



RAN-2203000206026003

B. Sc. Microbiology (Sem.-VI) Examination September - 2025

MB-603 Industrial Microbiology

Time: 2 Hours]

[Total Marks: 50

સૂચના : / Instructions

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

B. Sc. Microbiology (Sem.-VI)

Name of the Subject :

MB-603 Industrial Microbiology

Subject Code No.: **2203000206026003**

Seat No.:

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Student's Signature

- (2) All questions are compulsory.
(3) Figures to the right indicate marks of the question.
(4) Draw neat and labelled diagram wherever necessary.

Q.1. Give specific answers:

(8)

- Name any two antibiotics developed during initial period of development in the microbiological field.
- Give two examples of secondary metabolites.
- Write any two chemical mutagens.
- Give examples of any two antifoaming agents.
- Which type of rubber is used to make aseptic seal in bioreactors?
- What is the role of polarographic probes in bioreactor?
- Write full form of GILSP.
- What is lyophilization?

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

(14)

- Explain fed-batch fermentation process in detail.
- Comment: The cell disruption is required for intracellular products.
- Explain primary screening of antibiotics and organic acid producers.

Q.3. Answer any two of the following: (14)

- a) Discuss microbial regulatory mechanisms for control of metabolites production.
- b) Write about construction material and aseptic sealings of bioreactor.
- c) Describe various chromatography techniques used for product recovery.

Q.4. Write short note on any two of the following: (14)

- a) Primary metabolites and secondary metabolites
 - b) Isolation and collection of industrially important strain
 - c) Continuous fermentation process.
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