

S.No. 6121

P 16 BT 22

(For candidates admitted from 2016–2021 Batch)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Biotechnology

IMMUNOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

Write short notes on the following

1. Acquired immunity
2. Antigenicity
3. Immunoglobulins
4. TCR complex
5. MHC genes
6. Cell-mediated immunity
7. Hybrid monoclonal antibodies
8. Gene library

- 9. Autoimmunity
- 10. Graft rejection

PART B — (5 × 5 = 25)

Answer ALL the questions, choosing either (a) or (b)

- 11. (a) Define barrier. Explain the role of inflammatory barrier.

Or

- (b) Give an account on innate immune mechanisms.

- 12. (a) How does functional differentiation of T cell population in thymus? Explain.

Or

- (b) What is ICR? Write about at which organ TCR rearrangement take place?

- 13. (a) Distinguish between MHC and HLA.

Or

- (b) Give a short note on the mechanism of tolerance.

- 14. (a) Explain about vector vaccines with suitable example.

Or

- (b) Why booster doses are necessary for heat killed vaccine?

- 15. (a) Give a short note on types of graft with immunological significance.

Or

- (b) Detailed account on immunosuppressive therapy.

PART C — (3 × 10 = 30)

Answer any THREE questions.

- 16. Describe the structure and functions of lymphoid organs.

- 17. Explain the events taking place in the B cells when they are stimulated with antigens.

- 18. Give a detail account on inflammatory immune response.

- 19. What are the conventional methods of vaccine preparation for active immunization?

- 20. Write an essay on any five major auto immune diseases.