

M.Sc. (Micro) Semester - 2 (CBCS) Examination
March/April – 2025 (As Per Syllabus Year-2023)
Biotechnology & Immunology (Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que-1 Answer the following (any seven out of eight) (14)**
1. Define the role of sodium alginate in immobilization.
 2. How many types of ends are generated using restriction endonuclease enzyme?
 3. Explain the term insertion inactivation.
 4. Give the full form of WTO and WIPO.
 5. What is the importance of tissue culture in plant biotechnology?
 6. Define the trademark in brief
 7. Explain allergic immunoglobulin.
 8. Explain the role of B cells in hypersensitivity.
- Que-2 Answer the following (any two out of three) (14)**
1. Explain the history and career scopes of Biotechnology.
 2. Explain the immobilization techniques and its application.
 3. Write a note on pBR322 vector.
- Que-3 Answer the following (any two out of three) (14)**
1. Explain any two techniques in detail.
 2. Discuss the principles and techniques of animal tissue.
 3. Explain the plant tissue culture and its application in detail.
- Que-4 Answer the following (any two out of three) (14)**
1. Discuss autoimmunity in detail.
 2. Explain the innate immune system.
 3. Explain the structure and class of Immunoglobulins.
- Que-5 Answer the following (any two out of three) (14)**
1. Explain the intellectual property and its role in R&D.
 2. Write a note on Geographical indications.
 3. Discuss the types of patents.
