RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS FOR COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR IN AGRICULTURE (ENTOMOLOGY) FOR COLLEGE EDUCATION DEPARTMENT

PAPER – II

Unit 1: Pests of Field Crops-
Distribution, host range, biology and bionomics, nature of damage and management of arthropod pests of cereals, millets, oilseed, pulses, forage, fibre crops, sugarcane and tobacco. Polyphagous pests: locusts, termites, hairy caterpillars, cut worms, fall armyworm and white grubs.

Unit 2: Pests of Horticultural Crops-
Distribution, host range, biology and bionomics, nature of damage and management of arthropod pests of vegetables, fruits and plantation crops, spices, condiments, medicinal plants and ornamentals.

Unit 3: Pests of Stored Products -

Unit 4: Biological Control-
Unit 5: Chemical Control and Toxicology-

Unit 6: Host Plant Resistance-

Unit 7: Innovative Approaches in Pest Management-
Unit 8: Integrated Pest Management-
History, concept and principles of IPM. Components of IPM: Cultural, mechanical and physical methods, chemical methods, biocontrol agents utilization, genetic and behavioral control strategy etc. IPM strategies for field and horticultural crops. IPM case histories. Concept of damage levels- Economic Threshold Levels (ETL), Economic Injury Levels (EIL) and their determination. System approach, Agro ecosystem and cropping system vs. IPM. Constraints and Strategies of IPM implementation.

Unit 9: Pesticide Application Equipments-
Types of appliances: sprayers, dusters, fog generators, smoke generators, soil injecting guns, seed treating drums and flame throwers, etc. Power operated sprayers and dusters. Types of nozzles and their uses. Maintenance of appliances. Aerial application of pesticides, principles of aerial application, factors affecting the effectiveness of aerial application. Equipments for aerial applications. Advantages and disadvantages of aerial application.

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Note : - Pattern of Question Paper

1. Objective type paper
2. Maximum Marks : 75
3. Number of Questions : 150
4. Duration of Paper : Three Hours
5. All questions carry equal marks.
6. Medium of Competitive Exam : Bilingual in English & Hindi
7. There will be Negative Marking.