

Exam. Code : 107404

Subject Code : 2147

B.Sc. Bio-Technology Semester-IV
AGRO AND INDUSTRIAL APPLICATIONS OF
MICROBES-B

Paper-BT-7

Time Allowed—3 Hours]

[Max. Marks—40

SECTION-A

Attempt ALL questions.

1. Answer the following :

- (a) Amylase production
- (b) Antibiotic
- (c) Masting
- (d) Fermentation
- (e) Mycorrhizae
- (f) BT Cotton
- (g) Feed-batch culture
- (h) Cheese

1×8=8

SECTION-B

Attempt any FIVE questions.

2. Write the advantages of vermicomposting over traditional composting. 4

3. Describe various modes of media sterilization. 4
4. Describe with the help of flow chart the process for the production of acetic acid. 4
5. Describe the importance of mycorrhizae in growth. 4
6. Describe the process of microbial production of butanol. 4
7. Draw and describe the typical growth curve of microbial fermentation and write the significance of each phase. 4
8. Describe the advantages and disadvantages of plant-microbe interactions. 4
9. Describe the role of microbes in the biotransformation of molecules. 4

SECTION-C

Attempt any **TWO** questions.

1. What are antibiotics ? Describe the process of industrial production of penicillin. 6
2. What are different types of cheese ? Write the process of cheese production. 6
3. What are single cell proteins ? Describe the process for the production of single proteins. 6
4. Name the various enzymes used in paper industry. Write in detail the methods for the industrial production of cellulase. 6