RAN-2203000206026003

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T.Y.B.Sc. (Semester-VI) Examination March - 2026

Microbiology - XIX - (MB-603-Industrial Microbiology) (Old)

Time: 2 Hours] **[Total Marks: 50**

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book.

Seat No.:

Student's Signature

ENGLISH VERSION

Q-1. Give specific answers: **08**

a) Define the term "inoculum" in the context of fermentation process.
b) State the importance of primary screening.
c) Name one common method for isolating microorganisms from soil samples.
d) Define: Strain stability.
e) Enlist the fermentation types.
f) Give one advantage of airlift bioreactors.
g) What is the difference between upstream and downstream processing?
h) What is the role of centrifugation in product recovery?

Q-2. Comment/Explain any two of the following: **14**

a) Enlist the various strain improvement techniques and explain in detail about any one method.
b) Give your views on role of secondary screening.
c) Discuss the filtration techniques for cell separation.

Q-3. Answer any two of the following: **14**

a) Describe the nitrogen sources for media formulation.
b) Briefly explain about the design of a bioreactor.
c) Describe the physical methods of cell disruption.

Q-4. Write short note on any two of the following: **14**

a) Screening for new metabolites.
b) Batch fermentation Vs continuous fermentation.
c) Regulation and safety aspects of industrial fermentation.
