

3468

**B.Sc. (Biotechnology)
Examination, April-2025**

**IMMUNOLOGY AND
IMMUNOTECHNOLOGY**

(B-205)

B.Sc. (Bio-Tech.)

Time : Three Hours] [Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. ✓ Discuss the structural features of an immunoglobulin molecule. Discuss the different types of immunoglobulin types.

10

P.T.O.

2. What primary features distinguish innate immunity from adaptive (specific) immunity? Explain the role of physical and chemical barriers in innate immunity. 10

3. ✓ What are the different classes of MHC molecules? Explain the structural components of MHC class I and class II molecules? 10

4. ✗ What are autoimmune disorders? Discuss the mechanisms underlying development of rheumatoid arthritis. 10

5. Describe the steps involved in producing monoclonal antibodies using hybridoma technology. 10

6. ✓ Discuss the principle and applications of ELISA in detail. 10

3468/2

7. Explain the principle of Western blotting and describe the basic steps involved in the process. Discuss some major applications of Western Blotting. 10
8. Discuss the principle of vaccination. Discuss the advantages and disadvantages of recombinant and live attenuated vaccines. 10