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Total No. of Pages : 02

Total No. of Questions : 18

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

INDUSTRIAL MICROBIOLOGY

Subject Code : BTBT-402

M.Code : 55085

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

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

SECTION-A**Write briefly :**

1. Strain improvement
2. Biosensor
3. Complete and minimal media
4. Homolactic fermentation
5. Whiskey and rum
6. Vaccine
7. Bioinsecticide
8. Alkaloids and steroids
9. Protease
10. Solid state fermentation

SECTION-B

11. What is enzyme and cell immobilization? Why and how immobilization is industrially important and how it is done?
12. Give examples of edible mushrooms and explain their mass production?
13. Which microbes are involved in fermentative production of amino acids? Explain their production and applications?
14. What are probiotics and prebiotics? Explain their benefits with applications in medicine?
15. What is the role of bioinsecticides in agriculture and what are advantages? Give examples.

SECTION-C

16. Illustrate different types of biowaste generated from various sources? How such wastes can be recycled?
17. Explain bioethanol, biohydrogen and biogas? How and which microbes are involved in their production?
18. Explain the process of fermentative production of red wine? What are undesirable fermentations and how they are prevented?

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.