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25-BT-23

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION
MAY - JUNE 2025**

BIOTECHNOLOGY

**Paper - III
[Immunology]**

[Max. Marks : 75]

[Time : 3:00 Hrs.]

[Min. Marks : 26]

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt all five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Explain mechanism of primary and secondary lymphoid organs.

OR

Write notes on -

- i) Phagocytosis.
- ii) Lymphatic system.

Q. 2 What is Immune Response ? Explain Immuno Chemistry at antigens and Immuno genicity.

OR

Write notes on -

- i) Cell mediated immune responses.
- ii) T-Cell maturation.

Q. 3 Write in detail about complement mediated immune reactions.

OR

Write notes on -

- i) Western blotting.
- ii) ELISA.

Q. 4 Write detailed note on attenuated and conjugate vaccines.

P.T.O.

OR

Explain Recombinant DNA and protein based vaccines.

Q. 5 What is Hypersensitivity ? Explain types of Hypersensitivity.

OR

Explain the mechanism of major Histo compatibility complex.

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