitive Markets: Short-Run and Long-Run Equilibrium, Perfect Competition and Plant Size, Competitive Firm and Changes in Demand, Market Signals and Economy: Change in Demand and Reallocation of Resources, Technological Change in Perfect Competition

Monopoly and its Causes, Monopoly Behaviour: Price or Output Decision, Monopoly: Profit and Loss, Monopoly Markets: Short-Run and Long-Run Equilibrium, Monopoly Vs Perfect Competition, Monopoly Decisions and Changes in Demand and Cost-Saving Technology, Price Discrimination: Conditions, Effects and Types, Price Discrimination and Multiple Prices
Monopolistic Competition: Characteristics, Monopolistic Competition in Short Run and Long Run, Oligopoly and Its Causes, Competition versus Cartel, Non-Cooperative Oligopoly: Cournot Model, Stackelberg Model, and Bertrand Model, Oligopoly versus Other Market Structures: Game Theory Approach, Simple Oligopoly Games, Cooperative Behaviour in Oligopoly, Advertising in Monopolistic Competition and Oligopoly.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Readings:
1. Baumol, W.j. (1982) Economic Theory and Operations Anaylysis, Prentice Hall of India, New Delhi, Delhi.
2. Da Costa G.C (1980) Production, Prices and Distribution, Tata Macgraw Hill, New Delhi
3. Hirshleifer, J and A. Glazer (1997) Price Theory and Application, Prentice Hall of India, New Delhi.
4. Jack Hirshleifer, Amihal Glazer (1997) Price Theory and Application, Prentice Hall of India, New Delhi.
5. Koutsoyiannis, A (1979), Modern Microeconomics, (2nd Edition) Macmillan Press, London.
6. Richard G Lipsey: Colin Harbury, (1992) First Principles of Economics, (2nd Edition), Oxford University Press.
7. Stigler, G.(1996) Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.
8. Varian, H. (2000) Microeconomics Analysis, W.W. Norton, New York

<center>**Detailed Syllabus**</center>

Course No: PSECTC102   **Title: Macroeconomics**
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Syllabus for the Examination to be held in December 2021to December 2023

Course Outcome:
- To understand macroeconomic theoretical structure for the proper comprehension of different issued and policies.
- To learn the various approaches to National Income and accounts.
- To familiarize the students with the theory of consumption functions and Investment function.
- To study various theories of Business Cycles and Macro Economic Policy.
- To study and compare the Keynesian and Neo- classical perspectives on macroeconomic issues.

UNIT – I: National Income and Accounts and Introduction to Income Determination

Circular - Flow of income in two, three and four - sector economy; different forms of national income accounting - social accounting, flow of funds accounting and balance of payments accounting. Neo-classical theory of distribution of National Income; Classical model of determination of equilibrium in goods market and money market.

UNIT – II: National Income Determination: The IS-LM Model

Demand-side Equilibrium - Equilibrium Income and Interest Rate in the Product Market-derivation of the IS curve, Equilibrium Income and Interest Rate in the Money Market-Derivation of the LM curve, Equilibrium in the Product and Money Markets- the combined IS-LM model; Fiscal Policy Effects on Demand, Monetary Policy Effects on Demand, Interaction of Fiscal and Monetary Policies crowding out effect, crowding "in" effect.

UNIT – III: Sectoral demand Functions: Consumption and Investment

Background of the Consumption Function Theories: Empirical evidence, Cross sections, Cycles and Trends, The Keynesian Consumption function, Duesenberry's Relative Income Hypothesis, Friedman's, Permanent Income Hypothesis, Ando-Modigliani's Life-Cycle Hypothesis. Investment- Optimal Capital Stock and Rate of Interest, Marginal Efficiency of Capital, Marginal Efficiency of Investment, Investment in the IS-LM Model, Stability and the Slope of the IS Curve, Fiscal Policy and Investment.

UNIT– IV: Business Cycles and Macro Economic Policy

Theories of Kaldor, Samuelsson and Hicks, Goodwin's model; Control of business cycles - relative efficacy of monetary and fiscal policies. Role of monetary and fiscal policy in developing countries, prior - savings, inflation and growth - empirical evidence.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List:
1. Ackley, G. (1978), Macroeconomics : Theory and Policy, Macmillan, New York.
2. Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols.), Oxford University Press London.
3. Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
4. Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc. New York.
5. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W, Norton, New york.
6. Heijdra, B.J. and V.P. Fredrieek (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
7. Jha, R. (1991), Contemporary Macroeconomics Theory and Policy, Wiley Eastern Ltd., New Delhi.
8. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
9. Foryen, Richard T. Macroeconomics - Theories and Policies, Pearson Education inc., New York.
10. Scafe B.L. (1977), Cycles, Growth and Inflation; McGraw Hill, New York.
11. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
12. Surrey, M.J.C. (Ed.) (1976), Macroeconomic Themes, Oxford University Press, Oxford.

Core Courses

Detailed Syllabus

Course No: PSECTC103   **Title:** Mathematical Methods in Economics

Credits: 6   **Maximum Marks: 100**
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Syllabus for the Examination to be held in December 2021to December 2023

Course Outcome:
- ˝ To train the students the use of mathematical tools to understand concepts in economics presented in the form of mathematical models and express economic ideas in the same form.
- ˝ To enable the students to utilize the tools in subsequent courses especially those courses where the use of mathematics has become a norm.

UNIT-I: Equations and Differentiation

Numbers-natural, Integers, rational, irrational, complex, linear equations. Mathematical operations with Matrices, solution of simultaneous equations: Rank of the matrix, matrix inversion. Quadratic Equations, Eigen roots and Eigen Vectors. Concepts of limit and continuity, Economic examples and applications. Principles of differentiation, rules of differentiation, differentiation of implicit function, parametric function.

UNIT-II: Calculus

Partial and total differentiation, Expansion by Taylor Series. Allied economic applications. Maxima and Minima- constrained and unconstrained, economic application. Principles of integration: Indefinite and definite. Application in economics theory Economic application- Derivation of Consumers Surplus, Producers Surplus, Profit and utility maximization with one good, product and input, Derivation of demand curves for inputs, goods etc., Comparative statics and allied economic applications: combining calculus-Derivation of Slutsky Equation, IS-IM model, Cobb Douglas and CES production functions, elasticity of demand, supply substitution.

UNIT-III: Difference and Differentials

Differential Equations: definitions and concepts; Solution of first order and second order differential equations, Difference equations: definitions and concepts; Solution of first order and second order difference equations, Simultaneous Differential equations ad phase diagrams, Application of difference and differential equations in Economics-Cobweb model, foreign trade multiplier model, Market model with stocks- National Income Model

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UNIT-IV: Linear Programming, Operations and Applications

Linear programming- Basic concepts; functions of a LP problem; Nature of feasible, basic and optimal solutions; Solution of a LP problem through graphical and simplex methods (Slack, Surplus and artificial variables); Formulation of Dual and its interpretation; Input-Output Analysis: Introduction, Input-Output transaction table, the technological Co- efficient matrix, solution of open model, The Hawkins-Simon Conditions, solution for 2 and 3 industries, determination of equilibrium prices.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List:
1. Allen, R.G.D. (1976). Mathematical Analysis for Economists, Macmillan.
2. Chiang,A.C.(1974). Fundamental Methods of Mathematical Economics, McGraw Hill and Kogakusha, New Delhi.
3. Mehta &Madnani (1992). Mathematical for Economists,S.Chand,New Delhi.
4. Samuelson, P.A. (1967). Foundations of Economic Analysis, McGraw Hill,Tokyo.
5. Henderson &Quandt, Microeconomics: A Mathematical Approach, Tata McGraw Hill.
6. Baumol,W.J.(1970). Economic Dynamics, Macmillan,London.
7. Leonard and Von Long (1978). Introduction to Maths for students of Economics, Cambridge.

<div align="center">**Detailed Syllabus**</div>

Course No: PSECTC104   **Title:** Development Economics
Credits: 6   **Maximum Marks: 100**
                                                       a) Major Examination: 60
                                                       b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Syllabus for the Examination to be held in December 2021to December 2023

Course Outcome:
- To comprehend the evolution of the concept of economic development and economic growth.
- Able to learn about the role of market and states in the process of economic development.
- To get familiarize with the different indicators and measures of development and development gap.
- To make the students aware of importance of relationship between population, poverty and environment.
- To learn various models and theories of economic growth and development and to reinforce its usefulness through the applications to the real-world problems and their solutions.
- Able to gain the factual knowledge about the sectoral contribution in the process of economic development.
- Able to get the procedural knowledge about different investment criteria for developing countries like India.

UNIT– I: Social and Institutional Aspects of Development

Development and underdevelopment - perpetuation of underdevelopment; Sustainable Development, Poverty - Absolute and relative - measures of poverty and their merits and demerits; Measuring development and development gap, Human development index and other indices of development; Inequality - Measures of Inequality - Effects of Inequality; Human resource development : Population problems -- Theory of demographic transition; Population as limits to growth and as ultimate source -- Population, Poverty and environment: Economic development and institutions -- markets and market failure, state and state failure, issues of good governance.

Unit – II: Theories of Development

Classical theory of capitalistic development: Growth and stagnation, Marxian Model of Growth and Collapse and Schumpeter theory of Economic Development, Partial theories of growth and development -- vicious circle of poverty, circular causation, Dualism -- technical and social; Lewis Model, Ranis and Fei model, Dependency theory of development, Strategies of Development--- Big push, Balanced growth, Unbalanced growth, Critical minimum effort thesis, Low Level Equilibrium trap.

Unit - III: Sectoral Aspects of Development and role of international trade

Role of Agriculture in economic development, Transformation of agriculture and rural development, Complementarity between agriculture and industry, Rationale and pattern of industrialization in developing countries, Labour markets in developing countries, Choice of techniques and appropriate technology, International trade as an engine of growth, Static and dynamic gains of trade, Prebisch-Singer versus free trade, Import substitution versus Export promotion, Dual Gap analysis, WTO and developing countries.

Unit – IV: Macro Economic Policies, Planning and Development

Role of Monetary and Fiscal Policies in developing countries, Inflation and Economic growth: Empirical Evidence, Aid versus Trade, technology Inflow, MNCs activity in developing countries, Burden of borrowingô IMF and World bank Policies in developing countries; Need for investment criteriaô Present versus Future, Alternative investment criteria, Cost- Benefit analysis, Shadow prices, Project Evaluation and UNIDO guidelines; Need for planningô Democratic, Decentralized, Indicative planning and Micro Level Planning, Review of Indian Plans Models

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List:
1. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Behrman, S. And T.N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
3. Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
4. Hayami, Y. (1997), Development Economics, Oxford University Press, New York.
5. Higgins, B. (1959), Economic Development, W.W., Norton, New York.
6. Meir, G.M. (1995), Leading Issues in Economic Development (6th Edition). Oxford University Press, New Delhi.
7. Ray, Debraj (2011), Development Economics, Oxford University Press, Delhi.
8. Thirwall, A.P. (2011), Growth and Development, (9th Edition) Macmillan, U.K.
9. Todaro, M.P. (2011), Economic Development, (9th Edition), Longman London.
10. Chakarvarti, S. (1987), Developing Planning: The Indian Experience, Clarendon Press, Oxford.

11. Dasgupta, P., A.K. Sen and S. Maglini (1972), Guidelines for Project Evaluation, UNIDO, Vienna.
12. Mishan, E.J. (1975), Cost Benefit Analysis (2nd Edition) Allen and Unwin, London.
13. Sen, A.K. (Ed.) (1990), Growth Economics, Penguin, Harmondsworth

Semester II (All Compulsory)

Core Courses

Detailed Syllabus

Course No: PSECTC201
Credits: 6

Title: Advanced Microeconomics
Maximum Marks: 100
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Syllabus for the Examination to be held in May2022 to May 2024

Course Outcome:
- ˝ To introduce students to various theories of distribution, welfare economics, general equilibrium in closed systems, choice under risk and uncertainty.
- ˝ To get familiarize with new developments in the theory of markets and economics of information.
- ˝ To learn to apply Mathematical tools in the special economic situations.

UNIT-I: Alternative Theories of Firm and Information Technology

Critical evaluation of marginal analysis, Baumols sales maximization model, price output determination, optimal advertising expenditure, choice of output of various products and input combinations, pricing and changes in overhead costs.
Williamsons model of managerial discretion, Marisøs model of managerial discretion, full cost pricing rule. Bains limit pricing theory and its recent developments including Sylos-labini model of the firm behavioral model of the firm. Information technology- systems competition, problem of complements, lock in, network externalities and it effects and implications, rights management and sharing of intellectual property.

UNIT-II: Game Theory and General Equilibrium

Zero Sum Game, Non-Zero Sum Game The payoff matrix of a game, definition of Nash equilibrium, pure and mixed strategies, prisoners dilemma, repeated games- applications, sequential games, sub-game perfect equilibrium- examples- entry deterrence.

Partial and general equilibrium, the Walrasian system, existence, uniqueness and stability of equilibrium. A graphical illustration of the path to general equilibrium, algebraic treatment of a two-person-two-good exchange model, graphical treatment of the two factor, two commodity two consumer general equilibrium system, static properties of a general equilibrium state, general equilibrium and allocation of resources.

UNIT-III: Distribution and Welfare Economics, Externalities and Provisions for Public Goods

Marginal productivity theory of distribution, product exhaustion theorem (Clark-Wicksteed-Walras), Pareto optimal conditions, social welfare function, compensation principle, Scitovaskys paradox, Scitovaskys double criterion, theory of second best, Arrows impossibility theorem.
Externalities-definitions externalities and market failure, Coase theorem, production Externalities- pollution vouchers, property rights and the tragedy of the commons
Public goods- definitions and characteristics, when to provide a public good, optimal provision for a public good, private provision for public good and the free-rider problem, the Clark-groves tax and its problems.

UNIT-IV: Choice under Risk and Uncertainty and Economics of Information

Expected utility theory, Von Neumann-Morgenstern method of constructing utility index under risky situations, the St.Petersberg Paradox and Bernoulliøs hypothesis, Aliasøs paradox and explanations. Attitude towards risk- measures of absolute and relative risk aversion, Certainty equivalent, risk premium, risk averter v/s risk lover. Risk lover and gambling. Risk aversion and insurance.
Friedman- Savage hypothesis, Markowitz hypothesis, the investorsø choice problem information and consumerøs choice, information and insurance-dealing with asymmetric information.
Asymmetric information- the market for lemons and quality choice, adverse selection, moral hazard, signaling, incentive-systems.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Henderson J and R Quandt: Microeconomics theory, A mathematical approach, McGraw-Hill.
2. Hader,J:Mathematical theory of economic behavior, Addison-Wesley.
3. Koutsoyannis,A:Modern microeconomics, Macmillan.
4. Mas-collel A, M.D.Whinston& J.R.Greene:Microeconomics theory, OUP.
5. Salvatore,D:Microeconomics, UP
6. Sen, A:Microeconomics, UP
7. Varian: Intermediate microeconomics, East West press.

<center>**Detailed Syllabus**</center>

Course No: PSECTC202   **Title:** Advanced Macroeconomics
Credits: 6   **Maximum Marks: 100**
                                  a) Major Examination: 60
                                  b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Advanced Macroeconomics**</center>

<center>Syllabus for the Examination to be held in May 2022 to May 2024</center>

Course Outcome:

- ˝ Understand, explain and constructively criticise well-known macroeconomic models
- ˝ Evaluate the extent to which well-known macroeconomic models can explain real-world data and macroeconomic experiences
- ˝ Use well-known macroeconomic models to illuminate current debates about macroeconomic policy
- ˝ Read and understand original research articles about macroeconomics in academic journals

UNIT - I: Classical Macroeconomics System

Classical Macroeconomics: output and Employment - the classical revolution, production, employment-labour demand and supply, equilibrium output and employment, the determinants of output and employment, factors that do not affect output.

Classical Macroeconomics: Money, prices, and Interest- the quantity theory of money, the Cambridge approach to the quantity theory, the classical aggregate demand curve, the classical theory of the interest rate, policy implications of the classical equilibrium model.

UNIT – II: The Keynesian Macroeconomics System

The Keynesian System- the problem of unemployment, the simple Keynesian model: conditions for equilibrium output, the components of aggregate demand, determining equilibrium income, changes in equilibrium income, fiscal stabilization policy, export and imports in the simple Keynesian model

The Keynesian System: money, interest, and income- money in the Keynesian system-interest rates and aggregate demand- the Keynesian theory of the interest rate- the Keynesian theory of money demand- the total demand for money-the effect of an increase in the money supply;

UNIT – III: The Keynesian System Versus Classical

The Keynesian system: aggregate supply and demand- The Keynesian aggregate demand schedule, The Keynesian aggregate demand schedule combined with the classical theory of aggregate supply, A contractual view of the labour market- sources of wage rigidity,

flexible price-fixed money wage model,labour supply and variability in the money wage-classical and Keynesian theories of labour supply, the Keynesian aggregate supply schedule with a variable money wage, policy effects in the variable- wage Keynesian model, the effects of shifts in the aggregate supply schedule, factor that shift the aggregate supply scheduled, Keynesian versus classical theories of aggregate demand and supply.

UNIT – IV: Output, Inflation and Unemployment: Alternative Views

Inflation and Unemployment- the Phillips curve, The Natural rate theory, Monetary policy, output and inflation: Friedman's monetarist view in the short and long run, Keynesian view of the output-inflation trade off in the short and long run, stabilization policies for output and employment, Evolution of the natural rate concept-determination of the natural rate of unemployment.

New Classical Economics- the new classical position, the Keynesian counter critique, Real Business cycle models-agents optimize and markets clear, a simple business cycle model, New Keynesian Economics-sticky price (menu cost), efficiency wage models, and insider-outsider models.

Note for Paper Setting: : Minor Test – I and Minor Test - II each of 20 marks from Unit – I and Unit – II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit – III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit – III and IV with 100% internal choice be asked.

Basic Reading List
1. Abel, AndrewB, & Ben S. Bemanke (2006), Macroeconomics, Pearson Education Inc., New York. Ackley, G. (1978), Macroeconomics: Theory and Policy, acmillan, New York.
2. Black house, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols.) Oxford University Press, London.
3. Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
4. Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill Inc., New York.
5. Froyen, T. R. (2015), Macroeconomics theories and policies, Person India Education Services Pvt Ltd, Noida, India, ISBN 9789332518322
6. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.
7. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
8. Jha, R. (1991), Contemporary Macroeconomics Theory and Policy, Wiley Eastern Ltd., New Delhi.
9. Romer, D.L. (1996), Advanced Macrocononir. McGraw Hill Company Ltd., New York.
10. Scarfe, B.L. (1977), Cycles, Growth and Inflation, McGraw Hill, New York.
11. Shapiro, F. (1996), Macroeconomic Analysis,Galgotia Publications, New Delhi

Course No: PSECTC203   **Title: Statistical Methods**
Credits: 6   Maximum Marks: 100
                                                                        a) Major Examination: 60
                                                                        b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Statistical Methods

Syllabus for the Examination to be held in May 2022 to May 2024

   Course Outcome:

- ˝ To train students in the use of statistical tools and techniques that will help the students in data collection, presentation and draw inferences about various statistical hypotheses.

UNIT - I: Measures of Central Tendency, Dispersion & Correlation and Regression

Statistics - Nature and scope. Types of Statistics - descriptive and inferential.Measures of Central Tendency and Dispersion, Meaning, assumptions and limitations of Simple correlations and regression analysis; Pearson's Product Moment Formula and Spearman's Rank Correlations, Concept of least squares and lines of regression; Methods of estimating non-linear equations e.g. parabolic equation, Standard Error of estimate Partial and Multiple Correlations, Coefficient of determination.

UNIT - II: Index Numbers, Time Series Analysis, Measures of Inequality

Nature and Purpose of Index Numbers, Commonly Used Index Numbers, Laspeyres and Paasche's Index Numbers, Chain Base Index Numbers, Official Index Number, True Cost of Living Index, Fisher's test or Index Numbers, Nature and Decomposition of a Time Series, Analysis of Trend: Polynomial Trend, Non-linear Growth Curves; Moving Average Method, Seasonal Component, Cyclical and Random Component, Forecasts and their Accuracy, Measures of Inequality, The Desirable Properties of a Measure of Inequality, the GINI Coefficient, the Lorenz Curve, The Coefficent of Variation, The Relative Range, Kuznets Ratio

UNIT– III: Probability and Distributions

Probability theory - different concepts and approaches, Laws and Axioms of Probability, conditional theory - different concepts of Interdependence, Baye's theorem and its applications, Concept of random variable: probability, mass and density functions; Expected Value, Probability distributions: Binomial, Poisson, and Normal, Chi Square, F

UNIT - IV: Theory of Estimation and Hypothesis Testing

Concept of an estimator and its sampling distributions, Properties of good estimator, Formulation of statistical Hypotheses - Null and Alterative, Goodness of fit; confidence

interval and level of significance, Hypothesis testing based on Z, t, F, and chi-square tests; Errors of types II and I, Analysis of Variance

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

1. Croxton, Croyden and Klein (1971) Applied General Statistic, Prestice Hall of India, New Delhi.
2. Goon, AM, MK Gupta and B. Das Gupta (1983), Fundamental of Statistical Vol. I, The World Press, Calcutta.
3. Hod, P.er (1954) Introduction to Mathematical Statistics, Wiley and Sons.
4. Hogg R.V. and A.T. Craig(1970), Introduction to Mathematical Statistics, Macmillian Publishing Co., New York.
5. Nagar, A.L. and R.K. Das (1993). Basic Statistics, Oxford University Press, New Delhi.
6. Rao, C.R. (1965), Linear Statistical Inference and Application Wiley and Sons.
7. Sukhatme, P.V. and B.V. Sukhatme (1970). Sampling Theory of Survey with Applications Low a State University Press, Ames.
8. Walpole, R. Statistics (1980), Collier Macmillan.
9. Ray, Debraj (1998), Development Economics, OUP

<center>**Detailed Syllabus**</center>

Course No: PSECTC204
Credits: 6

Title: Indian Economic Policy
Maximum Marks: 100
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Indian Economic Policy**</center>

<center>Syllabus for the Examination to be held in May 2022 to May 2024</center>

Course Outcome:
   ˝ To acquaint the students in a comprehensive manner with different aspects of Indian economy.
   ˝ To understand various policy issues and measures to understand economic initiatives for improving economic development and growth, agriculture and industry, planning of the different sectors of the economy and the place of Indian economy in the international level particularly after economic reforms are covered.
   ˝ To sharpen the analytical faculty of the students to understand the whole system of Economic Policy in India.

UNIT - I: Economic Development and Growth Policies

Economic Development & Social Opportunity óDevelopment, Freedom and Opportunity-on education & health , the government , the state & the market; Human Development ó Essential Components of Human development; Indexing Human Development in India-indicators, scaling and composition; Recasting Planning in terms of Human Development ; Indian Political Economy (1980-2010) and Inclusive Growth; Poverty in India-estimates and methodological controversies; Human Poverty , entitlement ,capability approach; Public Action and Social Inequality- public , its role , reach of inequalities, social inequalities and economic reforms , basic equality and social security and Health care, local governance & social reforms.

UNIT - II: Agriculture and Industrial Sectors of the Indian economy:

Agricultural Growth and Industrial Performance in Indian- salient features of industrial and agricultural growth, links between agriculture and industry- production linkages, demand linkages, savings & investment linkages; Planning for Agriculture -21st Century perspective, Indian agriculture- emerging perspectives and policy issues; Land System and its reforms in India-land reforms progress in post independent India, impact of structural Reorganization , emerging perspectives & Policy Issues; Critical appraisal of Food Security Policy; Water Resource Development Strategy for Accelerating Agricultural Production in India; Terms of Trade Between Agriculture and Industry; Industrial growth in 80øs ó some issues; Government Policy Towards Public Sector Since 1991; Paradigm shift in Industrial Policy; Jobless Growth in Indian manufacturing in 2000s.

UNIT - III: Indian Planning

Objectives & strategy of Planning in India; Regional Planning Policy in India- regional imbalances in India and policy measures to remove regional imbalances, critical review of Regional Planning in India; Economic Growth and Social Attainment óthe role of Development strategy; Gender Responsive Budgeting and Gender Equity; Federal Finances- responsibilities and resources , division of functions , resource raising powers, transfer of resources through Twelfth and Thirteen finance Commissions; Parallel Economy- causes and remedies , current status of the Black Money óGraying of Indiaøs Political economy.

UNIT - IV: Economic Reforms & External Sector

Growth & Macro Economic Imbalances in India-linkages between growth & fiscal & external balances, trends in fiscal & external deficits; Critical Appraisal of Economic Reforms ; WTO- Uruguay Round of Final Act & its Implication for India, Impact of WTO on various aspects of Indian Economy, Indiaøs Role at Doha Ministerial Conference, Geneva Frame Work and update on Trade Negotiations; Foreign Trade Policy- Import-Export Policy in pre-reform period, New Trade Policy óThe Reform Period, Foreign Trade Policy 2009-14; FDI in Multi-brand Trade & Safe Guards.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bardhan , Pranab (1994): The Political Economy of Development in India; Oxford University Press. New Delhi.
2. C.T.Kurian (1978): Poverty Planning and Social Transformations-An Alternative in Development Planning Allied Publishers, New Delhi.
3. V.M. Dandekar: The Indian Economy 1947-97; transforming traditional Agriculture Vol. Iø
4. Bimal Jalan: Indian Economic Crisis: The Way Ahead; Oxford University Press, New Delhi 1992.
5. ....Indiaøs Economic Policy Preparing for the 21st Century; Penguin, New Delhi, 1996.
6. A.P.'Thirwall' Growth and Development, 6th Edition Macmillan Press Ltd., 1999.
7. Vijay Joshi: IMD Little; Indiaøs Economy Reforms; Oxford University Press, New Delhi, 1991-2001.

8. Usha Kapila Indian Economy Since Independence; Vol. l, II &111, Academic foundation. New Delhi.
10. .....: Recent Developments in Indian Economy, Part 3&4 Academic Foundation, New Delhi. 1994&95.
11. Robert.E.B.Lucas and Gustar.F.; Indian Economy-Recent Development and Future Prospects. Oxford University Press, New Delhi, 1989

13. Amartya Sen, Poverty and Famine-An Essay on Entitlement and Deprivation. Oxford University Press. New Delhi, 1982.
15. ....The Standard of Living: Tanner Lectures - Cambridge University Press, 1987.
16. ....: Development as Freedom. Oxford Uni. Press, 1999.
17. ....India Development and participation, Oxford University Press, 2002.
18. Brahmananda and Panchamuki, Development Process of Indian Economy; Himalaya Publishers, 1987.
19. S.S.Tarapore . Issues in Financial Sector Reforms, UBS Publishers Distributors Ltd. New Delhi :2000.
20. C.Ranga Rajan. Indian Economy; UBS Publishers Distributors Ltd; New Delhi, 1998.
21. Ruddar Dutt & KPM Sundaran: Indian Economy, S.Chand& Company Ltd, New Delhi, 2004.
22. Ruddar Dutt; Second Generation Economic reforms in India; Indian Economic Association
24. Ahluwalia, I.J. and LM.D. Little (Eds.) (1999), Indiaøs Economic Reforms and Development (Essay in honour of Manmohan Singh), Oxford University Press, Now Delhi.
28. Bardhan, P.K. (9thEdition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
29. Bawa, R.S. and P.S. Raikhy (Ed. (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
30. Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy: Inter State Perspectives, Bookwell, Delhi.
31 Chakravarty, S. (1987) Development Planning: The Indian Experience, Oxford University Press,New Delhi.
32. Dantwala, M.L. (1996), Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
32. Government of India, Economic Surveys, (Annual), Ministry of Finance, New Delhi.
35. Jain, A.K. (1986), Economic Planning in India, Ashish Publishing House, New Delhi.
37. Jalan, B (1996) Indiaøs Economic Policy - Preparing for the Twenty First Century, Viking, New Delhi.
38. Joshi, V. and LM.D. Little (1999) India: Macro Economics and Political Economy, 1964 - 1991, Oxford University Press, New Delhi.

39. Parikh, K.S. (1999), India Development Report - 1999-2000, Oxford University Press, New Delhi.
40. Sen, R.K. and B. Chatterjee (2002), Indian Economy: Agenda for 21st Century (Essays in honour of Prof. P.R. Brahmananda), Deep & Deep Publications, New Delhi.
41. Gupta S.P. (1998), Post-Reform India: Emerging Trends, Allied Publishers, New Delhi.
42. Kumar, A. (1999), The Black Money in India, Penguin, Har-mondsworth.\
41. Rangarajan, C. (2004), Selected Essays on Indian Economy, Vols-I &II Academic Publication, New Delhi

Semester III

Core Courses
(Compulsory)

Detailed Syllabus

Course No: PSECTC301   **Title: International Economics**
Credits: 6   **Maximum Marks: 100**
                                                            a) Major Examination: 60
                                                            b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

International Economics

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- To provide a deeper and wider understanding about the principles and theories, which govern the free flow of trade in goods, services and capital between the countries?
- To prepare the students to appreciate the relevance and limitations of the theories and principles of international trade.
- To covers the empirical evidence of various theories, welfare implications and gains from trade.

UNIT - I: Theory of International Trade – I

Significance and scope of International Economics, Economic Basis of International Trade, Contributions of Adam Smith, David Ricardo and J.S. Mill to the theory of International Trade, Theory of Opportunity Cost

UNIT - II: Theory of International Trade – II

Modern Theories of International Trade : Heckscher-Ohilin Theory of I rude and its empirical verification, Rybznski Theorem, The Stolper ó Samuelson Theorem, Factor-Price-Equalization Theorem, International Trade in Specific Factors Model, Imperfect Competition and International Trade : Concept of Intra-Industry Trade, its Basis Measurement and Significance, New Theories of Trade : Kravis and Linder

UNIT - III: Gains from Trade and International Trade Policy

Concepts of Terms of Trade, their uses and limitation, Hypotheses of Secular Deterioration in Terms of Trade, Reasons for Deterioration in Commodity Terms of Trade and Policy Implications for Developing Countries; Trade as Engine of Growth: Concept of Immiserizing Growth, Empirical Evidenceand Policy Issues; Theory of

Interventions : Tariffs, Quotas and Non-Tariff Barriers to International Trade, Economic Effects of Tariffs and Quotas (Partial and General Equilibrium Analysis); Theory of Optimum Tariff, Concepts of Nominal and Effective Tariffs

UNIT - IV: Balance of Payments

Meaning and Components of Balance of Payments, Equilibrium and Disequilibrium in the Balance of Payments (BoP),Process of Adjustment under Fixed and Flexible Exchange Rate Regimes, Expenditure Changing and Expenditure Switching Policies for Balance of Payments(BoP) Adjustment, Policies for Achieving Internal and External Equilibrium simultaneously: Mundell ó Flemming Model, The Monetary Approach to the Theory of Balance of Payments adjustment.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1.   Paul R. Krugman and Maurice Obstfeld (2007), International Economics; Theory and Policy, Pearson Education, New Delhi
2.   Jagdish N. Bhagwati et al (2003), Lectures on International Trade, Oxfort University Press, New Delhi
3.   Dominick Salvatore (2004) International Economics, John Wiley & Sons Inc.
4.   H.G Mannur (1998) International Economics, Vikas Publishers, New Delhi.
5.   Dunn R. M. & J.H Mutti (2000) International Economics, Routledge, London
6.   Carbaugh R. J (1999) International Economics, Routledge, London.
7.   Dana, M. S (2000) International Economics : Study Guide and Workbook, Routledge Publishers, London
8.   Bhagwati J.(1988) Protectionism, Cambridge University Press Massachusetts
9.   Sodersten Bo (1991) International Economics, The Macmillan Press Ltd. London
10.   Bhagwati, J. (Ed.) (1981) International Trade : Selected Readings Cambridge University Press, Massachusetts

Detailed Syllabus

Course No: PSECTC302   Title: Theory of Economic Growth
Credits: 6   Maximum Marks: 100
           a) Major Examination: 60
           b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Theory of Economic Growth

Syllabus for the Examination to be held in December2022 to December 2024

Course Outcome:
- To give overview of the determinants of growth.
- To understand the role of various factors of production, technology, money as well as the policy implications of the various models of growth.

UNIT - I: Introduction to Economic Growth and the Early Models

Concept and importance of economic growth ó The Sylised Facts of Economic Growth, Sources of Economic Growth, Classical Theory of Economic Growth, Harrod's Model of Growth, Domar Model of Growth, Relevance of the Harrod-Domar Model to contemporary developing economics, Marxian Model of Growth and Collapse.

UNIT - II: The Neo-Classical Models and the Models of the Cambridge School

Solow's Model of Growth with its various extensions, Meade's Model, The Neo-Classical Model and the Golden Rule of Accumulation, Cambridge Models of Economic Growth- Joan Robinson's Model, Kaldor's Model, Pasinetti's Model, Samuelson and Modigliani on the Pasinetti Paradox

UNIT -III: The Two Sector Model, Introduction of Money, Optimal Growth and Technical Progress

The Extension of the Neo-Classical Model of two-sectors- Uzawa's Two- Sector Model of Growth, Money and Economic Growth Optimum Growth Models-Introduction and the Ramsey Model, Technical Progress: Different Types of Technical Progress,

UNIT -IV: Endogenous Growth Models and Growth Accounting

Models of endogenous growth- Arrow's Learning by Doing Model. The AK Model, the Production Function Approach to Economic Growth; Growth Accounting- Empirical Evidence, Limits to Growth

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Barro, R. and X. Sala-i-Martin, Economic Growth, Prentice Hall India, New Delhi.
2. Branson, W, Macroeconomic Theory and Policy, Harper and Row
3. Chiang. A.C. Element of Dynamic Optimization, McGraw Hill
4. Sen, A.K., Growth Economics, Penguin, Harmondsworth.
5. Solow, R.M. Growth Theory An Exposition, Oxford University Press, Oxford.
6. Wan, I-1.Y., Economic Growth, Harcourt, Bracem, Jovanovich New York.
7. Chiang, A.C. Fundamental Methods in Mathematical Economics, McGraw Hill.
8. Robinson, J, The Accumulation of Capital, Macmillan.
9. Domar, B, Essays in the Theory of Economic Growth, Oxford University Press.
10. Thirlwall, A.P. Growth and Development, Palgrave.
11. Harrod R.F., Towards a Dynamic Economics, Macmillan.
12. Evans, M. Macroeconomic Activity, Harper and Row
13. Kaldor N., Essays in Economic Growth and Stability, Gerald Ruckworth.

Semester III

Elective Courses (Stream A)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE303
Credits: 6

Title: Demography
Maximum Marks: 100
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Demography

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- ˝ To make the students aware of importance of population in economic development, various theories of population, growth and distribution of population in developed and developing countries including India.
- ˝ To enlighten the students on fertility and mortality aspects of population dynamics.
- ˝ To equip the students about general characteristics of the population and its importance.
- ˝ To enable the students deals comprehensively with migration and urbanization in context of structural change in the society.
- ˝ To impart a comprehensive knowledge of various theories that explains growth of population in a country and other aspects as migration and urbanization.
- ˝ To train the students to understand demographic data base in India, methodology and characteristics of census, population and development with reference to India and various issues related to population policy of India.

UNIT – I: Theories and Structure of Population

Meaning and scope of demography; Theories of population ó Malthus theory of population, Optimum theory of population; Theory of demographic transition, Leibenstien theory of population; Population and development: Two way relationship; World population growth and distribution; Pattern of age and sex structure in more developed and less developed countries; Determinants of age and sex structure in more developed and less developed countries; Demographic, economic and social implications of sex and age structure in more developed and less developed countries

UNIT – II: Fertility, Mortality, Migration and Urbanization

Importance of study of fertility; Concepts of fertility; Levels and trends in fertility in more and less developed countries; Socio-economic factors affecting fertility; Concepts of mortality; Levels and trends in mortality in more and less developed countries; Socio-economic factors affecting mortality; Concepts of migration; International migration - its

effects on population growth and pattern; Factors affecting internal and international migration; Concepts of urbanization, Growth and distribution of rural-urban population in developed and developing countries

UNIT – III: Demographic Data and Population Structure in India

Concept, methodology and characteristics of census in India; Nature of information collected in 2011 census of India; National Family Health Survey; Rapid Household Survey; Population growth and distribution in India; Demographic dividend in India; Fertility and mortality trends in India; Trends and regional variations in age and sex structure of population in India, Appraisal of Kerala model; Pattern of internal migration and urbanization in India.

UNIT – IV: Population-Development Issues and Policy in India

Population, economy and environment linkages; Population, health, nutrition, productivity nexus; Population and human development issues; Relationship between culture, education and fertility; Evolution of population policy in India - The shift in policy from population control to family welfare, to women empowerment; Family planning strategies and their outcomes; Reproductive health, maternal nutrition and child health policies; New population policy; Tasks before the National Population Commission.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Agarwala S. N. (1972), *India's Population Problem*, Tata McGraw-Hill Co., Bombay.
2. Agnihotri, S. B. (2000), *Sex ratio in Indian Population: A Fresh Exploration,* Sage, New Delhi.
3. Amsden, A. H. (ed.) (1980), *The Economics of Women and Work,* Penguin, Harmondsworth.
4. Baud, I. S. A. (1992), *Form of Production and Women's Labour, Gender Aspects of Industrialization in India and Mexico,* Sage, New Delhi.
5. Bogue, D. J. (1971), *Principles of Demography*, John Wiley, New York.
6. Bose, A. (1996), *India's Basic Demographic Statistics*, B. R. Publishing Corporation, New Delhi.
7. Boserup, E. (1970), *Women's Role in Economic Development,* George Allen and Unwin, London
8. Chenery H. and T. N. Srinivasan (Eds.) (1989), *Handbook of Development Economics*, Vol. 1&2 Elsevier, Amsterdam.
9. Choubey, P. K. (2000), *Population Policy in India*, Kanishka Publications, New Delhi.
10. Coale A. J. and E. M. Hoover (1958), *Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects,* Princeton University Press, Princeton.

11. Gulati, S. C. (1988), *Fertility in India: An Econometric Study of a Metropolis*, Sage, New Delhi.
12. Gupta, J. A. (2000), *New Reproduction Technologies, Women's Health and Autonomy, Indo-Dutch Studies on Development Alternatives,* Sage, New Delhi.
13. Jhabwala, R. and R. K. Subramanya (2000) (eds.), *The Unorganized Sector: Work Security and Social Protection,* Sage, New Delhi.
14. King, M. and M. A. Hill (eds.) (1993), *Women's Education in Developing Countries: Barriers Benefits and Politics,* John Hopkins, Baltimore.
15. Krishnaji, M., R. M. Sudarshan and A. Shariff (1999), *Gender Population and Development,* Oxford University Press, New Delhi.
16. Mishra, S. (2000), *Voluntary Action in Health and Population: The Dynamics of Social Transition,* Sage, New Delhi.
17. Mitra, A. (1979), *Implications of Declining Sex Ratio in India's Population, Allied,* New Delhi.
18. Seth, M. (2000), *Women and Development: The Indian Experience*, Sage, New Delhi.
19. Simon, J. L. (1992), *Population and Development in Poor Countries*, Princeton University Press.
20. Srinivasan, K. (1998), *Basic Demographic Techniques and Applications,* Sage, New Delhi.
21. Srinivasan, K. and A. Shariff (1998), *India: Towards Population and Demographic Goals,* Oxford University Pres, New Delhi.
22. Sryrock, H. et al. (1973), *The Methods and Materials of Demography,* US Department of Commerce, Washington, D. C.
23. Sudarshan and A. Shariff (1999), *Gender Population and Development,* Oxford University Press, New Delhi.
24. United Nations (1973), *The Determinants and Consequences of Population Trends,* Vol. 1, UNO Publications, New Delhi.

Course No: PSECTE304   **Title: Industrial Economics**
Credits: 6   **Maximum Marks: 100**
                                                    a) Major Examination: 60
                                                    b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Industrial Economics

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- ˝ To have a detailed knowledge about the Framework and Problems of Industrial Economics.
- ˝ To familiarize with the Market Structure, Innovation &Industrial Location Analysis.
- ˝ To acquire the ability to analyse Market Conduct & Its Implications for Public Policies.
- ˝ To understand and distinguish the concepts of Industrial Productivity, Industrial Efficiency.
- ˝ Understand about the Investment Decisions and Methods of the Project Evaluation.

UNIT- I: Framework and Problems of Industrial Economics

Meaning and scope of Industrial economics, The organizational pattern of the firm on the basis of ownership, Internal Organization of the firm, The Choice of organizational form, Business motives- Profits, Sales growth and value maximization of the firm . Size of the form optimum firm, Representative firm, Equilibrium firm, factors determining optimum size, reconciliation of optima. Need for the growth of the Firm, Theories of the growth of the firm: Downieøs theory, Penrosøs theory, Marrisøs theory of the growth of the firm.

UNIT- II: Market Structure

Market structure: Meaning of the market structure,sellers concentration and its measurement : concentration ratio, the Lorenz curve, Herfindhal Index. Product differentiation- its sources and its implications, entry conditions, economies of scale, market structure and innovation, the process of innovation- concept and relationship-its measurement. The theory of technological innovation. Industrial location analysis: the general determinants of industrial location. Theories of industrial location: Weber and Sergeant Florence.

UNIT –III: Market Conduct

Relationships between structures, conduct and performance, neoclassical developments of the SCP approach. General situations for pricing decisions. Pricing in practice: cost plus pricing, , transfer pricing ,incremental cost pricing, the target rate of return pricing, acceptance pricing, the going rate pricing, pricing in public enterprises, Diversification & its measurement, vertical integration, Merger: types and motives, Implications for public policies.

UNIT -IV: Market Performance and Project appraisal

Industrial productivity: its importance, distinction between production and productivity, factors influencing industrial productivity, Industrial efficiency: meaning of the concept, the determinants of the economic efficiency, measurement of the efficiency levels, investment decisions, preparation of the time profile of the project, methods of the project evaluation: the payback method, the average of accounting rate of return method, the internal rate of return method, ranking of projects; NPV VS IRR.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Alhuwalia I.J. (1985), Industry in India, 0xford University press, New Delhi.
2. Barthwal, R. R. (1985) Industrial Economics, Wiley Eastern:
3. Cherunilam, F. (1994) Industrial Economics: Indian Perspective (3rd edition), Himalayan Publishing house, Mumbai.
4. Desai, B. (1999), Industrial Economy in India (3rd edition), Himalayan Publishing House, Mumbai
5. Divine, P.J and R. M. Jones et al. (1976), an introduction to Industrial Ec0nomics, Georg Allen and Unwin Ltd., London.
6. Government of India, Economic Survey (annual).
7. Hay, D. and D.J. Morris (1979), Industrial Economics: theory and Evidence, oxford university press, New Delhi.
8. Kuchhal, S.C. (1980), Industrial Economy of India (5th edition), Chaitanya Publishing House, Allahabad.
9. Reserve Bank of India, Report on Currency and Finance (annual).
10. Singh, A. and A. N. Sadhu (1988), Industrial Economics; Himalayan Publishing House, Bombay.
11. Paul.R. Ferguson and Glenys J. Ferguson (1994) second edition, macmalian press Ltd.
12. Institute of railway transport, Investment policy.
13. Visaria, P. and R. Basant (1994), Non-agricultural employment in India: Trends and prospects, Sage Publications, New Delhi.

Detailed Syllabus

Course No: PSECTE305   **Title:** Transport Economics
Credits: 6   **Maximum Marks: 100**
                                                   a) Major Examination: 60
                                                   b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Transport Economics

Syllabus for the Examination to be held in December 2022 to December 2024

Course outcome:
   ˝ To have a detailed knowledge about the Framework and Problems of Industrial Economics.
   ˝ To familiarize with the Market Structure, Innovation &Industrial Location Analysis.
   ˝ To acquire the ability to analyse Market Conduct & Its Implications for Public Policies.
   ˝ To understand and distinguish the concepts of Industrial Productivity, Industrial Efficiency.
   ˝ Understand about the Investment Decisions and Methods of the Project Evaluation.

UNIT- I: Introduction to Transport Economics

Nature and scope of transport economics; Economic Characteristics of Transport; Demand for Transport Services: Passenger & Freight; Factors determining the Demand for Transport Services; Transport Investments and Economic Development: Empirical Evidence; Understanding the Multiplier Effects of Transport Investments.

UNIT- II:Costs of Transport Services

Structure of Transport Costs: Concept of Shared & Avoidable Costs and the process of their identification, Pro-rata Rules for the Allocation of Common Costs; Capital Cost in Transport and the Process of its Recovery; Transport Costs and Location of Industries: Weberø Theory of Location.

UNIT- III: External Costs of Transport

Transport Externalities and their Valuation; Optimal Environmental Improvements; Introduction to Traffic Congestion; Containing the Environmental Costs: Transport Infrastructure User Charges; Coasian Solution-Tradeable Permits; ̵The Polluter- Paysø Principle.

UNIT- IV: Pricing of Transport Services

Objectives of Pricing in Transport; Alternative Pricing Strategies: Profit Maximizing, Social Welfare Maximizing, and Constrained Social Welfare Maximizing; the Concept of Cross- Subsidy and Cross-Subsidy-Free Price; Rationale of Subsidy to Support Public Transport Services in Urban Areas: Theory & Application; Marginal Cost Pricing: Short-Run & Long-Run; Price Differentiation & Price Discrimination.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Kenneth Button, Transport Economics, 3rd Edition by, Published by Edward Elgar.
2. David A.Hensher& Ann M. Brewer, Transport: An Economics and Management Perspective, Published by Oxford University Press.
3. Norton H.S., Modern Transport Economics.
4. Quinet Emile & Roger Vickerman (2004), Principles of Transport Economics, Edward Elgar

Course No: PSECTE306   **Title:** Econometrics – I
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Econometrics – I

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- ˝ To gain knowledge about the application of economic theory and understand various economic relationships and econometrics methods.
- ˝ To learn various tools for understanding applied economic relationships and for meaningful research in economics.
- ˝ To equip the students with basic theory of econometrics and relevant applications of the methods.
- ˝ To analyse and get equipped with various problems faced in estimation of both single equation and simultaneous equations methods

UNIT- I: Basic Econometrics

Nature, meaning and scope of econometrics, distinction between Statistics and Econometrics; two variable linear regression model-assumption, estimation through OLS, properties of estimators-Gauss-Markov theorem. Concept and derivation of R square and adjusted R square concept of analysis of variance approach General linear regression model - assumptions, estimation and properties of estimators . Deviation from classical linear regression assumption (non-spherical case) and generalized least square.

UNIT - II: Problems of Regression Analysis

Problems of heteroscedasticity, autocorrelation and multicollinearity- Nature, test, consequences and remedial measures. Model mis-specification versus pure autocorellation, OLS versus FGLS and HAC coexistence of autocorrelation and hetroskedasticity.

UNIT - III: Specification and Diagnostic Testing and Non-Linear Regression Models

Specification - Type consequences, and tests; nested versus non-nested models Recursive least square, chow prediction failure test. Nonlinear regression - trial and error method, direct optimization, iterative linearization.

UNIT- IV: Regression with Qualitative Variables and Other Techniques

Dummy Variable : Testing structural stability of regression models. Dummy variable trap Regression with dummy dependent variables - LPM, Logit, grouped LOGIT, LOGIT for ungrouped and individual data, Probit and Tabit models their application. Modeling count data, poisson model.

Note for Paper Setting: : Minor Test – I and Minor Test - II each of 20 marks from Unit – I and Unit – II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit – III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit – III and IV with 100% internal choice be asked.

Basic Reading List
1.   Baltagi, B.H.(1998). Econometrics, Springer, New York.
2.   Chow, G.C. (1983). Econometrics, McGraw Hill, New York.
3.   Goldberger, A.S. (1998). Introductory Econometrics, Harvard University Press, Cambridge, Mass.
4.   Green, W. (2000). Econometrics, Prentice Hall of India, New Delhi.
5.   Gujarati, D.N. (1995). Basic Econometrics (2nd Edn.). McGraw Hill, New Delhi.
6.   Johnston, J. (1991). Econometrics, Methods (3rd Edn.). McGraw Hill, London.
7.   Koutsoyiannis, A. (1977). Theory of Econometrics (2nd Edn.). The Macmillan Press Ltd. London.
8.   Maddala, G.S. (1997). Econometrics, McGraw Hill; New York.
9.   Theil, H.(1981). Introduction to Econometrics, Prentice Hall of India, New Delhi.

Semester III

Elective Course (Stream B)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE307   **Title:** Environmental Economics
Credits: 6   **Maximum Marks: 100**
                                                  a) Major Examination: 60
                                                  b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Environmental Economics

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- ˝ To make the students aware of importance of economy, environment and economic growth and future of economic growth and sustainable development.
- ˝ To enlighten the students on the theory of environmental externalities and resource allocation, property rights and allocation of non-renewable resources.
- ˝ To develop comprehensive skills in environmental valuation techniques, ecological economics and sustainability.
- ˝ To train the students to pursue research and writing on environment and development issues.
- ˝ To equip the students to understand and apply environmental accounting and resource flow analysis in future research and writing.

UNIT – I: Economy, Environment and Economic Growth

Environmental Economics: Basic Concepts; Changing Perspectives on the Environment Economics and the Environment; Approaches in Addressing Natural Resource and Environmental Economics; A Framework for Understanding the Ecological Perspective; Environmental Microeconomics and Macroeconomics; History of Economic Growth and the Environment; Recent Economic Growth and the Environment; Future of Economic Growth and the Environment; Sustainable Development

UNIT – II: Environmental Externalities and Resource Allocation

External Costs and Benefits; Positive Externalities; Welfare Analysis of Externalities; Property Rights and Coase Theorem; Common Property Resources and Public Goods; Common Property, Open Access, and Property Rights; Environment as a Public Good; Global Commons; Allocation of Nonrenewable Resources; Hotelling's Rule and Time Discounting

UNIT – III: Valuing the Environment and Sustainability

Cost-Benefit Analysis; Techniques of Valuation; Balancing Present and the Future: The Discount Rate; Dealing with Risk and Uncertainties; Comparing Costs and Benefits;

Ecological Economics: Basic Concepts; Natural Capital; Issues of Macroeconomic Scale; Long-Term Sustainability

UNIT – IV: Environmental Accounting and Resource Flow

Greening the National Income Accounts; Environmentally Adjusted Net Domestic Product; Adjusted Net Savings; Genuine Progress Indicator; Better Life Index; Environmental Asset Accounts; Modeling Economic and Ecological Systems; Energy and Resource Flow Analysis; Input-Output Analysis

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhattacharaya, Ravindra, 2002, Environmental Economics, Oxford University Press, New Delhi.
2. Boumal, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, Cambridge University Press, Cambridge.
3. Bromely D.W. (Ed.) (1995), Handbook of Environmental Eonomics, Blackwell, London.
4. Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
5. Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan, London.
6. Hussen, A.N. (1999), Principles of Environmental Economics, Routledge, London.
7. Jeroen, C.J., M. Van Den Bergh (1999), Handbook of Environmental and Resource Economics, Edward Elgar Publishing Limited, U.K.
8. Kolstad, C.D. (1999), Environmental Economics, Oxford University Press, New Delhi.
9. Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.
10. Pennan, R.M. and J. McGilvary (1996), Natural Resource and Environmental Economics, Longman, London.
11. Sankar U. (Ed.) (2001), Environmental Economics,, Oxford University Press, New Delhi.
12. Tietenberg, T. (1994), Environmental Economics and Policy, Liarper Collins, New York.

Course No: PSECTE308   **Title: Financial Economics**
Credits: 6   **Maximum Marks: 100**
                                                      a) Major Examination: 60
                                                      b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Financial Economics

Syllabus for the Examination to be held in December 2022 to December 2024

Course Outcome:
- ˝ To study the structure and objectives of the financial market.
- ˝ To familiarize with the structure of financial market and the contents of financial assets.
- ˝ To learn basic concepts, functions and tools of the financial market: securities, currency, loans, precious metals and precious stones.
- ˝ To Understand the challenges of uncertain environment of financial markets, assess them and take appropriate financial and investment decisions.

UNIT- I: Nature and Role of Financial System

Money and finance-Money and near-money-Financial intermediation and Financial Intermediaries - The structure of the financial system - Functions of the financial sector - Indicators of financial development - Equilibrium in Financial Markets - Financial System and Economic Development - types of risk- return on assets,-Risk Return trade off - Valuation of Securities.

UNIT-II: Structure of Interest Rates

Theories of interest rate determination- The Classical Theory, The Loanable Funds Theory, The Keynesian Theory and Modern Theory of Interest; Term Structure of Interest rates-The expectations Theory, Liquidity Premium Theory, and Market Segmentation Theory - Spread between lending and deposit rates - Administered interest rates - Appropriate interest rate policy.

UNIT -III: The Central Bank, Commercial Bank and Monetary Policy

Functions of Central Bank - The aims and objectives of the monetary policy in developing countries - Instruments of monetary policy - Proliferation of banking and non-bank financial intermediaries - Effectiveness of monetary policy - Profitability and efficiency of banks; Development banks - role and functions; Investment banking and merchant banking; Financial sector reforms in India.

UNIT -IV: Non-Bank Financial Intermediaries and Financial Markets

Definition and types of non-bank financial institutions- Role and structure of money market and capital market - Call money market. Treasury bill market, Commercial bill market including commercial paper and certificate of deposits, Discounts market ó Government securities market - Markets for derivatives: futures and options, and other

derivatives : types, uses and pricing of derivatives ó Primary and secondary market for securities; SEBI: its impact on the working of capital market in India; IRDA and its role in financial markets.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhole, L.M. (1999), Financial Institutions and Markets. Tata McGraw Hill Company Ltd New Delhi.
2. Bhole, LM. (2000), Indian Financial System, Chugh Publications, Allahabad.
3. Edminster, R.O. (1986), Financial Institutions, Markets and Management, McGraw Hill, New York. 4. Goldsmith. R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S. Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
6. Johnson, H.J. (1993), Financial Institutions and Markets, McGraw Hill, New York.
7. Khan, M.Y. (1996), Indian Financial Systems, Tata McGraw Hill, New Delhi.
8. Machiraju, M.R. (1999), Indian Financial Systems, Vikas Publishing House, New Delhi.
9. Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
10. Prasad, K.N. (200 1), Development of Indiaøs Financial System, Sarup& Sons, New Delhi.
11. Pathak , B V. (2014), The Indian Financial System: Markets, Institutions and Services, Person education,   India

<p style="text-align:center">**Detailed Syllabus**</p>

Course No: PSECTE309   **Title:** Agricultural Economics
Credits: 6   Maximum Marks: 100
                                                  a) Major Examination: 60
                                                  b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<p style="text-align:center">**Agricultural Economics**</p>

Syllabus for the Examination to be held in December 2022 to December 2024

Course outcome:
- Able to get the factual knowledge about the nature and scope of agriculture economics.
- Able to understand the different models for agricultural development and price and marketing of agricultural products.
- Able to identify and provide solution to different risks and uncertainty involved in agriculture sector.
- Able to comprehend production function analysis and its application in agriculture.
- Able to get the factual knowledge about the concept of agriculture marketing and estimation of marketing efficiency.

UNIT - I: Agriculture Economics - Nature and Scope

Nature and Scope of Agricultural Economics; Role of agriculture in economic development, contribution of land, capital and labour in agricultural development; Different types of farming; Risk and Uncertainty in agriculture sources, expectation and variation measures to control farm risk; Supply and demand behavior in agriculture; Farm mechanization, Land Reforms -theoretical explanation.

UNIT -II: Agriculture and Economic Development

Changing phases of agriculture in economic development; Basic models for agricultural development- Schultz's transformation of traditional agriculture model. Lewis's unlimited supply of labour model, Fei-Ranis model of agricultural growth, Mellor's model of agricultural development, Jogenson's Model of dual economy, Boserup's model of agricultural development; Interdependence between agriculture and industry- some empirical evidence; Complementarity between agriculture and industry.

UNIT -III: Agricultural Production and Productivity

Agricultural Production-Resource use and Efficiency; Production function analysis in agriculture; factor combination and resource substitution; Firm size, production and Productivity; Laws of returns- theoretical and empirical findings-factor-product, factor-factor and product óproduct relationships; Costs and profits in agriculture; Farm budgeting and programming:

UNIT -IV: Agriculture Marketing, Prices and Development

Agricultural Marketing - functions and marketing efficiency, Classification of marketing, Approaches to Marketing efficiency estimation, Approaches to the study of marketing; Marketing channels- Marketing costs and Margins, Estimation of price spread, reasons for higher marketing cost of agricultural products; Difference between Marketable surplus and Marketed surplus; factors affecting marketable surplus and measure to increase marketable surplus- state policy with respect to agricultural marketing, Terms of trade between agricultural and non ó agricultural prices, need for State intervention; Development of agriculture through Agri-preneurs, Contract farming and E-marketing

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
2. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Dantwala, M.L. et, al. (1991), Indian Agricultural Development Science Independence, Oxford & IBH, New Delhi.
4. Government of India (1976), Report of the National Commission on Agriculture, New Delhi.
5. Government of India, Economic Survey (Annual), New Delhi.
6. Gulati, A., and T. Kelly (1999) Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi.
7. Joshi, P.C. (1975), Land Reforms in India: Trends and prospects, Allied Publishers, Bombay.
8. Kahlon, A.S. and Tyagi D.S. (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi:
9. Rao, C.H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford
10. University Press, New Delhi.
11. Reserve Bank of India, Report on Currency and Finance (Annual), Mumbai.
12. Rudra, A, (1982), Indian Agricultural Economics: Myths and reality, Allied Publishers. New Delhi.
13. Stini, G.R. (1979), Farm Size. Resource Use Efficiency and Ii come Distribution, Allied Publishers, New Delhi.
14. Papola, T.S. (1982), Rural Industrialization in India, Himalaya Publishing House, Bombay.
15. Soni, R.N. (1995), Leading Issues in Agricultural Economics, Arihant Press, Jalandhar.
16. Wanmali S. and Ramasamy (Eds.) (1995), Developing Rural Infrastructure. Macmillan, New Delhi.
17. Appu, P.S. (1996), Land Reforms in India, Vikas, New Delhi.

18. Bardhan, P. (1984), Land, Labour and Rural Poverty, Oxford University Press, New Delhi.
19. Brahmananda, P.R. and V.R. Panchumukhi (Eds.)(1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.

20. Chadha, G.K. and A.N. Sharma (1997), Growth, Employment and Poverty: Change and Continuity in Rural India, Vikas Publishing, New Delhi.
21. Chakarvarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
22. Raglivan and L. Sarkar (Eds.) (1996), Poverty and Employment, New Age, New Delhi.

<div align="center">**Detailed Syllabus**</div>

Course No: PSECTE310   **Title: Mathematical Economics**
Credits: 6   **Maximum Marks: 100**
                                               a) Major Examination: 60
                                               b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<div align="center">**Mathematical Economics**</div>

Syllabus for the Examination to be held in December 2022 to December 2024

Course outcome:
- ″ To equip students to understand the economic concepts and theories using mathematical tools and techniques to refine verbal logic.

UNIT - I:The Theory of Consumer Behaviour and Production

The Utility Approach, The Indifference Curve Approach, The Slutsky Equation and its generalization to n goods, concepts of elasticities. Cournot aggregation conditions, Engel Aggregation conditions, Linear Expenditure Systems, Treatment of Demand for Durable goods (Houthakker's and Taylor's dynamic models). Properties of Linearly Homogenous Production Functions, Cobb Douglas, CES production functions. Constrained optimization for producers; derivation of input demand functions. Adding up Theorem, production possibility curve, difference and differential equations applied to market equilibrium.

UNIT II: Market Structures

Assumptions of the neoclassical theory of the firm, profit maximization conditions of the classical firm, the perfectly competitive industry. Dynamic Changes vis a vis industry equilibrium. Monopoly: Basic Model: Comparison with perfect competition; Market Discrimination, Dynamic changes vis a vis market equilibrium. The Cournot Model, The Stackelberg Model. Pareto Optimality in a 2 X 2 framework; derivation of Pareto Optimality Conditions, Pareto Optimality under perfect competition, Externalities, The Theory of the Second Best.

UNIT III: Difference Equation and Differential Equations

First Order Difference Equations and Applications, The Cobweb Theorem, The Dynamics of the Multiplier, formalization of Harrods∅s Model, a single dynamic model of income inflation. Second order equations and applications- Samuelson's Multiplier Accelerator Model; General Principles, First Order Equations, Domar's Model, Neo-classical Growth Model (Solow), Phillips' Stabilization Model for a Closed Economy.

UNIT-IV: Calculus of Variation and Optimal Control Theory

Dynamic Optimization, Distance between Two Points on a Plane, Euler∅s Equation and the necessary Condition for dynamic optimization. Finding Candidates for extremals .The Sufficiency Conditions for the calculus of variations. Dynamic Optimization Subject to

Functional constraints. Applications to Economics, The Hamiltonian and the Necessary conditions for Maximization in Optimal Control Theory. Sufficiency Conditions for Maximization in Optimal Control. Optimal Control Theory with free Endpoints.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. R.G.D. Allen, Mathematical Economics, Macmillan
2. R.G.D. Allen, Mathematical Analysis for Economists, Macmillan
3. A.C. Chiang, Fundamental Methods in Mathematical Economics, McGraw-Hill
4. A.C. Chiang, Elements of Dynamic Optimization, McGraw-Hill
5. JM Henderson and RE Quandt: Microeconomics- A Mathematical Approach, McGraw-Hill

Elective Course (Stream A)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE401	**Title: International Political Economy**
Credits: 6	**Maximum Marks: 100** **a) Major Examination: 60** **b) Minor Tests - I & II: 20 each**
Duration of Major Examination: 3:00 hrs	

International Political Economy

Syllabus for the Examination to be held in May2023 to May 2025

Course outcome:
- To understand the broad principles and theories, which tend to govern the free flow of trade in goods, services and capital-both short-term and long term - at the global level.
- To prepare the students about the relevance and limitations of various theories and principles of international political economy.
- To examine the impact of the trade policies on economic development
.

UNIT-I: International Political Economy

International Political Economy: Meaning, Traditional Schools of International Political Economy. The International Trade System: Meaning; the Creation of the Post-war Trade System; Evolution of the Multilaterals Trade System; The Problem of Trade Cooperation; The Politics of Trade Liberalization; Multilateral Institutions and Trade Cooperation; Protection: Protection and its Consequences; the structure of Protection in the Advanced Industrialized Countries; The Economic Consequences of Protection.

UNIT - II: The Theory of Regional Blocks

Forms of Economic Cooperation; Static and Dynamic effects of a Custom Union: Production effect; Consumption Effects. European Union (EU) and North American Free Trade Agreement (NAFTA). Economic Progress of SAARC/SAFTA, etc. for Asian Economic Cooperation; Problems and Prospects of forming customs union in the Asian Region: Globalization: meaning; essential conditions for Globalization; implications and impact of Globalization.   .

UNIT -III: International Trade and Financial Institutions

The International Monetary System : The rise and fall of Gold Standard and Bretton Wood System (the interwar periods); Present International Monetary System IMF: Objectives; functions; Conditionality clause of the IMF; The Collapse of Brettong Wood System; World Bank : and its contribution - limitations.

GATT and WTO:GATT and Trade Liberalization : The Doha Declaration; WTO and Developing Countries with Special reference to India; Trade Related Investment Measures (TRIMs), Trade related aspects of Intellectual property (TRIPs) and General Agreement of Trade in Services (GATS).

UNIT - IV: Current Development and Problems in the International Economy

Asian Crisis and the lessons for the developing countries like India; Impact of Trade Reforms Since 1991 on Balance of Payments, Multinational Corporations: Definitions, benefits; domestic politics and MNCs; The Host Country Dilemma; Regulating MNCs activity in Developing Countries; International Regulation of MNCs.

International Debt: Debt-Growth link; Magnitude of Debt Problem; Causes of Debt problem; Remedial and preventive measures; Reasons for sharp rise in India's External Debt.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhagwati J. (Ed.) (1981), International Trade : Selected Readings Chambridge University Press
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M (1999) International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dana, M.S. (2000), International Economics: Study, Guide and Work Book (5th Edition), Rouledge Publishers, London.

5. Dunn, R.M. and J.H. Mutti (2000), International Economics, Rouledge, London.
6. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
7. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
8. King, p.G. (1995), Internatiional Economics and International Economic Policy : A Reader, McGraw Hill International Singapore.

9. Krugman, P.R. and M. Obstfild (1994) International Economics : Theory and Policy, Glenview, Foresman.
10. Oatley, Thomas (2004), International Political Economy Pearson Education (Singapore) Pvt. Ltd. Indian Branch 482 F.I.E. Paparganj, Delhi.
11. Salvatore, Dominic (2006) Theory and Problems of International Economics, Tata McGraw Hill Pub. Co. Ltd. New Delhi.
12. Condem W.M. (1965), Recent Developments in the Theory of International trade, Princeton University Press.
13. Greenway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London.
14. Clement M.A. R.L. Poffster and K.J. Rothwell (1969), Theoretical Issues in International Economics.
15. Crockett, A (1982), International Money: Issues and Analysis, The ELBS and Nelson.
16. Heller, H. Robvert (1968), International Monetary Economics, Prentice Hall, India.
17. Guegabsm H, (1984) International Monetary Economics, John Hopkins University Press, Baltimore.

Course No: PSECTE402   **Title: Demography and Climate Change**

Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Demography and Climate Change

Syllabus for the Examination to be held in May 2023 to May 2025

Course outcome:
- To make the students aware of population dynamics and climate change in global perspective and in the context of developing countries.
- To equip the students to pursue research and writing on water and land, disasters and displacement, health and environment.
- To train the students to apply the knowledge gained in understanding the gender dimensions of climate change and its impact on women, children and youth.
- To apply the knowledge imparted in gender mainstreaming in resource management.
- To make students deal comprehensively with migration and urbanization in context of climate change and adaptation and mitigation aspects in urban planning.
- To train the students to understand relationship between population and resource sustainability, demographic divide and sustainable development and role of communities in stabilizing climate and climate adaptation.

UNIT – I: Population Dynamics and Climate Change

Concepts of Population Dynamics and Climate Change Adaptation; Population, Greenhouse Gas Emissions and Climate Change; Population and Climate Change; Population and Water Scarcity; Population and Land Degradation; Climate-related Disasters and Displacement; Population, Health and Environment; Limits to Population Growth; Consequences of Population, Health, and Environmental Interactions; Impact of Climate Change

UNIT – II: Gender and Climate Change

Population, Gender and Climate Change; Women and Climate Change; Youth and Climate Change; Climate Change, Young Women and Millennium Development Goals; Children and Climate Change; Children, Environment and Health; Population and Reproductive Health in National Adaptation Programmes of Action (NAPAs) for Climate Change; Climate Change and Gender Equality and Adaptation Plans; Gender Mainstreaming and Water Resource Management; Gender Dimensions of Environmental Policies and Programs; Gender, Climate Adaptation and Climate Change Policy

UNIT – III: Migration, Urbanization and Climate Change

Typology of Mobility in the Context of Climate Change; Cities and Climate Change; Climate Change and Population Mobility; Policymakersø Perceptions and Evidence of Climate Migration; Implications of Population Growth and Urbanization for Climate Change; Urbanization, Greenhouse Gas Emissions and Climate Vulnerability; Adapting Urban Settlements to Climate Change; Climate Related Disasters and Displacement; Climate Change Mitigation and Transportation and Urban Infrastructure; Urban Planning for Mitigation and Adaptation; Adapting Cities to Climate Change

UNIT – IV: Population and Sustainability

Population, Resource Sustainability and Environmental Services; Population, Resource Sustainability and Institutions; Linkages between Population Dynamics and Sustainable Development; Asset Adaptation to Urban Climate Change; Demographic Divide and Sustainable Development; Population and Environmental Sustainability; Environmental Opportunities and Threats and Natural Resource Strategy; Population and Stabilizing Climate and Environmental Services in Communities; Community-Level Adaptation Deficit, Finance, Advocacy and Measures; Population and Future of Biological Biodiversity

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

1. Barnett, T.P., J.C. Adam, and D.P. Lettenmaier. 2005. õPotential impacts of a warming climate on water availability in snow dominated regions.ö *Nature* 438:303-309.
2. Biswas, Asit K. (1992), õSustainable Water Development: A Global Perspective,ö *Water International* Vol. 17, No. 2.
3. Center for Hazards and Risk Research (CHRR), Center for International Earth Science Information (CIESIN), and International Bank for Reconstruction and Development/The World Bank (2005). Global Multi-hazard Frequency and Distribution. CHRR. Columbia University.
4. Cole, Matthew A., and Eric Neumayer. 2004. õExamining the impacts of demographic factors on air pollution.ö *Population and Environment* 26:5-21.
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Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press.

9. Jiang, L., and K. Hardee (2009), "How Do Recent Population Trends Matter to Climate Change?" Working Paper, No. 1. Washington, D.C.: Population Action International.

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15. Marland, G., A. Boden, and R. J. Andres (2007), Global, Regional, and National CO2 Emissions Trends: A Compendium of Data on Global Change. Oak Ridge, TN: Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, United States Department of Energy)

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22. Tom Gardner-Outlaw and Robert Engelman (1997), Sustaining Water, Easing Scarcity: A Second Update, Population Action International, Washington, D.C.

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26. UNFPA (2007), *The State of World Population 2007: Unleashing the Potential of Urban Growth*, New York, N.Y.: UNFPA.

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34. World Bank (2008), *Development and Climate Change: A Strategic Framework for the World Bank Group,* Washington, D.C.: World Bank.

35. World Health Organization (2009), *Reproductive Health,* Geneva, website: http://www.who.int/topics/reproductive_health/en/

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<center>**Detailed Syllabus**</center>

Course No: PSECTE403   **Title: Urban Economics**
Credits: 6   **Maximum Marks: 100**
                                                 a) Major Examination: 60
                                                 b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Urban Economics**</center>

<center>Syllabus for the Examination to be held in May 2023 to May 2025</center>

Course outcome:
˝   To examine the organization of Urban Centers through the lens of economics, where the nature of cities is decided by various economic agents acting in self-interest.
˝   To understand and analyze the role of the government in the various sectors that concern the city and its residents

UNIT - I: Urban Economics and Cities
Introduction and Axioms of Urban Economics.   What Is Urban Economics?Definition of a City, The reasons for their existence; The Axioms of Urban Economics, Important Census Definitions. Urban Population, Why Do Cities Exist? Trading Cities, Factory Cities, Innovation Cities, Location Decisions of Firms, Why Do Firms Cluster? Agglomeration Economies, Urbanization Economies, Other Benefits of Urban Size, Learning Opportunities, Social Opportunities, City Size, Benefits and Costs of Bigger Cities, Locational Equilibrium, Land Rent, and Utility within a City. A System of Cities ó City Types , A Model of Laboratory Cities, Differences in City Size, Differences in Localization and Urbanization Economies, Local Goods and City Size, Local Employment Amplifies Size Differences, Urban Growth: Issues involved and Case Studies. The Role of Human Capital, Labor and Housing Markets in Shrinking Cities, Public Policy and Equilibrium Employment, Taxes and Firm Location Choices, Public Services and Location Decisions, Subsidies and Incentive Programs, Environmental Quality and Employment, Regional Context of Urban Growth, The Neoclassical Model, Differences in Natural Advantage Cause Concentration, A Decrease in Transport Costs Causes RegionalDispersion, Regional Concentration and Dispersion in the United States

UNIT -II: Urban Rent and Spatial Distribution of Population

Urban Land Rent ó Issues involved with different agents/sectors, Factor Substitution: Choosing a Building Height, Linear Housing-Price Curve: No Consumer Substitution, Consumer Substitution Generates a Convex Housing-Price Curve, Price Issues under different Assumptions: Time Costs, Public Services, Taxes, Amenities, Land-Use Patterns, Bid-Rent Curves for Business, Territories of Different Sectors, Input Choice and Factor Substitution, Land-Use Patterns, The Spatial Distribution of Employment, Spatial Distribution of Jobs. The Spatial Distribution of Office Employment and Office Space, Edge Cities, The Role of Subcenters in the Metropolitan Economy, Spatial Distribution of Population, Population Density in Portland and Boston, Density in World Cities, Commuting Patterns, The Rise of the Monocentric City, Innovations in Intracity Transportation, The Technology of Building Construction, The Primitive Technology of Freight, The Demise of the Monocentric City, Decentralization of Manufacturing: Trucks and Highways, Other Factors: Automobile, Single-Story Plants, and Airports,

Decentralization of Office Employment, Decentralization of Population, Urban Sprawl-Sprawl Facts, The Causes of Sprawl, The Consequences of Sprawl, Policy Responses to Sprawl

Neighborhood Choice, Diversity versus Segregation, Sorting for Local Public Goods, Diversity in Demand for Local Public Goods, Problems with Majority Rule and Formation of Municipalities, Variation in Consumption of the Taxed Good, Neighborhood Externalities, Neighborhood Choice, Segregation Equilibrium, Integration as a Stable Equilibrium, Mixed Neighborhoods, Lot Size and Public Policy, Minimum Lot Size Zoning and Segregation, Neighborhood Choices: The Roles of Education and Crime, Education and Neighborhood Choice, Crime and Neighborhood Choice, Racial/Religious/Caste/Class Segregation, Racial/Religious/Caste/Class Preferences and Neighborhood Choice, Other Reasons for Racial/Religious/Caste/Class Segregation, The Consequences of Segregation, Unfavorable Neighborhood Effects, Limited Access to Jobs: The Spatial Mismatch, Moving to Opportunity,

Zoning and Growth Controls, Land-Use Zoning, Fiscal Zoning, Minimum Lot Zoning and the Space Externality, Provision of Open Space, The Legal Environment of Zoning, Substantive Due Process, Equal Protection, Just Compensation, A City without Zoning? Growth Control: Urban Growth Boundaries, Precise Growth Control: Limiting Land Area and Lot Size, Winners and Losers from Growth Boundaries, Urban Growth Boundary and Density, Portland's Urban Growth Boundary, Municipal versus Metropolitan Growth Boundaries, Trade-offs with Growth Boundaries and Open Space, Other Growth-Control Policies. Limiting Building Permits, Development Taxes, Housing Regulations and Housing Prices,

UNIT – III: Urban Transport and Crime

Autos and Highways, Congestion Externalities, The Demand for Urban Travel, The Private and Social Costs, Equilibrium versus Optimum Traffic Volume, The Congestion Tax ó Issues Involved, Implementing Road Pricing: Tolls and HOT Lanes, Alternatives to a Congestion Tax, The Road Capacity Decision, Capacity Expansion and Latent Demand, Who Pays for Roads? Autos and Air Pollution, Internalizing the Externality, A Gasoline Tax, Greenhouse Gases and a Carbon Tax, Motor Vehicle Accidents, Vehicle Safety Policies: Bikers Beware, Pay to Drive Policies, Accidents and Congestion, Automobiles and Poverty

Urban Transit, Commuting and Transit Ridership, The Cost of Travel and Modal Choice, Demand Supply and Efficiency Issues, Nature of Subsidies.Designing a Transit System: Issues Involved, The Role of Density, Deregulation: Contracting and Paratransit, Transit and Land-use Patterns, Contracting for Transit Services, Education- Spending and Educational Achievement, The Education Production Function, The Home Environment, Peer Effects, School Inputs: The Importance of Teachers, Differences in Teacher Productivity, Characteristics of High-Productivity Teachers, The Effect of Class Size, Teacher Compensation, Innovation: Charter Schools, Promise Academy, Boarding Schools, Spending Inequalities and Public Policy, Intergovernmental Grants: Foundation Plans, Response to a Foundation Grant, Matching Grants: Guaranteed Tax Base, Effects of Equalization Plans on Spending and Achievement Inequalities, Education in Central Cities

Crime- Crime Facts, The Victims of Crime, The Costs of Crime, The Rational Criminal,

The Economics of Double Parking, Expected Utility and the Decision to Commit Crime, Preventing Crime, Morality and Anguish Costs, The Equilibrium Quantity of Crime, Drawing the Supply Curve, The Marginal-Benefit Curve and the Equilibrium Quantity of Crime, Increasing the Certainty of Punishment, Increasing the Severity of Punishment, legal Opportunities and Education, Lawful Opportunities and Crime, Education as Crime-Fighting Policy, Applications: Big-City Crime and the Crime Drop, Why Are Crime Rates Higher in Big Cities? The Optimal Amount of Crime, Crime Substitution and the Principle of Marginal Deterrence, The Role of Prisons, Incapacitation, Rehabilitation

UNIT – IV: Urban Housing and Taxation

Housing: Why Is Housing Different? Heterogeneity and Hedonics, Durability, Deterioration, and Maintenance, Quality Issues, Durability and Supply Elasticity, Moving Costs and Consumer Disequilibrium, The Filtering Model of the Housing Market, Filtering and the Housing Stepladder, Subsidies for New Housing, The Effects of Growth Controls, Filtering with Rising Income, The Price Effects of Growth Controls, Housing Policy- Public Housing, Public Housing and Recipient Welfare, Subsidies for Private Housing, Low-Income Housing Tax Credit, The Market Effects of Subsidized Housing, Housing Vouchers, Vouchers and Consumer Welfare, Market Effects of Vouchers, Portable Vouchers: Moving to Opportunity, Community Development and Urban Renewal, Urban Renewal, Recent Community Development Programs, Homelessness, Which Housing Policy Is Best? Subsidies for Mortgage Interest , Mortgage Subsidy and Efficiency, Mortgage Subsidy and Home Ownership, Rent Control and Rent Regulation
The Role of Local Government - Local Public Goods: Equilibrium versus Optimum, The Efficient Quantity of Local Public Goods, The Median Voter Picks the Equilibrium Quantity, Tiebout Model: Voting with Feet, Benefit Taxation, Natural Monopoly, Externalities, Public Education Externalities and Vouchers, Externalities from Public Safety Programs, Federalism and Metropolitan Government, A Closer Look at the Median Voter Result, A Series of Budget Elections, The Median Voter in a Representative Democracy, Implications of the Median-Voter Rule, Limitations of the Median-Voter Model, Local Government Revenue, Who Pays the Residential Property Tax? The Land Portion of the Property Tax, Structure Portion: A Partial-Equilibrium Approach, Structure Portion: A General-Equilibrium Approach, Changing the Assumptions, From Models to Reality- What about Rental Property Owners and Homeowners? Practical Guide for Policy Makers, What about the Business Property Tax?, the Tiebout Model and the Property Tax, Limits on Property Taxes, Intergovernmental Grants, Lump-Sum Grants, Matching Grants, Summary: The Stimulative Effects of Grants, Welfare Reform: Matching Grants to Lump-Sum Grants,

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

1. Urban Economics 8th Edition, McGraw Hill, Arthur OSullivan
2. A Companion to Urban Economics. Blackwell Publishing, Arnott, Richard; McMillen, Daniel P., eds.
3. Urban and Regional Economics. Oxford University Press.McCann, Philip
4. Lectures on Urban Economics, MIT Press Jan K. Brueckner

Elective Course (Stream B)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE404   **Title: Public Economics**
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Public Economics

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcomes:
- To learn about the role and functions of the government in an economy.
- To understand the policies and operations which involve the use of tax and expenditure measures.
- To train the student about the budgetary policy and basic problems of use of resources, distribution of income etc.
- To acquaint the student to vast array of physical institution - tax systems, expenditure programs, budgetary procedures, stabilization instruments, debt issues, level of governments etc, which raise a spectrum of issues arising from the operation of this institutions.
- To gain insights into the existence of externalities, concern for adjustment in the distribution of income and wealth etc require political processes for their solution in a manner which combines individual freedom and justice.
- To thoroughly understand fiscal institution with a careful analysis of the issues which underlined Budgetary policies in general and Indian experience in particular.

UNIT - I: Rationale for Public Policy

Social Contract theory of Hobbs and Locke's contribution, Market failures: Imperfections, decreasing costs and externalities; Role of govenrment as an agent of operationalizing planning and development: Private and Public mechanism for allocation of resources, problem of allocation of resources, Voluntary exchange models of Samuelson, Musgrave and Bergson; A. Wagnar theory of public expenditure, Objective of public expenditure, Tiebout hypothesis, Political economy of public economics - voting and rent seeking.

UNIT - II: Public Debt and Taxation

Classical view of public debt; compensatory aspects of debt policies, burden of public debt; principles of public debt management, theory of incidence of taxation; theory of optimal taxation, allocation, efficiency and equity trade off, problems of double taxation.

UNIT - III: Fiscal Federalism

Principal of multi unit finance: Fiscal federalism in India; Vertical and Horizontal imbalances, assignment of function and sources of revenue; constitutional positions: Finance commission, Planning commission criteria of transfer of resources; resources transfer from union of states and local bodies, Centre-state financial relationship.

UNIT - IV: Indian Public Finance

Indian tax system: major taxes in India income tax, Excise custom, corporation tax, service tax, VAT and agriculture expenditure tax; base of taxes, direct or indirect taxes, reforms in direct and indirect taxes, non tax revenue of Centre and states, Fiscal crises and fiscal sector reforms in India, Recommendations of 14th and 15[th]finance commission, problems associated with governance and finances of local bodies.

Note for Paper Setting: : Minor Test – I and Minor Test - II each of 20 marks from Unit – I and Unit – II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit – III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit – III and IV with 100% internal choice be asked.

Basic Reading List

1.   Musgrave, L.A. (1959), theory of public finance, McGraw Hill-Kogakhusa, Tokyo.
2.   Shoup, C.S. (1970), Public Finance, Aldine, Chicago.
3.   Buchanan, J.M. (1970), The Public Finance, Richard D, Irwin, Hovewood.
4.   Jha, R (1998), Modern Public Economic, Rutledge, London.
5.   Atkinson, A.B. and J.E. Siglitz (1980) Lecture on public Economic.
6.   Musgrave, R.A. and C.S. Shoup (Eds.) 1970, Readings in the Economics of taxation, George Allen and Unwin, London.
7.   Barman, K. (1986) Public debt management in India, Uppal Publishing House, New Delhi.
8.   Chelliah, Raj J, et.al (1981), Trends and issues in India's Federal finance, national institute of Public Finances and Policy, New Delhi.
9.   Bhargave, P.K(1982), Centre state Resource transfer in India, The academic press, Furgao.
10.   Bhargave, R.N(1967), The theory and working of Union Finance in India, Chaitanya Publishing House, Allahabad.
11.   Borker, V.V. (1971), Income tax reforms in India, Popular Prakashan, Bombay.
12.   Datt, R. (Ed.) 2001, Second Generation Economic Reforms in India, Deep and Deep Publications, New Delhi.
13.   Bagchi, A. (ed) (2005), Readings in Public Finance, Oxford Press, New Delhi.

Course No: PSECTE405

Title: Economics of Capital Market

Credits: 6

Maximum Marks: 100
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Economics of Capital Market

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcomes:
- To gain insights into capital markets through formal education.
- To understand capital market structure and importance of capital market in resources and to create the awareness among the students about various instruments of capital market.

UNIT - I: Stock Exchanges Management Principles and Practices

Introduction to Management óTheory and Practices, Systems Approach to Management, Functions of Management, Management of Stock Exchanges in India ó Evolution, ó Regulation and Supervision ó Role of SEBI ó Membership, Listing, Types of Exchanges ó National, Regional, Local, Social Responsibility of Exchanges, Corporate Governance and Stock Exchange, Management of Mutual Funds, Study of functions of BSE and NSE, Role of RBI as controller of Money Market

UNIT - II: Market of New Issues

Market of new issues ó Need for floating capital ó Public Offer Private Placement ó Rights Issue ó Equity and Debt ó Recent trends in public issues, Mutual Funds ó Concept and Classification ó Growth and Importance ó SEBI guidelines ó Performance of listed schemes ó Performance of Open-ended schemes, Merchant Banking óConcept ó New Issue Management and allied functions ó Merchant Banking in India ó Regulation of merchant Banking in India ó Pre issue Management ó Post Issue Management ó Mergers, Amalgamations and Takeovers, Venture Capital ó Nature and Scope ó Venture Capital in India óó Venture Capital Firms ó Study of Venture Capital funds of IDBI and SIDBI, NRIs and FIIs ó Concept ó Investment Portfolio ó Role of Foreign Investment ó Foreign Direct Investment- Collaboration ó Guidelines of Government of India for FIIs, Analysis of Financial statement ó Need for following International Standards of Accounting.

UNIT - IV: Secondary Markets

Trading in Security ó Securities Contract Regulation Act, 1956 ó Companies Act, 1956, FEMA, Instruments of Trading ó Need for planning and development for financial instruments ó Government and Corporate Securities, Trading Methods ó Trading Ring, On-line Trading, Carry Forward Systems ó Risk management ó Investor Protection, Government Securities Market ó Government Debt Instruments ó Short Term and Long Term Instruments ó Trading in Debt Instruments ó Gilt Edged Market, Securities Market Indicators ó Sensex ó Study of fixation of indices.

Interest rates ó Role of Interest rates in determining value of security ó Interest rates and its influence on money market and capital market, Indian Depository System ó Need ó Paperless Trading ó Benefits ó Need for educating investors 8. Derivatives trading in stock markets, NIFTY Futures and Options

UNIT - III: Investment Analysis

Investment Analysis ó Need for savings and investment ó Role of savings practices ó financial intermediaries ó linkage between financial and real savings ó Importance of household savings ó Shifts in Savings and investment, Financial Systems in India ó Money Market ó Debt Market ó Capital Market ó Need for correlating them ó Bullion Market and Foreign Exchange Market, Security Market Analysis ó Need for study and research of market data ó Factors influencing behaviour of market ó Valuation of Shares and securities ó Methods of valuation, Investment Avenues ó Objectives of investors ó Characteristics of investments ó Risk Return relationship ó Classes of instruments ó Investment portfolio for average household, Security Pricing ó Influencing factors ó Valuation ó Constant Growth Model ó Book value ó Liquidity Value ó Intrinsic Value ó Market Price ó Bond Valuation ó Single Period valuation Model ó Multi Period Valuation Model óDividend capitalization ó Valuation of Security in India, Technical Analysis of market ó meaning and Importance ó Timing of investment ó Basic Terms ó Dow theory ó Major trends ó Breadth of the markets ó Volume of Trading ó Principles of Technical Analysis ó Oscillatory, Fundamental Analysis.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Avadhani V., A capital market, Himalaya publishing house, New Delhi
2. Bhole, L. M., Financial institutions and markets, Tata Mc Graw-Hill, New Delhi
3. Pathak, B.V., the Indian Financial System: Markets, Institutions and Services, Pearson Education India, 2011
4. Management Practices ó V. Murthy
5. Management for Results ó Peter Drucker
6. Stock Exchanges and Investment ó V. Raghunathan
7. Financial Management ó R. P. Rastogi
8. OTC Exchange of India ó Nipum S. Mehta.
Performance Appraisal for Mutual Funds ó M. S. Turan, B. S. Bodlay
9. New Issues Capital Market in India ó M. A. Mulay
10. Study in Indian Financial System ó V. A.Avdhani
11. The New Issues Market ó O. K.Sur
12. Foreign Exchange Manual ó D. T. Khilnani
13. Futures and Options ó R. Mahajan
14. Derivatives ó T. V. Somnathan
15. Trading on-line ó Alephs Patel
16. India Security Market ó O. P.Gupta

Detailed Syllabus

Course No: PSECTE406   **Title:** Economics of Innovation
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Economics of Innovation

Syllabus for the Examination to be held in May 2023 to May 2025

Course outcome:
˝   To examine the drivers of innovation and its contribution to the growth of firms, industries, and economies.
˝   To explores the links between intellectual property rights and innovation and growth.
˝   To apply tools and concepts from microeconomics, macroeconomics, and theory with empirical analysis drawn from the Developed and Developing World
˝   To introduce students of economic policy to the processes that drive innovation.
˝   To explored the role of the state in investing in research and development as well as in creating a strong intellectual property regime and the impact it has in creating incentives to innovate.
˝   To understand the social returns of innovation and its impact on the nature and magnitude of employment as well as the legal issues surrounding international treaties on intellectual property.

UNIT – I: Innovation and its Measurement

The Nature and Importance of Innovation- Definitions. The Microeconomic Effects of Innovation- Interaction between producers and users of Innovation. Innovations and Market Failure. Restoring Incentives to Invent and Innovate- Firms Competing through Innovation, The Nature and Role of Intellectual Property- Definitions, Why Are Intellectual Property Rights Awarded? Types of IPRs, the Measurement of Innovation, Productivity, and Growth- How Can Innovation Be Measured? Productivity at the Firm, Industry, and Economy Level. Comparing Productivity and Growth across Countries

UNIT II : National Innovation System and Intellectual Property Rights

The National Innovation System- The Central Role of R&D - The Government-University Axis - The University-Business Axis- The Government-Business Axis-National Innovation Systems in Emerging Markets and India, Innovative Firms and Markets - Entrepreneurship and New Firms- Innovation and Firms- Markets and Innovation- Empirical Evidence on the Returns to Innovation - Evidence on Interactions between Competition and Innovation, Intellectual Property Rights and Firms- How Can Firms Benefit from IPRs? Exploring the Returns to IPRs - Markets for IPRs. Costs of Obtaining and Enforcing IPRs- IPR Strategies, Empirical Studies on the Value of IPRs, Diffusion and Social Returns -Modeling the Rate of Adoption of an Innovation-Statistical Evidence on Rates of Adoption- Spillovers and Social Returns to Innovation-Empirical Studies of Social Returns- Spatial Dimensions of Spillovers

UNIT– III: Macroeconomics of Innovation

The Macroeconomics of Innovation - Models of Economic Growth- The Neoclassical Growth Model, Endogenous Growth Models, Evolutionary and Other Models Innovation and Globalization-definitions, World Trade in Historical Perspective, Theories of Trade and Growth, International Knowledge and Technology Flows: Theory and Evidence, International Financial Flows, International Aspects of IPRs Technology, Wages, and Jobs -Microeconomic Models of Innovation and Labor Markets, Innovation and Labor Markets: Evidence from Firms, Macroeconomic and Trade Models of Innovation and Labour Markets

UNIT – IV: Economic Policies and Innovation

Economic Policy -Microeconomic Policies to Promote Firm-Level Innovation- Is the Intellectual Property System Working? Incentive Systems for Encouraging Firm-Level R&D, Other Innovation Policies, Macroeconomic Issues and Policy- Macroeconomic Evidence on IPRs and Economic Growth. Trade-Related Aspects of Intellectual Property (TRIPS), Intellectual Property Rights, Exhaustion, and Parallel Imports, Piracy and Counterfeit, R&D in the Global Economy, International Migration of Skilled Labor

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Greenhalgh, C. and Rogers, M (2008) Innovation, Intellectual Property and Economic
2. Growth, Princeton University Press
3. Schumpeter, J.A. (1943) Capitalism, Socialism and Democracy. Routledge, 6th Ed.
4. Antonelli, C. (2003). The Economics of Innovation, New Technologies and Structural
5. Change. Routledge.
6. Antonelli, C. (2003). The Economics of Innovation, New Technologies, and Structural
7. Change. Routledge.
8. Ahlstrom, D. (2010). Innovation and Growth : How Business Contributes Society;
9. Academy of Management Perspectives, Vol.24, Issue 3, Pp. 11-24
10. Antonelli, C. (2003). The Economics of Innovation, New Technologies, and Structural
11. Change. Routledge. 210 pgs.
12. Peilei, F. (2011). Innovation capacity and economic development: China and India.
13. Economic Change and Restructuring, Vol.44. Issue 1/ 2 Pp.49-73

<center>**Detailed Syllabus**</center>

Course No: PSECTE407   **Title:** Health Economics and
                                                  Policy

Credits: 6   **Maximum Marks: 100**
                                                  a) Major Examination: 60
                                                  b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Health Economics and Policy**</center>

<center>Syllabus for the Examination to be held in May 2023 to May 2025</center>

Course outcome:
- ˝ Able to provide a basic overview of the health care industry with emphasis on the economics involve in medical care delivery.
- ˝ Able identify various factors that influence the demand and supply for health and health care.
- ˝ Able to understand and evaluate the economics of health care decision making.
- ˝ Able to analyze the market for health insurance, comparing and contrasting the role of private and public sector thereof.

UNIT – I: Introduction to Health Economics

Meaning and Scope of Health Economics: Interdependency between Health and Development: Dual relationship between Health and Economic Status; Dimensions of Health- morbidity- Mortality and Life Expectancy; Occupational Health Hazards: Determinants of Health- Nutrition and Health- Malnutrition.

UNIT – II: Demand and Supply for Health and Medical Care

Demand for Health: The Production of Health and Some empirical Evidences, Measures of Health Status; The demand for medical care Factors affecting and Measuring demand: Impact of Health Insurance on the demand for medical services; Elasticity of demand; Law of Supply and equilibrium Empirical literature on factors determining demand for medical care; Markets Evaluation of medical care: Cost óbenefit analysis

UNIT – III: Theory of Production and Cost in Medical Care

The Economics of consumer Choice; Indifference curve; Short run and long run production function, short run and long run cost theory and factors affecting. Profit Maximization in Perfectly Competitive and Imperfect Markets and role of the Not for Profit organizations.

UNIT – IV: Health Insurance and Health care Institutions

Demand for health insurance- the risk averse decision maker- insurance policy; Health insurance and market failure. relationship between health insurance and demand for medical services: Moral hazards; Government as Health Insurer; Demand for private health insurance and factors affecting the quantity demanded of health insurance.

Conduct of the private health insurance industry. Contribution of Public and Private Health care institutions in provision of Health care

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

1. Anthony J. Cuyler and Joseph P.(ed) (2000),Handbook of Health Economics, Newhouse, North-Holland, Elsevier Science.
2. Alistair Mc Guire, John Henderson and Gravin Mooney, The economics of health care, Routledge Publishers.
3. Allen C. Goodman and MironStano, The Economics of Health and Health Care
4. Charles E. Phelps, Health Economics, Routledge Publishers.
5. Clewar, Ann, and David Perkins. 1998. Economics for Health Care Management. London: Prentice Hall.
6. Dreze and Sen, India : Economic Development and Social Opportunity.
7. Folland, Sherman, Allen Goodman, and MironStano. 2001. The Economics of Health and Health Care. New York: Macmillan, Third Edition
8. Goodman A.C., MironStano, The Economics of Health and Heatlth Care
9. Henderson, James.W., Health Economics and Policy
10. Karman H.E. , Economics of Health .
11. M. Perlman, Economics of Health and Medical Care
12. M. Grossman, The Demand for Health, A theoretical and empirical investigation
13. Rice, Thomas. 1998. The Economics of Health Reconsidered. Chicago: Health Administration Press.
14. Santerre and Neun, (2004) Health Economics: Theories, Insights, and Industry Studies
15. Schultz T.W. , Investment in Human Capital
16. Sherman Folland, Allen C. Goodman, and MironStano, (2004.), The Economics of Health and Health Care, 4th Edition, Prentice Hall.
17. William Jack, Principles of Health Economics for Developing Countries, WBI Development Studies.
18. Van Der Gaag and M. Perlman, Health, Economics and Health Economics.

Elective Course (Stream C)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE408   **Title:** Energy Economics
Credits: 6   **Maximum Marks: 100**
                                                        a) Major Examination: 60
                                                        b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Energy Economics

Syllabus for the Examination to be held in May 2023 to May 2025

Course outcome:
- To learn to apply theoretical knowledge to understand real economic issues.
- To equip students with required knowledge to address the challenges of the energy sector

UNIT – I: Introduction to Energy Economics

Scope and Importance, Types of Energy: Primary Energy, Secondary Energy, Energy Sources: Renewable and Non-Conventional, Primacy of Energy in the Process of Economic Development; Factors determining the demand for energy; Effects of Energy Shortage.

UNIT – II: Energy Markets & Planning

Free Market Optimization; Market Response to Non-marginal Price Changes; Equity Issues & Market Failures and Non-Market Objectives, Implications of Decreasing Costs Conditions on Energy Markets; Energy Planning: Scope, Objectives, Policy Tools and Constraints.

UNIT – III: Energy Conservation

Economics of Energy Conservation, Effects of Market Imperfections on energy conservation and Policy Options; Principal Practical Possibilities of Energy Conservation in Energy Producing and Energy Using Sectors, Energy Efficiency, Energy Service Companies (ESCOs) and their Energy Saving Models: Guaranteed Saving Model and Shared Saving Model, Growth of ESCOs in India, Energy Input-Output Analysis, Main Features of India's Energy Policy.

UNIT – IV: Energy Pricing and Demand Management

Energy Markets and Role of Demand Management: Objectives and Need for Energy Planning& Demand Management, Planning Procedures and Problems of Implementation, Integrated Framework for Energy Pricing: Objectives, Basic Pricing Principles, Short-Run V/S Long-Run Marginal Cost Pricing, Peak-Load Off-Load Pricing as tool of

Demand Management, Shadow Pricing, Pricing of Exhaustible/ Non-renewable Energy Sources, Energy Demand Analysis& Forecasting: Importance and Methods.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Mohan Munasinghe& Gunter Schramm (1983), Energy Economics, Demand Management and Conservation Policies, Van Nostrand Reinhold Company, New York.
2. Mohan Munasinghe& Peter Meier(2009), Energy Policy Analysis& Modelling, Cambridge Energy & Environment Series
3. Parikh Jyoti (1997) Energy Models for 2000 and Beyond, Tata McGraw Hill
4. Chopra S.K. Energy Policy for India: Towards Sustainable Energy Security in India in India in 21st Century, Oxford& IBH Publishers.
5. Guido Buenstorf (2004), Economics of Energy and Production Processes: An Evolutionary Approach, Edward Elgar Publishing, ISBN10:184376461X Hardback.

<center>**Detailed Syllabus**</center>

Course No: PSECTE409   **Title:** Indian Industry

Credits: 6   **Maximum Marks: 100**

                                          a) Major Examination: 60

                                          b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Indian Industry**</center>

<center>Syllabus for the Examination to be held in May 2023 to May 2025</center>

Course outcome:
- To acquire the ability to analyze the Industrial policy in India &changes in it during Pre and Post Reform period.
- To examine the Financial Institutions for Industrial Development and Financial Health of a Firm.
- To be able to extend knowledge about Employment dimensions, Industrial Relations, Social security measures in Indian Industry.
- To understand Industrial legislations and recent Labour Reforms.
- To be able to ascertain and analyze the current problems of different industries and growth of the industrial sector in J&K

UNIT-I: Industrial policy during Pre &Post Reform period

Industrial policy of 1948, 1956, 1977, 1980 of India and changes in it till 1990ǿs.Pattern of industrial development before 1990. Industrial policy of 1991, Pattern of industrial development after 1991, Impact of Industrial policy on Industrial development of India, New Competition Act in replacement of MRTP Act ,New Manufacturing Policy, , Make In India, Start Up India, Stand Up India.

UNIT-II: Industrial Finance

The Need for finance, types of finance, sources of finance, choice of funding. Role nature, volume & types of institutional finance-Industrial development Bank of India, Industrial Finance Corporation of India, State Financial Corporation, Industrial Credit &Investment Corporation of India. Financial Statement-Balance Sheet, Profit & Loss Statement, Assessing the Financial Soundness of a firm through Ratio óAnalysis.

UNIT- III: Industrial Labour

Employment dimensions of Indian Industry, Industrial Relations: Meaning, objectives &evolution of industrial Relations during Post-Reform period. Social Security Measures in India and its critical review. Wages & problem of Bonus in India. Industrial legislations, Economic reforms & Labor Laws. Skill Development in the unorganized (informal) Sector. Skill Developments for Marginalized and Vulnerable Groups.

UNIT- IV: Current Problems of Selected Industries

Iron Steel Industry , Automobile industry, Pharmaceutical industry in India, Information technology Industry in India. Industrial sickness, Government policy with regard to

Industrial sickness in India, industrial policy for development of Small scale industry after 1991, problems of Small scale industry, Industrial policy of Jammu & Kashmir of 2016 ,Growth &Development of Industrial sector in Jammu &Kashmir State.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Ahluwalia I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985) Industrial Economics, Wiley Eastern.
3. Cherunilam, F. (1994) Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
4. Desai, B. (1999), Industrial Economy in India (3rd Edition) Himalaya Publishing House, Mumbai.
5. Kuchhal, S.C. (1980), Industrial Economy of India (5th Edition) Chaitanya Publishing House, Allahabad.
6. A.N. Sadhu& A Singh, (1988), Industrial Economics, Himalaya Publishing House, Bombay.
7. S.S.M. Desai and NirmalBhalerao (2002) Industrial Economy of India, Himalaya Publishing House, Delhi.
8. Francis Cherunilam, Industrial Economics.
9. Dutt&Sundhramøs Indian Economy.
10. Uma Kapilla, Indian Economy.
11. MatrianNuissian, Industrial Economics.
12. Indian Development Reports(2000-2012).
13. Indian Industrial Survey 2001-2012.
14. P.G. Gadgil&Gadgil, Industrial Economics of India.
15. Planning Commission Government of India,Policy Papers- 2011,2012.
16. The World competitiveness Yearbooks-2010, 2011, 2012.
17. Rameshwari Pandya,Skill Development &Entrepreneurship in India,New Century Publications ,New Delhi,India,2016.
18. Different websites of Department of Industrial Policy &Promotion of India.
19. Planning commission Document of 12thfive year plan.
20. Memoria &Memoria .Dynamics of Industrial Relations.
21. K.V.Sivayya&V.B.M .Das, Indian Industrial Economy,S.Chand&co:2004.

Websites:
Ministry of Skill Development and Entrepreneurship.
Ministry of Human Resource Development.
Ministry of Labour&Employment.
Ministry of Micro,Small&Medium Enterprises.

<div align="center">**Detailed Syllabus**</div>

Course No: PSECTE410   **Title: Asian Economic Development**

Credits: 6   **Maximum Marks: 100**
                                         a) Major Examination: 60
                                         b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<div align="center">**Asian Economic Development**</div>

<div align="center">Syllabus for the Examination to be held in May 2023 to May 2025</div>

Course outcome:
- ˝ To train to undertake research and writing on the economic development of Asian Economies, with particular emphasis on contemporary perspective.
- ˝ To make the students understand the problems and debates in Asian economic growth, planning, economic reforms, public investment, and inflation.
- ˝ To equip the students in current foreign trade, productivity growth, human capital, innovation and infrastructure development and gaps in Asian countries.
- ˝ To impart the students to become applied development economics practitioners on successful completion of the course.
- ˝ To enable the students to undertake comparative research and writing in the economic development of Asian Economies in contemporary scenario and futuristic outlook.

UNIT – I: Asian Economic Growth and Policy

Asian Economic Growth and Contributions of Sub-Region; Role of Economic Reforms in India and China to Asian Economic Growth; Inflation and Asian Growth Performance; Export Performance and Asian Economic Growth; Short-Term Economic Growth Prospects in Asia; Risks for Sustaining Growth Performance in Asia

UNIT – II: Development Challenges in Middle-Income Asian Economies

Asiaøs Transformation to Middle Income Economies; Challenges of Middle Income Asian Economies; Middle Income Trap in Asian Economies; Economic Trends, Short-Term Prospects and Policy Challenges in Countries of Central Asian, East Asian, South Asian and Southeast Asian Economies

UNIT – III: Transforming Asia to High Income Economies

Role of Productivity Growth in Transition to High Income Asian Economies; Innovation and Production Diversification and Upgradation in Asian Economies; Entrepreneurship and Innovation in Asian Economic Development; Role of Human Capital in Asian Growth Performance; Infrastructure Investment and Structural Change in Asian Economies

UNIT – IV: Challenges of Achieving High Income Economies in Asia

Human Capital Investment and Public Finances in Asian Economies; Addressing Education Quality and Education Gaps; Infrastructure Needs in Asian Economies; Role

of Sound Policies and Institutions; Achieving Macroeconomic Stability; Technological Progress, Innovation and Infrastructure Development; Human Capital and Economic Transformation, Strong Basic Infrastructure and High Economic Performance

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

1. Abiad, A., M. Debuque-Gonzales, and A. L. Sy. (2017). *Infrastructure in Middle-income Countries: If You Built IT, Growth Will Come?* Asian Development Bank. Manila.
2. Abrigo, M., S-H Lee, and D. Park. (2017). *Human Capital Spending, Inequality, and Growth in Middle-Income Asia.* Asian Development Bank. Manila.
3. Aghion, P. and C. Bircan. (2017). *The Middle Income Trap from a Schumpeterian Perspective.* Asian Development Bank. Manila.
4. Aizenman, J., Y. Jinjarak, G. Estrada, and S. Tian. (2017). *Flexibility of Adjustment to Shocks: Economic Growth and Volatility of Middle-Income Countries Before and After the Global Financial Crisis of 2008.* Asian Development Bank. Manila.
5. Berglof, E. and V. Cable. (2017). *Back in Business: Industrial Policy for Emerging Economies in the New Globalisation.* Asian Development Bank. Manila.
6. Bruszt, L. and N. F. Campos. (2017). *Deep Economic Integration and State Capacity: A Mechanism of Avoiding Middle Income Trap?* Asian Development Bank. Manila.
7. Eichengreen, B., D. Park and K. Shin. (2017). *The Landscape of Economic Growth: Do Middle Income Countries Differ?* Asian Development Bank. Manila.
8. Estrada, G., X. Han, D. Park, and S. Tian. (2017). *Asia's Middle- Income Challenge: An Overview.* Asian Development Bank. Manila.
9. Georgiev, Y., S. Guriev, P. Nagy and A. Plekhanov. (2017). *Structural reform and productivity growth in Emerging Europe and Central Asia.* Asian Development Bank. Manila.
10. Ha, J. and S-H Lee. (2017). *Population Aging and the Possibility of a Middle Income Trap in Asia.* Asian Development Bank. Manila.
11. Kim, J. and J. Park. (2017). *Importance of Total Factor Productivity Growth in Middle Income Countries.* Asian Development Bank. Manila.

Detailed Syllabus

Course No: PSECTE411   **Title: Econometrics – II**
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Econometrics – II

Syllabus for the Examination to be held in May 2023 to May 2025

Course outcome:
- ˝ To learn various statistical methods applicable to different topics in economics and those needed for applied economic research.
- ˝ To enable students to learn multivariate methods and do multivariable data analysis in development-related studies.

UNIT-I: Dynamic Econometric Model

Autoregressive and distributed lag models Koyckøs approach, partial adjustment and adaptive expectations model, instrumental variables
Problem of auto-correlation - Application; Almon approach to distributed-lag models, Error correlation mechanism, causality test, Granger test and Simøs test, exogeneity.

UNIT-II: Simultaneous Equation Models: Single Equation Methods

Introduction - Structural form, reduced form, recursive form and final form model. The simultaneous equation bias and inconsistency of OLS estimators, The identification problem order and rank conditions of identification. Estimation of simultaneous equation model - single equation model: Indirect least squares (ILS). Instrumental variable (IV); 2SLS and their properties K-class estimator, limited information maximum likelihood (LIML) and least variance ratio (LVR)

UNIT-III: Time Series Analysis

Stationary-unit roots and co-integration. Dickey-Fuller test, Augmented DF test, Engle- Granger test, Random walk model, Trend, volatility, integration, co-integration and error correction, Forecasting with ARIMA modeling, Box-Jenkinøs methodology, Vector autoregression , Problems with VAR modelling - Applications: ARCH, GARCH

UNIT - IV: Panel Data

Panel data techniques, pooling data, the chow test, differencing, with more than two time periods, fixed effect or first differencing, random effects Advanced panel methods- unbalanced panel, when slopes vary with time and individual, random or fixed effects, Housman test

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Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bridge, J.L. (1971). Applied Econometrics, North Holland Publishing Company.
2. Chow, G.C. (1983). Econometrics, MCGraw Hill, New York.
3. Intrilligator, M.D. (1978). Econometric Models, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
4. Johnston, J. (1991). Econometric Methods, McGraw Hill ∓Book Co., London.
5. Johnston, J. and J. Di Nardo (1997). Econometric Methods, The McGraw-Hill Companies Inc.
6. Judges Griffiths Hill, Liitkepohl and Lee (1994). The Theory and Practice of Econometrics, 4thedn., John Wiley & Sons, 1994
7. Kmenta, J. (1997). Elements of Econometrics, University of Michigan Press, New York.
8. Koutsoyannis, A. (1977). Theory of Econometrics (2ndEdn.). The Macmillan Press Ltd., London.
9. Theil, H. (1971) Principles of Econometrics, John Wiley & Sons Inc.
10. Gujarati, D.N. (I995), Basic Econometrics (2ndedn.). McGraw Hill, New Delhi.
11. Koutsoyiannis, A. (1.977). Theory of Econometrics (2ndedn.). The Macmillan Press Ltd., London.

Detailed Syllabus

Course No: PSECTE412   **Title: Urban and Regional Economics**

Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Urban and Regional Economics

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcome:
- ″ To examine the theories and models related to location.
- ″ To study and analyze the inter-regional models and factor mobility.
- ″ To enlighten the students with growth pole model, regional policy and environmental aspects of urban economy

UNIT-I: Introduction

Regional Accounts. Spatial Price Theory: Spatial Price Equilibrium; Market Area Boundaries; Reilly's Law; F. o. b, Uniform Delivered and Basing-Point Prices Compared; Spatial Monopoly and Price Discrimination; Two Alternative Models of Pricing Under Free Entry. Location: The One Market, One-Input case; Transport Orientation; Losch on Location and the ‒Ideal Economic Region‖; The General Equilibrium Theory of Location.

UNIT- II: Models, Movements and Growth

Models: Export-Base Models; Interregional Models. Trade and Factor movements: Interregional Commodity Trade; Interregional Factor Mobility; Factors of Spatial Economics. Regional Growth: Neo-classical Regional Growth Models; Neo-classical Growth and Interregional Flows; Is Regional Development ‒Competitive‖ or ‒Generative‖? A Cumulative Causation Model; The Core-Periphery Model.

UNIT- III: Analysis and Issues

Growth-Pole Analysis: Spread and Backwash Effect; Growth Poles and Regional Policy. Technique: Input-Output Model; the Attraction Model; Linear Programming; Gravity-Model; Shift and Share Analysis. Policy Issues: Efficiency v/s Equity; Interregional Equity; Income, Quality of Life and Regional Welfare; Payroll Subsidies and Taxes. Evaluation of Regional Policy.

UNIT- IV: Urban Economics

Intra-Urban Factor Substitution; the Density Gradient; Intra-Urban Location; the New Urban Economics. A Macroeconomic Model of Urban Decline; Optimal city Size. The Urban Public Sector; Housing and Environmental Problems.

Note for Paper Setting: : Minor Test – I and Minor Test - II each of 20 marks from Unit – I and Unit – II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit – III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit – III and IV with 100% internal choice be asked.

Basic Reading List

1. ADAMS, F.G., BROOKING, C.G., AND GLICKMAN, N.J.(1975), ‗On the specification and simulation of a regional econometric model: a model of Mississippi', Review of Economics and Statistics, 57, 286-98.
2. AIROV, J. (1963), ‗The Construction of interregional business cycles', Journal of Regional Science, 5, 1-20.
3. AIROV, J. (1967),‗Fiscal-policy theory in an interregional economy: general interregional multipliers and their application', Papers and Proceedings, Regional Science Association, 19, 83-108.
4. ASHBY, L.D.(1968),‗The shift and share analysis: a reply', Southern Economic Journal, 34, 423-5.
5. BECKMANN, M.J. (1968), Location Theory, New York: Random House.
6. BECKMANN, M.J. (1970),‗ the analysis of spatial diffusion processes', Papers and Proceedings, Regional Science Association, 25, 109-17.
7. BECKMANN, M.J. (1976),‗spatial equilibrium in the dispersed city', 117-25, in G.J. Papageorgiou (ed.), Mathematical Land Use Theory, Lexington, Mass.: Lexington Books.
8. BECKMANN, M.J. and MCPHERSON, J. (1970),‗City size distributions in a central place hierarchy: an alternative approach', Journal of Regional Science, 10, 25-13.

Semester IV
Elective Course (Stream D)
(One course to be opted)

Detailed Syllabus

Course No: PSECTE413   **Title: Natural Resource Economics**

Credits: 6   **Maximum Marks: 100**
                                                                            a) Major Examination: 60
                                                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Natural Resource Economics

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcome:
- To make the students aware of importance of relationship between population, food and environment, agriculture impact on environment, and sustainable agriculture.
- To enlighten the students on the non-renewal resource, energy and economic systems, economics of recycling, economics of alternative energy and policies for energy transitions.
- To enable the students to understand comprehensively the mechanism of renewable resource management.
- To equip the students to apply the knowledge gained in research and writing on economics of forest and water management, policies for sustainable forest and water management and economics of pollution control.
- To trained the students to apply the skills obtained in research and writing on green economy; tradeoff between protecting the environment and the economy, trade and environment, economics of sustainable development and policies.

UNIT – I: Population, Food and Environment

Dynamics of Population Growth; Predicting Future Population Growth; Population Growth and Economic Growth; Ecological Perspectives on Population Growth; Feeding the World: Population and Food Supply; Agriculture's Impact on Environment; Sustainable Agriculture for the Future

UNIT – II: Nonrenewable Resource and Economic Systems

Supply of Nonrenewable Resource; Economic Theory of Nonrenewable Resource Use; Global Scarcity or Increasing Abundance; Economics of Recycling; Energy Trends and Projections; Energy Supplies; Renewable Energy Sources; Economics of Alternative Energy Futures; Policies for Energy Transition

UNIT - III: Renewable Resource Management and Pollution

Principles of Renewable Resource Management; Ecological and Economic Analysis of Renewable Resource; Economics of Forest Management; Policies for Sustainable Forest

Management; Economics of Water Management; Policies for Sustainable Water Management; Economics of Pollution Control; Pollution Control Policies: Standards, Taxes and Permits; Policy Choice: Pollution Taxes Versus Tradable Permits

UNIT - IV: Green Economy, Trade and Sustainable Development

Concept of Green Economy; Relationship between Economy and Environment: Environmental Kuznets Curve; Porter Hypothesis and Costs of Environmental Regulation; Tradeoff between Protecting the Environment and the Economy and Job Creation; Environmental Impact of Trade; Trade and Environment: Policy and Practice; Trade Agreements and Environment; Strategies for Sustainable Trade; Economics of Sustainable Development; Reforming Global Institutions; Policies for Sustainable Development

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
   1. Bhattacharaya, Ravindra, 2002, Environmental Economics, Oxford University Press, New Delhi.
   2. Boumal, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, Cambridge University Press, Cambridge.
   3. Bromely D.W. (Ed.) (1995), Handbook of Environmental Eonomics, Blackwell, London.
   4. Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
   5. Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan, London.
   6. Hussen, A.N. (1999), Principles of Environmental Economics, Routledge, London.
   7. Jeroen, C.J., M. Van Den Bergh (1999), Handbook of Environmental and Resource Economics, Edward Elgar Publishing Limited, U.K.
   8. Kolstad, C.D. (1999), Environmental Economics, Oxford University Press, New Delhi.
   9. Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.
   10. Pennan, R.M. and J. McGilvary (1996), Natural Resource and Environmental Economics, Longman, London.
   11. Sankar U. (Ed.) (2001), Environmental Economics,, Oxford University Press, New Delhi.
   12. Tietenberg, T. (1994), Environmental Economics and Policy, Liarper Collins, New York.

Course No: PSECTE414   **Title: Labour Economics**
Credits: 6   **Maximum Marks: 100**
                                                        a) Major Examination: 60
                                                        b) Minor Tests - I & II: 20 each
Duration of Major Examination: 3:00 hrs

Labour Economics

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcome:
  ˝   To evaluate and interpret the labour market policies of governments, unions and other actors in the labour market;
  ˝   To Identify the actions of economic actors within the labour market, and identify various outcomes of the labour market, that are driven by economic incentives;
  ˝   To critically analyze labour market quantitative research.
  ˝   To Synthesize information on different actors and outcomes across the various labour markets topics:
  ˝   To analyze labour market issues through the application of economic data and theories.

UNIT – I: Labour Markets and Employment

Nature and characteristics of labour markets in developing countries like India- Paradigms of labour market analysis - Classical, neoclassical and dualistic economy - Methods of recruitment and placement, Employment service organization in India - Unemployment Concept, Types, and Measurement particularly in India - Impact of rationalization and modernization on employment in India

UNIT – II: Wage Determination

C1asscal, neo-classical and bargaining theories of wage determination- Concepts of minimum wage, living wage and fair wage - Discrimination in labour markets- Inflation wage relationship at micro and macro levels, National wage policy- Wages and Wage Boards in India- Bonus system and profit sharing

UNIT – III: Industrial Relations

Labour movement - Growth, pattern and structure of labour unions in India - Achievements of labour unions, Causes of industrial disputes and their settlement and prevention mechanism- Role of tripartism- Current trends in collective bargaining - Role of judicial activism - Labour legislation in India - International labour organization

UNIT – IV: State and Labour

Social security of labour - Concept of social security and its evolution- Review of states policies with respect to social security and labour welfare in India - Special problems of labour: Child labour, female labour, Discrimination and gender bias in treatment of labour- Labour market reforms - Exit policy, need for safety nets, measures imparting

flexibility in labour markets - Second National Commission on Labour - Globalization and labour markets

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked

Basic Reading List
1. Bhagoliwal, T.N (1982), Economics of Labour and Industrial Relations, Sahitya Bhawan, 1982.
2. Tyagi, B.P. (2004), Labour Economics and Social Welfare,
3. Joshi, M.V. (1999), Labour Economics and Labour Problems, Atlantic publishers and Distributors, New Delhi.
4. Loveridge, R., A.L Mok(1979), Theory of labour Market Segmentation, MartinusNijhoff Social Science Devision, The hague, Boston, London.
5. Papola, T.S., P.P. Ghosh and A.N. S h a r m a (Eds.) (1993), Labour, employment and Industrial Relations in India, B.R. Publishing Corporation, New Delhi.
6. Saxena, R.C (1974), Labour Problems and Social Welfare. K. Nath & Co-Education Publishing & Printers, Meerut
7. Venkata Ratnam, C.S. (2001), Globalization and Labour- Management Relations: Dynamics of Change, Sage Publications/Response Books, New. Delhi.

Detailed Syllabus

Course No: PSECTE415   **Title: Indian Agriculture**
Credits: 6   **Maximum Marks: 100**
                                                               a) Major Examination: 60
                                                               b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Indian Agriculture

Syllabus for the Examination to be held in May 2023 to May 2025

Course outcome:
- ˝ Able to comprehend the role and function of agriculture in the economic development of Indian economy.
- To understand and compare the growth trajectory of production and productivity before and after green revolution.
- To land utilization pattern and study critically land reforms in India.
- To understand the fundamentals of cooperative movement in India.
- To study and analyze the extend of agriculture unemployment and problem of rural indebtedness in India.
- To understand the basic issues regarding agriculture credit system in India.
- Generate awareness and critically analysis about the role and function of Public Distribution in India
- To gain the knowledge about the growth and importance of agriculture in international context

UNIT– I: Role, Problems and Development of Agriculture in India

Contribution of agriculture in national economy, Trends in agricultural production and productivity; Causes of its backwardness, and measures for agriculture development, Land utilization ó classification of land, change in land utilization pattern, optimal land use pattern; Cropping pattern determinants of cropping patterns, land under food and non ó food crops, future cropping pattern: Agriculture in Five Year Plans: Rural industrialization: Challenges and Proposition

UNIT – II: Agriculture Reforms and Cooperation in India

Land reforms in India-land tenure systems, objectives, measures and abolition of intermediaries, reorganization of agriculture and progress of land reforms; Technological change and New Agricultural Strategy-Green revolution, Ingredients of green revolution, impact of green revolution on agricultural production , employment, income distribution, economic disparity and inter-regional disparities, Future rational of green revolution; Development of Organic Farming in India: Scope and Challenges: Doubling of farmers Income by 2022 : Rationale and Strategy: Cooperative movement in India: Problems and Prospects of cooperative institutions.

UNIT – III: Agricultural Labour and Agriculture Finance

Nature and extent of agricultural labour in India; agricultural wages in India, male - female wage differences; factors responsible for marginalization of rural labour,

Programmes for improving the conditions of agricultural labour; Rural labour unemployment-estimates and magnitude, state policy towards rural employment-latest; Magnitude of rural -urban migration in India, factors responsible for migration, Extent of rural indebtednessø in India after independence, causes of indebtedness and impact of legislation measures; characteristics and sources of rural credit- institutional and non-institutional, Reorganization of rural credit-cooperatives, commercial banks, Regional Rural Banks, Role of NABARD.

UNIT – IV: Agricultural Growth in India and External Sector

Recent trends in agricultural growth in India; Inter-regional variations in growth of output and productivity, Supply of inputs -irrigation , power, seed and fertilizers; Food Security in India - Public Distribution System, Targeted Public Distribution System, status of ICDS and mid day meals; Impact of subsidies on agriculture inputs; Capital formation in Indian agriculture, Foreign Trade in Indian agricultural development- Globalization of Indian economy and problems and prospects of India agriculture under WTO regime.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
2. Bilgrami, S.AR. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Dantwala, M.L. et. al. (1991), Indian Agricultural Development Science Independence, Oxford & IBH, New Delhi.
4. Government of India (1 976), Report of the National Commission on Agriculture, New Delhi.
5. Government of India, Economic Survey (Annual), New Delhi.
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22. Raj, K.N. et. a. (1988), Essays in the Commercialization of Indian Agriculture, Oxford University Press, New Delhi.

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29. Ghatak, S. arid K. Ingerscent (1984). Agriculture and Economic Development, Selectbooks, New Delhi. Raj, K.N. at (1988), Essays in The Commercialization of Indian Agriculture. Oxford University Press, New Delhi.

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38. Chaudhary, P. (1972), Readings in Indian Agricultural Devlopment, George Allen & Unwin, London.

39. Chelliah, Raja J. and R Sudamhan (1999) Income Poverty and Beyond : Human Development in India, Social Science Press New Delhi.
40. Bhalla, G.S. (1994), Economic Liberalization and India Agriculture, Institute for Studies in Industrial Devlopment, New Delhi.
41. Chelliah, Raja J. and R Sudarshan (1999) Income Poverty and Beyond : Human Development in India, Scial Science Press, New Delhi.
42. Dantwala, M.L. (1996), Dilemmas of Growth The Indian Experience, Sage Publishing, New Delhi.

Course No: PSECTE416   **Title: Economics of Gender**
Credits: 6   **Maximum Marks: 100**
                                            a) Major Examination: 60
                                            b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Economics of Gender

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcome:
- ˝ To understand the various concepts and development of policies on gender and choices executed by women concerning marriage and fertility.
- ˝ To study the labour market participation of women, alongside government policies targeting those decisions.
- ˝ To gain experience in evaluating how economic theory and practice fits into the larger social sciences goal of describing human behaviour by focusing on women and the family

UNIT – I: Introduction to Economics of Gender

Why study the economics of gender; gender and development; gender and confidence; balance of gender power; missing women and son preference; gender equality and development; feminist criticism of development indices. Institutionalization of WID- the UN, CEDAW and Equity Agenda. From WID to WAD to GAD; The Challenges from Post modernism and women of the Global South; Rise of Neo-liberal Policies; feminist Critiques of Neoliberal Policies; the Case of WDR 2012; Gender planning Techniques ó paradigm shift from womenøs well being to womenøs empowerment.

UNIT – II: Women and Gender in Economics

Historical view on Gender and Economic Analysis ; Neoclassical approach ; Marxian approach ; institutional economics ; Critique of the mainstream Feminist Economics ; Critique of Homo-Economicus; the Rhetoric of economics ; Methodological Convergence ó Gender as a central category of Economic Analysis; Economy as Constituted by Provisioning Activities ; Human well óbeing as the Central Measure of Economic Success; Feminist Ecological Economics ; Feminization of poverty; gender budgeting , future of gender economics; gender and SDGs;

UNIT – III: Economics of Marriage and Family

Marriage and the family óan empirical approach; Review of relevant empirical methods in economics; Gains from Marriage ósupply /Demand for Marriage ó Partner Search and Matching; economics of fertility; the Fertility Model- Quantity-Quality Trade-off; marriage and fertility ó 21st century trends; marriage and divorce- Changing ; feminist and socialist analysis; the marriage market ; life cycle of labour supply ó womenøs life cycle labour supply; gender disparity in high academic achievement; marriage and fertility in developing countries.

UNIT – IV: Labour Market Inequalities

Women discrimination in the labour market; Unpaid Work óConceptual and Measurement Issues; Womenøs labour force participation ó historical and current trends; the gender gap in earning; theories and survey the available evidence; Occupational segregation in occupation, education and gender, compensating wage differentials , gender discrimination, gender differentials across countries; women and land rights in India; revisiting global feminization through flexilelabour; globalisation , labour standards and womenøs rights- dilemmas of collective inaction in an interdependent world.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Agarwal, B. (1994). A Field of Oneøs Own: Gender and Land Rights in South Asia,
2. Agarwal, Bina 1988. õWho Sows? Who Reaps? Women and land right in India.ö The journal of Peasant Studies 15 (4) pp. 531-581.
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6. Amsden, A.H. (ed.). (1980). The Economics of Women and Work, Penguin,
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<center>**Detailed Syllabus**</center>

Course No: PSECTE417   **Title: Theory of Games and Information**

Credits: 6   **Maximum Marks: 100**
                                             a) Major Examination: 60
                                             b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<center>**Theory of Games and Information**</center>

<center>Syllabus for the Examination to be held in May 2023 to May 2025</center>

Course Outcome:

- ˝   To analyse game theory and information economics that currently exists in journal articles and oral tradition in a way that shows how to build simple models with few players who act õstrategicallyö using a standard format.
- ˝   To learn simple modelling techniques along with an understanding of game theory and information economics.

UNIT – I: Static and Dynamic Games

Static Games of Complete Information: Basic Theory: Normal Form Representation of Games, Iterated Elimination of Strictly Dominated Strategies, Motivation and Definition of Nash Equilibrium. Applications- Cournot and the Bertrand Models, Final OfferArbitration. Mixed Strategies and Existence of Nash Equilibrium, Information: The Strategic and Extensive Forms of a Game, Information Sets, Perfect, Certain, Symmetric, and Complete Information, Dynamic Games of Complete and Perfect Information: Backwards Induction, Stackelberg Model, Sequential Bargaining, Two Stage Games of Complete but Imperfect Information, examples. Repeated Games ó Two stage repeated games, infinitely repeated games, Collusion between Cournot Oligopolists, Dynamic Games of Complete but Imperfect Information- Subgame Perfect Nash Equilibrium, Folk Theorem

UNIT – II: Static and Dynamics Games of Incomplete Information

Static Games of Incomplete Information- The Harsanyi Transformation and Bayesian Games, Examples and Applications, Definition of Bayesian Nash Equilibrium, Auction, The Revelation Principle, Dynamic Games of Incomplete Information- Concept of Perfect Bayesian Nash Equilibrium, Signalling: The Informed Player Moves First: Signalling, Variants on the Signalling Model of Education, General Comments on Signalling in Education, The Informed Player Moves Second: Screening, Reputation in the Finitely Repeated Prisoners' Dilemma

UNIT – III: Production, Insurance and Salesman Game

Moral Hazard: Hidden Actions: Categories of Asymmetric Information Models, A Principal-Agent Model: The Production Game, The Incentive Compatibility and Participation Constraints, Optimal Contracts: The Broadway Game, Efficiency Wages, Tournaments, Adverse Selection: Introduction: Production Game, Adverse Selection

under Certainty: Lemons I and II, with Heterogeneous Tastes: Lemons III and IV, Adverse Selection under Uncertainty: Insurance Game

Mechanism Design and Post-Contractual Hidden Knowledge: Mechanisms, Unravelling, the Maskin Matching Scheme, and the Revelation, Principle, Myerson Mechanism, Design, An Example of Post-Contractual Hidden Knowledge: The Salesman Game, The Groves Mechanism

UNIT – IV: Bargaining, Risk Aversion, and Uncertainty

Bargaining: The Basic Bargaining Problem: Splitting a Pie, The Nash Bargaining Solution, Alternating Offers over Finite Time, Alternating Offers over Infinite Time, Auctions: Values Private and Common, Continuous and Discrete, Optimal Strategies under Different Rules in Private-Value Auctions, Revenue Equivalence, Risk Aversion, and Uncertainty

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Games and Information 4th Edition, Blackwell, Eric Rasmusen
2. A Primer on Game Theory, Harvester Wheatsheaf, Robert Gibbons
3. Microeconomics: Theory and Applications, OUP India, Anindya Sen
4. Intermediate Microeconomics: A Modern Approach, W.W. Norton, Hal Varian
5. Microeconomic Theory, Andreu Mas-Colell, Michael Dennis Whinston, Jerry R. Green, Oxford University Press, 1995
6. Microeconomics, 3/E by Hugh Gravelle & Ray Rees, Pearson, 2004

Open Choice Courses in Semester IV

Detailed Syllabus

Course No: PSECTO418   **Title: Indian Economic Policy and Planning**

Credits: 4   Maximum Marks: 100
                                                  a) Major Examination: 60
                                                  b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

Indian Economic Policy and Planning

Syllabus for the Examination to be held in May 2023 to May 2025

Course Outcome:
- To acquaint the students in a comprehensive manner with different aspects of Indian economy.
- To understand various policy issues and measures to understand economic initiatives for improving economic development and growth, agriculture and industry, planning of the different sectors of the economy and the place of Indian economy in the international level particularly after economic reforms are covered.
- To sharpen the analytical faculty of the students to understand the whole system of Economic Policy in India.

UNIT – I: Economic Planning- Rationale, Features and Objectives

The Rationale of Planning, Important Features of Indian Plans, Objectives of Economics Planning, Evaluation of the Objectives of Economic Planning, Regional Planning Conceptualized, Magnitude of Regional Imbalances in India, Regional Planning Policy in India, Lack of Genuine Regional Planning in India.

UNIT – II: The Strategy of Planning

Strategy of India's Development Plans; The earlier Phase (Mahalanobis Strategy), Appraisal of the Mahalanobis Strategy of Development, Failure of the Mahalanobis Strategy of Development, Departures from the Mahalanobis Strategy of Development, The Seventh Plan Development strategy- Agricultural Development Led Growth Strategy, The New Development Strategy, The Tenth Plan Strategy , The Eleventh Plan Development Strategy.

UNIT – III: Assessment of Indian Planning

Targets and Achievements of Plans, Accomplishments of Economics Planning, An appraisal of the Planning Process, Establishment of NITI Aayog.

UNIT – IV: Black Economy in India

Definition of Black Economy, Methods of Estimating Black Money, Estimates of the size of Black Economy, Causes of Black Money, Consequences of Black Money, Government Measures to curb Black Money.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List

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<div align="center">**Detailed Syllabus**</div>

Course No: PSECTO419   **Title: Financial Institutions and Markets**

Credits: 4   **Maximum Marks: 100**
a) Major Examination: 60
b) Minor Tests - I & II: 20 each

Duration of Major Examination: 3:00 hrs

<div align="center">**Financial Institutions and Markets**</div>

<div align="center">Syllabus for the Examination to be held in May 2023 to May 2025</div>

Course Outcome:
   ˝   To study the structure of financial market and the contents of financial assets.
   ˝   To learn basic concepts, functions and tools of the financial market: securities, currency, loans, precious metals and precious stones.
   ˝   To understand the challenges of uncertain environment of financial markets, assess them and take appropriate financial and investment decisions.

UNIT- I: Nature and Role of Financial System

Money and finance-Money and near-money-Financial intermediation and Financial Intermediaries - The structure of the financial system - Functions of the financial sector - Indicators of financial development - Equilibrium in Financial Markets - Financial System and Economic Development - types of risk- return on assets,-Risk Return trade off - Valuation of Securities.

UNIT-II: Structure of Interest Rates
Theories of interest rate determination- The Classical Theory, The Loanable Funds Theory, The Keynesian Theory and Modern Theory of Interest; Term Structure of Interest rates-The expectations Theory, Liquidity Premium Theory, and Market Segmentation Theory - Spread between lending and deposit rates - Administered interest rates - Appropriate interest rate policy.

UNIT -III: The Central Bank, Commercial Banks and Monetary Policy

Functions of Central Bank - The aims and objectives of the monetary policy in developing countries - Instruments of monetary policy - Proliferation of banking and non-bank financial intermediaries - Effectiveness of monetary policy - Profitability and efficiency of banks; Development banks - role and functions; Investment banking and merchant banking; Financial sector reforms in India.

UNIT -IV: Non-Banking Financial Intermediaries and Financial Markets

Definition and types of non-bank financial institutions- Role and structure of money market and capital market - Call money market. Treasury bill market, Commercial bill market including commercial paper and certificate of deposits, Discounts market ó Government securities market - Markets for derivatives: futures and options, and other derivatives : types, uses and pricing of derivatives ó Primary and secondary market for securities; SEBI: its impact on the working of capital market in India; IRDA and its role in financial markets.

Note for Paper Setting: : Minor Test ó I and Minor Test - II each of 20 marks from Unit ó I and Unit ó II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15 Marks : 7½ Marks each). Major Test of 60 Marks consisting of multiple choice questions of 10 Marks (5 marks each from Unit ó III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks : 15 Marks each) from Unit ó III and IV with 100% internal choice be asked.

Basic Reading List
1. Bhole, L.M. (1999), Financial Institutions and Markets. Tata McGraw Hill Company Ltd New Delhi.
2. Bhole, LM. (2000), Indian Financial System, Chugh Publications, Allahabad.
3. Edminster, R.O. (1986), Financial Institutions, Markets and Management, McGraw Hill, New York. 4. Goldsmith. R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S. Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
6. Johnson, H.J. (1993), Financial Institutions and Markets, McGraw Hill, New York.
7. Khan, M.Y. (1996), Indian Financial Systems, Tata McGraw Hill, New Delhi.
8. Machiraju, M.R. (1999), Indian Financial Systems, Vikas Publishing House, New Delhi.
9. Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
10. Prasad, K.N. (200 1), Development of Indiaøs Financial System, Sarup& Sons, New Delhi.
11. Pathak , B V. (2014), The Indian Financial System: Markets, Institutions and Services, Person education, India

Detailed Syllabus

Course No. PSECTE420   Title : **Research Methodology**
Credit : 6   Maximum Marks : 100
                                                               a)   Major Examination : 60
                                                               b)   Minor Tests : I & II : 20 each

Duration of Major Examination : 3 : 00 hrs

Syllabus for the Examination to be held in May 2023 to May 2025

Research Methodology

. To gain knowledge about basic concept of research and research methodology.
. Able to understand the use of scientific method to investigate and analyze various economic phenomena.
. To provide an opportunity to take a focused view on the methodological possibilities and limitations they face while conducting, research in economics.
. To identity and use various sources of secondary data and databases available and improve their analytical skills to carry out individual research.

UNIT-I: Fundamentals of Research and Research Problem
Research: Definitions, Meaning, Scope and Objectives, Motives and
significance of Research; Types of Research ó descriptive vs. analytical, applied vs.
fundamental, quantitative vs. qualitative, conceptual vs. empirical, significance of
research, research process;
Criteria of good research; Research ethics; Research Problem: Nature, Considerations in
selecting a problem, necessity of defining the problem,

UNIT-II: Literature Review, Research Design and Data Collection
Meaning and importance, Sources of literature, Selection of Research Problem,
Formulation of Research Problem, Research Design: Meaning, Need and Features of
good design, Types of Research
Design: Sampling Design- steps, characteristics of a good sampledesign and different
types of a sample design.

Unit III: Data Collection, Hypothesis testing and Report Writing
Data Collection: Methods of Data Collection ó Observation, Interview, Questionnaire,
Schedule, Development of working hypothesis; flow diagram for hypothesis testing.
Formulation of
statistical Hypotheses - Null and Alternative, interpretation and generalization,
systematization of findings, writing of report,

Unit IV: Data Base of Indian Economy and Software's
Important Data Sources- National and International; Familiarity with
different data base such as: Capital online, RBI-Hand Book of Statistics
on Indian Economy, National Sample Survey Organisation reports,
Annual Survey of Industries, Census data ó National Family and Health
Survey (NFHS) reports. indiastat.com, NSSO, RBI Bulletin, Economic
Survey etc. Introduction to Statistical softwareǿs like SPSS/E-Views andworking on
Excel.

Note for Paper Setting: Minor Test ô I and Minor Test - II each of 20 marks from Unitô I and Unit ô

II respectively with multiple choice questions (5 Marks) and two medium answer type questions (15

Marks: 7½ Marks each). Major Test of 60 Marks consisting of multiple-choice questions of 10 Marks (5 marks each from Unit ô III and IV) and four short answer type questions of 5 Marks each with 100% internal choice (20 Marks) and two long answer type questions (30 Marks: 15 Marks each) from Unit ô III and IV with 100% internal choice be asked.

Basic Reading List:

1. Don Ethridge, õResearch Methodology in Applied Economics: Organizing, Planning and Conductingö Second Edition, Blackwell Publishing 2004.
2. Johnson, Glenn Leroy Research methodology for economists: philosophy and practice, Macmillan ; 1986. xx, 252 p.
3. Greenlaw, S., Doing Economics: A Guide to Understanding and Carrying Out Economics Research, Houghton Mifflin references and bibliography.
4. Kagel, JH and Roth, AE (1995) The Handbook of Experimental Economics, Princeton University Press, Princeton.
5. Goon, AM, MK Gupta and B. Das Gupta (1983), Fundamental of Statistical Vol. I, The World Press, Calcutta.
6. Hoel, P.er (1954) Introduction to Mathematical Statistics, Wiley and Sons.
7. Hogg R.V. and A.T. Craig (1970), Introduction to Mathematical Statistics, Macmillian Publishing Co., New York.
8. Nagar, A.L. and R.K. Das (1993). Basic Statistics, Oxford University Press, New Delhi.
9. Rao, C.R. (1965), Linear Statistical Inference and Application Wiley and Sons.
10. Sukhatme, P.V. and B.V. Sukhatme (1970). Sampling Theory of Survey with Applications Lowa State University Press, Ames.
11. Walpole, R. Statistics (1980), Collier Macmillan.
12. Kothari C.R, Research Methodology , Vishwa Prakashan, N.Delhi.
13. Wilkinson & Bhandarkar, Methodology & Techniques of Social Research, Himalaya Publishing House.
14. Research Methodology, Tripathi P.C, Sultan Chand & Co.. N.Delhi.
15. Karlinger, Foundations of Behaviour Research, Surjeet and Company, N.Delhi.
16. Koutsoyiannis, A. (1977). Theory of Econometrics (2nd Edn.). The Macmillan Press Ltd. London.