

## **Syllabus-Diploma in Veterinary Science and Animal Health Technology**

### **1. Elementary Animal Husbandry**

Common breeds of cattle, buffalo, sheep, goat, pig, horse; Animal production systems; Principles of housing for farm animals; Routine management practices for various categories of livestock (calves, heifers, pregnant and lactating animals etc.) and sick animals; Milking techniques and clean milk production; Sanitation and hygiene practices; Common health problems and their prevention; Routine farm practices; Record keeping and responsibilities of livestock assistant.

### **2. Elementary Livestock Handling**

An overview of animal behaviour, Common tools used for animal control; Restraint and handling of animals; Colours and markings of animals; Dentition; Ageing; Hoof trimming in bovine; Introduction to shoes and shoeing in horses; Preparing animals for show/animal fair.

### **3. Elementary Animal Nutrition**

Principles of animals nutrition; Nutritional importance of carbohydrates, lipids, proteins, vitamins, minerals and water; Feeds and fodders; Scientific feeding of livestock; Feeding schedule for different categories of livestock; Feed additives; Silage making, Diet formulation for newborn, growing, pregnant, lactating and sick animals.

### **4. Basic Computer Applications**

Knowledge about the computer. Use of computer in handling and presenting veterinary and livestock data. Working in Windows operating system. Working with MS Word, Spreadsheets using MS Excel, Graphics and MS Power Point. Internet and World Wide Web, E-mail and internet services. Computer System management: uninterrupted power supply, computer maintenance, computer viruses.

### **5. Elementary Anatomy and Physiology of Animals**

Introduction to anatomy and physiology of musculoskeletal, digestive, cardiovascular, respiratory, nervous excretory, male and female reproductive and endocrine systems and mammary glands of domestic animals; Body cavities.

### **6. Elementary Pharmacology**

Introduction of Pharmacology, Nature and sources of drugs; Routes of drug administration; Dosage forms; Pharmaceutical processes; Handling of Hazardous substances; Chemical sterilization of equipments and premises; Antiseptics and disinfectants; Weights and measures; Pharmacy calculations; Classification of important drugs; Important Indigenous drugs.

### **7. Basic Poultry Science**

Common breeds/strains of poultry; Different housing/rearing systems; Management of layer and broiler farm; Brooding; Hatchery routines; Cleaning of poultry sheds and litter management; Bio-security; Feeding and poultry rations; Common poultry diseases; Vaccination; Introduction to Quail and Turkey farming.

### **8. Elementary Animal Husbandry Extension**

Extension and rural welfare; Community development and rural sociology; Principals and objectives of veterinary and animal husbandry extension; Qualities of extension worker;

Extension teaching methods; Extension programmes. Duties of veterinary pharmacist as extension worker.

### **9. Elementary Parasitology**

Economic importance of parasitic diseases of livestock, Introduction to endo-and ecto-parasites; Prevention control and treatment of diseases caused by protozoa, trematodes, cestodes, nematodes and arthropods in livestock; Parasities of zoonotic importance.

### **9. Elementary Animal Reproduction**

Female genitalia; Oestrous cycle; Gestation of domestic animals; Pregnancy diagnosis; Dystocia; Abortion in domestic animals; Functional infertility, anestrus, repeat breeding in farm animals; Sexual health and herd health programme; Parturition; Retention of foetal membranes; Proplase; Metritis; Care and management of new born calf.

### **10. Elementary Veterinary Epidemiology and Public Health**

Principles of epidemiology, surveillance, forecasting and monitoring of diseases; Public health considerations; Common zoonoses and their management; Disposal of cadaver and clinical waste; Guidelines for control of contagious diseases and infectious diseases; Notifiable diseases and disease outbreaks; Prevention of cruelty to animals

### **11. Basic Andrology and Artificial Insemination**

Sexual behavior of males; Study of male genitalia and gonads; Male infertility; Semen collection processing and storage; Artificial insemination; Handling of fresh/frozen semen; Semen evaluation; Diseases transmitted through semen.

### **12. Veterinary Hospital Management and Surgical Care**

Maintenance of case record; Basic accounting; Preparation of bills and maintenance of consumable and non-consumable stock of hospital; Preparation of animals for surgical operation; Care and use of surgical equipments; Assisting veterinary surgeon in pre and post operative care; Aseptic preparation of operation theatre; Surgical pack and surgical instruments; sutures and suture material, and monitoring of recovery.

### **13. Basic Preventive Veterinary Medicine**

Definition, incidence, etiology, epidemiology, pathogenesis, transmission, clinical findings, diagnosis, prevention and control of Hemorrhagic Septicaemia, Brucellosis, Tuberculosis, Listeriosis, Actinobacillosis, Foot and Mouth disease, Rabies, Johne's disease, Strangles, Glanders, Classical swine fever, Abortions, Enterotoxaemia etc. Toxicities e.g. nitrate, BHC, DDT.

### **14. Basic Veterinary Medicine**

History taking; Clinical examination, Etiology, clinical symptoms, diagnosis, prevention and control of diseases of digestive system; Musculo-skeletal system; Liver; Mammary gland (Mastitis); Skin; Milk fever; Ketosis; Haemoglobinuria; Diseases caused by deficiency of copper, Zinc, Vitamin-A etc.

### **15. Wounds Management and Veterinary Care**

Wound: causes, classification, drainage; Wound dressings and wound protection; Cyst; Haematoma; Hernia Abscess; Clinical use of antiseptics, fly repellents, anti-maggot etc.; First aid in sick animals including fracture cases.

## **16. Basic Clinical Pathology and Laboratory Techniques**

Introduction to various laboratories and their requirements, Handling of laboratory equipment, glassware and chemicals; Cleaning and sterilizing of laboratory wares; Basic microscopy principles; Blood collection techniques; Use of anticoagulants; Serum and plasma separation and basic hematology workup; Urine collection preservation and common physical and chemical tests; Collection, preservation and dispatch of tissues for histopathology. Basic histopathological techniques; Gram staining, culture and sensitivity.