

Ph.D. Common Entrance Test in Agricultural Sciences

Unit I: Agricultural Statistics

Measures of central tendency and dispersion. Probability and probability distributions. Correlation and regression. Hypothesis testing. t-test, Chi-square test, F-test. Analysis of Variance (ANOVA). Non-parametric tests. Multivariate analysis (basic concepts).

Unit II: Crop and Soil Sciences

Principles of agronomy. Cropping systems and sustainable agriculture. Soil formation and classification. Soil fertility and nutrient management. Water management and irrigation. Climate change and agriculture. Precision agriculture.

Unit III: Plant Sciences

Plant physiology. Plant breeding and genetics. Seed science and technology. Plant biotechnology. Molecular biology. Plant pathology. Entomology and nematology.

Unit IV: Horticultural Sciences

Fruit science. Vegetable science. Floriculture and landscaping. Plantation, spices and medicinal crops. Post-harvest technology. Protected cultivation.

Unit V: Agricultural Economics and Agribusiness

Principles of agricultural economics. Production economics. Farm management. Agricultural marketing. Agribusiness management. Value chain management. Agricultural finance.

Unit VI: Agricultural Extension and Rural Development

Extension education principles. Communication methods. ICT in agriculture. Rural development programmes. Entrepreneurship development. Innovation systems in agriculture.