

B.Sc. Semester - 4 (NEP-2020) Examination**March/April-2025****BIT: Immunology (Minor-3)****Time: 2:00 Hours****Marks: 50****Instructions:**

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

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- Que-1 Answer the following questions (10)
1. Write a note on Humoral Immune response.
 2. Discuss cells of immune system.
- OR
- Que-1 Answer the following questions
1. Discuss molecular structure of Immunoglobulin.
 2. Explain in detail CALT, MALT and GALT.
- Que-2 Answer the following questions (10)
1. Write a note on clonal selection theory.
 2. Write a note on genetic bases of antibody diversity.
- OR
- Que-2 Answer the following questions
1. Explain regulation of immunoglobulin gene expression.
 2. Explain allotype, idiotype and allelic exclusion.
- Que-3 Answer the following questions (10)
1. Write a detailed note on Class I and Class II MHC molecules.
 2. Write a note on microbial virulence factors.
- OR
- Que-3 Answer the following questions
1. Discuss antigen processing of external antigens.
 2. Write a note on AIDS.
- Que-4 Answer the following questions (10)
1. Write a short note on ELISA.
 2. Discuss DNA and Recombinant Vaccines.
- OR
- Que-4 Answer the following questions
1. Discuss in detail RIA.
 2. Compare and contrast active and passive immunization.
- Que-5 Answer the following questions (10)
1. Discuss primary and secondary immune response.
 2. Explain immunologic memory.
- OR
- Que-5 Answer the following questions
1. Write a note on autoimmune disease.
 2. Discuss role of cytokines in immune response.
