

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS FOR COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR IN AGRICULTURE LIVESTOCK FOR COLLEGE EDUCATION DEPARTMENT

PAPER – I

Unit 1: General -

Present status and future prospects of livestock and poultry development in India and Rajasthan. Effect of industrialization and mechanization of agriculture on livestock sector. Breeds of cattle, buffalo, sheep, goat, pigs, equine, camels, rabbits and poultry. Various livestock and poultry development programmes operative in the country. Animal behavior vis-à-vis adaptation and production. Principles of domestication and behavioral factors favouring domestication. Mating behavior in various species of livestock and poultry. Agnostic behaviour causes and control. Social order in farm animals. Adaptation of livestock and poultry in tropics, deserts, cold and high altitudes. Mixed farming, arable farming, integrated and specialized farming systems. Introductory biotechnology and its use in animal and poultry improvement.

Unit 2: Breeding Management -

Basic principles of inheritance. Concept of heritability, repeatability and selection. Important methods of selection and systems of breeding in farm animals and poultry. Importance of maintaining breeding records and their scientific interpretation.

Unit 3: Feeding Management -

Nutrients and their functions. Nutritional requirements and feeding managements of different categories of livestock and poultry. Feed additives including antibiotic and probiotic feeding in farm animals and poultry. Formulation and compounding of rations for various categories of livestock and poultry. Least cost ration formulation. Systems of feeding livestock and poultry. Feeding standards for livestock and poultry. Feed conversion efficiency of various categories of livestock and poultry. Processing and storage of conventional and non-conventional feed ingredients. Agro-industrial by-products in animal and poultry feeds.

Unit 4: Reproduction Management -

Reproductive systems of farm animals and poultry. Climate and nutrition affecting reproductive performance in farm animals. Importance of early pregnancy diagnosis. Methods of heat detection. Artificial insemination. Oestrus prediction and synchronization. Causes of disturbed fertility and its prevention in farm animals. Factors affecting reproductive efficiency. Summer and winter management problems and their solutions.

Unit 5: Shelter Management -

Housing systems, selection of site and lay out of animal and poultry houses. Space requirement for livestock and poultry. Housing designs in different agro-climatic regions. Macro and micro-climatic changes affecting designs of animal and poultry houses. Construction of cheap animal and poultry housing utilizing local resources. Automation in livestock farming. Disposal of animal wastes under urban and rural conditions. Disposal of carcasses.

Unit 6: Health Management -

General approach to livestock health programmes. Prevention of diseases. Hygiene and sanitation on animal and poultry farm. Symptoms of ill health, important infectious diseases of livestock and poultry and their control. Vaccination schedules in animals and poultry. Internal and external parasites and their control. Accidental health disorders and their control. Common disinfectants used on animal farms. Concept of first aid at farms. Segregation and quarantine management for large animals and birds. Quarantine Act, Zoonotic diseases, labour health programme.

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.