

पशु चिकित्सक (अधिकतस्तर हँटी) पदको खुला प्रतियोगितात्मक परिक्षाको पाठ्यक्रम

1. **Legislations, plans, policies, and current affairs** 20%
 - 1.1 The Constitution of Nepal
 - 1.2 Civil service act and regulation (Federal)
 - 1.3 Concept, objective, and importance of public policy
 - 1.4 Government planning, budgeting, and accounting system
 - 1.5 Status of veterinary services in federal, provincial, and local level
 - 1.6 Status of production and production systems of livestock and poultry
 - 1.7 Indigenous and exotic breeds of livestock and poultry and their population
 - 1.8 National and provincial policies and plans related to livestock sector
 - 1.9 Agriculture Development Strategy (ADS)
 - 1.10 World organization of animal health (OIE)
 - 1.11 Responsibilities of the Ministry of Agriculture and Livestock Development, Bagamati province
 - 1.12 Organizational structure of Ministry of Agriculture and Livestock Development, Bagamati province
 - 1.13 **Acts & Regulations**
 - 1.13.1 National Animal breeding policy, 2078
 - 1.13.2 National Animal health policy, 2078
 - 1.13.3 National Dairy development policy, 2078
 - 1.13.4 Animal Health and Livestock Service Act, 2055 and it's regulation, 2056
 - 1.13.5 Slaughterhouse and Meat inspection Act, 2055 and it's regulation, 2057
 - 1.13.6 Nepal Veterinary Council Act, 2055 and it's regulation, 2057
 - 1.13.7 Provincial Dairy Development Act, 2075 and it's regulation, 2076
 - 1.13.8 Provincial Seed Act, 2077
 - 1.13.9 Bird flu control regulation, 2078
 - 1.13.10 Agriculture and Livestock insurance directives, 2077
 - 1.13.11 Animal transportation standard, 2064
 - 1.13.12 Other provincial acts and regulations related to veterinary services
2. **Clinical subjects** 40%
 - 2.1 **Veterinary Medicine**
 - 2.1.1 Bacterial, viral, and fungal diseases of farm livestock and poultry
 - 2.1.2 Transboundary animal disease (TADs)
 - 2.1.3 Parasitic disease (ecto and endo parasites) of farm livestock and poultry
 - 2.1.4 Zoonotic diseases of public health importance
 - 2.1.5 Metabolic disease of farm livestock and poultry
 - 2.1.6 Normal physiological values like body temperature, rectal temperature, heart rates, respiratory rates, urinary volume, and fecal output of different species of animals
 - 2.2 **Veterinary Surgery**

- 2.2.1 Antiseptics and disinfectants
- 2.2.2 Sterilizations of surgical materials and instruments
- 2.2.3 Importance of sutures and suturing materials
- 2.2.4 Inflammations, abscess, tumors, cysts, hematoma, hernia, and their treatment
- 2.2.5 Gangrene, burn, scald, frost bite and their treatment
- 2.2.6 Fractures and dislocations
- 2.2.7 Caesarian section, Rumenotomy, Ovario-hysterectomy, Stringhalt, Spaying, Castration
- 2.2.8 Different types of local, regional, and general anesthetic procedures
- 2.3 Veterinary obstetrics and Gynecology**
 - 2.3.1 Normal reproductive cycle of different farm animals
 - 2.3.2 Reproductive hormones
 - 2.3.3 Artificial insemination, embryo transfer, and pregnancy diagnosis
 - 2.3.4 Sub-fertility, infertility, sterility, and abortion in farm livestock
 - 2.3.5 Reproductive disorders and its management
- 2.4 Clinical pathology and parasitology**
 - 2.4.1 Sample collection and dispatch to the laboratory
 - 2.4.2 Hematological examinations
 - 2.4.3 Blood chemistry, Liver, and kidney functions tests
 - 2.4.4 Urine analysis
 - 2.4.5 Antibiotic sensitivity test (AST), California mastitis tests (CMT)
 - 2.4.6 Laboratory diagnosis of important disease of animals and poultry
 - 2.4.7 Different staining procedures
 - 2.4.8 Clinical parasitology
 - 2.4.9 Examination of skin scrapping
 - 2.4.10 Bacterial, viral, and fungal serological techniques
- 3. Para-clinical subjects** 40%
 - 3.1 Veterinary Microbiology**
 - 3.1.1 Bacteria, virus, and fungus
 - 3.1.2 Bacterial genetics, mutation and variations associated with virulence
 - 3.1.3 Resistance and immunity, antigen-antibody reaction
 - 3.1.4 Immune system and immunization of animals
 - 3.1.5 Hypersensitivity
 - 3.2 Veterinary Parasitology**
 - 3.2.1 Parasites and Parasitism, types of parasitism, host-parasite relationship
 - 3.2.2 Antiparasitic and anthelmintic medication, anthelmintic resistance
 - 3.2.3 General description, classification, morphological characteristics, and diseases caused by helminths, arthropods, insects of domesticated animals
 - 3.2.4 Protozoon parasites of domesticated animals and birds
 - 3.3 Veterinary Pathology**
 - 3.3.1 Inflammation, classification, and changes in inflammatory responses
 - 3.3.2 Disturbances in growth, neoplasm, and cancer
 - 3.3.3 Healing and fever

- 3.3.4 Pathology of diseases of cardiovascular system, hemopoietic system, respiratory system, digestive system, urinary system, genital system, nervous system, endocrine system, sense organs and musculoskeletal system of domesticated animals and birds

3.4 Veterinary Pharmacology and Toxicology

- 3.4.1 Anesthetics, hypnotics, sedatives, tranquilizers, analgesics, analeptics, antipyretics, histamines, antihistamines, muscle relaxants
- 3.4.2 Drugs acting on cardiovascular system, digestive system, respiratory system, urogenital system, central nervous system, skin, and mucus membrane
- 3.4.3 Endocrine pharmacology and vitamins
- 3.4.4 Antibiotics, antifungal, anthelmintics, antiprotozoal, antiviral, and anticancer agents
- 3.4.5 Cytotoxic and immunosuppressive drugs
- 3.4.6 Toxicity caused by metals and non-metals, plants, commonly used drugs, agrochemicals, venomous bites and stings and environmental toxicity

3.5 Epidemiology and Veterinary public health

- 3.5.1 Different terminologies used in epidemiology
- 3.5.2 Epidemiological concept of disease control
- 3.5.3 Different types of epidemiological studies
- 3.5.4 Outbreak investigation
- 3.5.5 Risk analysis
- 3.5.6 HACCP (Hazard analysis and critical control point)

3.6 Veterinary extension

- 3.6.1 Definition, and principles of extension education
- 3.6.2 Classification of extension teaching methods
- 3.6.3 Public private partnership
- 3.6.4 Social mobilization

3.7 Animal Nutrition

- 3.7.1 Functions of water, proteins, fats, carbohydrates, minerals and vitamins and their requirements for different species of livestock and poultry and their deficiency
- 3.7.2 Intake, digestion, utilization, metabolism of nutrients by ruminants and non-ruminants
- 3.7.3 Classification of feed and evaluation of feed quality
- 3.7.4 Feed additives and feed supplements
- 3.7.5 Utilization of crop and industrial by-products in livestock and poultry
- 3.7.6 Feeding standards for different stages of livestock and poultry species
- 3.7.7 Ration formulation for farm livestock and poultry

3.8 Livestock Production and Management

- 3.8.1 Housing and space requirement of different livestock and poultry
- 3.8.2 Management of different stages of livestock and poultry
- 3.8.3 Good husbandry practice

3.9 Pasture and fodder

- 3.9.1 Classification of different types of pasture and fodder species
- 3.9.2 Agronomical management of tropical, sub-tropical and temperate species of legumes and non-legumes
- 3.9.3 Agronomical management of fodder trees
- 3.9.4 Different methods of forage conservation- hay, silage, haylage
- 3.9.5 Anti-nutritional factors present in feeds and fodder/forages
- 3.9.6 Principles and practices of forage seed production
- 3.9.7 Seed production of forage and fodder trees
- 3.9.8 Seed quality control system and quality testing of forage and fodder seed

3.10 Animal Breeding

- 3.10.1 Heritability and repeatability estimates
- 3.10.2 Breeding values, genetic and phenotypic relationships
- 3.10.3 Selection: principles of selection, method of selection, basis of selection
- 3.10.4 Types/system of breeding: inbreeding and outbreeding
- 3.10.5 Breeding approaches of indigenous and exotic livestock and poultry

3.11 Dairy

- 3.11.1 Composition of milk of dairy animals
- 3.11.2 Nutritive value of milk with respect to different milk constituents
- 3.11.3 Physical and chemical properties of milk
- 3.11.4 Pasteurization and homogenization of milk
- 3.11.5 Legal standard of different milk and milk products in Nepal

परिक्षाको किसिम

तपाशिल

परिक्षाको किसिम	प्रश्न संख्या	अंक सार	जम्मा पूर्णाङ्क	समय
लिखित परिक्षा				
१) वस्तुगत	५०	२	१००	४५ मिनेट
२) विषयगत	१०	१०	१००	३ घण्टा
अन्तरवाता	-	२०	२०	-