

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**T. Y. B. Sc. Sem-VI : WINTER- 2022**  
**SUBJECT : MICROBIOLOGY : BIOTECHNOLOGY**

Day : Saturday

Time : 10:00 AM-01:00 PM

Date : 10/12/2022

**W-18488-2022**

Max. Marks : 60

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat labelled diagrams **WHEREVER** necessary.
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- Q.1** Attempt any **TWO** of the following: (12)
- a) Describe various raw materials used for alcohol fermentation.
  - b) Explain assay of fermentation product by agar diffusion method.
  - c) Define strain improvement and explain the concept of use of auxotrophic mutants for strain improvement.
- Q.2** Attempt any **TWO** of the following: (12)
- a) What are pyrogens? Explain method and significance of pyrogen test
  - b) Discuss in brief the surface culture method of fungal amylase production.
  - c) Explain in detail the process of recovery of citric acid from fermented broth.
- Q.3** Attempt any **TWO** of the following: (12)
- a) Describe the methods and significance of sterility testing.
  - b) What are resistant mutants? Explain with reference to strain improvement.
  - c) Explain end point determination assay.
- Q.4** Write short notes on any **THREE** of the following: (12)
- a) Market potential
  - b) Bakers yeast
  - c) Ames Test
  - d) Aging of wines
- Q.5** Attempt any **FOUR** of the following: (12)
- a) List the organisms used for Lysine production.
  - b) Give the significance of allergy testing in quality control.
  - c) Explain in brief the history of patent concept.
  - d) Describe medium used for Vitamin B<sub>12</sub> fermentation.
  - e) Explain types of wines.
  - f) Describe protoplast fusion approach in strain improvement.

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