

RAN-2103001106020003

B.Sc. (Biotechnology) (ATKT) (Sem. VI) Examination March - 2026

BT - 19 : Microbial Biotechnology (Old) (Paper - 2)

Time: 2 Hour]

[Total Marks: 50

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book. (2) Figures to the right indicate full marks. (3) Draw neat and labelled diagrams wherever necessary.	Seat No.: <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> Student's Signature						

Q. 1 Attempt the following questions Any Four: (08)

1. What are resistant mutant? Give one application of it.
2. Mention name of organism and enzyme involved in ethanol production.
3. Differentiate between primary and secondary screening.
4. Mention any four basic functions of fermentor.
5. CSTF operates on which principle?

Q. 2 Attempt Any Two: (14)

- 1) State the importance of screening and explain crowded plate technique in detail.
- 2) Explain basic concept of fermentation technology.
- 3) Explain production and purification process of citric acid.

Q. 3 Explain in detail Any Two: (14)

- 1) Discuss in detail on replica plating for isolation of mutant.
- 2) Discuss parasexual cycle as a means of strain improvement.
- 3) Explain types of microbial mutants with applications.

Q. 4 Attempt Any Two of the following: (14)

- 1) Justify : Fermentation process follows sequential steps.
- 2) Write a note on Airlift fermentor.
- 3) Enlist chronological development of industrial fermentation technology.