

AGRICULTURAL EXTENSION

PART – A : RESEARCH METHODOLOGY

1. **Introduction:** Meaning of scientific methods. Steps in scientific methods. Types of research. Bias in research.
2. **Research :** Meaning, function and step of research.
3. **Selection and formulation of research problems :** Definition of problems, types and sources of problems, review of past researches.
4. **Hypothesis :** Meaning and formulation of hypothesis in research and function of hypothesis formulation and testing of hypothesis.
5. **Statistical Analysis :** Sampling methods & its techniques; Frequency distributions; calculation of Mean, Median and Mode; Concept of standard deviation, standard error and variance; Practical application of list of significance. e.g. Z, t, F and χ^2 test; Linear regression and correlation; Basic and general principle of field experimentation.
6. **Research design:** Meaning, types and function of research design in research formulation.
7. **Sampling procedure in social research :** Distinction between probability and non probability sampling. Types of sampling factors determining sample size.
8. **Scaling technique :** Types of scale and their use. Steps in developing attitude scales.
9. **Data collection technique :** Interview, schedule method, questionnaire, observation.
10. Analysis, interpretation and report writing.
11. Tools and techniques of research in agricultural extension.

PART – B : AGRICULTURAL EXTENSION

Unit-I. Concept, objectives, principles and importance of extension Education in increasing Agricultural production .Differences between formal and informal education, Extension teaching method,classification of extension teaching method according to size of audience their selection and use. Principles of community development programme, community development programme for individual and village.

Unit-II. Definition, importance of rural sociology in the field of extension education .Elements and characteristics of rural community, contrast between rural and urban societies, Culture and its type . Social and cultural change', identification and training leaders for agricultural development. Qualities of local leaders. Factors affecting in development of personality. Implication of aspiration, attitude and motivation.

Unit-III. Diffusion and adoption process. Stages of adoption and adapters' categories. Factor affecting the adoption of agricultural innovations. Effectiveness of different source of communications, different stage of adoption. Innovation and its characteristics. Different rural development programme pre- independent after dependents sponsor by govt and their effects.

Unit-IV. Steps involved in scientific research. Scope and Importance of social research sources of Hypothesis faction of hypothesis, formulation and testing of hypothesis. Type and functions of research design. Type of scale and theirs use . Steps involve in construction of attitude scale technique of data collection. Evaluation it's degree and steps in evaluation.

Unit-V. Communications it's elements. Effectiveness use of different communication channels of different stages of adoption, classification of communication media, problems of

communication. Audio-visual aids and its classification. Agricultural journalism – writing for leaflets, bulletin, pamphlets, circular letters and magazines.

Unit-VI. Importance of administration in extension education. Principles of administrative organization, formal and informal organization. Need and factors influencing co-ordinations. Recruitment, selection and training of extension personnel. Principles, problems, objectives and importance of training of extension personnel and farmers.

Unit-VII. Scientific crop production of important crops viz. wheat, paddy, maize, potato and sugarcane. Important financing agencies engaged in providing credits for agricultural development. Role of nationalized banks in agricultural financing. Role of co-operatives and Gramin Banks in agricultural production.