प्रदेश लोक सेवा आयोग कोशी प्रदेश, विराटनगर, नेपाल

प्रदेश निजामती सेवा तथा स्थानीय सरकारी सेवा अन्तर्गतका प्राविधिक तर्फ कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहको पदको खुला, अन्तर स्थानीय तह तथा अन्तर तह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

पाठ्यक्रमलाई निम्नानुसार विभाजन गरिएको छ :

परीक्षाको चरण	परीक्षाको किसिम	पूर्णाङ्क
प्रथम	लिखित परीक्षा	२००
अन्तिम	सामूहिक परीक्षण र अन्तर्वार्ता	Хo

परीक्षा योजना (Examination Scheme)

१. प्रथम चरण (First Phase)

पत्र	विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या X अङ्क	समय
प्रथम	सामान्य विषय	900	४०	वस्तुगत: बहुवैकल्पिक प्रश्न (MCQs)	१०० प्रश्न X १अङ्क	१ घण्टा ३० मिनेट
द्वितीय	सेवा सम्बन्धी विषय	900	४०	विषयगत (Subjective)	लामो उत्तरात्मक ८ प्रश्न X १०= ८० छोटो उत्तरात्मक ४ प्रश्न X ५= २०	३ घण्टा

२. अन्तिम चरण:- सामूहिक परीक्षण र अन्तर्वार्ता (Group Test & Interview)

विषय	पूर्णाङ्क	परीक्षण प्रणाली	समय
सामूहिक परीक्षण (Group Test)	90	सामूहिक छलफल (Group Discussion)	३० मिनेट
व्यक्तिगत अन्तर्वार्ता (Individual Interview)	३०	मौखिक (Oral)	-

द्रष्टव्य:-

- 9. यो पाठ्यक्रम योजनालाई प्रथम चरण (लिखित परीक्षा) तथा अन्तिम चरण (सामूहिक परीक्षण र अन्तर्वाती) गरी दुई भागमा विभाजन गरिएको छ।
- २. प्रश्न पत्र अंग्रेजी वा नेपाली भाषामा हुनेछ।
- ३. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ।
- ४. वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिने छ। तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन।
- ५. परीक्षा हलमा मोबाइल फ़ोन, स्मार्ट वाच, हेडफ़ोन वा यस्तै प्रकारका विद्युतीय उपकरण, पुस्तक, नोटबुक, झोला लगायतका वस्तुहरू लैजान पाईने छैन ।

- ६. विषयगत प्रश्नका लागि तोकिएका अङ्कका हकमा एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुईभन्दा बढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरू (Short notes) सोध्न सिकनेछ।
- ७. परीक्षामा सोधिने प्रश्न संख्या, अङ्क र अङ्कभार यथासम्भव सम्बन्धित पत्र/विषयमा दिइए अनुसार हुनेछ।
- द्वितीय पत्र (विषयगत प्रश्न हुने पत्र) का हकमा प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन्।
 परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डको उत्तर पुस्तिकामा लेख्न पर्नेछ।
- ९. प्रथम र द्वितीय पत्रका पाठ्यक्रमका एकाईहरुबाट सोधिने प्रश्नहरुको अङ्क भार र संख्या देहाय अनुसार हुनेछः

प्रथम पत्रका ईकाई	٩	२	n	γ	ሂ	६	9	5	जम्मा
प्रश्न संख्या	90	9 ሂ	२०	X	२५	90	ζ	9	900
द्वितीय पत्रका खण्ड	A		В			С			
प्रश्न संख्या र अङ्क	₹×9°0=₹°0)	γ×.	08=0		2×90=20		9.00
भार	($\chi = \chi \times f$		٦×	∀= 90		٩×٤=	= X	900

- 90. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भएतापिन पाठ्यक्रममा परेका कानुन, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधन भइ हटाइएका वा थप गरी संशोधन भएका) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ।
- ११. प्रथम चरणको लिखित परीक्षामा छनौट भएका उम्मेदवारहरूलाई मात्र अन्तिम चरणको सामूहिक परीक्षण र अन्तर्वार्तामा सम्मिलित गराइने छ।
- १२. प्रथम चरणको लिखित परीक्षा र अन्तिम चरणको सामूहिक परीक्षण र अन्तर्वार्ताको कूल अङ्क योगका आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ।
- १३. पाठ्यक्रम लागू हुने मितिः- २०८०/०२/३२

प्रदेश लोक सेवा आयोग कोशी प्रदेश, विराटनगर, नेपाल

प्रदेश निजामती सेवा तथा स्थानीय सरकारी सेवा अन्तर्गतका प्राविधिक तर्फ कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहको पदको खुला, अन्तर स्थानीय तह तथा अन्तर तह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

प्रथम पत्र (Paper I): सामान्य विषय (General Subject)

1. नेपालको संविधान तथा सान्दर्भिक कानूनहरुः

- 1.1 नेपालको संविधान
- 1.2 सार्वजनिक खरिद ऐन २०६३ र नियमावली २०६४
- 1.3 स्थानीय सरकार संचालन ऐन २०७४
- 1.4 प्रदेश सुशासन (व्यवस्थापन तथा संचालन) ऐन २०७६ तथा नियमावली २०७९
- 1.5 प्रदेश आर्थिक कार्यविधि तथा वित्तीय उत्तरदायित्व ऐन, २०७८
- 1.6 संघ, प्रदेश तथा स्थानीय तह (समन्वय तथा अन्तरसम्बन्ध) ऐन, २०७७
- 1.7 संघ, प्रदेश र स्थानीय तहका कर्मचारीको सेवाका शर्त सम्बन्धी कानुनहरु
- 1.8 भष्टाचार निवारण ऐन, २०७९
- 1.9 प्रदेश कृषि व्यवसाय प्रवर्धन अनुदान ऐन, २०७७

2. General Awareness and Contemporary Issues

- 2.1 Physical, socio-cultural and economic geography and demography of Nepal
- 2.2 Major natural resources of Nepal
- 2.3 Geographical diversity, climatic conditions, and livelihood & lifestyle of people
- 2.4 Current periodic plans of Nepal and Koshi Province
- 2.5 Information on sustainable development, environment, pollution, climate change, biodiversity, science and technology, Sustainable Development Goals
- **2.6** Governance system and Government (Federal, Provincial and Local)
- **2.7** Functions and scope of public services.
- **2.8** Concept, objective and importance of public policy
- **2.9** Fundamentals of management: planning, organizing, directing, controlling, coordinating, decision making, motivation and leadership
- **2.10** Government planning, budgeting, MTEF and accounting system

3. Animal Health related Plans, Policies, Acts & Regulations of Nepal & Koshi Province

- 3.1 Animal Health and Livestock Service Act, 2055 and Regulation, 2056
- 3.2 Animal slaughterhouse and Meat inspection Act, 2055 and regulation, 2057
- 3.3 Nepal Veterinary Council Act, 2055 and regulation, 2057
- **3.4** Feed Act, 2033 and regulation, 2041
- **3.5** Drug Act, 2035
- **3.6** National Park and Wildlife Conservation Act
- 3.7 Poultry Policy, 2068
- **3.8** Bird Flu Control Regulations, 2078 & Compensation Standard 2079
- **3.9** Animal transportation standard, 2064
- **3.10** National Animal Health Policy 2078
- **3.11** National Animal Breeding Policy 2078
- **3.12** National Dairy Development Policy 2078
- **3.13** National Fisheries Development Policy 2079

- **3.14** One Health Strategy 2076
- 3.15 National Food Safety Policy 2076
- **3.16** Food Security & Food Sovereignty Act 2076
- 3.17 पशु स्वास्थ्य तथा पशु सेवा व्यवसायी परिषद् ऐन, २०७९
- **3.18** Zoning & compartmentalization Directives 2078
- **3.19** Animal welfare Directives, 2073
- 3.20 Other provincial acts and regulations related to veterinary service

4. History & current Status of Livestock & Veterinary Services

- **4.1** History and current status of Veterinary Services in Nepal
- 4.2 Livestock statistics of Nepal and Koshi Province
- **4.3** Role of public and private sector in the promotion of veterinary services in national and provincial level
- **4.4** National and provincial policies and plans related to veterinary services and livestock development
- **4.5** Provisions made by Agriculture Prospective Plan (APP), Agriculture Development Strategy (ADS), Livestock Master Plan and Dairy Development Plan for Livestock sector development
- **4.6** Organizational structure of agricultural service in federal context

5. Clinical subjects

5.1 Veterinary Medicine

- 5.1.1 Distinguish between health and disease, General clinical examinations of animals, Normal physiological values like body temperature, rectal temperature, heart rates, respiratory rates, urinary volume and fecal output of different species of animals
- 5.1.2 Systemic disease: Etiology, diagnosis and treatment of: Disease of Blood, lymphatic and cardiovascular system, Disease of Digestive system, Common disease of eye and ear, Disease of Endocrine system, Disease of Nervous system, Disease of Reproductive and urinary system, Disease of Respiratory system, Disease of Skin
- 5.1.3 Metabolic and production diseases
- 5.1.4 Nutritional deficiencies disease
- 5.1.5 Trans-boundary animal disease (TADs): Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control and prevention of the following: Foot and mouth disease (FMD), Rinderpest (RP), PPR,Contagious bovine pleuropneumonia (CBPP), Sheep pox and Goat pox, Blue tongue, Classical swine fever, Avian influenza, Newcastle disease, Lumpy skin disease, etc.
- 5.1.6 Other Infectious disease: Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control of the following infectious disease: Hemorrhagic septicemia (HS), Black quarter (BQ), Malignant edema; Tetanus; Anthrax; Tuberculosis; Paratuberculosis; Actinomycosis; Actinobacillosis; Brucellosis; Listeriosis; Leptospirosis; Mastitis; Strangles; Glanders; Degnala disease; Salmonellosis; Mycoplasmosis; Mad cow disease; Rabies; Scrapie; Canine distemper etc.

- 5.1.7 Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, and control of the common disease caused by chlamydia, Rickettsia and Fungi in different species of animals
- 5.1.8 Diseases of Poultry: Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment and control of the following poultry disease: Fowl pox, Fowl Typhoid, Bacillary white diarrhea (BWD), Chronic Respiratory Disease (CRD), Infectious bursal disease, Infectious bronchitis, Marek's disease, Avian leucosis complex, Egg drop syndrome, Hydropericardium syndrome, Fowl cholera, Aflatoxicosis
- 5.1.9 Parasitic disease: Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control of the following parasitic disease helminthic parasitic disease: Liver fluke, Paramphistomiasis, Ascariasis, Gastrointestinal Nematodiasis, Tapeworm infection in different species of animals, General control measures of Gastro intestinal parasitism in animals.
- 5.1.10 Ecto-parasitism and their treatment, prevention and control
- 5.1.11 Protozoan diseases: Anaplasmosis, Babesiosis, Trypanosomiasis, Theileriosis, Toxoplasmosis and Coccidiosis
- 5.1.12 Diagnosis, treatment and management of different form of poisonings and snake bite
- 5.1.13 Prospects and constrains of animal and poultry vaccine production in Nepal, their uses and abuses

5.2 Veterinary Surgery

- 5.2.1 General surgical principles and procedures adopted in surgery
- 5.2.2 Pre- and post-operative considerations
- 5.2.3 Antiseptics and disinfectants
- 5.2.4 Sterilizations of surgical materials and instruments.
- 5.2.5 Importance of sutures and suturing materials
- 5.2.6 Inflammations; Abscess; Tumors; Cysts; Hematoma; Hernia and their treatment
- 5.2.7 Different types of wounds and their treatment
- 5.2.8 Gangrene; Burn, Scald; Frost bite and their treatment
- 5.2.9 Fractures and dislocations, their diagnosis and treatment
- 5.2.10 Special surgery; Caesarian section; Rumenotomy; Ovariohysterectomy, Stringhalt; Spaying and Neutering
- 5.2.11 Different types of local, regional and general anesthetic procedures

5.3 Veterinary obstetrics and Gynecology

- 5.3.1 Normal reproductive cycle of different farm animals and dogs.
- 5.3.2 Breeding soundness examination of bull
- 5.3.3 Detection of heat
- 5.3.4 Artificial insemination
- 5.3.5 Pregnancy diagnosis
- 5.3.6 Embryo transfer
- 5.3.7 Concept of infertility and sterility
- 5.3.8 Diagnosis and treatment of silent estrus, an-estrus, repeat breeders metritis, endometritis and pyometra
- 5.3.9 Dystokia and its correction
- 5.3.10 Prolapse of uterus, bladder and vagina

- 5.3.11 Use of hormones and prostaglandins
- 5.3.12 Infectious disease-causing abortions

5.4 Epidemiology and Veterinary public health

- 5.4.1 Definition, aim, objectives and application of epidemiology
- 5.4.2 Epidemiological concept of disease control
- 5.4.3 Surveillance and monitoring of disease
- 5.4.4 Different types of epidemiological studies
- 5.4.5 Outbreak investigation
- 5.4.6 Prevalence rate, incidence rate and difference between them
- 5.4.7 Characteristics of host factor, agent factor and environmental factor
- 5.4.8 Different terminology used in epidemiology
- 5.4.9 Epidemiological reporting practices in Nepal
- 5.4.10 Cost analysis of the disease control programs
- 5.4.11 Risk analysis
- 5.4.12 Definition and objective of veterinary Public Health (VPH)
- 5.4.13 Different roles of VPH (Animal production, food hygiene and environmental protection)
- 5.4.14 Diagnosis, surveillance and control of various zoonotic disease
- 5.4.15 Meat inspection: anti-mortem, post-mortem and re-inspection
- 5.4.16 Different component and management of slaughterhouse
- 5.4.17 Milk hygiene
- 5.4.18 Concept of HACCP (Hazard analysis and critical control point)

5.5 Veterinary extension

- 5.5.1 Definition, philosophy and principles of extension education
- 5.5.2 Classification of extension teaching methods
- 5.5.3 Public private partnership
- 5.5.4 Social mobilization (CBOs, NGOs and INGOs)

5.6 Clinical pathology and parasitology

- 5.6.1 Materials to be sent to laboratory for different disease diagnosis
- 5.6.2 Hematological examinations (TC, DC, ESR, PCV, RBC count, Blood smears, hemoglobin estimation)
- 5.6.3 Blood chemistry (estimation of blood glucose, serum and calcium etc.)
- 5.6.4 Liver and kidney functions tests
- 5.6.5 Urine analysis (Routine test, test for detection of protein, Glucose, Ketone bodies, blood, bile pigment etc.)
- 5.6.6 Blood and urine culture and antibiotic sensitivity tests
- 5.6.7 California mastitis tests
- 5.6.8 Important diagnostic tests: Different staining procedures, Tuberculin tests in animals, Test for pullorum disease (Rapid stained antigen), Brucellosis tests (RBPT and milk ring test) Test for rabies (Negri bodies test)
- 5.6.9 Post mortem examinations of different animal species
- 5.6.10 Clinical parasitology (Examination of feces: direct smear method, concentration method and Floatation method)
- 5.6.11 Examination of skin scrapping
- 5.6.12 Bacterial, Viral and Fungal serological techniques
- 5.6.13 Enzyme Linked Immunosorbent Assay (ELISA)

6. Para-clinical subjects

6.1 Veterinary Microbiology

- 6.1.1 General characteristics, properties, morphology, metabolism, growth and reproduction of bacteria, virus and fungus of various classes
- 6.1.2 Bacterial genetics, mutation and variations associated with virulence
- 6.1.3 Antigenicity, drug resistance
- 6.1.4 Principles of antiseptics, sterilization and disinfection
- 6.1.5 Resistance and immunity, antigen-antibody reaction and methods of detection Cell mediated and humoral immunity and immune mechanism. Immune system and its development. Antigen-antibody reactions
- 6.1.6 Immunization of animals
- 6.1.7 Hypersensitivity-allergy
- 6.1.8 Bacteriophage, their description and application
- 6.1.9 Laboratory techniques for bacterial, viral, fungal culture and identification
- 6.1.10 Important diseases of domesticated animals caused by bacteria, viruses, rickettsia, chlamydia and fungi

6.2 Veterinary Parasitology

- 6.2.1 Parasites and Parasitism, Types of parasitism, host-parasite relationship
- 6.2.2 Importance of immunity against parasitic diseases
- 6.2.3 Classification and nomenclature of parasites and characteristics of different classes of parasites
- 6.2.4 Parasite development in the host system
- 6.2.5 Antiparasitic and anthelmintic medication, their use and abuse, Anthelmintic resistance
- 6.2.6 General description, classification, morphological characteristics and diseases caused by helminths, arthropods, insects and Arachnida of domesticated animals and birds and their epidemiology, effects and methods of controlling them
- 6.2.7 Protozoon parasites of domesticated animals and birds, their classification, morphology and the diseases caused by them with epidemiology, effects and control strategies
- 6.2.8 Identification of different parasites and the methods of their culture and laboratory growth

6.3 Veterinary Pathology

- 6.3.1 Pathological responses of body to infection
- 6.3.2 Inflammation, classification and changes in inflammatory responses
- 6.3.3 Pathological disturbances and responses in circulatory system, cell metabolism, pigment metabolism
- 6.3.4 Disturbances in growth, Neoplasm and cancer
- 6.3.5 Healing, fever
- 6.3.6 Uroliths, choleliths, sialoliths, pancreoliths, enteroliths
- 6.3.7 Immune reactions. Hypersensitivity and auto immunity
- 6.3.8 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

6.3.9 Pathological changes in diseases caused by bacteria, viruses, fungus and parasites of domesticated animals and birds

6.4 Veterinary Pharmacology and Toxicology

- 6.4.1 Principles of drug activity, pharmacokinetics and pharmacodynamics of the drugs acting on central nervous system
- 6.4.2 Anesthetics, hypnotics, sedatives, tranquilizers, analgesics, analeptics, antipyretics, histamines and antihistamines
- 6.4.3 Anesthetics, Neuromuscular blocking agents, Peripheral and Central muscle relaxants
- 6.4.4 Drugs acting on autonomic nervous system, neurohumoral transmission, adrenergic antagonists, cholinergic antagonists
- 6.4.5 Drugs acting on cardiovascular system, digestive system, respiratory system, urogenital system and skin and mucus membrane
- 6.4.6 Endocrine pharmacology
- 6.4.7 Vitamins
- 6.4.8 Antibacterial agents, antifungal agents, anthelmintics, antiprotozoal agents, antiviral and anticancer agents
- 6.4.9 Cytotoxic and immunosuppressive drugs
- 6.4.10 Hormones, prostaglandins, corticosteroids
- 6.4.11 Toxicity caused by metals and non-metals, plants, commonly used drugs, agrochemicals, venomous bites and stings and environmental toxicity

7. Pre-clinical subjects

7.1 Veterinary Anatomy

- 7.1.1 Gross anatomy of skeletal system, muscular system, nervous system, digestive system, urogenital system, circulatory system, respiratory system, reproductive system, glandular system and sense organs of domesticated animals and poultry
- 7.1.2 Introduction to cell structure, cell division and basic tissue of body. Histology of the organs of musculoskeletal, digestive, respiratory, urinary, reproductive, nervous, cardiovascular, endocrine, lymphoid, sense organs of domesticated animals and birds
- 7.1.3 General embryology, gametogenesis, fertilization, and development of fetus and body organs in domesticated animals and birds

7.2 Veterinary Physiology

- 7.2.1 General function and mechanism of action of various organs of circulatory, digestive, respiratory, urinary, reproductive, nervous, sensory system, endocrine system of domesticated animals and birds
- 7.2.2 Composition and function of tissue fluids
- 7.2.3 Mechanism of respiration and gaseous exchange

7.3 Biochemistry

- 7.3.1 Biochemistry of respiration, renal function and acid base balance
- 7.3.2 Biochemistry of digestion and metabolism of carbohydrate, fat, protein, nucleic acid, minerals and trace elements
- 7.3.3 Basal and energy metabolism
- 7.3.4 Biochemistry of hormones and enzymes
- 7.3.5 Diagnostic biochemistry
- 7.3.6 Immunochemistry

- 7.3.7 Biochemistry of cellular and sub cellular components
- 7.3.8 Biochemistry of carbohydrate, lipids, proteins
- 7.3.9 Diagnostic biochemistry

7.4 Animal Nutrition

- 7.4.1 Animal feed classification, nutritional requirements, feeding system and feeding standards of farm animals and birds
- 7.4.2 Functions of various nutrients and process of digestion in ruminants, non-ruminants and birds
- 7.4.3 Ration formulation for farm livestock and birds

7.5 Livestock Production and Management

- 7.5.1 Care and management of farm livestock and poultry during different production and growth stages
- 7.5.2 Housing system for animals and birds
- 7.5.3 Characteristics of different breeds of farm livestock and birds
- 7.5.4 System of breeding and selection in farm livestock and poultry birds
- 7.5.5 Dairy and poultry production

8. International Authorities, Regulations and Standards Related to Animal Health and Veterinary Services and Legal Duties of Veterinarian

- **8.1** Outline of the World Trade Organization (WTOs), Sanitary and Phytosanitary (SPS) measures
- **8.2** Technical Barrier to Trade (TBT), Trade related aspects of Intellectual Property Rights (IPRs) agreement
- **8.3** Introduction to World Organization for Animal Health (WOAH), its objectives, function, structure, Standard setting procedures and different standards as set in Terrestrial Animal health code, Aquatic animal health code
- **8.4** Different standards for biological preparation and standard Diagnostics Tests for various diseases of farm animals
- **8.5** Role of Official Veterinary Services in International Trade of animals, products of animal origin, food safety, import risk analysis, import permit
- **8.6** International Veterinary certifications, quarantine inspections and procedures
- **8.7** Legal Duties of a Veterinarian, Examinations of animals for soundness, injuries, and sudden death.
- **8.8** Detection of Frauds, Malicious poisoning/practice
- 8.9 Differentiation of different species of blood, serum, semen, hair, hide and bones

नम्ना प्रश्नहरु (Model Question)

b) Stomatitisd) Encephalitis

1.	Swelling of head and oculo-nasal disch	arge in poultry is characteristic of;		
	a. Influenza	b. Ranikhet disease		
	c. Chronic Respiratory Disease	d. Infectious coryza		
2.	Which one is notifiable animal disease	in Nepal?		
	a. Hemorrhagic Septicemia	b. FMD		
	c. Salmonellosis	d. Orf		
3.	Rickets is caused by the deficiency of			
	a. Vitamin D	b. Calcium		
	c. Phosphorus	d. Vitamin D, Calcium and Phosphorus		
4.	What is the normal pulse rate for cattle?			
	a. 40 – 60/minute	b. 60 – 80/minute		
	c. $70 - 80$ /minute	d. 80 – 90 /minute		
5 '	The characteristic lesion of Black Quart	er disease?		

a) Hemorrhagic myositis

c) Lameness

प्रदेश लोक सेवा आयोग कोशी प्रदेश, विराटनगर, नेपाल

प्रदेश निजामती सेवा तथा स्थानीय सरकारी सेवा अन्तर्गतका प्राविधिक तर्फ कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहको पदको खुला, अन्तर स्थानीय तह तथा अन्तर तह प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

द्वितिय पत्र (Paper II) : Technical Subject Section A- 25 Marks

1. Introduction

- 1.1 History and current status of veterinary services in Nepal
- 1.2 Livestock statistics of Nepal and Koshi province
- 1.3 Indigenous and exotic breeds of livestock and poultry and their population
- 1.4 Role of public and private sector in the promotion of veterinary services in national and provincial level (Special attention to province 1)
- 1.5 National and provincial policies and plans related to veterinary services and livestock development
- 1.6 Provisions made by Agriculture prospective plan (APP), Agriculture Development strategy (ADS), Livestock Master Plan and Dairy Development Plan for Livestock sector development

2. Planning and management of veterinary/laboratory services

- 2.1 Management of veterinary investigation laboratory
- 2.2 Planning and management of provincial veterinary services, livestock production services and livestock product marketing services
- 2.3 Herd health management and disease prevention
- 2.4 National and provincial disease control program
- 2.5 Planning and management of veterinary projects

Section B-50 Marks

3. Animal Health management

- 3.1 Etiology, diagnosis and treatment of systemic diseases of farm livestock, pets, equine and poultry
- 3.2 Definition, etiology, epidemiology, pathogenesis, symptoms, diagnosis, treatment and control of notifiable Trans-boundary animal disease
- 3.3 Etiology, epidemiology, pathogenesis, symptoms, diagnosis, treatment and control of economically important infectious disease of farm livestock, pets, equine and poultry
- 3.4 Etiology, epidemiology, pathogenesis, symptoms, diagnosis, treatment and control of economically important of parasitic disease (ecto and endo parasites) of farm livestock, pets, equine and poultry
- 3.5 Zoonotic disease of public health importance
- 3.6 General control measures against parasitic and infectious diseases of animals and birds.
- 3.7 Management of production and metabolic disease of farm livestock
- 3.8 Definition, etiology, diagnosis, treatment and management of sub-fertility, infertility, sterility and abortion in farm livestock under Nepalese condition
- 3.9 Importance of breeding management, Artificial insemination (A.I), and pregnancy diagnosis in farm animals
- 3.10 Reproductive disorder and its management in farm animals

- 3.11 Current practices and importance of epidemiological reporting, and animal health information system
- 3.12 Outbreak investigation and epidemic control
- 3.13 Risk analysis
- 3.14 Laboratory diagnosis of important disease of livestock and poultry
- 3.15 Prospects and constrains of vaccine production and use in Nepal
- 3.16 Veterinary drugs administration, their uses and abuses

Section C-25 Marks

4. National and International standards, quality and regulation

- 4.1 Slaughter house management and meat inspection principles and procedures
- 4.2 Outline of the World Trade Organization (WTOs), Sanitary and Phyto-sanitary measures (SPS)
- 4.3 Introduction to WOAH (World Organization for Animal Health, its objectives, function, and its role in standard setting)
- 4.4 Role of Official Veterinary Services in International Trade of animals, products of animal origin, food safety, import risk analysis, import permit, International Veterinary certifications, quarantine inspections and procedures
- 4.5 Acts & Regulations:
 - 4.5.1 Animal Health and Livestock Service Act, 2055 and regulation, 2056
 - 4.5.2 Slaughterhouse and Meat inspection Act, 2055 and regulation, 2057
 - 4.5.3 Nepal Veterinary Council Act, 2055 and regulation, 2057
 - 4.5.4 Feed Act, 2033 and regulation, 2041
 - 4.5.5 Drug Act, 2035
 - 4.5.6 National Park and Wildlife Conservation Act
 - 4.5.7 Poultry Policy, 2068
 - 4.5.8 Animal transportation standard, 2064
 - 4.5.9 Bird Flu Control Regulations, 2078 and Compensation Standard, 2079
 - 4.5.10 National Animal Health Policy 2078
 - 4.5.11 National Animal Breeding Policy 2078
 - 4.5.12 National Dairy Development Policy 2078
 - 4.5.13 National Fisheries Development Policy 2079
 - 4.5.14 One Health Strategy 2076
 - 4.5.15 National Food Safety Policy 2076
 - 4.5.16 Food Security & Food Sovereignty Act 2076
 - 4.5.17 पशु स्वास्थ्य तथा पशु सेवा व्यवसायी परिषद् ऐन, २०७९
 - 4.5.18 Other Provincial acts and regulations related to veterinary services
- 4.6 Legal Duties of a Veterinarian, Examinations of animals for soundness, injuries, and sudden death
- 4.7 Animal welfare Directives 2073
- 4.8 Detection of Frauds, Malicious poisoning/practices
- 4.9 Differentiation of different species of blood, serum, semen, hair, hide and bones

नमूना प्रश्नहरू (Model Questions)

Long Answer Questions

- 1. What are emerging and re-emerging zoonotic diseases? What are their impacts in livestock production and marketing systems and how can it be prevented? [3+3+4]
- 2. What are the major issues and problems in Implementing Slaughter House & meat inspection Act 2055 in Nepal? Suggest how can it be effectively implemented in present situation? [5+5]

Short Answer Questions

- 1. What is one health approach? Write in short about one health strategy. [5]
- 2. Gastrointestinal Parasitic infestation is one of the major problems in livestock production. What are the measures for its control and prevention? [5]