

Savitribai Phule Pune University

(Formerly University of Pune)

Syllabus for M.Phil./Ph.D. (PET) Entrance Exam : Economics

Research Methodology

Unit 1: Foundations of Research

Meaning of Research, motivation for research, objectives of research Characteristics of scientific method, empiricism, value neutrality, Repeatability verifiability Approaches to research: positivistic and interpretive, qualitative and quantitative, inductive and deductive

Unit 2: Basic terms and types of research

Theory, concept, construct, fact,

Independent and dependent variables,

Methodology, method, tool and technique

Types of research- Exploratory, descriptive, analytical/explanatory, experimental, evaluation and impact assessment, interdisciplinary, multidisciplinary, trans-disciplinary,

Basic Research, Applied Research

Unit 3: Research Design

Research design- concept and definition, need, advantages of planning a research, characteristics of good research design, Steps in research design; Identification, Selection and Formulation of problem, Literature Review, Primary and secondary data, sources of data- authenticity, credibility, reliability of sources and data

Unit 4: Hypothesis

Definition, characteristic of good hypothesis and sources of hypothesis

Types of hypothesis, Null hypothesis and Alternative Hypothesis

Hypothesis Testing– Type I and Type II errors

Unit 5: Sample and sampling designs

Concept of population, sample, sampling frame, sampling unit

Need and advantages of sample study, Methods of sampling, characteristics of representative sample, sampling error, Concept of probability and non-probability sampling

Types of probability sampling- simple random sampling, systematic random sampling, proportionate and disproportionate stratified random sampling

Types of non-probability sampling- purposive, snowball

Unit 6: Methods of research

Sample Survey, Case-study, life-history, ethnography, historical, Interview

Unit 7: Tools of data collection

Questionnaire, Interview Schedule, Observation and types of observation, Focused Group Discussion, Scales and scaling techniques, Interview Guide, Field Diary

Unit 8: Statistics in Social Sciences

Types of measurement: Nominal, Ordinal and Scale

Basic statistical techniques: aggregation of data, totals, percentages, tabulation – univariate, cross tabulation- bivariate and multivariate

Data Presentation- Charts and Graphs: Bar charts, Histograms, Clustered bar charts, clustered histogram, pie chart, Pyramid

Measures of Central Tendency: Averages – Arithmetic mean, Geometric mean, harmonic mean, Median, Mode

Measures of Dispersion: Range, Standard Deviation, Variance, Coefficient of Variation

Association, Correlation

Unit 9: Research Ethics

Research Ethics, History of research ethics.

Introduction to ethical principles - What is morality?, What is ethics?, What is ethical theory?, Anonymity, Confidentiality, Informed consent, Rights of participants, Harm to respondents and Researchers, Principles of biomedical and social science ethics, Ethical Guideline in Social Research

Subject Concerned Syllabus Economics

Micro-Economic Analysis

Topic I : Introduction :

The Basic Micro- Economic Problem of Scarcity and Choice. Market and Price Mechanism, Disturbances to equilibrium, floor price, ceiling price.

Topic II : Consumer Theory :

The concept of and Measurement of Utility: Cardinal and Ordinal. Theory of Consumer Choice: Marginal Utility Theory, Indifference curve approach, Income and Price expansion paths, Demand Curve. Income and Substitution Effects: Slutsky and Hicksian approach. Theory of Revealed Preference, Index Numbers. Concept of Elasticity: Price, Income and Cross Elasticities. Concept of Consumers' Surplus.

Topic III : Production Theory :

Production Function – One input, two inputs: Isoquants. Law of Variable Proportions, Returns to the Variable Factor, Returns to Scale, Cobb- Douglas Production Function. Producer's equilibrium with one and two inputs. Cost Curves, Total, Average and marginal Cost Curves, Short Run and Long Run Costs, Economist concept of cost. Derivation of Supply curve, Firm and Industry, Short Run and Long Run. Concept of Producers' Surplus.

Topic IV : Equilibrium :

Short Run, Long Run Equilibrium of a Single Firm under Competitive conditions. Partial and General Equilibrium. Edgeworth Box Depiction of Competitive market equilibrium involving only exchange.

Topic V : Classification of Markets :

Classification of Markets. Various types of Markets.

Topic VI : Monopoly :

Measurement of Monopoly power. Equilibrium of a Firm under Monopoly. Price Discrimination under Monopoly, different types. Comparison of monopoly and perfectly competitive market outcomes. Regulation of Monopoly Power.

Topic VII : Imperfect Competition :

Monopolistic Competition, Price and Non-price competition, Equilibrium. Product Differentiation, Selling Costs and Excess Capacity. Oligopoly, Basic market structure, Non-collusive oligopoly, Cournot-Bertrand Solution. Collusive oligopoly, Cartels, Price and Output Determination Game Theory, Basic Concepts, Dominant Strategy Equilibrium, Nash Equilibrium, Repeated and Sequential Games.

Topic VIII : Alternative Theories of the Firm :

Goal of Profit Maximization and Alternative Theories of the Firm. Baumol's Sales Revenue Maximization Model.

Topic IX : Theory of Distribution and Welfare Economics

Marginal Productivity Theory. Product Exhaustion theorem. (Euler's Theorem) Pigu's Welfare Theorem Pareto Optimality Social Welfare Function, Compensation Criteria. Arrow's Impossibility Theorem.

Suggested readings:

- Varian, Hal : Intermediate Microeconomics, W.W. Norton and Company, New York. (Latest editions)
- Hirschleifer J and A. Glazer : Price Theory and Applications, Prentice Hall of India, New Delhi. (Latest editions)
- Stigler, G : Theory of Price, Prentice Hall of India, New Delhi. (Latest editions)
- Sen, A.(1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
- Misra S.K. and V.K. Puri : Advanced Microeconomic Theory, Himalay Publishing House, New Delhi. (Latest editions)
- Kreps, David, M (1990): A Course in Microeconomic Theory, Princeton University Press. (Latest editions)

Macro Economics

Topic I : National Income :

Gross Domestic Product, Gross National Product, Net Domestic Product- Nominal and Real domestic product Price Indexes and GDP deflator Concept of disposable Income and Relationships between Income consumption, Saving, Investment, Government Expenditure, Taxes, Imports and Exports National Accounts Statistics-system of national income accounting in India.

Topic II : Aggregate Supply Aggregate Demand :

Difference between Potential Output and Actual Output- Classical Approach, Keynesian approach, Determination of Equilibrium, of Aggregate Demand and Supply, Determination of output and employment Effects of change in Aggregate Demand and Supply Curves - Classical Approach, Keynesian approach-neutrality of money Multiplier Effect, Multiplier effect with inclusion of Government sector. (Automatic stabilizers, balanced budget multiplier)

Topic III : Brief structure of IS-LM Model :

Derivation of IS curve and LM curve, Equilibrium in the Goods and Assets under fixed and flexible prices, Derivation of aggregate demand schedule. **Monetary and Fiscal policy**- The transmission Mechanism-Liquidity Trap, Fiscal policy and crowding out Optimum Policy mix with IS-LM model.

Topic IV : Consumption Saving, Investment Spending :

Consumption and saving, Life cycle hypothesis, Permanent income hypothesis. Investment spending, Marginal productivity of capital, Concept of accelerator and super multiplier.

Topic V : New Keynesian and New classical Approaches:

The Real Business cycle Theory, The Rational expectations Revolution New **Classical Macroeconomics**:

Perfect Information - Rational Expectations, Lucas critique- Imperfect information and asymmetric information, Real business cycle theory

Topic VI : Open Economy Issues :

Open Economy IS-LM-BP, The Mundell-Fleming Model Stabilization, Macroeconomic policy and exchange rate regimes

Topic VII : India's Macro economy :

Overview. Changes in macro economic variables after 1991- Problems and policy

Topic VIII : Money and Liquidity:

Definitions of Money, Money stock and liquidity Measures of Money Supply Liquidity measures according to Reddy Committee Report Nature, functions, types and evaluation of money- The debate relating to the definition of money, Liquidity theory. Gurley and Shaw Hypothesis- Alternative money stock measures. The quantity and components of money stock in India and broad trend in them

Topic IX : Demand for Money:

Nominal v/s Real Cash Balance. Neo Classical theory, Keynes's Theory, Friedman's Theory, Empirical Evidence.

Topic X : Money and Prices:

The Quantity Theory of Money Fishers QTM, Cambridge Cash Balance Approach QTM and Income Equation. QTM as the theory of Price level Baumol-Tobin theory Issues regarding endogenous and exogenous supply of money.

Topic XI : Money Supply:

Goals Targets, Indicators and instruments of Monetary Policy- theory of Money Supply: high Powered Money-Money Multiplier Process, Determinants of Money Multiplier- Factor Affecting High Powered Money- Autonomy of High powered money- Reserve Bank's analysis of Money Supply, Balance sheet of Reserve Bank of India

Topic XII : Inflation:

Definition sources of Inflation- Demand Pull Inflation- cost push inflation- Income Shares Inflation-Phillips Curve.

Topic XIII : Theories of Interest Rates:

Real and monetary theories of the interest rate, Loanable funds theory. Keynesian theory- Wicksellian theory Fisher's theory, Hicksian theory, Interest rate differentials- Term-structure of interest rates - Role of interest rates in Macro-economy, Credit market imperfections

Topic XIV : Monetary Policy and Macroeconomy:

Monetary transmission mechanism and targeting Inflation Money growth and interest rates Interest rate rules -Taylor rule
Rules versus discretion -Central Bank autonomy - Dynamic inconsistency of monetary policy credibility and reputation.

Suggested Reading:

- Rudiger Dornbush and Stanley Fisher - Macroeconomics Mankiw-Macroeconomics (latest ed.).
- Branson-Macroeconomic Analysis G.Ackeley-Macroeconomics Theory and policy (latest ed.).

- National Accounts Statistics-NAS Measures, Concepts of National Accounts Statistics(latest ed.).
- Mishkin Frederic (2007), The Economics of Money Banking and Financial Markets, 8th edition Addison Wesley Longman Publishers
- *Bain, Keith & Howells, Peter (2009), Monetary Economics: Policy and Its Theoretical Basis, Palgrave*
- Wrightman D:- An Introduction to Monetary Theory and Policy (latest ed.).
- Gupta S. B. :- Monetary Economics Institutions, theory and policy (latest ed.).
- Gupta S B :- Monetary Planning for India (latest ed.).
- Harris:- Monetary Theory (latest ed.).

Public Economics

Topic I – Introduction :

Role of government in organized society, changing perspective – Government in a mixed economy, public and private sector – government as an agent for economic planning and development – Private goods, public goods and merit goods.

Topic II – Rationale for Public Policy :

Allocation of resource provision of public goods – Voluntary exchange models – Impossibility of decentralized provision of public goods - contributions of Samuelson and Musgrave – Demand revealing schemes for public goods, contributions of Clark, Groves and Leyard – Tiebout model – Theory of club goods – Stabilization policy.

Topic III – Public Expenditure:

Wagner’s law of increasing state activities – Wiseman-Peacock hypothesis – Pure theory of public expenditure – Structure and growth of public expenditure – Criteria for public investment – Social cost-benefit analysis – Project evaluation – Estimation of costs – Discount rate – Reforms in expenditure budgeting – Programme budgeting and zero base budgeting.

Topic IV – Taxation :

Theory of incidence – Alternative concepts of incidence – Allocative and equity aspects of individual taxes – Benefit and ability to pay approaches – Theory of optimal taxation – Excess burden of taxes – Trade off between equity and efficiency.

Topic V – Public Debt :

Burden of public debt – Sources of public debt – Public borrowings and price level – Crowding out of private investment and activity – Principles of debt management and repayment.

Topic VI – Fiscal Policy :

Objectives of fiscal policy – Full employment – Anti-inflation – Economic growth – Redistribution of income and wealth – Interdependence of fiscal and monetary policies – budgetary deficits and its implications – Analysis of latest budget- Fiscal policy for stabilization – Automatic vs. discretionary stabilization – Alternative measures of resource mobilization and their impact on growth – Distribution and prices – Balanced budget multiplier.

Topic VII – Fiscal Federalism:

Fiscal federalism in India – Vertical and horizontal imbalance – Assignment of function and sources of revenue – Constitutional provisions – Finance commission and planning commission – Devolution of resources and grants – Theory of grants – Resource transfer from union to state – Criteria for transfer of resources – Center-state financial relations in India – Problems if states’ resources and indebtedness – Transfer of resources from union and state to local bodies.

Topic VIII – Indian Tax system:

Revenue of the Union – State and local bodies – Major taxes in India – Base of taxes – Direct and indirect taxes – Taxation of agriculture – Expenditure tax – Reform in direct and indirect taxes – Taxes on Services – Non-tax revenue of center, state and local bodies – Analysis of central and state government budgets – Fiscal situation of the PRIs - Trends in public expenditure and public debt

Topic IX - Issues in India’s Fiscal system:

Reports of Finance Commissions in India – Review of Latest Finance Commission--Fiscal crisis and fiscal sector reforms in India’s – India’s response to Global economic shocks.

Suggested Readings:

- Ulbrich – Public Finance in Theory and Practice (latest ed.)
- Bagchi A. – Readings in Public Finance
- Various Government of India Budget Documents
- Various Government of India Economic Surveys
- Musgrave R. A. and Musgrave P. S. – The theory of Public Finance (latest ed.)
- Stiglitz Joseph – Economics of the Public Sector (different ed.)
- Herber – Modern Public Finance (latest ed.)

International Economics

Topic I – Overview of classical and modern trade theories :

Classical theories of trade – Ricardo and the concept of Comparative Cost theory - opportunity cost –Heckscher Ohlin theorem, Verification of physical criterion and price criterion, Leontief paradox – Factor price equalization and explanation with Edgeworth Box diagram

Topic II – New trade theories:

New theories of trade, product life cycle and technology gap models, Preference similarity and intra-industry trade, economies of scale and monopolistic competition - Krugman, Theory of economic geography – Krugman, Neo-Heckscher Ohlin theorem

Topic III – Terms of Trade :

Concepts of Net Barter Terms of Trade, Gross Barter Terms of Trade, factors affecting Terms of Trade

Topic IV – Trade Policy :

Free trade vs. controlled trade, Tariffs and non-tariff barriers on trade, Effects of tariffs under partial equilibrium. (Price effect, terms of trade effect, competitive effect, income effect, revenue effect) Effects under general equilibrium, Stolper – Samuelson theorem

Topic V – Regional Integration :

Customs Unions: Features of customs union theory. Trade creation and trade diversion under customs union (with graphical treatment), the creation of European Union

Topic VI – GATT and WTO :

International trade agreements. Dunkel proposal. WTO, Important Agreements under WTO, major developments since 1995, Expected effects on the Indian economy.

Topic - VII – Balance of payments :

Balance of payments. Current account and capital account transactions. Disequilibrium in BOP, adjustment mechanisms. Marshall-Lerner elasticity approach, absorption approach, monetary approach, Internal and External Balance. Swan model.

Topic - VIII Exchange rates :

Exchange rates. Flexible and fixed exchange rates. Determination of exchange rates. Revaluation and Devaluation, Appreciation and Depreciation, Risks and rewards involved. Spot rates and forward contracts, options and futures. International financial markets. Euro currency markets, International Bond Markets

Topic – IX Exchange control :

Convertibility on current account and capital account, Exchange control: objectives of exchange control. Methods of exchange control, Indian Rupee and its fluctuations in the international currency markets.

Topic – X :

Optimum currency area theories - Factor mobility theory, propensity to inflation theory - the process of development of Euro as an optimum currency area

Topic – XI :

International financial movements. Portfolio and direct investments and their impact on the economy. Multinational and transnational corporations and their role in the international financial movements.

Topic – XII :

Rise and fall of Bretton Wood and the emerging International Monetary system, IMF, mechanism of membership quota and borrowing, Conditionalties. Evaluating the contribution of IMF, Important International Financial Crisis and the role of IMF (Oil crisis, International debt crisis, South East Asian crisis, Brazil Argentina and Mexico, Russia and Eastern Europe, The sub-prime crisis)

Suggested readings:

- Paul R. Krugman & Maurice Obstfeld (2009) International Economics Theory and Policy. Pearson Education Publication, New Delhi.
- Chacholiades, M., International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.(latest ed.)
- Kindleberger, C.P. International Economics, R.D. Irwin, Homewood.(latest ed.)
- Salvatore, D., International Economics, Prentice Hall, Upper Saddle River, N.J., New York. (latest ed.)
- Soderston, Bo (2005), International Economics, The Macmillan Press Ltd., London.
- James Ingram: International Economics (Ed. 1995)
- Krugman International Economics (latest ed.)
- Kennen International Economics (latest ed.)
- Maurice Levi: International Finance (latest ed.)

Growth and Development

Topic I : Development and Underdevelopment: An Overview

The relevance of economic development - Problems in defining economic development - Characteristics of LDCs - structural view of underdevelopment - The world distribution of income - Development gap - Per capita income as an index of development - Difficulties of measurement and comparability problems involved in the calculation of per capita according to exchange rate and purchasing power parity- Alternative measures of development gap - Cross country comparisons - HDI

Topic II : Poverty and inequality

Poverty and income distribution - defining poverty and problems of measurement - Income inequality - measurements of inequality - understanding inequality in the developed and underdeveloped worlds - impact of inequality on the process of development.

Topic III : Theories of Economic Growth and Development:

The Harrod Domar growth model and its application to LDCs - Solow's model of economic growth - The production function approach to the study of causes of growth - The Cobb-Douglas Production function - Embodied and disembodied technical progress

Economic growth in historical perspective : Marx, Schumpeter, Gerschenkron, - Surplus labour (Lewis) - big push (Rosenstein-Rodan) - Balanced growth (Nurkse) - Unbalanced growth (Hirshman) - The process of cumulative causation (Myrdal) — the center and periphery hypothesis - the dependency school - New Endogenous growth models- Intellectual capital: role of learning, education and research; AK model — Explanations of cross country differentials in economic growth

Topic IV : Population growth and economic development

Population - basic concepts - the theory of demographic transition - age structures of population - Migration - Rural and Urban migrations -The Harris - Todaro Model - problems of urbanization - Employment markets - Formal and informal employments - wage rates

Topic V : The role of agriculture in development

Role of Agriculture in development - The supply response of Agriculture - The concept of 'Marketed surplus' - Size holdings and output - Limitations of price policy and alternatives - The growth of the money economy - Disguised unemployment

Topic VI : Role of Industry in development

Role of industry - Major reasons for industrialization in LDCs - The infant industry argument - The employment argument - Export promotion vs import substitution - Strategies - The choice of techniques and problems in LDCs - Techniques of production in practice - The Technological choice - Appropriate and inappropriate technology - Capital-Intensive technology and employment in industry. The Role of Infrastructure - social and physical infrastructure - education and health infrastructure

Topic VII : Mobilization of resources

Domestic Resources : The Prior-savings approach - Monetary Policy - Fiscal Policy - Inflation, savings and growth - Non -inflationary finance of investment - Inflation and credit - Inflation and growth

Topic VIII : Trade and development

Trade as an engine of growth - Dual gap analysis - Prebisch, Singer and Myrdal views - gains from trade and LDCs - foreign borrowing - Savings - Investment gap - The foreign exchange gap - Models of capital imports and growth - Capital imports, domestic savings the ICOR - foreign borrowing and debt - servicing problem - types and measurement of international capital flows - the role of IMF and World Bank - Case studies of countries with trade as a growth engine

Topic IX : The role of the government

The role of the government and markets in the developmental process - Development of distributive institutions - poverty alleviation measures - public distribution systems - public policies like NREGA in India - Microfinance - issues related to microfinance. Self Help Groups and savings and Gender

Suggested reading:

- Meier G.M- Leading Issues in Development Economics (latest ed.)
- Thirval A P - Development Economics (latest ed.)
- Ray Debraj- Development Economics (latest ed.)

Statistics

Topic 1 : Introduction to statistics

Overview of Basic statistical concepts, central tendency and dispersion, Skewness and Kurtosis

Topic 2 : Correlation and regression

Correlation coefficient, Standard error and regression equations, one variable regression analysis

Topic 3 : Fundamentals of Probability

Random Variable, and Mathematical Expectation, Theoretical Distributions (Binomial, Normal, and Poisson)

Topic 4: Sampling Techniques

Fundamentals of Sampling, Estimation, Statistical Inference, Chi-Square Test, F-Distribution, ANOVA, Association of Attributes, Non-Parametric Tests

Topic 5: Index Numbers and Time Series

Introduction to index numbers, construction of indices, different forms of indices
Introduction to time series

Suggested readings:

- Arora, P.N.; Arora, Sumeet; Arora, Comprehensive Statistical Methods (latest ed.).
- S. P. Gupta :Statistical Methods (latest ed.).
- S. C. Gupta : Statistical Methods (latest ed.).