



VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY
Department of Studies and Research in Economics
 Jnanasagara campus, Vinayakanagara, Cantonment, Bellary -583105

Ph D Entrance Test syllabus

Part A: Research Methodology

Unit -1: Introduction to Research Methodology

Research: Meaning, Characteristics, Objectives, Motivation, criteria of good research, limitations & ethical issues in research. Scientific Research Methods: Scientific Method, Types- Deductive method, Inductive method & Case study method. Importance and applicability of research in social sciences.

Unit-2: Research Designs and Research Modelling

Exploratory, Descriptive, & Causal research- Meaning, Types, Tools & Limitations. Research approach: Qualitative & Quantitative. An overview. Steps- Problem definition, formulation. Research modelling: four Stages of Modelling: Specification of the model or formulation of Maintained Hypothesis, Estimation of Parameters, Evaluation of Estimates Satisfactory/reliable & Forecasting validity of the model, (Theory only).

Unit-3: Sampling Designs

Meaning, Principles of sampling design, Sampling process, Types of Sampling - Probability and Non-probability Sampling Techniques, Sample Size, Advantages & Disadvantages of sampling. Errors in sampling.

Unit-4: MS Office utilities in Economics

MS Office utilities, Features and Facilities in MS-Word, MS-Power Point presentation. File handling and operations -opening, appending and cascading, closing and attribute control; storage and retrieval; sorting, merging, joining and bifurcation, Table of contents, Footnotes, Captions- Citations, Bibliography and Indexing-Page Layout Format.

Unit-5: Data collection and Measurement in Research

Data collection: Source & Techniques: Sources -Primary and Secondary data, advantages/disadvantages. Data collection Techniques: Observations, Survey, Interview and Questionnaire Method, Merits & demerits. Measurement & Scaling Techniques, Scale Properties, Criteria for good measurement. Likert's Scale, Semantic Differential Scale, Thurstone-equal appearing interval scale, MDS – Multi Dimensional Scaling.

Unit-6: MS Excel and SPSS for Research in Economics

Data record and file; data structures, data view and handling Data Analysis and operations; Database concepts and operation-Series, groups, tables, graphs and objects; Time and frequency series, Descriptive Statistics and Measures of Dispersion. Introduction to SPSS-Data Editor and output navigator-SPSS various operations-Processing data and results- Editing output, printing results Interpretation of results.

Unit-7: Research Report Writing

Research report writing-types of Reports- Steps in Report Writing- format of Research Report- documentation footnotes and bibliography.

Part B: Core Syllabus

Subject-I: Micro Economic Analysis

Unit-1: Introduction

Economic Characteristics of Equilibrium and Disequilibrium Systems; Statics and Dynamics. Demand Analysis- critique of demand analysis- Veblen effect, Giffen goods, Bandwagon effect, Snob effect. Elasticity of Demand - Theoretical Aspects and Empirical Estimation. Supply and Elasticity of Supply. Indifference Curve and their Applications.

Unit-2: Theory of Production and Costs

Production Function- Short-run and Long-run; Law of Variable Proportions; Isoquants; Least Cost Combination of Inputs; Returns to Scale; Multi-Product Firm; Technical Progress and Production Function; Cobb-Douglas, Constant Elasticity of Substitution Production Functions and Their Properties; Traditional and Modern Theories of Costs. Derivation of Cost Functions from Production Functions

Unit-3: Market Structure

Monopoly- Short and Long-run Equilibrium; Price Discrimination; Monopoly Control and Regulation; Monopolistic Competition- Equilibrium of the Firm and the Group with Product Differentiation and Selling Costs; Excess Capacity; Oligopoly- Non-Collusive (Cournot, Bertrand, Edgeworth, Chamberlin, Kinked Demand Curve and Stackelberg's Solution) and Collusive (Cartels and Mergers, Price Leadership and Basing Point Price System) Models.

Unit-4: Alternative Theories of the Firm

Full-Cost Pricing Rule; Bain's Limit Pricing Theory and Recent Developments including Sylos-Labini's Model; Linear Programming; Game Theory and its applications. Break Even Analysis – Meaning, Assumptions, determination of BEA, Limitations – Uses of BEA in Managerial decisions

Unit-5: Introduction to Welfare Economics

Pigovian Welfare Economics; Value Judgment; Pareto Optimality Conditions; Review of the two fundamental theorems of the traditional welfare economics, its axioms and their critique. Arrow's Impossibility Theorem. Compensation Principle; Equity-Efficiency Trade-off; Derivation of Grand Utility Frontier; Determination of Welfare Maximizing State. Inability to Obtain Optimum Welfare- Imperfections- Market Failure; Decreasing Costs; Uncertainty and Non-Existent and Incomplete Markets; Rawls Theory of Justice, Social Welfare Function; Theory of Second Best; and Amartya Sen's contributions to welfare economics;

Unit-6: Economics of Uncertainty

Individual Behaviours Towards Risk; Expected Utility and Uncertainty; Equivalence Approaches; Risk and Risk Aversion; Gambling and Insurance; Economics of Insurance; Risk Pooling and Risk Spreading; Mean Variance Analysis and Portfolio Selection.

Subject-II: Macro Economic Analysis

Unit-1: National Income and Accounts

Circular Flow of Income in Two, Three and Four Sector Economy; Different forms of National Income Accounting - Social Accounting, Input-Output Accounting, Flow of Funds Accounting and Balance of Payments Accounting.

Unit-2: Consumption Function

Keynes' Psychological Law of Consumption - Implications of the Law; Short Run and Long - Run Consumption Function; Empirical Evidence on Consumption Function; Income - Consumption Relationship - Absolute Income, Relative Income, Life Cycle and Permanent Income Hypotheses. Module III: Investment Function

Marginal Efficiency of Investment and Level of Investment; Marginal Efficiency of Capital and Investment - Long Run and Short Run; The Accelerator and Investment Behaviour - Impact of Inflation; Influence of Policy Measures on Investment - Empirical Evidence.

Unit-3: Demand and Supply for Money

Financial Intermediation - A Mechanistic Model of Bank Deposit Determination; A Behavioural Model of Money Supply Determination, A Demand Determined Money Supply Process; RBI Approach to Money Supply; High Powered Money and Money Multiplier; Budget Deficits and Money Supply; Money Supply and Open Economy; Control of Money Supply. Classical Approach to Demand for Money - Quantity Theory Approach, Fisher's Equation, Cambridge Quantity Theory, Keynes's Liquidity Preference Approach, Transaction, Precautionary and Speculative Demand for Money - Aggregate Demand for Money.

Unit-4: Neo-classical and Keynesian Synthesis and Post-Keynesian Demand for Money

Neo-Classical and Keynesian Views on Interest; The IS-LM Model; Extension of IS-LM Model with Government Sector; Relative Effectiveness of Monetary and Fiscal Policies; Extension of IS-LM Models with Labour Market and

Flexible Prices. Post-Keynesian Approaches to Demand for Money – Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin; Friedman and the Modern Quantity Theory; Crisis in Keynesian Economics and the Revival of Monetarism.

Unit-5: Theory of Inflation

Classical, Keynesian and Monetarist Approaches to Inflation; Structuralist Theory of Inflation; Philips Curve Analysis - Short Run and Long Run Philips Curve; Samuelson and Solow - The Natural Rate of Unemployment Hypothesis; Tobin's Modified Philips Curve; Adaptive Expectations and Rational Expectations; Policies to Control Inflation.

Unit-6: Business Cycles

Theories of Schumpeter, Kaldor, Samuelson and Hicks, Goodwin's Model; Control of Business Cycles - Relative Efficacy of Monetary and Fiscal Policies.

Subject-III: Quantitative Techniques

Unit-1: Introduction

Introduction – nature of statistics, scope and limitations. Graphical representation of data. Concept of Random variable – PDF and CDF. Properties of Different distributions –Binomial, Poisson, Normal, Chi-Square, t distribution and F distribution.

Unit-2: Central tendency and Dispersion

Measures of Central tendency - Mean (Arithmetic Mean, Weighted Arithmetic Mean, Geometric Mean, Harmonic Mean), Median and Mode. Measures of dispersion –Range, mean deviation and standard deviation, Coefficient of Variation. Skewness - Karl Pearson coefficient of skewness, Kurtosis.

Unit-3: Index Numbers and Correlation

Index numbers types and their uses and limitations. Calculation of CPI and WPI. Tests of reversal- time, mean and factor reversal. Correlation – definition, types of correlation (graphic and mathematical). Coefficient of correlation, Spearmans Rank Correlation coefficient. Karl Pearson's

coefficient of correlation. Regression –definition, estimation of relationship by Ordinary Least Squares.

Unit-4: Hypothesis testing

Hypothesis testing-Null Hypothesis and Alternative Hypothesis. Type I and Type II errors. Confidence intervals and level of significance. Hypothesis tests- Z, t, F test and chi square tests.

Unit-5: Functions

Functions: Meaning and types-Linear and non-linear-exponential, power and logarithm-Applications to economic analysis- Market equilibrium. Homogeneous and homothetic functions: Cobb-Douglas and C.E.S production functions.

Unit-6: Elementary Matrix algebra and Differential Calculus

Matrix additions, subtractions, multiplications. Types-determinants, solutions to simultaneous equations - Cramer's rule- matrix inverse; Calculus-limits and derivations-rules of differentiation-maxima and minima

Unit-7: Optimization and Integral calculus

Unconstrained and Constrained optimization. Applications to economic analysis: Profit maximization, Utility maximization, Least-cost input combination. Integral calculus- applications to economic analysis – Consumer Surplus and Producer Surplus.

Subject-IV: Indian Economy Policy

Unit-1: Structure of Indian Economy

Basic features, Natural resources – Land, water, mineral and forest resources; Changing features of Indian economy, trends in national income, demographic issues, structural and institutional changes; changing role of government and market.

Unit-2: Planning in India

Planning; Meaning, types, origin- Indian five-year plans; rationale, features and objectives, strategies, Investment pattern in Indian plans, financing of five-year plans, targets, achievements and failures. A focus on 11 th and

12th five-year plans. Regional planning in India, regional imbalance, regional planning policy in India.

Unit-3: Agriculture Sector

Nature and role - Land Reforms - Agricultural production and productivity - technical changes in agriculture - green revolution, Agricultural finance and marketing - Agricultural prices and agricultural price policy, Agricultural subsidies and Food Security in India. WTO and Agreement on Agriculture(AOA), Globalization and problems and prospects of Indian Agriculture. WTO and Indian Agriculture.

Unit-4: Industrial Sector

Industrial development during the planning period; Industrial policy of 1948, 1956, 1977 and 1991; Industrial reforms, Industrial licensing policy — MRTP Act, FERA and FEMA; Growth and problems of small scale industries; Role of public sector enterprises in India's industrialization, Service sector in India.

Unit-5: Infrastructure

Importance of Infrastructure-Development of transport and communications-Private Sector Participation-Pricing Methods- Issues in Governance and Regulation-Development of Irrigation- Irrigation PolicySources of energy- energy situation in India- energy policy-social infrastructure-health and education-issues and trends – environmental significance – environmental degradation- causes- consequences- policies in India

Unit-6: Public Finance

Indian Tax structure, tax reforms, Public expenditure in India trends and issues, public debt, debt obligations of central and state governments, problems issues, liquidation of public debt, fiscal policy, objectives, fiscal imbalance and deficit finance, fiscal responsibility in India, Federal finance in India

Unit-7: Financial Sector and External Sector

Commercial Banking System, Money and Capital Markets, Non-Banking Financial Intermediaries; Price trends in India, Monetary Policy of RBI Banking Sector Reforms, Working of SEBI in India, Fiscal sector reforms in India. Structure and direction of foreign trade; Balance of payments; Trade Policy - Issues in export-Import policy, trade reforms, foreign trade policies; WTO and India, Exchange rate policy, FERA, FEMA, Foreign capital and MNCs in India.

Subject-V: International Trade and Finance

Unit-1: International Trade Theory

Trade and Development-Traditional theories of Trade, Mercantilists view on trade, Adam Smith's Absolute advantage model, David Ricardo's Comparative Advantage model, Comparative Advantage and Opportunity Cost, J S Mill and Haberler . Heckscher – Ohlin Theory of Trade – Factor Price Equalization Theorem – Capital Accumulation – The Rybczynski Theorem – Technological Progress and Trade: Immiserising Growth – Krugman's , Posner and Linder's theories – Product Cycle Theory– Recent developments - Export led growth strategy .

Unit-2: International Trade Policy

Terms of Trade – Concepts – Offer curves – Free trade v/s Protectionism Economic Analysis of tariffs – partial equilibrium and general equilibrium – optimum tariff – Non-tariff barriers – Quotas and Quantitative Restrictions– Technical, Administrative and other regulations. Need for Economic Integration- Static and dynamic benefits from customs Union –The European Union – Economic Integration among Asian Nations – ASEAN, SAARC-Performance and Progress – Recent developments - Multilateralism and WTO.

Unit -3: Balance of Payments

Balance of Payments-Meaning – components – Structure: Capital and Current Account – Equilibrium and disequilibrium in the BOPs - Methods of Correcting Disequilibrium- Implications. - Monetary Approach to Balance of Payments - Foreign trade Multiplier.

Unit-4: World Trade Organization

WTO: Principles, Structure and Functions – Agreements – GATS, TRIPS and TRIMS-Ministerial Conferences- Issues and Challenges: - International Environmental Conventions and Protocols, India and WTO.

Unit-5: Foreign Exchange Market

Structure and Functions of foreign exchange market- – Determination of Exchange Rate – Theories of Exchange rate – Mint Parity Theory-Purchasing power Parity Theory- Monetary Approach-Asset market (Portfolio Balance) approach. Fixed and Flexible Exchange rate- Arbitrage, Spot and Forward rates, Currency Swaps, Futures and Options-Foreign Exchange risks, Hedging and Speculation.

Unit-6: International Finance and International Monetary System

Motives for international Capital movements – International money markets and capital markets – Derivatives and Futures. MNCs and FDI -Implications for financial system and Monetary policy – International Financial Integration. International Monetary System – International Liquidity and Special Drawing, Need, adequacy and determinants of international reserves - Eurocurrency Markets – GDRs – ADRs – FII's- International financial institutions - World Bank- IMF - IFC and IDA – MIGA – Asian Development Bank – Asian financial crisis and The Global Financial Crisis.

Subject-VI: Economics Growth and Development

Unit-1: Introduction

Concepts of Growth and Development-Difference between Growth and Development - Factors Affecting Economic Growth - Definition of Development - Characteristics and Measurement of Development - Basic Needs - PQLI - Human Development Index - Population Growth Pattern – Theory of Demographic Transition - Environment and Development - Role of Institutions - Markets and Market Failure -State and State Failure - Issues of Good Governance.

Unit-2: Economics of Growth

Harrod and Domar Model - Instability of Equilibrium; Joan Robinson Neo Classical Growth Models - Robert Solow - Meade Technical Progress. Technological Progress- Embodied and Disembodied Technical Progress; Hicks and Harrod- Total Factor Productivity and Growth Accounting Growth Models of -Kaldor and Passinetti-Optimal Savings and Ramsay's Rule- Golden Rule of Accumulation- Role of Money -Levhari- Patinkin and Johnson-Endogenous Growth - Learning by Doing-Role of Knowledge.

Unit-3: Theory of Development

Classical Theory of Development - Adam Smith, Ricardo, Malthus, James Mill; Karl Marx and Development of Capitalistic Economy -Theory of Social Change, Surplus Value and Profit; Crisis in Capitalism. Schumpeter and Capitalistic Development; Role of Credit, Profit and Degeneration of Capitalism; Imperfect Market Paradigm and Development.

Unit-4: Approaches of Development

Vicious Circle of Poverty, Circular Causation, Unlimited Supply of Labour, Lewis, Ranis and Fei Models; Balanced and Unbalanced Growth Strategies; Critical Minimum Effort Thesis; Dualism in LDCs. Trap Social and Technical Dualism, Low level Equilibrium Trap; Theory Big Push.

Unit-5: Sectoral Aspects of Economic Development

Role of Agriculture in Economic Development; Efficiency and Productivity in Agriculture; New Technology and Sustainable Agriculture- Globalization and Agricultural Growth; Industry and Economic Development- The choice of Technology and Employment Importance of Infrastructure in Development.

Unit -6: Trade and Economic Development

International Trade as an Engine of Growth; Gains from Trade- Choice Prebisch Singer and Myrdal Thesis- Export Led Growth-Tariff and Effective Protection; Foreign Capital- Dual Gap Analysis-WTO and Developing Countries.

Note: Question Paper Pattern

1. Ph D Entrance test is for 100Marks (1 Marks each) and MCQs type.
2. Research Methodology (Part A) carries 40 Marks and core subject (Part B) carries 60 Marks (Per subject 10 Marks)