## प्रदेश कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहका पदहरुको खुला र आन्तरिक प्रतियोगितात्मक लिखित परीक्षाको पाठयक्रम

#### यस पाठ्यक्रम योजनालाई दुई चरणमा विभाजन गरिएको छ :

प्रथम चरण :- लिखित परीक्षा (Written Examination) पूर्णाङ्क :- २०० द्वितीय चरण :- (क)सामूहिक परीक्षण (Group Test) पूर्णाङ्क :- १० (ख) अन्तर्वार्ता(Interview) पूर्णाङ्क :- ३०

#### परीक्षा योजना (Examination Scheme)

प्रथम चरण :लिखित परीक्षा (Written Examination)

पूर्णाङ्क :- २००

पत्र	विषय	खण्ड	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्ष	ा प्रणाली	प्रश्नसंख्या x अङ्क	समय
प्रथम	General Subject	Part I: General Awareness &General Ability Test  Part II: General Technical Subject	१००	४०	वस्तुगत (Objective)		५० प्रश्न x १ अङ्क ५० प्रश्न x १ अङ्क	१घण्टा ३० मिनेट
द्वितीय	Technical Subject		१००	४०	विषयगत (Subjective)	छोटो उत्तर लामो उत्तर	४ प्रश्न x ५ अङ्क ८ प्रश्न x १० अङ्क	३ घण्टा

द्वितीय चरण :सामूहिक परीक्षण (Group Test) र अन्तर्वार्ता (Interview) पूर्णाङ्क :- ४०

पत्र /विषय	पूर्णाङ्क	परीक्षा प्रणाली	समय
सामूहिक परीक्षण (Group Test)	१०	सामूहिक छलफल (Group Discussion)	३० मिनेट
अन्तर्वार्ता (Interview)	३०	बोर्ड अन्तर्वार्ता (Board Interview)	-

#### दृष्टव्य :

- १. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ।
- २. प्रथमपत्र र द्वितीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- ३. वस्तुगत बहुवैकित्पक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ । तर उत्तर निदएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पिन गरिने छैन ।
- ४. बहुवैकल्पिक प्रश्नहरु हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।
- ५. विषयगत प्रश्नहरूको हकमा तोकिएको अंकको एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुई भन्दा बढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरू (Short notes) सोध्न सिकने छ ।
- ६. द्वितीय पत्रमा(विषयगत प्रश्न हुनेका हकमा) प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरु हुनेछन् । परिक्षार्थीले प्रत्येक खण्डका प्रश्नहरुको उत्तर सोही खण्डको उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- ७. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापिन पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको विज्ञापन हुदाँको वखत (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठक्रममा परेको सम्भनु पर्दछ।
- ८. प्रथमचरणको परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीयचरणको परीक्षामा सम्मिलित गराइनेछ।
- ९. पाठयऋम लागू मितिः

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#### प्रथम पत्र (Paper I): General Subject

#### Part (I): - General Awareness & General Ability Test (50 Marks)

#### 1. General Awareness and Contemporary Issues (25 x 1 Mark = 25 Marks)

- 1.1. Physical, socio-cultural and economic geography and demography of Nepal
- 1.2. Major natural resources of Nepal
- 1.3. Geographical diversity, climatic conditions, and livelihood & lifestyle of people
- 1.4. Notable events and personalities, social, cultural and economic conditions in modern history of Nepal
- 1.5. Current periodical plan of Nepal and Provincial periodical policies and plans
- 1.6. Information on sustainable development, environment, pollution, climate change, biodiversity, science and technology
- 1.7. Nepal's international affairs and general information on the UNO, SAARC & BIMSTEC
- 1.8. The Constitution of Nepal (From Part 1 to 5 and Schedules)
- 1.9. Governance system and Government (Federal, Provincial and Local)
- 1.10. Provisions of civil service act and regulation relating to constitution of civil service, organizational structure, posts of service, fulfillment of vacancy and code of conduct
- 1.11. Functional scope of public services
- 1.12. Public Service Charter
- 1.13. Concept, objective, importance and compliance of public policy
- 1.14. Fundamentals of management: planning, organizing, directing, controlling, coordinating, decision making, motivation and leadership
- 1.15. Government planning, budgeting and accounting system
- 1.16. Major events and current affairs of national and international importance
- 1.17. Provincial organizational structure of veterinary services
- 1.18. Personnel management: requisitions, development

#### 2. General Ability Test

#### $(25 \times 1 \text{ Mark} = 25 \text{ Marks})$

2.1 **Verbal Ability Test** (8 x1 Mark = 8 Marks)

Jumble words, Series, Analogy, Classification, Coding-Decoding, Matrix, Ranking Order Test, Direction and Distance Sense Test, Common Sense Test, Logical Reasoning, Assertion and Reason, Statement and Conclusions

#### 2.2 Numerical Ability Test (9 x 1 Mark = 9 Marks)

Series, Analogy, Classification, Coding, Arithmetical reasoning/operation, Percentage, Ratio, Average, Loss & Profit, Time & Work, Data interpretation & Data verification

#### 2.3 Non-verbal/Abstract Ability Test (8 x 1 Mark = 8 Marks)

Figure Series, Figure Analogy, Figure Classification, Figure Matrix, Pattern Completion/Finding, Analytical Reasoning Test, Figure Formation and Analysis, Rule Detection, Water images, Mirror images, Cubes and Dice &Venn-diagram

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### Part (II): - General Technical Subject (50 Marks)

#### 1. Introduction

10%

- 1.1 History and current status of veterinary services in Nepal
- 1.2 Current status of livestock production and production systems of livestock and poultry in Nepal
- 1.3 Indigenous and exotic breeds of livestock and poultry and their population in Nepal
- 1.4 Role of public and private sector in the promotion of veterinary services in Nepal
- 1.5 Recent GoN policies and plans related to livestock development
- 1.6 Provisions made by APP, Livestock Master Plan and Dairy Development Plan for Livestock sector development

#### 2. Clinical subjects

40%

#### 2.1 Veterinary Medicine

- 2.1.1 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
- 2.1.2 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
- 2.1.3 Metabolic and production diseases
- 2.1.4 Nutritional deficiencies disease
- 2.1.5 Trans-boundary animal disease (TADs): Definition, etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control and prevention of the following TADs: FMD; RP; PPR; CBPP; Sheep pox and Goat pox; Blue tongue; Classical swine fever; Highly Pathogenic Avian Influenza; New castle disease
- 2.1.6 Other Infectious disease: Definition, etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control of the following infectious disease: HS; BQ; Malignant edema; Tetanus; Anthrax; Tuberculosis; Paratuberculosis; Actinpmycosis; ctinobacillosis; Brucellosis; Listeriosis; Leptospirosis; Mastitis; Strangles; Glanders; Degnala disease; Salmonellosis; Mycoplasmosis; Mad cow disease; Rabies; Scrapie; Canine distemper; Lumpy skin disease, ICH
- 2.1.7 Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, and control of the common disease caused by chlymedia, Ricktesia and Fungi in different species of animals
- 2.1.8 Disease of Poultry: Definition, etiology, epidemiology, transmission, , pathogenesis, symptoms, diagnosis, treatment, control of the following poultry disease: Fowl pox; Fowl Typhoid; BWD; CRD; Infectious bursal disease; Infectious bronchitis; Marek's disease; Avian leucosis complex; Egg drop syndrome; Leechy heart disease; Fowl cholera; Aflatoxicosis

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- 2.1.9 Parasitic disease: Etiology, epidemiology, transmission, pathogenesis, symptoms, diagnosis, treatment, control of the following parasitic disease Helminthic parasitic disease: LF; Paramphistomiasis; Ascariasis; G.I. Nematodiasis; Tape worm infection in different species of animals. ectoparasitism, General control measures of Gastro intestinal parasitism in animals. Protozoan diseases: Anaplasmosis; Babesiosis; Theileriosis; Trypnosomiasis; Toxoplasmosis; and Coccidiosis
- 2.1.10 Diagnosis, treatment and management of different form of poisonings and snake bite
- 2.1.11 Prospects and constrains of animal and poultry vaccine production in Nepal, their uses and abuses
- 2.1.12 Concept on emerging and reemerging diseases

#### 2.2 Veterinary Surgery

- 2.2.1 General surgical principles and procedures adopted in surgery
- 2.2.2 Pre and post-operative considerations
- 2.2.3 Antiseptics and disinfectants
- 2.2.4 Sterilizations of surgical materials and instruments.
- 2.2.5 Importance of sutures and suturing materials
- 2.2.6 Inflammations; Abscess; Tumors; Cysts; Hematoma; Hernia and their treatment
- 2.2.7 Different types of wounds and their treatment
- 2.2.8 Gangrene; Burn, Scald; Frost bite and their treatment
- 2.2.9 Fractures and dislocations, their diagnosis and treatment
- 2.2.10 Special surgery; Caesarian section; Rumenotomy; Ovario- isterectomy, Stringhalt; Spaying and Neutering
- 2.2.11 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 and dogs.
- 2.3.2 Breeding soundness examination of bull
- 2.3.3 Detection of heat
- 2.3.4 Artificial insemination
- 2.3.5 Pregnancy diagnosis
- 2.3.6 Embryo transfer
- 2.3.7 Concept of infertility and sterility
- 2.3.8 Diagnosis and treatment of silent estrus, an-estrus, repeat breeders metritis, endometritis and pyometra
- 2.3.9 Dystokia and its correction
- 2.3.10 Prolapse of uterus, bladder and vagina
- 2.3.11 Use of hormones and prostaglandins
- 2.3.12 Infectious disease causing abortions

#### 2.4 Epidemiology and Veterinary public health

- 2.4.1 Definition, aim, objectives and application of epidemiology
- 2.4.2 Epidemiological concept of disease control
- 2.4.3 Surveillance and monitoring of disease
- 2.4.4 Different types of epidemiological studies
- 2.4.5 Outbreak investigation

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clini	cal subje	cts 20%
	2.6.13	ELISA
	2.6.12	Bacterial, Viral and Fungal serological techniques
	2.6.11	Examination of skin scrapping
		concentration method and Floatation method)
	2.6.10	Clinical parasitology (Examination of feces: direct smear method,
	2.6.9	Post mortem examinations
		bodies test)
	d	Brucellosis tests (RBPT and milk ring test) Test for rabies (Negri
		tests in animals, Test for pullorum disease (Rapid stained antigen),
	2.6.8	Important diagnostic tests: Different staining procedures, Tuberculin
	2.6.7	California mastitis tests
	2.6.6	Blood and urine culture and antibiotic sensitivity tests
		Ketone bodies, blood, bile pigment
	2.6.5	Urine analysis (Routine test, test for detection of protein, Glucose,
	2.6.4	Liver and kidney functions tests
	2.6.3	Blood chemistry (estimation of blood glucose, serum and calcium
		smears, hemoglobin estimation
	2.6.2	Hematological examinations (TC, DC, ESR, PCV, RBC count, Blood
	2.6.1	Materials to be sent to laboratory for different disease diagnosis
	2.6 Clin	ical pathology and parasitology
	2.5.5	Role of cooperatives in veterinary services.
	2.5.4	Social mobilization (Groups, CBOs, NGOs, and INGOs)
	2.5.3	Public private partnership
	2.5.2	Classification of extension teaching methods
	2.5.1	Definition, philosophy and principles of extension education
2.5 X	/eterinar	y extension
	2.4.18	Concept of HACCP (Hazard analysis and critical control point)
	2.4.17	Milk hygiene
	2.4.16	Different component and management of slaughterhouse
	2.4.15	Meat inspection: anti-mortem, post-mortem and re-inspection
	2.4.14	Diagnosis, surveillance and control of various zoonotic disease
	0.4.1.4	environmental protection)
	2.4.13	Different roles of VPH (Animal production, food hygiene and
	2.4.12	Definition and objective of VPH
	2.4.11	Risk analysis
	2.4.10	Cost analysis of the disease control programs
	2.4.9	Epidemiological reporting practices in Nepal
	2.4.8	Different terminology used in epidemiology
	2.4.7	Characteristics of host factor, agent factor and environmental factor
	2.4.6	Prevalence rate, incidence rate and difference between them

#### 3. Para-clir

#### 3.1 Veterinary Microbiology

- 3.1.1 General characteristics, properties, morphology, metabolism, growth and reproduction of bacteria, virus and fungus of various classes
  - 3.1.2 Bacterial genetics, mutation and variations associated with virulence
  - 3.1.3 Antigenicity, drug resistance

## प्रदेश कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहका पदहरुको खुला र आन्तरिक प्रतियोगितात्मक लिखित परीक्षाको पाठयक्रम

- 3.1.4 Principles of antiseptics, sterilization and disinfection
  3.1.5 Resistance and immunity antigen-antibody reaction and n
- 3.1.5 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
- 3.1.6 Immunization of animals
- 3.1.7 Hypersensitivity-allergy
- 3.1.8 Bacteriophage, their description and application
- 3.1.9 Laboratory techniques for bacterial, viral, fungal culture and identification
- 3.1.10 Important diseases of domesticated animals caused by bacteria, viruses, ricketsia, chlamedia and fungi

#### 3.2 Veterinary Parasitology

- 3.2.1 Parasites and Parasitism, Types of parasitism, host-parasite relationship
- 3.2.2 Importance of immunity against parasitic diseases
- 3.2.3 Classification and nomenclature of parasites and characteristics of different classes of parasites
- 3.2.4 Parasite development in the host system
- 3.2.5 Antiparasitic and anthelmintic medication, their use and abuse.

  Anthelmintic resistance
- 3.2.6 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
- 3.2.7 Protozoon parasites of domesticated animals and birds, their classification, morphology and the diseases caused by them with epidemiology, effects and control strategies
- 3.2.8 Identification of different parasites and the methods of their culture and laboratory growth

#### 3.3 Veterinary Pathology

- 3.3.1 Pathological responses of body to infection
- 3.3.2 Inflammation, classification and changes in inflammatory responses
- Pathological disturbances and responses in circulatory system, cell metabolism, pigment metabolism
- 3.3.4 Disturbances in growth, Neoplasm and cancer
- 3.3.5 Healing, fever
- 3.3.6 Uroliths, choleliths, sialoliths, pancreoliths, enteroliths
- 3.3.7 Immune reactions. Hypersensitivity and auto immunity
- 3.3.8 Pathology of diseases of cardiovascular system, hemopoitic system, respiratory system, digestive system, urinary system, genital system, nervous system, endocrine system, sense organs and musculoskeletal system of domesticated animals and birds
- 3.3.9 Pathological changes in diseases caused by bacteria, viruses, fungus and parasites of domesticated animals and birds

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#### 3.4 Veterinary Pharmacology and Toxicology

- 3.4.1 Principles of drug activity, pharmacokinetics and pharmacodynamics of the drugs acting on central nervous system
- 3.4.2 Anesthetics, hypnotics, sedatives, tranquilizers, analgesics, analeptics, antipyretics, histamines and antihistamines
- 3.4.3 Anesthetics, Neuromuscular blocking agents, Peripheral and Central muscle relaxants
- 3.4.4 Drugs acting on autonomic nervous system, neurohumoral transmission, adrenergic antagonists, cholinergic antagonists
- 3.4.5 Drugs acting on cardiovascular system, digestive system, respiratory system, urogenital system and skin and mucus membrane
- 3.4.6 Endocrine pharmacology
- 3.4.7 Vitamins
- 3.4.8 Antibacterial agents, antibiotics, antifungal agents, anthelmintic, antiprotozoal agents, antiviral and anticancer agents
- 3.4.9 Cytotoxic and immunosuppressive drugs
- 3.4.10 Hormones, prostaglandins, corticosteroids
- 3.4.11 Toxicity caused by metals and nonmetals, plants, commonly used drugs, agrochemicals, venomous bites and stings and environmental toxicity

#### 4. Pre- clinical subjects

#### 16%

#### 4.1 Veterinary Anatomy

- 4.1.1 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
- 4.1.2 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
- 4.1.3 General embryology, gametogenesis, fertilization, and development of fetus and body organs in domesticated animals and birds

#### 4.2 Veterinary Physiology

- 4.2.1 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
- 4.2.2 Composition and function of tissue fluids
- 4.2.3 Mechanism of respiration and gaseous exchange

#### 4.3 Biochemistry

- 4.3.1 Biochemistry of respiration, renal function and acid base balance
- 4.3.2 Biochemistry of digestion and metabolism of carbohydrate, fat, protein, nucleic acid, minerals and trace elements
- 4.3.3 Basal and energy metabolism
- 4.3.4 Biochemistry of hormones and enzymes
- 4.3.4 Diagnostic biochemistry
- 4.3.5 Immunochemistry

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- 4.3.6 Biochemistry of cellular and sub cellular components
- 4.3.7 Biochemistry of carbohydrate, lipids, proteins
- 4.3.8 Diagnostic biochemistry

#### 4.4 Animal Nutrition

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

#### 4.5 Livestock Production and Management

- 4.5.1 Care and management of farm livestock and poultry during different production and growth stages
- 4.5.2 Housing system for animals and birds
- 4.5.3 Characteristics of different breeds of farm livestock and birds
- 4.5.4 System of breeding and selection in farm livestock and poultry birds
- 4.5.5 Dairy and poultry production

#### 5. Regulatory functions

#### 14%

- 5.1 Outline of the World Trade Organization (WTOs), Sanitary and Phytosanitory (SPS) measures
- 5.2 Technical Barrier to Trade (TBT) Trade related aspects of Intellectual Property Rights (IPRs) agreement
- 5.3 Introduction to OIE, its objectives, function, structure, Standard setting procedures and different standards as set in Terrestrial Animal health code, Aquatic animal health code
- 5.4 Different standards for Biological preparation and standard Diagnostics Tests for various diseases of farm animals
- 5.5 Role of Official Veterinary Services in International Trade of animals, products of animal origin, food safety, import risk analysis, import permit
- 5.6 International Veterinary certifications, quarantine inspections and procedures

#### 5.7 Animal Health Related Acts & Regulations

- 5.7.1 Provincial animal health and livestock service act & regulations
- 5.7.2 Slaughterhouse and Meat inspection Act and Regulation
- 5.7.3 Nepal Veterinary Council Act, 2055 and Regulation, 2057
- 5.7.4 Feed Act and Regulation
- 5.7.5 Drug Act, 2035
- 5.7.6 National Park and Wildlife Conservation Act
- 5.7.7 Nepal Standard (Certification Mark) Act
- 5.8 Legal Duties of a Veterinarian, Examinations of animals for soundness, injuries, and sudden death.
- 5.9 Animal welfare
- 5.10 Detection of Frauds, Malicious poisoning
- 5.11 Differentiation of different species of blood, serum, semen, hair, hide and bones

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# द्वितीय पत्र (Paper II):

## **Technical Subject**

## Section A-30 Marks

1. Introduction 20%

- 1.1. History and current status of veterinary services in Nepal
- 1.2. Current status of livestock production and production systems of livestock and poultry in Nepal
- 1.3. Indigenous and exotic breeds of livestock and poultry and their population in Nepal
- 1.4. Role of public and private sector in the promotion of veterinary services in Nepal
- 1.5. Recent GoN policies and plans related to livestock development, Provisions made by APP, Livestock Master Plan, Dairy development Plan and National Dairy Development Board for Livestock sector development
- 1.6. Role of cooperatives in veterinary services
- 1.7. Role and coordination of Provincial and local Governments in veterinary services

#### 2. Planning and management of veterinary/laboratory services 10%

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

# Section B-50 Marks

#### 3. Animal Health management

50%

- 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. Definition, 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

## प्रदेश कृषि सेवा, भेटेरिनरी समूह, अधिकृतस्तर सातौं तहका पदहरुको खुला र आन्तरिक प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

- 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, A.I, and pregnancy diagnosis in farm animals
- 3.10. Reproductive disorder and its management in farm livestock
- 3.11. Current practices and importance of epidemiological reporting, and animal health information system
- 3.12. Outbreak investigation and epidemic control
- 3.13. Laboratory diagnosis of important disease of animals and poultry
- 3.14. Prospects and constrains of vaccine production and use in Nepal
- 3.15. Veterinary drugs administration, their uses and abuses
- 3.16. Concept on emerging and reemerging diseases

## Section C-20 Marks

#### 4. 4. International standard, quality and regulation

20%

- 4.1. Slaughter house management and meat inspection principles and procedures
- 4.2. Outline of the World Trade Organization (WTOs), Sanitary and Phytosanitory measures (SPS)
- 4.3. Introduction to OIE (World Animal Health Organization, 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. Animal health related Acts & Regulations:
  - 4.5.1. Provincial Animal Health and Livestock Service Act and regulation
  - 4.5.2. Slaughterhouse and Meat inspection Act
  - 4.5.3. Nepal Veterinary Council Act, 2055 and regulation, 2057
  - 4.5.4. Feed Act and regulation
  - 4.5.5. Drug Act 2035
  - 4.5.6. National Park and Wildlife Conservation Act
  - 4.5.7. Nepal Standard (Certification Mark) Act
- 4.6. Legal Duties of a Veterinarian, Examinations of animals for soundness, injuries, and sudden death
- 4.7. Animal welfare
- 4.8. Detection of Frauds, Malicious poisoning
- 4.9. Differentiation of different species of blood, serum, semen, hair, hide and bones

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