

Ph.D. Entrance Test Syllabus for Ph.D. in Economics

The PET (Ph.D. Entrance Test) for Ph.D. in Economics consists of two parts:

- Part I: Research Methodology (50 marks) and
- Part II: Subject Specific (Related to Economics 50 marks)

Total Marks for Ph.D. Entrance Test: 100 Marks

Part I: Research Methodology (50 Marks)

1. Foundations of Research:

Meaning, Objectives, Motivation, Utility. Concept Of Theory, Empiricism, Deductive and Inductive Theory. Characteristics Of Scientific Method - Understanding the Language of Research - Concept, Construct, Definition, Variable. Research Process

Review Of Literature, Problem Identification & Formulation – Management Question – Research Question – Investigation Question – Measurement Issues - Hypothesis – Qualities of A Good Hypothesis –Null Hypothesis & Alternative Hypothesis. Hypothesis Testing - Logic & Importance

2. Research Design and Approaches:

Concept And Importance in Research - Features of A Good Research Design – Exploratory Research Design – Concept, Types and Uses, Descriptive Research Designs - Concept, Types and Uses. Experimental Design: Causal Relationships, Concept of Independent & Dependent Variables, Concomitant Variable, Extraneous Variable, Treatment, Control Group.

Qualitative And Quantitative Research: Qualitative Research – Quantitative Research – Concept of Measurement, Causality, Generalization, Replication. Merging The Two Approaches.

3. Measurement & Scaling

Concept of measurement– what is measured? Problems in measurement in management research - Validity and Reliability. Levels of measurement - Nominal, Ordinal, Interval, Ratio.

Attitude Scaling Techniques: Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired Comparison & Forced Ranking.

4. Sampling and Data Collection:

Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non-Response. Characteristics of a good sample. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage Sampling. Non-Probability Sample – Judgment, Convenience, Quota & Snowballing methods. Determining size of the

sample - Practical considerations in sampling and sample size

Types of Data: Secondary Data - Definition, Sources, Characteristics. Primary Data - Definition, Advantages and disadvantages over secondary data, Observation method, Questionnaire Construction, Personal Interviews, Telephonic Interview, Mail Survey, Email/Internet survey.

5. Data Analysis:

Data Preparation – Univariate Analysis (Frequency Tables, Bar Charts, Pie Charts, Percentages), Bivariate analysis – Cross tabulations, Measures of Central Tendencies, Measures of Dispersion, Correlation, Regression. Interpretation of Analysis (basic numerical expected)

6. **Research paper/Thesis writing:** Layout of Research Paper/Thesis Purpose, Contents, Problems, Interpretation of Report Writing, Techniques of Interpretation, Layout, Structure and Language of the Report, Illustrations and Tables, Types of Report, Technical Reports and Thesis- Bibliography. Ethical Issues in Research-Meaning, Importance, Problems, Citation of Published Material, Ethical Issues Related to Publishing, Plagiarism and Self-Plagiarism, Citation and Acknowledgement-Accountability.

Books Recommended:

1. Research Methodology - C.R. Kothari and Gaurav Garg, 4th edition, New Age International Publication.
2. Business Research Methods - Donald Cooper & Pamela Schindler, 12th edition, McGraw Hill.
3. Business Research Methods – Alan Bryman & Emma Bell, 3rd edition, Oxford University Press India,
4. Fundamentals of Statistics – S. C. Gupta, 7th edition, Himalaya Publishing House.

Part II : Subject Specific Paper Economics (50 Marks)

Sr. No.	Topic	
1.	Microeconomics	
	<p>Theory of Consumer Behaviour, Theory of Production and Costs, Decision Making Under Uncertainty Attitude Towards Risk, Market Structures, General Equilibrium Analysis, Pareto-Optimality, Kaldor – Hicks and Wealth Maximization, Welfare Economics, Fundamental Theorems, Social Welfare Function, Asymmetric Information: Adverse Selection and Moral Hazard</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Koutsoyiannis, A. (1979), Modern Micro Economics, Macmillan Press, London. 2. Dominick Salvatoure: Microeconomics Theory and Analysis. 3. Microeconomics by Pindyk, Rubinfeld and Mehta 	Microeconomics
2.	Macroeconomics	

	<p>National Income: Concepts and Measurement, Determination of Output and Employment: Classical & Keynesian Approach, Consumption and 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, Money and Banking</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Barro, Robert J. & Sala-i- Martin, Xavier (1995), Economic Growth, MacGraw Hill. 2. Blanchard, Olivier (2000), Macroeconomics, Prentice Hall 3. Mankiw Gregory (2002), Macroeconomics, 5th Edition, Worth Publishers 	Macroeconomics
3.	Quantitative Economics	
	<p>Differential Calculus and its Applications, Static Optimization Problems and their Applications, Input-Output Model, Linear Programming, Difference and Differential Equations with Applications. Linear Regression Models and their Properties – BLUE, Time Series Analysis. Probability Theory, Game Theory-Strategic Games, Nash Equilibrium and Mixed Strategy Games.</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Henderson, J.E. and R.E. Quandt (1988), Microeconomic Theory - A Mathematical Approach, McGraw Hill. 2. Greene, W. (2008), Econometrics Analysis, Pearson 3. Osborne, M.J. An Introduction to Game Theory, Oxford University Press, 2004 	Quantitative Economics
4.	International Economics	
	<p>Theories of International Trade, Gains from Trade, Terms of Trade, Trade Multiplier, Balance of Payments, Exchange Rate: Concepts and Theories, Foreign Exchange Market and Arbitrage, Tariff and Non-Tariff Barriers to Trade; Dumping GATT, WTO, and Regional Trade Blocks; Trade Policy Issues, IMF & World Bank.</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. International Trade by Krugman & Obstfeld 2. Ronald Findlay, International Trade and Development Theory, Columbia University Press, 1973 	International Economics
5.	Development Economics	

	<p>Economic Growth and 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, endogenous growth, Indicators of Economic Development: PQLI, HDI, MDPI, GII, SDGs, Poverty and Inequality- Concepts and Measurement.</p> <p>Reference Books:</p> <ol style="list-style-type: none"> 1. Basu Kaushik (1997): “Analytical Development Economics: The Less Developed Economy Revisited”. 2. Debraj Ray (1999): ‘Development Economics’. OUP Ravallion & Chen (2001): ‘Measuring Pro-poor Growth’. World Bank 	<p>Development Economics</p>
<p>6.</p>	<p>Public Economics</p>	
	<p>Market Failure: Asymmetric Information, Public Goods, Externality, Regulation of Market- 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, Environment as a Public Good, Market Failure.</p> <p>Reference:</p> <ol style="list-style-type: none"> 1. Microeconomics of Market Failure – Bernard Salanie 2. Economics of Taxation - Bernard Salanie 	<p>Public Economics</p>

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