

ADVANCED RECOMBINANT DNA TECHNOLOGY

(Course Duration: 30-45 DAYS)

Coursework

An introduction to Recombinant DNA Technology

Isolation of DNA from soft tissue

Basic extraction procedures

Isolation of DNA from Plant source

Instrumentation in Biotechnology and Molecular Biology

Isolation and purification of Genomic DNA from animal tissue/yeast

Isolation and purification of Genomic DNA from Prokaryotes

Isolation of Plasmid DNA from prokaryotes

Purification of DNA

AGE (Gel Electrophoresis and applicability in Industries)

U.V. Transillumination and the applicability in Biotech industries

SDS-PAGE, a molecular separation technique

Sequencing procedure for DNA

Proteomics

Protein physical properties analysis

Protein chemical properties Analysis

Sequence and Phylogenetic Analysis with Bioinformatics

Research Project (with/without Bioinformatics)