



SYLLABUS

THEORY

Brief history, classification and characteristics of various families of DNA and RNA viruses causing diseases in livestock and poultry, laboratory diagnostic techniques, immunity to viral infections, systemic virology including: DNA viruses: **Poxviridae**: Pox viruses of cow, sheep, goat and fowl. **Asfarviridae**: African swine fever, **Herpesviridae**: Aujeszky's disease, malignant catarrhal fever, infectious bovine rhinotracheitis, equine abortion, Marek's disease, infectious laryngotracheitis. **Adenoviridae** – Infectious canine hepatitis, egg drop syndrome (EDS), Inclusion body hepatitis-Hydropericardium syndrome (IBH-HPS). **Papillomaviridae**: Papillomatosis, **Parvoviridae**: Canine Parvovirus: **Circoviridae**: Chicken infectious anaemia. RNA viruses: **Orthomyxoviridae**: Swine, equine and Avian influenza. **Paramyxoviridae**: Rinderpest, PPR, canine distemper and Ranikhet disease, **Flaviviridae**: Classical swine fever, bovine viral diarrhoea. **Picornaviridae**: Foot and mouth disease (FMD), duck viral hepatitis **Rhabdoviridae**: - Rabies, vesicular stomatitis, ephemeral fever, **Coronaviridae**: - Avian Infectious bronchitis, transmissible gastroenteritis **Togaviridae**: - Equine encephalitis, **Arteriviridae**: equine viral arteritis, **Caliciviridae**: vesicular exanthema, **Retroviridae**: Avian leucosis group. **Lentiviruses**-Equine infectious anemia virus, **Sheep pulmonary adenomatosis, maedi/visna**. **Reoviridae**: African horse sickness and blue tongue, Calf Rotavirus, **Birnaviridae**: Infectious bursal disease. **Prions**, Exotic and emerging animal and poultry viruses.

PRACTICAL

Glassware and media preparation, Demonstration of Cell culture, Virus propagation by egg inoculation, animal inoculation and cell culture, study of cytopathogenesis, viral inclusions, diagnostic procedures, serological techniques, preservation and transportation of clinical samples for virological investigations. Diagnostic procedures for Peste des petits ruminants (PPR), FMD, Ranikhet disease (RD), Blue tongue, Infectious bronchitis (IB), Infectious bursal disease (IBD) and other viral agents.