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24-BT-23

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION
JUNE - JULY 2024**

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 five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Write detailed note on history and evolution of immune system. (15 Marks)

OR

Describe innate and acquired immunity. (15 Marks)

Q. 2 Explain basic structure, classes and sub classes of immuno globulins. (15 Marks)

OR

Write notes on - (15 Marks)

i) B-Cell.

ii) T-Cell.

Q. 3 Write an essay on Antigen antibody interactions. (15 Marks)

OR

Write notes on - (15 Marks)

i) Immuno Fluorescence.

ii) Immuno Electron Microscopy.

Q. 4 Write detailed note on Active and Passive Immunization. (15 Marks)

OR

P.T.O.

Write note on -

(15 Marks)

- i) Plant based vaccines.
- ii) Peptide vaccines.

Q. 5 What is Auto immunity ? Explain in detail types of auto immune diseases. (15 Marks)

OR

Write notes on -

(15 Marks)

- i) Tumor Antigens.
- ii) Immuno Deficiencies.

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