

B. M. S. College of Engineering, Bengaluru - 560019

Autonomous Institute Affiliated to VTU

August 2024 Supplementary Examinations

Programme: B.E.
Branch: Biotechnology
Course Code: 19BT5DE1IMM
Course: Immunotechnology

Semester: V
Duration: 3 hrs.
Max Marks: 100

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
 2. Missing data, if any, may be suitably assumed.

UNIT - I

1. a) Give an overview on types of immune responses and highlight on role of the organs involved in immune system. **12**
- b) Explain the types of cells which play a role in defence mechanism of our body. **08**

UNIT - II

2. a) Discuss the types, structure and functions of immunoglobulins with neat labelled diagram. **10**
- b) Investigate on genetic organization of Immunoglobulin genes and their expression. **10**

OR

3. a) Enumerate the process of B lymphocyte maturation and activation. **10**
- b) Define Major Histocompatibility Complex (MHC). Give different classes of MHC and their functions. **10**

UNIT - III

4. a) Write in detail about the Immune response mediated through complement system. **10**
- b) What is graft rejection? Write a note on mechanism of graft rejection. **10**

OR

5. a) Summarize on different types of hypersensitivity reactions – Type I, II, III, and IV. **10**
- b) What is autoimmune disorder? Explain different types and their mechanisms. **10**

UNIT - IV

6. a) Elaborate on Monoclonal antibody production by hybridoma technology. **10**
- b) Explain different types of vaccines used for Immunization. **10**

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

UNIT - V

7. a) Discuss on the Principle and types of ELISA and add a note on agglutination reaction. **12**
- b) Give a critical account of **08**
- i. Western blot
 - ii. Immuno-electron microscope

SUPPLEMENTARY EXAMS 2024