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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Biotechnology) (2018 Batch) (Sem.-4)

INDUSTRIAL MICROBIOLOGY

Subject Code : BTBT-401-18

M.Code : 77586

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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**Q1 Write briefly :**

- a) Give two examples of free living nitrogen fixing microbes used as biofertilizers.
- b) Enlist two important characters of an industrially important strain.
- c) Name two microorganisms which are credited for the production of antibiotics.
- d) Define a Master Culture.
- e) How are antibiotics different from vaccines?
- f) Why are hops used in the manufacture of beer?
- g) Define Biopesticides.
- h) Define Pure Culture. Who gave the concept of pure culture?
- i) What is Mycorrhiza and how does it act as a biofertilizers?
- j) What is a Starter Culture?

SECTION-B

- Q2 What is the single cell protein (SCP)? Give the commercial use of SCP along with suitable example.
- Q3 Discuss the different strategies used for strain improvement of microbes.
- Q4 Beer is of two types-Lager and Ale. Briefly discuss the differences between lager and ale based on production, taste and shelf life.
- Q5 Write a brief note on the application of Bioinsecticides.
- Q6 Describe in detail production of fungal amylase and give its application.

SECTION-C

- Q7 Discuss the upstream and downstream parameters for the production of the penicillin.
- Q8 Define Immobilization. Briefly discuss the different methods of enzyme immobilization.
- Q9 Discuss the role of fungi in biotransformation of steroids.

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.