

S.No. 5085

16 SCCBT 4

(For candidates admitted from 2016-2017 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Biotechnology — Major

IMMUNOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. Differentiate antigenicity and immunogenicity
2. What is the cytokine?
3. Define a hapten?
4. Define inflammation
5. What are Ir genes?
6. What are the main functions of MHC?
7. What are the two a pathway by which antigen is processed?
8. What are plant - based vaccines?

9. What is the significance of type I hypersensitivity?

10. What is an allograft?

PART B — ($5 \times 5 = 25$)

Answer ALL questions. Choosing either (a) or (b).

11. (a) Account on lymph nodes.

Or

(b) Differentiate innate and acquired immunity.

12. (a) What are natural killer cells and its role in immunity?

Or

(b) What is GALT? Explain its significance.

13. (a) Explain the basic structure and classes of immunoglobulins.

Or

(b) Add a note on T-cell development and maturation.

14. (a) Write the short notes on anti-idiotypic vaccines.

Or

(b) Add a note on ISCOMS.

15. (a) How does our immune system act against viral infections.

Or

(b) Describe in detail about immunotherapy.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Essay on primary lymphoid organs

17. Account on macrophages and their role in phagocytosis.

18. How are antigens processed and presented to various cells? Explain in detail.

19. How are conjugate vaccines produced and give their applications.

20. Account on hypersensitivity and their types.
