

Unit 1: General Medicine

Epidemiology and its ingredients Definitions of diseases known as – infectious, contagious, sporadic, epizootic, enzootic, panzootic, exotic, zoonotic, etc. Meaning and purpose of segregation, isolation, quarantine, etc., role of occurrence, prevalence, incidence, morbidity rate, mortality rate, case fatality rate, mode of transmission, vectors, spread, economics, etc. in terms of epidemiology of diseases. General systemic states like – bacteremia, septicemia, pyemia, toxemia, hyperthermia, hypoglycemia, allergy, anaphylaxis, shock, dehydration, stress, sudden death, anasarca, anaemia, pica, etc.

Unit 2: Diagnosis of Animal Diseases

History taking. General clinical examination. Special clinical examination – electrocardiography, paracentesis, rumen fluid examination, haematology, blood biochemistry, urinalysis, ophthalmoscopy, otoscopy, endoscopy, ultrasonography, biopsies, etc.

Unit 3: Gastroenterology

Specific conditions of organs of gastrointestinal system with special emphasis to – simple/acid/alkaline indigestion, GI ulcers, choke, tympany, colic, impaction, traumatic reticulitis / peritonitis, abomasal displacement, ascites, jaundice, hepatitis, enteritis, gastritis, etc.

Unit 4: Diseases of Cardiovascular and Pulmonary System

Principles of circulatory failure, Acute heart failure, Congestive heart failure, Peripheral circulatory failure. Myocardial and valvular diseases. Epistaxis. Pulmonary congestion and oedema. Emphysema. Pneumonia. Pleurisy, URI Aspiration pneumonia.

Unit 5: Diseases of Urinary, Nervous, Musculoskeletal and Integumentary Systems

Nephrosis, Nephritis, Pyelonephritis, Cystitis, Urolithiasis, Uremia, Cerebral anoxia, Encephalitis, Encephalomalacia, Meningitis, Encephalomyelitis, Paralysis, Urticaria, Dermatitis, Photosensitisation, Seborrhoea, Conjunctivitis, Otitis, Kerato-conjunctivitis, Corneal ulcers, Eczema, Impetigo, Alopecia

Unit 6 : Production and Deficiency Diseases

Metabolic profile test, milk fever, Downer's cow syndrome, ketosis, hypomagnesaemia, diabetic ketoacidosis, hypomagnesaemia, post-parturient haemoglobinuria, azoturia. Fat cow syndrome, rickets, osteomalacia, osteodystrophiafibrosa. Trace mineral and vitamin deficiency.

Unit 7 : Common toxicities

Sources, pathogenesis, clinical manifestations, post-mortem findings, diagnosis and treatment of conditions occurring in the following classes of poisonings: Metal Corrosives/irritants. Plant

poisonings. Water-borne toxicities. Pesticide poisonings. Insect bites and stings. Snake bite. Environmental pollution hazards. Radiation hazards and injuries.

Unit 8 : Infectious Diseases (Bacterial and Mycoplasmal)

Etiology, epidemiology, pathogenesis, clinical manifestations, post-mortem findings, diagnosis, treatment and control of the following diseases of livestock : Mastitis, Strangles. Caseous lymphadenitis in sheep and goats. Clostridial diseases. Ulcerative lymphangitis in horses & cattle. Listeriosis, Leptospirosis, Erysipelas, Collibacillosis, Salmonellosis, Pasteurellosis, Brucellosis, TB, JD, Actinomycosis, Actinobacillosis, Glanders and Mycoplasmal diseases.

Unit 9 : Infectious Diseases (Viral, Chlamydial, Rickettsial and Fungal)

Etiology, epidemiology, pathogenesis, clinical manifestations, postmortem findings, diagnosis, treatment and control of the following diseases of livestock: Hog cholera. African swine fever. Leucosis FMD, RP. PPR. BMC BSE. Bovine viral diarrhoea. Mucosal diseases. Bluetongue. Influenza. Maedi. Pulmonary adenomatosis. Rabies. Encephalomyelitis. Pseudorabies. Louping ill. Caprine arthritis, encephalitis, Scrapie, Visna, Contagious ecthyma. Pox, Papillomatosis, Distemper. Infectious canine hepatitis. Parvo virus enteritis. Feline panleucopenia. Anaplasmosis, Heart water diseases, Contagious ophthalmia., Aspergillosis, Ring worm, Bursattee, Lymphangitis, Babesiosis, Theileriosis, Coccidiosis, Trypanosomosis, Toxoplasmosis.

Unit 10: Parasitic Diseases

Etiology, epidemiology, pathogenesis, clinical manifestations, post-mortem findings, diagnosis, treatment and control of the following diseases of livestock: Major conditions produced by nematode, cestode and trematode infestations. Major conditions produced by arthropod parasites.

Unit 11: Poultry Disease

Etiology, epidemiology, pathogenesis, clinical manifestations, post-mortem findings, diagnosis, treatment and control of the following diseases of poultry: Newcastle disease, IBD, ILT, mycoplasmosis, coccidiosis, salmonellosis, necrotic enteritis, malabsorption. leucosis. Marek' disease, mycotoxicosis, avian encephalomyelitis. hydropericardium syndrome. avian influenza, psittacosis-ornithosis, TB, histomonosis, spirochaetosis, trichomonosis, etc., parasitic diseases of poultry.

Unit 12: Veterinary Jurisprudence and Ethics

Judicial procedure. Duties of veterinarian particularly as an expert evidence. Vetero-legal aspects of wounds. Vetero-legal aspect of death in general, due to diseases, drowning, near drowning, electrocution, lightning, etc. Post-mortem examination of a vetero-legal, cases. Collection and dispatch of materials for forensic science examination. Common offense against animals. Common frauds in dealing with livestock and livestock products. Animal Insurance. Identification of animal species for vetero-legal purposes. Determination of time since

death. Examination of blood and semen stains. Blood grouping in animals and its vetero-legal significance. Veterinary ethics: Code of conduct, professional ethics and etiquette for veterinarian. Laws: Role of veterinarian. Legal enactment in IPC related to animals and veterinarians. Prevention of Cruelty to Animal Act, Indian Veterinary Council Act. Wild life (protection) Act. Glanders and Farcy Act, Livestock Importation Act. Dangerous Drug Act and Poisoning Act. Legal provisions related to animals, animal diseases and drugs.

Unit 13: Special Therapeutic Approaches

Veterinary fluid therapy with fluid, electrolyte, plasma expanders, packed cell transfusions, etc. Clinical assessment of their requirement and doses. Blood transfusion with blood groups in animals-their therapeutic significance. Blood matching methods. Oxygen therapy.

Unit 14: Prevention and Control of Diseases

General principles of control of diseases. Role of OIE in disease control. Internationally recognised control methods of designated diseases. Prevention and control methods for national, area and herd based control programmes of diseases like TB, JD, rabies, brucellosis, HS, anthrax, BQ, mastitis, FMD, bluetongue, etc.

Unit 15: Common Diseases of Zoo, Laboratory Animals and Wildlife

Clinical signs, diagnosis and treatment of diseases of wildlife and zoo animals: Shock, stress, diseases of cardiovascular system, capture myopathy, metabolic and nutritional diseases, toxicosis by chemicals and plants, tuberculosis, paratuberculosis, pasteurellosis, anthrax, rabies, FMD, RP, Kyasanur forest diseases (KFD), surra, helminthiasis. Clinical symptoms, diagnosis and treatment of diseases of laboratory animals: Tyzzer's diseases, salmonellosis, pasteurellosis, strepto and staphylococcosis, pseudomoniasis, corynebacteriosis, mycoplasmosis (MRM), herpesvirus infection, pox diseases, coccidiosis, toxoplasmosis, giardiasis, helminthic infection, dermatophytosis, scabies, dermatitis, metabolic and nutritional deficiencies. Management related diseases of mice, rat, guinea pig, hamster and rabbit.