

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

दी०द०३० गोरखपुर विश्वविद्यालय, गोरखपुर



**SYLLABUS FOR RESEARCH ENTRANCE TEST (NET)
ENTOMOLOGY
PAPER - II
(SUBJECT CONTENT)**

Unit I

Insect Morphology, Anatomy and Physiology

1. Insects body wall, their structure and function.
2. Head, thorax, abdomen and their appendages.
3. Sense organs in insects.
4. Structure, modifications and physiology of different systems.

Unit II

Insect Taxonomy

1. Components of biological classification.
2. ICZN
3. Various orders and families of agriculturally important insects.
4. Entomological tools and techniques.

Unit III

Insecticide Toxicology

1. Classification of insecticides.
2. Mode of action of insecticides.
3. Joint action of insecticides.
4. Mechanism of insecticide resistance in insects and their management.

Unit IV

Insect Ecology and Integrated Pest Management

1. Role of biotic and abiotic factors on insects growth and development.
2. Environmental resistance and diapause.
3. Principles and concepts of IPM.
4. Tools of integrated pest management.

Unit V

Economic Entomology

1. Major insect-pests of field, horticultural and plantation crops and their management.
2. Stored grain insect-pest and their management.
3. Beneficial insects.
4. Spraying and dusting equipments.

Unit wise item composition (Total: ³⁵ 50 items)


Unit-I: 15

Unit-II: 5

Unit-III: 3

Unit-IV: 10

Unit-V: 10


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HEAD

Department of Entomology
B.R.D.P.G. College, Deoria