2103001106020003
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (SIXTH SEMESTER)
MICROBIAL BIOTECHNOLOGY - LEVEL 2

[**Time: As Per Schedule]** **[Max. Marks:50]**

Instructions:

1. **Fill up strictly the following details on your answer book**
   a. Name of the Examination : **BACHELOR OF SCIENCE (SIXTH SEMESTER)**
   b. Name of the Subject: **MICROBIAL BIOTECHNOLOGY – LEVEL 2**
   c. Subject Code No: **2103001106020003**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

Student's Signature

Q.1 Write answers to Any Four: **8**

a) What are microorganisms? Enlist groups of microorganisms.

b) Give four examples of microorganisms who are used to produce citric acid.

c) Name microorganisms used for production of curd from milk.

d) Name the scientist who first discovered antibiotic and in which year.

e) Define Fermentation.

Q.2 Attempt Any Two: **14**

a) Explain briefly various range of fermentation processes.

b) Explain different techniques used for primary screening of industrially important microorganisms.

c) Give contribution of Louis Pasteur with respect to microbial biotechnology.

Q.3 Explain in detail Any Two: **14**

a) Describe the methods used for isolation of microorganisms without using desired characteristics.

b) Give an outline of methods used for isolation of microbial mutants. Describe Replica Plating technique in detail.

c) Elaborate on the ways used for preservation of microbial strains used for industrial scale fermentation.

Q.4 Attempt Any Two of the following: **14**

a) Write a short note on Protoplast fusion.

b) Describe in detail the criteria used for designing industrial scale fermenter.

c) Write a short note on: Typical batch fermenter.

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