

Syllabus of Research Methodology for RET in Agriculture

Unit 1: Concepts of research methodology

Importance and scope of research in agriculture, Types of research: Fundamental vs. Applied. Concept of researchable problem, Research prioritization, Selection of research problem. Approach to research, Research process.

Unit 2: Hypothesis Testing

Hypothesis- meaning- characteristics- types of hypotheses- Review of literature, Setting of course objectives and Hypothesis, Testing of hypothesis, z, t, chi-square and f-distribution

Unit 3: Data collection and descriptive analysis

Data- meaning, assessment of data needs, sources of data collection, collection of data in different fields of agriculture, Types of data, Classification, tabulation, and graphical representation of data, measures of central values, measures of dispersion, correlation and regression analysis.

Unit 4: Sampling


Sampling Theory and sampling design, methods of sampling; probability and non-probability sampling methods, Research design and techniques, Types of research design.

Unit 5: Probability

Theory of probability, Random experiment, Mathematical or classical definition of probability, Statistical definition of probability, conditional probability, Mathematical expectation.

Unit 6: Data analysis

Data coding, cleaning, transformation of data, Universal procedures for preparation of bibliography, writing of research articles, Project proposal, Introduction to ANOVA: One way and two-way, Introduction to SPSS















अधिष्ठाता
कृषि संकाय

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SYLLABUS FOR RESEARCH ENTRANCE TEST (RET)

Soil Conservation

PAPER-II

(SUBJECT CONTENT)

UNIT I

Meaning and definition of soil conservation management , history of soil consevation, soil erosion, types , mechanics of wind erosion , estimation of soil erosion, measurements of soil erosion , Planning, design and construction of bunds and terraces.

UNIT II

Hydrologic processes- Precipitation, Measurement of rainfall , infiltration, evaporation, evapo-transpiration, runoff, types of runoff and its computation, hydrograph-segments components, factors affecting shape of hydrograph, unit hydrograph.

UNIT III

Soils of india and Uttar Pradesh-their distribution and important physical and chemical characteristics. Soil Survey- Objectives, types of soil survey, land use capability classification. Soil properties in relation to soil erodibility. Erodibility indices-dispersion ratio and erosion ratio.

UNIT IV

Forestry needs of the country; Extent of forests in India and Uttar Pradesh; Forest policy; Role of forest in national economy; Forest influences- productive, protective and bio-aesthetic. Locality factors, forest classification, regeneration of forests, silvicultural systems, forest mensuration, tending operations. Shelter-belt and wind- breaks; Sand dune fixation; Choice of species for different problem sites.

UNIT V

Watershed management:Concept, need, principles and components of watershed management; Integrated watershed management; Factors affecting watershed management; Application of Remote Sensing, GIS for planning and management of watershed.

UNIT VI

Agroforestry, concept, need, scope, advantage and limitation of Agroforestry; Classification of Agroforestry systems Prevailing Agroforestry systems in India and Uttar Pradesh; Edaphic and climatic requirement of multipurpose tree species, non wood forest product obtained from various agroforestry systems; shifting cultivation, Taungya cultivation, Social and farm forestry. Agroforestry research and education in India, agrostology.

UNIT WISE ITEM COMPOSITION (TOTAL:50 Items)

UNIT-I : 09

UNIT-II : 09

UNIT-III: 07

UNIT-IV: 09

UNIT-V : 08

UNIT-VI : 08