

APRIL 2025

57152/416C1B

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer any TEN questions each in 50 words.

1. Write two function of B lymphocytes.
2. What is passive immunity?
3. What are polyclonal antibodies?
4. Define lymphocyte activation.
5. Define immunodeficiency.
6. What is immunofluorescence?
7. What is a nucleosome?
8. What is phosphorylation?
9. Define transposable elements.
10. What is an insertion sequence?

11. What are the primary cells involved in the immune system?
12. Centromere.

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions each in 200 words.

13. Explain the process of antigen presentation.
14. Explain the alternate complement pathway.
15. Explain the principle and application of agglutination.
16. Explain the principle and mechanism of genome methylation.
17. Explain the significance of retroposons.
18. Describe the role of transposable elements in evolution.
19. Discuss the role of HLA typing in transplantation immunology.

PART C — ($4 \times 10 = 40$ marks)

Answer any FOUR questions each in 500 words.

20. Discuss in detail about the innate immunity.
 21. Describe the role of complement proteins in classical complement pathway.
 22. Explain the principle and the types of agglutination in diagnostic immunology.
 23. Describe the principle and types of ELISA.
 24. Describe the types of gene transfer mechanisms in bacteria.
 25. Draw neatly and explain the structure of Chromosome.
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