

M.Sc. (Botany) Semester - 2 (CBCS) Examination
March/April – 2025 (As Per Syllabus Year-2018)
Biotechnology & Immunology(CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

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

Que-1 Answer the following (any seven out of ten) (14)

1. Explain blue biotechnology.
2. Define the immobilization of cell and its application.
3. Explain the gene targeting.
4. Define the term genetic engineering.
5. Enlist at least two PTC techniques.
6. Enlist type of animal tissue culture.
7. Define protoplast fusion.
8. Explain the function of Ig E.
9. Explain agglutination.
10. Explain the function of T cell.

Que-2 Answer the following (any two out of three) (14)

1. Explain Bioremediation.
2. Write a note on immobilization techniques.
3. Discuss scopes definition of Biotechnology.

Que-3 Answer the following (14)

1. Describe Cosmid and its application. [5]
2. Explain the basics of genetic engineering. [5]
3. Write short note DNA isolation technique. [4]

OR

Que-3 Answer the following (each of seven marks) (14)

1. Describe the two recombinant screening techniques.
2. Write note on types of restriction enzymes.

Que-4 (A) Answer the following (any two out of three) (10)

1. Explain principles and techniques of plant tissue culture.
2. Describe principles and techniques of animal tissue culture.
3. Write down types of plant Tissue Culture.

(B) Answer the following (any One out of two) (04)

1. Write a note application tissue culture.
2. Explain Types of PTC.

Que-5 Answer the following (any two out of four) (14)

1. Write a note on autoimmunity.
2. Discuss monoclonal antibodies and its application.
3. Write a note on immunofluorescence.
4. Write note on adaptive immune system.
