

# School of Basic and Applied Sciences

Microbiology  
ETE - Jun 2023

Time : 3 Hours

Marks : 50

## Sem II - MSDB5008 - Biotechnology and Genetic Engineering

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

- |     |   |            |
|-----|---|------------|
| 1.  | What is the basic introduction to animal and plant biotechnology?                 | K1 CO1 (2) |
| 2.  | How do stem cell research offer potential solutions for medical challenge         | K2 CO2 (2) |
| 3.  | Describe the applications of transgenic plants                                    | K2 CO1 (2) |
| 4.  | Explain with example about Cell Lines   | K1 CO1 (2) |
| 5.  | What do you understand by Microinjection  | K2 CO2 (2) |
| 6.  | Discuss the role of PCR and hybridization methods in plant genetic engineering.   | K4 CO3 (6) |
| 7.  | Explain about Plant Genetic Engineering and its applications in Agriculture       | K3 CO2 (5) |
| 8.  | Discuss the process of constructing cDNA libraries                                | K3 CO1 (5) |
| 9.  | Describe the process of gene therapy and its methods in the treatment of diseases | K3 CO3 (8) |
| 10. | Explain about the ethical considerations in human gene therapy                    | K4 CO4 (8) |
| 11. | Explain the construction of Genome Library and its applications                   | K4 CO4 (8) |