### **RURAL FACULTY**

### Ph.D Entrance Test-SYLLABUS

Subject: Rural Studies

#### Part - 1

## Research methodology (50 %)

Unit: -1 What is research? Types of research

Unit: -2 Sampling,

Unit: -3 Questionnaire

Unit: -4 Observation

Unit: -5 Details of Research methodology

Unit: -6 Field experimental design.

Unit: -7 Theses and dissertation writing, reference citation.

Unit: -8 Research paper writing, proof reading marks.

Unit: -9 Frequency distribution

Unit: -10 Use of computer in research & data analysis

Unit: -11 M.S.Office-words, excel, power point

Unit: - 12 Research related web-site and journals

#### Part - 2

# Core Subjects (50%)

Unit: -1 Principles of crop production

Unit: -2 Methods of insect, dieses and weed control.

Unit: -3 Soil conservation & soil fertility.

Unit: -4 Importances and salient future of horticulture

Unit: -5 Production technology in fruit, vegetable and flower

Unit: -6 Advance techniques in agriculture.

Unit: -7 Value additions in horticultural crops.

Unit: -8 Advance in animal breeding, selection, heritability. -Reproduction and reproductive efficiency & factors.

.Unit: -9 Animal feeds and fodders. - Conventional and unconventional feeds, Nutrients of feeding stuffs, feed supplements. - Concentrates & their importance.

Unit: -10 Dairy production; current scenario in India and world, milk contamination and testing, milk adulteration and testing.

Unit: -11 Storage of milk, disease transmitted through milk

Unit: -12 Biotechnology and its uses in plants and animals.

Unit: -13 Multiple ovulation and embryo transfer, cloning, transgenic animal and plants, invitro fertilization, tissue culture.

Unit: -14 Elements of environment, law of environment

Unit: -15 conventional and non conventional energy sources.

Unit: 16 Economics Development and Economic growth: Economic system in Rural India. Community Development Program

Unit: 17 Meaning, Importance and objectives of rural industrialization, importance of Agriculture in Rural Industrialization, Gandhian Approach about Rural Industries and Rural Development.

Unit: 18 Ideology of Gandhi and nurturing of gandhian ideology, gandhi's thoughts about education.

Unit: 19 Principles of extension education and extension work, skill of extension workers and community development.

Unit: 20 Poultry rearing, Different methods, merits-demerits, Incubation. hatching and brooding. the structure and nutritive value of eggs.

Unit: 21 Activity of forest department like social forestry, national park, wild life century etc.

Unit: 22 Mendalion laws of inheritance and methods of Plant- Breeding.

Unit: 23 Hybrid seed production techniques in vegetable and field crop.

Unit: 24 Nursery preparation & management in fruit, vegetable, ornamental & forest plant.

Unit: 25 Green house technology.

Unit: 26 Organic farming & zero budget farming.