



( 2 )

**Unit-II**

2. Explain various methods of vector mediated gene transfer and discuss their advantages and limitations.

**OR**

Write notes on the following :

- (a) Bacterial Transformation
- (b) Transgenic plants

**Unit-III**

3. Describe the mechanism of Polymerase Chain Reaction.

**OR**

Write short notes on the following :

- (a) DNA Fingerprinting
- (b) DNA Sequencing

**Unit-IV**

4. What is gene mapping ? Explain genetic and physical mapping of genes with suitable examples and discuss the role of gene mapping in Biotechnology.

**OR**

( 3 )

Write short notes on the following :

- (a) Microarrays
  - (b) Protein profiling
- 

[https://universitynews.in](https://universitynews.in/)