

# ADVANCED COURSE IN CLINICAL MICROBIAL TECHNOLOGY

(Course Duration: 60 DAYS)

## Coursework

Enumeration of coliforms in water for human consumption.  
IMViC Tests. (Indole, Methyl Red, Voges-Proskauer & Citrate utilization tests)  
Confirmatory tests on selective media.  
Isolation of microorganisms from clinical samples.  
Identification of pathogenic microbes by **MIDI-SHERLOCK system**.  
Identification of Hepatitis-B surface antigen by ELISA.  
Isolation of haemolytic Staphylococci and Streptococci.  
HIV-tridot test.  
Immunodiffusion techniques for identification of antigens/antibodies in disease.  
Radial Immuno diffusion technique.  
ODD.  
Rocket gel immunoelectrophoresis.  
Screening of fungi for citric acid production.  
Production & estimation of citric acid.  
Industrial applications of citric acid producing microbes.  
Isolation and purification of chromosomal DNA from yeast.  
Isolation of Plasmid DNA from prokaryotes in industries  
Isolation of Genomic DNA from Prokaryotes  
Quantitative estimation of DNA  
AGE (Gel Electrophoresis and applicability in Industries)  
U.V. Transillumination and the applicability in Biotech industries  
Preparation of Competent cells  
Transformation of Recombinant DNA into host cells  
Screening of Competent cells  
Isolation of Genomic DNA from human blood.  
AGE (Gel Electrophoresis and applicability in Industries)  
U.V. Transillumination and the applicability in Biotech industries  
**Major Research project.**