**COURSE OUTCOMES**

**B.Sc - Biotechnology IIIrd year**

**Semester- V**

**Subject- Animal Biotechnology (Theory+ Practical)**

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| **Co1.** | Explain introduction, scope, history of Animal tissue culture. |
| **Co2** | Describe the different types of culture media used in Animal cell culture . |
| **Co3.** | Illustrate primary cell culture techniques, cell lines, karyotyping and organ culture. |
| **Co4** | Critically analyse cloning and expression of foreign genes. |
| **Co5** | Explain Gene therapy and different types of therapeutic products produced through genetic engineering. |

**Subject- Plant Biotechnology(Theory+ Practical)**

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| **Co1** | What is plant tissue culture and give its applications. |
| **Co2** | Describe the Concept of plant tissue culture laboratory, construction set up, instruments. |
| **Co3** | Explain Sterilization methods used in plant tissue culture. |
| **Co4** | Describe different culture methods in plant tissue culture |
| **Co5** | Describe the production of secondary metabolites in plant tissue culture. |
| **Co5.** | Explain the Concept of Genetic Engineering in plants and different transformation techniques |
| **Co6** | What are transgenic plants and give their usage. |

**CREDITS**- 3 **THEORY PERIODS OF 45 MINUTES EACH OF EACH PAPER PER WEEK OVER A SEMESTER**

**6 PRACTICAL PERIODS OF 45 MINUTES EACH PER WEEK OVER A SEMESTER**

**B.Sc - Biotechnology IIIrd year**

**Semester- VI**

**Subject- Microbial Biotechnology (Theory+ Practical)**

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| **Co1** | Explain Recombinant DNA Technology, different tools involved in it. |
| **Co2** | What are vectors and explain different types of vectors. |
| **Co3** | Describe DNA transfer methods . |
| **Co4** | What is PCR and explain different types of PCR. |
| **Co5.** | Explain different DNA sequencing techniques, Their advantages and disadvantages |
| **Co5** | Explain the Concept of gene mapping. |
| **Co6.** | Describe different Gene Expression methods |
| **Co6** | Give Applications of Recombinant DNA Technology. |

**CREDITS**- **6THEORY PERIODS OF 45 MINUTES EACH PER WEEK OVER A SEMESTER**

**6 PRACTICAL PERIODS OF 45 MINUTES EACH PER WEEK OVER A SEMESTER**