

Roll No. Total No. of Pages: 02

Total No. of Questions: 09

B.Tech. (BT) (2012 to 2017) (Sem.-4) INDUSTRIAL MICROBIOLOGY

> Subject Code: BTBT-402 M.Code: 55085

Max. Marks: 60 Time: 3 Hrs.

## **INSTRUCTION TO CANDIDATES:**

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains FIVE questions carrying FIVE marks each and students 2. has to attempt any FOUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

# **SECTION-A**

#### 1. Write briefly:

- a. MPN technique
- b. Prototroph
- c. Amylase
- d. Biohydrogen
- FirstRanker.com e. Saccharomyces cerevisiae
- Prebiotics
- g. Lager and ales beer
- h. Cheese
- i. Lactobacillus sp.
- Bacteriocin



# **SECTION-B**

- 2. Describe method of enumeration and isolation of microbes from soil. How will you isolate cellulose degrading bacteria from soil?
- 3. Differentiate between chemical fertilizers and biofertilizers. Explain with suitable examples.
- 4. What are different stages of organic matter decomposition? How you can assess biodegradation and which microbes plays an important role?
- 5. Give an account of industrial enzymes that are produced by microorganisms and their applications.
- 6. Which microbes are sources of SCP? Explain the process of their mass production.

## **SECTION-C**

- 7. What do you understand by solid and submerged fermentation? Explain the process of fermentative production of beer and whisky.
- 8. Give detail account of production of antibiotics and vaccine. Explain their applications.
- 9. Explain the role of different microorganisms and the process involved in production of various daily products.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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