

**SECTION – A**  
**(Common for all candidates)**

Total Marks: 50

**Ph.D. Entrance Examination Syllabus (Research Methodology)**

Unit	Content
1	<b>Basics of Research:</b> Research: Meaning, Objective, Characteristics, Steps of research, Methods of research, Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical.
2	<b>Research Problem and Research Design:</b> Introduction to Research Problem, Necessity of Defining the Problem, Selecting the Problem, Techniques Involved in Defining a Problem, Meaning and Types of Research Design, Important Concepts Relating to Research Design
3	<b>Sampling Design:</b> Census and sample survey, Implications of a Sample Design, Steps in sampling Design, Criteria of Selecting a Sampling Procedure, Characteristics of a Good Sample Design, Different Types of sample Designs, How to Select a Random Sample?, Random Sample from an Infinite Universe, Complex Random Sampling Designs
4	<b>Data Collection and Analysis:</b> Methods of Data Collection- Observation, Interview, Questionnaires, Schedules, Survey and Experimental. Selection of Appropriate Method for Data Collection, Different Techniques of Sampling such as Probability and Non-Probability, Basic Statistical Methods of Data Analysis such as Frequency distribution, Measures of central tendency, Measures of Dispersion, Coefficient of variation, correlation and regression.
5	<b>Research Ethics and Morals:</b> Environmental impacts and Ethical issues, Commercialisation, Copy right, Royalty, Intellectual property rights and Patent law, Plagiarism, Citation, Referencing style and acknowledgement.

## **SECTION – B**

Total Marks: 50

### **Ph.D. Entrance Examination Syllabus (Economics)**

#### **Economic Theory**

##### **A. Microeconomics**

Consumer Behaviour: Utility theory, budget constraints, and consumer choice.  
Production and Costs: Production functions, cost structures, and profit maximization.  
Market Structures: Perfect competition, monopoly, monopolistic competition, and oligopoly.  
Welfare Economics: Pareto efficiency, market failures, and welfare theorems.

##### **B. Macroeconomics**

National Income Accounting: GDP, GNP, and methods of measurement.  
Economic Growth: Theories of growth (e.g., Solow model, endogenous growth).  
Business Cycles: Theories and policies (Keynesian, Monetarist, Real Business Cycle).  
Monetary and Fiscal Policy: Tools, objectives, and their impact on the economy.

#### **Historical and Classical Economics**

##### **A. History of Economic Thought**

Classical Economics: Adam Smith, David Ricardo, Thomas Malthus.  
Neoclassical Economics: Alfred Marshall, William Stanley Jevons.  
Keynesian Economics: John Maynard Keynes, the General Theory.

##### **B. Economic Philosophies**

Economic Liberalism: Free markets, individual liberty.  
Socialism and Marxism: Karl Marx, Friedrich Engels, and the critique of capitalism.  
Development Economics: Classical theories of development and modernization.

#### **Econometrics and Quantitative Methods**

##### **A. Statistical Methods**

Descriptive Statistics: Mean, median, mode, variance, and standard deviation.  
Inferential Statistics: Hypothesis testing, confidence intervals.

##### **B. Regression Analysis**

Simple and Multiple Regression: Model specification, estimation, and interpretation.  
Time Series Analysis: Basic concepts, trend analysis, forecasting.

##### **C. Quantitative Techniques**

Index Numbers: Consumer Price Index (CPI), Producer Price Index (PPI).  
Econometric Software: Introduction to software such as STATA, R, or EViews

#### **Development Economics**

##### **A. Theories of Development**

Modernization Theory: Rostow's stages of economic growth.  
Dependency Theory: Dependency and world-systems theory.

##### **B. Poverty and Inequality**

Measurement and Indicators: Poverty lines, inequality indices (e.g., Gini coefficient).

Policies: Strategies for poverty alleviation and income distribution.

C. Development Policy

Education and Health: Role in development.

Economic Planning: Strategies for economic development and planning.

### **Public Economics**

A. Public Finance

Government Budget: Structure, principles, and budgeting process.

Taxation: Types of taxes, tax policy, and impacts.

B. Public Goods and Externalities

Characteristics: Public vs. private goods, externalities, and their effects.

Government Intervention: Policies to address market failures.

C. Welfare Economics

Social Welfare: Concepts of social welfare and justice.

Redistribution Policies: Tools and impacts on inequality.

### **International Economics**

A. International Trade

Trade Theories: Comparative advantage, Heckscher-Ohlin model.

Trade Policies: Tariffs, quotas, trade agreements.

B. International Finance

Exchange Rate Mechanisms: Fixed vs. floating exchange rates.

Capital Flows and Financial Crises: Causes and management.

C. Global Institutions

Role and Functions: IMF, World Bank, WTO.

Global Economic Policies: Trade and monetary policies.

### **Applied Economics**

A. Labor Economics

Labor Markets: Supply and demand, wage determination.

Employment and Unemployment: Types and causes.

B. Health Economics

Health Care Systems: Structure, funding, and policies.

Economic Evaluation: Cost-benefit and cost-effectiveness analysis.

C. Environmental Economics

Valuation of Environmental Resources: Methods and policies.

Sustainability and Climate Change: Economic impacts and policies.