

Veterinary Medicine

1. Internal medicine of domestic animals

- 1.1 History and importance of veterinary medicine
- 1.2 Concept of health and disease in relation to general medicine
- 1.3 Definition, classification, etiology, pathogenesis, clinical sign, diagnosis, differential diagnosis and treatment of diseases of alimentary tract, respiratory system, cardiovascular system, uro-genital system, musculo-skeletal system, skin and sense organs.
- 1.4 Affections of peritoneum, liver and pancreas.
- 1.5 Diseases of respiratory and cardio-vascular systems including blood and blood forming organs.
- 1.6 Diseases of digestive system with special reference to rumen dysfunction and diseases of stomach in non-ruminants.
- 1.7 Collection, preservation and transportation of specimen for laboratory diagnosis of animal diseases.
- 1.8 Hematological examinations, urine examination, fecal examination of animals for clinical cases

2. Metabolic and deficiency diseases of domestic animals

- 2.1 Definition, classification, etiology, pathogenesis, clinical sign diagnosis, differential diagnosis and treatments of Milk fever, Ketosis, Downer's cow syndrome, Hypomagnesaemia, Post parturient hemoglobinuria, Lactation Tetany, Azoturia in equines, Nutritional haemoglobinuria, Pregnancy Toxaemia, Hypothyroidism, Rickets, Ostomalacia and Diabetes.
- 2.2 Diagnosis and management of diseases caused by deficiency of Iron, Copper, Cobalt, Zinc, Manganese, Selenium, Calcium, Phosphorus, Magnesium, Vit A, D, E, B-complex and C in domestic animals and poultry, Piglet Anaemia
- 2.3 Diseases of neonates

3. Bacterial diseases of domestic animals and poultry

- 3.1 General epidemiology of infectious diseases and mode of infection of disease transmission.
- 3.2 Diseases of Cattle, Buffalo, Sheep and Goat : Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Pasteurellosis, Black quarter, Tetanus, Anthrax, Tuberculosis, Para-tuberculosis, Actinomycosis, Actinobacillosis, Brucellosis, Listeriosis, Leptospirosis, Mastitis,

Contagious Bovine Pleuropneumonia, Contagious Caprine Pleuropneumonia, Campylobacteriasis (Vibriosis), Chlamydiosis, Botulism, Enterotoxaemia

- 3.3 Diseases of Horse: Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Strangles, Glanders, Tetanus, Anthrax, Leptospirosis, Botryomycosis
- 3.4 Diseases of Swine : Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Swine Erysepelas, Salmonellosis, Colibacillosis, Brucellosis, Enzootic pneumonia and pleuropneumonia, Mycoplasmosis
- 3.5 Diseases of Poultry : Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Pullorum disease, Fowl Typhoid, Colibacillosis, Salmonellosis, Avian Tuberculosis, Bacillary White Diarrhea, Pasteruellosis (Fowl cholera), Necrotic enteritis, Infectious Coryza, Mycoplasmosis

4. Viral diseases of domestic animals and poultry

- 4.1 Diseases of Cattle, Buffalo, Sheep and Goat : Definition, incidence, etiology, transmission, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of Rabies, Pseudorabies, FMD, Infectious Bovine Rhinotracheitis, Rinderpest, Bovine Viral Diarrhoea, Bovine Malignant Catarrh, Ephemeral Fever, Pox diseases, Scrapie, Blue Tongue, Contagious pastular dermatitis, PPR
- 4.2 Diseases of Horse : African Horse Sickness, Infectious Equine Anaemia, Infectious Equine Rhinopenumonitis, Equine Herpes virus infection, Equine Influenza, Viral Encephalomyelitis of Horse, West Nile Fever, Equine Viral Arthritis, Rabies
- 4.3 Diseases of Swine : African Swine Fever (Hog Cholera), Rotaviral enteritis, Swine Influenza, Swine Vesicular disease, Pseudo-rabies, Porcine reproductive and respiratory syndrome (PRRS), Transmissible Gastroenteritis (TGE), FMD, Swine Pox
- 4.4 Diseases of Poultry : Avian Influenza, Newcastle disease, Infectious Bursal Disease, Infectious Bronchitis, Marek's Disease, Avian Leucosis Complex, Chicken Infectious Anaemia, Infectious Laryngotrachitis, Fowl Pox, Litchi disease, EDS – 76, Avian Encephalomyelitis
- 4.5 Vaccines and Vaccination for Cattle, Buffalo, Horse, Swine, Sheep, Goat and Poultry

5. Protozoal/ Rickettsial and Parasitic diseases of domestic animals and poultry

- 5.1 Protozoal/Rickettsial diseases: Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Anaplasmosis, Trypanosomiasis, Theileriosis, Babesiosis, Coccidiosis, Trichomonosis, Toxoplasmosis, Heart water disease, Q fever, Ehrlichiosis, Scrub Typhus, Borreliosis, Bartonellosis
- 5.2 Endo-Parasitic diseases: Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Ascariasis, Amphistomiasis, Fasciolosis, Schistosomiasis, Echinococcosis, Cysticercosis, Thelaziosis, Trichinellosis
- 5.3 Ecto-Parasitic diseases: Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of diseases caused by common ecto-parasitic infestation (Fleas, Lice, Mites, Mosquito, Flies, ticks, and mange)
- 5.4 Deworming schedule for Cattle, Buffalo, Horse, Swine, Sheep, Goat and Poultry

6. Fungal and Poisoning diseases of domestic animals and poultry

- 6.1 Fungal diseases : Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Foot rot, Sporotrichosis, Ringworm, Aspergillosis, Candidiasis, Degnala disease, Fungal Mastitis, Dermatophytosis, Cryptococcosis, Psittacosis
- 6.2 Poisoning Diseases : Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of Mycotoxicosis, Toxicity due to Arsenic and lead, Mercury, copper, Selenium , Molybdenum, Phosphorus, Nitrates and Nitrites, Cyanogenetic plants, Organophosphates, Lantana, *Nux vomica*, Chlorinated hydrocarbons, Insecticides, Strychnine, Hazards due to industrial toxicants, snake bites.

7. Wildlife, Pets and Lab. Animal Medicine

- 7.1 Wildlife Medicine: Conservation biology for veterinarians; Conservation Veterinary Medicine: Healthy and stressed ecosystems; Conservation strategies; Strategies for Wildlife disease control; Diagnostic and therapeutic challenges: Basic differences between wild and domestic animals; Principles of zoo hygiene, public health problems arising from zoos; Prevention, control and treatment of infectious, parasitic, nutritional and metabolic diseases of zoo and wild animals; Immobilization, handling, restraint and transport: Mechanical restraints, Chemical restraints, Capture emergencies; human safety, Restraint and handling of birds and Reptiles; Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical signs, diagnosis, treatment, prevention and control of common

diseases of Fish, Amphibians, Reptiles, Mammals, Non-Human Primates, Birds

- 7.2 Pet Animal Medicine: Definition, incidence, etiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of Stomatitis, Vomiting, Gastritis, Enteritis, Jaundice, Hepatitis, Colic, Bronchitis, Epistaxis, Pneumonia, Nephritis, Cystitis, Urolithiasis, Uraemia, Anaemia, Congestive heart failure, Epilepsy, Paralysis, Polyneuritis, Conjunctivitis, Keratitis, Hematoma and Otitis, Allergic dermatitis, Ringworm, Pyoderma and Ricketts; Definition, incidence, etiology, transmission epidemiology, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of Rabies, Canine distemper, Parvo viral infection, Infectious Canine Hepatitis, Leptospirosis, Common endo-parasitic infection and their treatment; Common vaccination and deworming schedule for dogs and cats.
- 7.3 Lab. Animal Medicine: Definition, incidence, etiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of common diseases affecting lab. animals.
- 7.4 Definition, incidence, etiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of common diseases of bees and fish.

8. Zoonosis and One Health

- 8.1 Definition, objectives and scope of zoonosis and one health
- 8.2 Classification of Zoonosis: Direct, Cyclo, Meta, Saprozooses
- 8.3 Mode of transmission of zoonotic diseases
- 8.4 Role of domesticated pets, farm animals, various wild and cold blooded animals
in transmission of zoonotic diseases
- 8.5 Methods of prevention, control and eradication of zoonotic diseases
- 8.6 Zoonotic pathogens as agents of bio-terrorism
- 8.7 Definition, incidence, etiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, prevention and control of important zoonotic diseases (Rabies, Brucellosis, Japanese Encephalitis, Influenza, Anthrax, Tuberculosis, Leptospirosis, Listeriosis, Plague, Rickettsiosis, Chlamydiosis and Dermatophytosis)
- 8.8 Diagnosis and therapeutic management of food borne zoonoses (Salmonellosis, Staphylococcosis, Clostridial food poisoning, Campylobacteriosis, Toxoplasmosis and Sarcocystosis).

9. Animal welfare, Ethics and Jurisprudence

- 9.1 Legal duties of veterinarians, animal legislation, welfare and forensic laws.
- 9.2 Examination of animals for soundness, Examination of injuries, causes of sudden animal death
- 9.3 Post-mortem examination of animals
- 9.4 Detection of frauds, malicious poisoning, bestiality, mischief, cruelty, poisoning drugs
- 9.5 Animal quarantine Act, Meat Inspection and Abattoir practices Act, Veterinary Council Act, Animal Health Act, Wildlife Act, Drug Act, Ethics and code of conduct made under NVC Act, OIE Codex
- 9.6 Ethno-veterinary Medicine
- 9.7 Animal Welfare and Euthanasia: Concepts and importance of animal welfare, spectrum of animal welfare, five freedoms of animal welfare, ethical concerns of welfare, normal behaviour of animals; Identifies behavioural indicators of welfare, interaction of humans with animals, animal-human abuse link; role of the veterinarian in animal welfare; responsible pet ownership, welfare issues in population control programmes, humane methods of euthanasia, cultural differences with respect to philosophy and practices on animal ownership and use; Animal welfare for wildlife and animal under disasters management; Concepts in animal welfare including practice governing animal control as well as protection and prevention of cruelty to domestic and wild animals.

10. Emergency Veterinary Medicine:

- 10.1 Definition, incidence, etiology, epidemiology, pathogenesis, clinical signs, diagnosis, treatment, therapeutic management and control of common diseases of Snake bite, Gastric dilatations, Pyometritis, Parvovirus enteritis, Pyloric obstruction, Methanol toxicity, Diaphragmatic hernia, Parathyroid adenoma, Smoke inhalation, Severe burn, injury, Gastrointestinal bleeding,
- 10.2 Diagnosis, treatment, therapeutic management and control of Cardiac, Respirator and Reproductive emergencies.
- 10.3 Care and management of animals under emergency and/or disaster.

11. Modern invention in Medical technologies

12. Differences between modern medical science and ancient Medical science