U. P. EDUCATION SERVICE SELECTION COMMISSION, PRAYAGRAJ

Syllabus

AGRICULTURE–PGT (Secondary Education)

(Subject Code-14)

01. Production of different crops under different heads; selection of soil, variety, time of sowing, seed treatment and seed rate, manure and fertilizer, application, irrigation, plant production and crop production, weeds management and crop rotation, principles and methods of prevention of weeds, types of different cultural practices system, principles and reasons factors affecting of crop rotation and crop sequence.
02. Study of Pomology and olericulture under following head : Nutrition, Importance, Origin and History plant specific variety climate, Soil, Crop rotation, sowing and transplanting, irrigation, intercropping, protection, seed production, nursery, processing and preservation of fruits & vegetables. Plantation of ornamental Plant, its civic elements and town planning.
03. Soil Fertility and Fertilizer, essential elements and their function, deficiency in plants symptoms, classification of manure and fertilizer, Principle for use of fetislizers, types of soil, quality, essential elements in formation of soil, soil erosion, factors affecting the works of prevention of soil erosion, Chemical analysis of Soil,
04. Equipments (Tools) and Irrigation technique-Kinds of Tools, Their usefulness and Various agriculture works, Mechanization and its types, Mechanization in different Agricultural Conditions, Methods of irrigation and their utility in Various crops, Stored water, Quality and Frequency, Modern irrigation, Technology and its economics.
05. Animal Reproduction (Breeding) Process, Aim, Method, Different Species of animals and birds, Method of Selecting Animals, Nutrition and Health Security for animals, Disease in animals, Description Symptoms, Diagnosis and Treatment, Sanitization of Dairy, Public health, Sewer and environment microbiology, milk Production and Distribution, clean milk prduction, Lactic Acid Contribution of Bacteria and other micro Organism in Production of butter, cheese and Fermented milk, Various milk production through Micro-Organism, Need of balanced fodder, its importance and limitation for different kinds of birds and animals.
06. Agriculture Botany (Internal Morphology, crop system and Biology), Cell Structure, Tissue Composition, Systematic Study of Function Family and its importance, Biology of Cell, Function of leaves and photosynthesis, environmental pollution and its prevention, High nutrition and its utility in crop refinement. Price and quality of good seed, type of seed, Principles of seed multiplication, seed testing and its authenticity, suitability in different types of seed in different crop cycle, Maintenance and marketing of seed.
07. Climatology Study of seasons and weather, environmental factors affecting growth, Use of various meteorological instruments in measuring various elements of weather etc.

08. Principles of Plant Protection major insects and plant diseases and their prevention by various methods

09. Extension teaching and learning qualities- stages and elements affecting the teaching and learning process. Extension methods, audio and visual aids, their classification and theorems. Extension training objective and importance, types of training, types of extension workers, their duties

Communication-Various stage of communication, Methods of communication(Mass communication and practical communication) Journalism - importance of journalism in rural development, Categories of journalism, types of news, Various rural Development scheme run in India Rural Sociology, types of society, methods of election of leaders and types of leaders.

10. Agriculture Economics, principles of Economics Subject areas and Subject matters of Economics principles of agricultural management, Production and elements of production, Labour demand and supply of agricultural Labour problems of agricultural labour, Agricultural Planning and credit principles of agricultural planning objective subject areas, methods and instruments, Supply of credit in Agriculture, Co-operative Agriculture its methods and areas five year plans in India alongwith new plans under Niti Ayog.