### लोक सेवा आयोग

## नेपाल कृषि सेवा, लाईभस्टक पोल्ट्री एण्ड डेरी डेभलपमेण्ट समूह राजपत्रांकित प्रथम श्रेणी, खुला र आन्तरिक प्रतियोगितात्मक लिखित परिक्षाको पाठयक्रम

द्वितीय पत्रः प्राविधिक विषय पूर्णाङ्कः १००

### 1. INTRODUCTION

- 1.1 Relation of livestock with agriculture, forestry and environment
- 1.2 Statistics on livestock and livestock products
- 1.3 Contribution of livestock to the national economy at the different level
- 1.4 Trend of livestock development over the last decade
- 1.5 Present status of livestock research and development
- 1.6 Trading (domestic and international) of livestock and livestock products (dairy, meat, fiber, egg, hides and skins etc)
- 1.7 Credit and insurance in livestock development
- 1.8 Historical background of livestock development in Nepal.
- 1.9 Animal Welfare and its implication in livestock industry in Nepal.

### 2. ANIMAL NUTRITION

- 2.1 Current feed status at local, regional and national level
- 2.2 Feeds and feeding standards for each livestock and poultry species
- 2.3 Different methods of nutritional analysis of livestock feeds and fodder
- 2.4 Computation of ration for different livestock and poultry species
- 2.5 Minerals, vitamins and trace elements requirement for different species of livestock and poultry their sources and deficiency syndromes
- 2.6 Utilization of crop and industrial by-products in poultry and livestock
- 2.7 Non- conventional feedlots importance and use in livestock feeding.

### 3. PASTURE AND FODDER

- 3.1 Indigenous species of pasture and fodder found in different parts of Nepal
- 3.2 Different species of pasture, fodder and fodder trees Cultivation and management practices
- 3.3 Rangeland management practices in different parts of the country
- 3.4 Different methods of forage conservation and their nutritive values
- 3.5 Agro-forestry in different eco-zones
- 3.6 Seed production of different pasture and fodder species
- 3.7 Exotic species of pasture and fodder and its effect on Nepalese husbandry practices

### 4. LIVESTOCK BREEDS, BREEDING AND REPRODUCTION

- 4.1 Description (Breed characteristics, habitat, productivity) of different species of exotic and indigenous livestock and poultry
- 4.2 Sire evaluation for selecting the elite bulls
- 4.3 Genetic parameters for the selection of livestock and poultry maintained for different purposes
- 4.4 Breeding principles
- 4.5 Methods of selection
- 4.6 Appropriate breeding strategy for each livestock species
- 4.7 Different types of reproductive hormones and their functions
- 4.8 Different stages of reproduction and estrous cycles
- 4.9 Reproductive disorders and their corrective measures
- 4.10 Collection, processing, evaluation and storage of warm and frozen semen
- 4.11 Artificial insemination technique

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- 4.12 Biodiversity and genetic resource conservation, their policy, strategy and programs
- 4.13 Endangered livestock of Nepal, long-term plan for their conservation

### 5. LIVESTOCK AND POULTRY MANAGEMENT

- 5.1 Classification and identification of livestock and poultry
- 5.2 Housing and space requirement of different livestock and poultry
- 5.3 Different types of record maintenance of farm animals and poultry
- 5.4 Management of different stages of animal (young, pregnant, production, breeding, dry etc)
- 5.5 Hatchery management
- 5.6 Commercial poultry breeds
- 5.7 Poultry development in Nepal, its present status and contribution to the national economy

### 6. LIVESTOCK EXTENSION

- 6.1 Social mobilization, gender integration and group dynamics
- 6.2 Pocket package program
- 6.3 Capacity building of farmers and extension staffs
- 6.4 Participatory approach in planning, implementation and monitoring from grass-root level
- 6.5 Public-private/NGO/CBOs partnership program
- 6.6 Different types of communication system)
- 6.7 System learning approach
- 6.8 Extension network and its role in livestock development in changing context {devolution}

### 7. AGRO-PROCESSING AND MARKETING

- 7.1 Physiology of milk secretion and composition of milk and milk products
- 7.2 Hygienic milk production
- 7.3 Handling, processing and quality management of milk and milk products
- 7.4 Manufacture and marketing of different dairy products
- 7.5 Hygienic meat production
- 7.6 Handling, processing and quality management of meat and meat products
- 7.7 Manufacture and marketing of different meat products
- 7.8. Marketing network of live animal
- 7.9 Egg, wool, hides and skins, bones etc marketing system
- 7.10 Quality control in livestock products and its mechanism in Nepal,
- 7.11 Livestock marketing in the context of W.T.O.
- 7.12 Livestock industry in Nepal, its development, problems and opportunities.

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# नमूना प्रश्नहरु (Model Questions)

द्वितीय पत्र:- सेवा सम्बन्धी प्राविधिक विषय

पूर्णाङ्क:- १००

विश्लेषणात्मक समीक्षा (Analytical Review) ४ प्रश्न X १५ अङ्क = ६० अङ्क	
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- 1. Agricultural statistics clearly indicates that sheep population is decreasing year after year. Critically review of and suggest on carpet wool production in the country.
- 2. Literature shows that animal feed deficit is around one-third of the total requirement. Critically analyze and suggest how the ruminant animal feed can be available throughout the year.
- 3. A crossbred cattle population can be obtained by introducing the semen of a high yielding exotic breed through AI. Review and suggest the appropriate blood level to be introduced according to the breeding principles for better performances.
- 4. Critically assess of and suggest on the efficacy of "Pocket Package Program" in the context of development of "Goat Resource Centre" in Nepal. 15

विश्लेषणात्मक र समाधानमूलक उत्तर (Analytical and Problem Solving)   २ प्रश्न X २० अङ्क = ४० अङ्क
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- 5. Dairy farmers are demanding frequently the milk price hike due to high cost of production. Critically assess the situation and suggest the logical solutions.
- 6. Yak population is in decreasing trend in Nepal as the result of which yak cheese production is also declining annually. In this scenario, how will you increase this niche product production substantially within five years period?