

1. INTRODUCTION
  - 1.1 Relation of livestock with agriculture, forestry and environment
  - 1.2 Statistics on livestock and livestock products
  - 1.3 Present status of livestock research and development
  - 1.4 Livestock credit and insurance
  
2. ANIMAL NUTRITION
  - 2.1 Feeds and feeding standards for each livestock and poultry species
  - 2.2 Nutritional contents of different species of pasture, fodder, fodder trees including indigenous species, agricultural and industrial by-products
  - 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
  
3. PASTURE AND FODDER
  - 3.1 Classification of different types of pasture and fodder species
  - 3.2 Indigenous species of pasture and fodder found in different parts of Nepal
  - 3.3 Different species of pasture, fodder and fodder trees - Cultivation and management practices
  - 3.4 Rangeland management practices in different parts of the country
  - 3.5 Different methods of forage conservation and their nutritive values
  - 3.6 Seed production of different pasture and fodder species
  
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 Quantitative genetics of livestock and poultry (gene, cell division, chromosome number, genotype, phenotype, breeding values, hybrid vigour, sex linkage, dominance and recessive gene etc.),
  - 4.7 Anatomy of male and female reproductive organs of different species of livestock and poultry
  - 4.8 Different types of reproductive hormones and their functions
  - 4.9 Different Stages of Reproduction and Estrous cycles
  - 4.10 Reproductive disorders and their corrective measures
  - 4.11 Collection, processing, evaluation and storage of warm and frozen semen
  - 4.12 Artificial insemination technique
  - 4.13 Pregnancy diagnosis technique
  
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 Casting technique
  - 5.4 Different types of record maintenance of farm animals and poultry
  - 5.5 Management of different stages of animal (young, pregnant, production, breeding, dry etc)
  - 5.6 Hatchery management
  - 5.7 Commercial poultry breeds
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
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

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नमूना प्रश्नहरू (Model Questions)

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| विश्लेषणात्मक समीक्षा (Analytical Review) | ४ प्रश्न X १५ अङ्क = ६० अङ्क |
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1. Critically assess the present relationship between research and development organizations for technology generation and dissemination. Suggest the best approach for up-scaling the recommended technology for goat meat production. 15
2. Critically review the adaptation of different improved forage species in Nepal and suggest farmers to grow appropriate forage species to increase the cattle productivity in milk shed areas. 15
3. Analyze the breeding values of dairy cows based on the production performance of crossbred Jersey cows with respect to heritability estimate of milk and response to selection. 15
4. Certain selection pressure is necessary to maintain pure line poultry from generation to generation. Review and suggest the effective method of selection for egg-type chicken. 15

1. Due to low productivity and production of dairy animals, farmers frequently urge the government and private sector to increase their milk price. Critically assess the present milk price situation and suggest the measures to be taken to stabilize the milk price at least for three years. 15
2. Infertility and repeat breeding are common problems in cattle and buffaloes. Critically analyze the problems and suggest the rectifying measures. 15

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