

PHD SYLLABUS (ECONOMICS)

The Ph.D. Economics syllabus consists two parts. Part one is general & research aptitude, and second part is subject domain. 1/3 and 2/3 of questions may from part-A, and Part-B respectively.

General and Research Aptitude (Part-A)

Research Aptitude

Research: Meaning, Types, and Characteristics, Positivism and Post- positivistic approach to research. Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods. Steps of Research. Thesis and Article writing: Format and styles of referencing. Application of ICT in research. Research ethics.

Data Interpretation

Sources, acquisition and classification of Data. Quantitative and Qualitative Data. Graphical representation (Bar-chart, Histograms, Pie-chart, Table-chart and Line-chart) and mapping of Data. Data Interpretation. Data and Governance.

Information and Communication Technology (ICT)

ICT: General abbreviations and terminology. Basics of Internet, Intranet, E-mail, Audio and Video-conferencing. Digital initiatives in higher education. ICT and Governance.

People, Development and Environment

Development and environment: Millennium development and Sustainable development goals. Human and environment interaction: Anthropogenic activities and their impacts on environment. Environmental issues: Local, Regional and Global; Air pollution, Water pollution, Soil pollution, Noise pollution, Waste (solid, liquid, biomedical, hazardous, electronic), Climate change and its Socio-Economic and Political dimensions. Impacts of pollutants on human health. Natural and energy resources: Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests. Natural hazards and disasters: Mitigation strategies. Environmental Protection Act (1986), National Action Plan on Climate Change, International agreements/efforts -Montreal Protocol, Rio Summit, Convention on Biodiversity, Kyoto Protocol, Paris Agreement, International Solar Alliance.

Subject (Part-B)

Micro Economics

Theory of Consumer Behaviour - Theory of Production and Costs -Decision making under uncertainty Attitude towards Risk -Game Theory – Non-Cooperative games -Market Structures, competitive and non-competitive equilibria and their efficiency properties -Factor Pricing -General Equilibrium –Analysis-Efficiency Criteria: Pareto-Optimality, Kaldor – Hicks and Wealth Maximization -Welfare Economics: Fundamental Theorems, Social Welfare Function -Asymmetric Information: Adverse Selection and Moral Hazard.

Macro Economics

National Income: Concepts and Measurement -Determination of output and employment: Classical & Keynesian Approach -Consumption Function -Investment Function-Multiplier and Accelerator-Demand for Money-Supply of Money - IS–LM Model Approach -Inflation and Phillips Curve Analysis -Business Cycles -Monetary and Fiscal Policy -Rational Expectation Hypothesis and its Critique.

Statistics and Econometrics

Probability Theory: Concepts of probability, Distributions, Moments, Central Limit theorem - Descriptive Statistics – Measures of Central tendency & dispersions, Correlation, Index Numbers -Sampling methods & Sampling Distribution- Statistical Inferences, Hypothesis testing - Linear Regression Models and their properties – BLUE -Identification Problem-Simultaneous Equation Models – recursive and non-recursive -Discrete choice models -Time Series Analysis

Mathematical Economics

Sets, functions and continuity, sequence, series - Differential Calculus and its Applications - Linear Algebra – Matrices, Vector Spaces - Static Optimization Problems and their Applications -Input-Output Model, Linear Programming -Difference and Differential equations with applications –

International Economics

International Trade: Basic concepts and analytical tools - Theories of International Trade - International Trade under imperfect competition -Balance of Payments: Composition, Equilibrium and Disequilibrium and Adjustment Mechanisms -Exchange Rate: Concepts and Theories -Foreign Exchange Market and Arbitrage -Gains from Trade, Terms of Trade, Trade Multiplier -Tariff and Non-Tariff barriers to trade; Dumping -GATT, WTO and Regional Trade Blocks; Trade Policy Issues -IMF & World Bank

Public Economics

Market Failure and Remedial Measures: Asymmetric Information, Public Goods, Externality - Regulation of Market – Collusion and Consumers' Welfare -Public Revenue: Tax & Non-Tax Revenue, Direct & Indirect Taxes, Progressive and non-Progressive Taxation, Incidence and Effects of Taxation -Public expenditure -Public Debt and its management -Public Budget and Budget Multiplier -Fiscal Policy and its implications.

Money and Banking

Components of Money Supply -Central Bank-Commercial Banking -Instruments and Working of Monetary Policy -Non-banking Financial –Institutions -Capital Market and its Regulation.

Economic Growth and Economic Development

Theories of Economic Development: Adam Smith, Ricardo, Marx, Schumpeter, Rostow, Balanced & Unbalanced growth, Big Push approach. Models of Economic Growth: Harrod-Domar, Solow, Robinson, Kaldor Technical progress – Disembodied & embodied; endogenous growth-Indicators of Economic Development: PQLI, HDI, SDGs -Poverty and Inequalities – Concepts and Measurement -Social Sector Development: Health, Education, Gender.

Environmental Economics and Demography

Environment as a Public Good Market Failure Coase Theorem -Cost-Benefit Analysis and Compensation Criteria -Valuation of Environmental Goods -Theories of Population -Concepts and Measures: Fertility, Morbidity, Mortality -Age Structure, Demographic Dividend -Life Table –Migration

Indian Economy

Economic Growth in India: Pattern and Structure -Agriculture: Pattern & Structure of Growth, Major Challenges, Policy Responses -Industry: Pattern & Structure of Growth, Major Challenges, Policy Responses Services: Pattern & Structure of Growth, Major Challenges, Policy Responses -Rural Development – Issues, Challenges & Policy Responses -Urban Development – Issues, Challenges and Policy Responses. Foreign Trade: Structure and Direction, BOP, Flow of Foreign Capital, Trade Policies -Infrastructure Development: Physical and Social; Public-Private Partnerships -Reforms in Land, Labour and Capital Markets-Centre-State Financial Relations and Finance Commissions of India; FRBM -Poverty, Inequality & Unemployment.
