



RAN - 2203000206026003

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B. Sc. (Sem. - VI) Examination April - 2023

Microbiology : MB - 603

Industrial Microbiology

Time: 2 Hours]

[Total Marks: 50

સૂચના : / Instructions

(1)

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. (Sem. - VI)

Name of the Subject :

Microbiology : MB - 603 Industrial Microbiology

Subject Code No.: **2203000206026003**

Seat No.:

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Student's Signature

- (2) Figures to the right indicate full marks of the questions.
(3) Draw neat and labeled diagrams whenever necessary.

Q. 1. Give the specific answer of following questions.

[12]

- Mention the four characteristics which are highly desirable to use a production strain processing.
- What is Baker's Yeast? State its use in fermentation.
- What is the full form of GRAS and GMMs.
- Name the two types of small scale bioreactors.
- Mention the two main finishing steps of downstream processing.
- Give the full form of GILSP and QA.

Q. 2. Explain / Comment the following with suitable example. [Any two]

[12]

- Explain the technique largely employed for detecting microorganisms able to produce growth factors.
- Comment: Mutagenesis is a conventional tool for strain improvement.
- Comment: Designing of bioreactor is one of the major steps in fermentation industry.

Q. 3. Answer the followings: [Any two] [16]

- a. Enlist all historical developments in fermentation technology.
- b. Mention the role of Culture Collections. Explain the ideal characteristics of Industrial microorganisms.
- c. Discuss various Chromatographic techniques which are usually employed for recovery of higher value products.

Q. 4. Write a short note on following: [Any two] [10]

- a. Continuous Stirred Tank Bioreactor.
 - b. Fermentation types
 - c. Cell disruption.
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