

Exam. Code : 107403

Subject Code : 2266

B.Sc. Bio-Technology 3rd Semester

**AGRO & INDUSTRIAL APPLICATIONS OF  
MICROBES—A**

**Paper—BT-7**

Time Allowed—3 Hours] [Maximum Marks—40

**Note** :— Section A(1×8 mark) is compulsory. From Section B (5×4 marks) attempt any 5 questions. The answers should not exceed two pages. From Section C (6×2 marks) Attempt any 2 questions. The answers should not exceed five pages.

**SECTION—A**

(Compulsory)

1. Write a brief account of the following
  - (a) Which kind of industries fall under agro industry ?
  - (b) What kind of products can be made in dairy industry ?
  - (c) Give the role of temperature in preservation of culture.
  - (d) Why is subculture necessary in maintenance of a microbe ?

- (e) Name two biopesticidal microbes.
- (f) What are organic foods ?
- (g) Which enzymes are used for clarification of the juices ?
- (h) Enlist the contents of medium for a bacteria to grow.

### SECTION—B

(Attempt 5 questions)

2. What are the basic requirements for a microbial quality control lab in the food industry ?
3. Describe the methodology to screen an industrially important microorganism by taking any example.
4. How can an important microbe be preserved ?
5. Describe the major classes of products of industrial importance from fungi.
6. What kind of selection pressure effects the maintenance of hyperproducing microbes ?
7. Write a note on the mutational programme of the penicillin producing microorganisms.
8. How can Rhizobium be applied as a biofertilizer ?
9. What is the importance of Azobacter in Agro industry ?



**SECTION—C**

(Attempt 2 questions)

10. Comment on food processing being viable as an industry and its present scenario in Punjab.
11. Describe the potential of genetic engineering of microbes for industrial purposes.
12. What do you understand by process optimization of industrial by important bacteria ?
13. Write notes on the importance of Anabaena and Agrobacterium in industry.