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25-BO-44-A

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

BOTANY
Paper - IV
[Industrial Microbiology]

[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 Assess the role of Microscopy in the field of Microbiology.

OR

Investigate the following -

- i) Replication and Structures of Viruses.
- ii) Growth and Nutrition of Micro organisms.

Q. 2 Examine various microbes responsible for Food contamination.

OR

Evaluate the following -

- i) Single cell protein production in Industry.
- ii) Fermented Dairy products.

Q. 3 Formulate and explain the use of micro organisms for industrial production of vaccines and vitamins.

OR

Discuss the use of micro organisms in -

- i) Production of human proteins and steroids.
- ii) Production of Amino Acids.

P.T.O.

- Q. 4** Create a plan of using various micro organism for biochemical production of -
- i) Human Insulin.
 - ii) Microbial Growth.

OR

Illustrate the microbial recovery of oils and minerals using selected microbes.

- Q. 5** Examine the Bacteriological safety of potable water.

OR

Summarize the methods of -

- i) Biogradation of pollutants.
- ii) Water quality analysis.

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