SR University,Warangal

PhD Entrance Syllabus

Structure of the PhD Entrance Test (100 Marks)
Section A: Aptitude and Reasoning – Common to all candidates (50 Marks)
Section B: Subject-Specific (Agricultural Economics) (50 Marks)

Section A: APTITUDE & REASONING (Common to ALL)

Unit–1: Verbal Reasoning

Navigating Directions and Mastering Distances, Blood Relations, Logical Puzzles and Problem Solving- Floor Based, Month and Year Based. Seating Arrangements - Circular, Linear, Decoding the Code- Letter Coding, Number Coding, Letter and Number Coding.

Unit-2: Number System

Mastering Quick Calculations, BODMAS Simplified, Exploring Numbers and Division Rule, Unit Digits Decoded, Unlocking Divisibility and Counting Zeroes, "Mastering LCM and HCF: Foundations of Factorization, Uncovering Factors, Exploring Remainders.

Unit-3: Arithmetic Ability-1

Percentages - Fraction, Decimal, Percentage Change, Concept of 'By' and 'To', Product Constancy, All About Averages, Profit & Loss Essentials, Articles, False Weight, and Discount Insights - Discount, Simple Interest: Calculations and Applications, Compound Interest: Calculations and Applications, Relationship between SI and CI.

Unit–4: Arithmetic Ability-2

Ratio, Proportion, Partnership, Problems on Ages, Time and Work - Concept of Efficiency, Smart Work with Time and work, Negative Work, Chain Rule, Pipes and Cisterns, Time, Speed & Distance, Problems based on Trains, Problems based on Boats and Streams.

Unit-5: Critical Reasoning

Analogy and Classification, Sequence and Series Logic, Syllogisms - Types of statements, Venn diagrams using statements, Method to solve problems Two Statements and Two Conclusions, EITHER-OR Conclusions, Four Statements and Two Conclusions.

Section:B **Agricultural Economics**

I. Economic Theory and Macro-Finance

Fundamentals of Economics: Nature, scope, economic systems, consumer behavior, elasticity of demand. Microeconomics: Cardinal/ordinal utility, indifference curve analysis, substitution/income effects, production and cost theories. Market Structures: Perfect and imperfect competition, price determination, producer/consumer surplus. Macroeconomics: National income, employment theories (classical, Keynesian), IS-LM model, inflation, fiscal and monetary policies. Public Finance: Taxation principles, expenditure, public debt, budgeting, fiscal policy for development.

II. Development and International Economics

Economic Development: Growth vs. development, indicators, growth models (classical, neoclassical), institutions and reforms in India. Agriculture's Role: Agricultural development theories, poverty, inequality, environmental issues, food security, agro-eco planning. International Economics: Comparative advantage, trade theories, Leontief paradox, product cycle, factor mobility. Trade Policy and Globalization: Tariffs, non-tariff barriers, MNCs, foreign trade, capital flows, export promotion, global trade strategies.

III. Farm Management and Production Economics

Farm Management: Scope, modern farming characteristics, decision-making tools, planning and budgeting, linear programming. Efficiency and Resources: Measures of efficiency, management of land, labor, capital, and machinery. Production Economics: Resource-product relationships, cost minimization, economies of scale/size, production functions, risk and uncertainty. Profitability and Duality: Family farm theory, profit and cost functions, supply and factor demand derivation.

IV. Agricultural Finance, Co-operation, and Marketing

Agricultural Credit: Credit needs, credit institutions, public-private partnerships, financial management, innovations in credit delivery. Cooperatives: Principles, organizational structure, reforms, success/failure analysis, risk management, crop insurance schemes. Marketing Systems: Market types, challenges, marketing functions, surplus, price spread, SCP model,

regulated/cooperative marketing. Marketing Infrastructure: Processing, storage, warehousing, marketing finance, price variation, future markets, role of ICT in marketing.

V. Project Analysis and Research Methodology

Agricultural Projects: Project concepts, formulation, appraisal (ex-ante, ex-post), PERT and CPM, funding, monitoring. Research in Agri-Economics: Research themes, data collection, analysis, report writing Econometrics: Regression models, OLS/GLS, multi collinearity, hetero scedasticity, autocorrelation, dummy variables. Advanced Methods: Simultaneous equation models, use of statistics and econometrics in policy research and evaluation.