Subject - Biotechnology Class - XII

1st **TERM**:-

Chapter 1 (Recombinant DNA Technology)

Chapter 4 (Microbial Cell Culture and its application)

Chapter 5 (Plant Cell Culture and applications)

Chapter 6 (Animal Cell Culture and applications)

Practicals:- 1. Use of special equipments in biotechnology experiments.

- 2. Isolation of DNA from onion.
- 3. Gel electrophoresis
- 4. Preparation of media
- 5. Dilution of sample.
- 6. Pouring of media and spreading of sample.
- 7. Cell viability assay
- 8. Gram staning

2nd TERM

Chapter 3 (Genomics and Bioinformatics)

Chapter 2 (Protein Structure and Function)

Practicals:-

- 1. Computer based all the practicals
 - a. Motif analysis
 - b. Complementary sequence
 - c. Gen bank
 - d. Composistion analysis
 - e. Studing DNA sequence comparing proteins.

1st Term Test – Recombinant DNA Technology

Half Yearly – 1,4,5,6 (till determination of cell line)

1st Pre-Board- all chapters

2nd Pre-Board- all chapters

ASSINGMENT: To prepare a PowerPoint presentation on "BIOTECHNOLOGY IS A BOON FOR SOCIETY".

OR

To visit any pathology lab and to perform an experiments related to biotechnology and make a report.