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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(BT) (2011 Onwards) (Sem.-3)

MICROBIOLOGY

Subject Code : BTBT-303

M.Code : 55073

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

1. Answer briefly:

- i. Endospore
- ii. Lyophilization
- iii. Sterilization
- iv. Differential media
- v. Synchronous culture
- vi. Transduction
- vii. Generation time
- viii. Passive diffusion
- ix. Gram positive bacteria
- x. Oxygen toxicity

SECTION-B

2. Differentiate between prokaryotes and eukaryotes. Explain by giving suitable examples.
3. What are obligate parasites? Give examples and discuss life cycle of any one.
4. Give an account of classification of microorganisms based on physical growth requirements for culturing of different types of microorganisms?
5. Differentiate between conjugation and transformation. How and which recombination technique is used in gene mapping?
6. What is microbial growth? How growth is measured in different types microorganisms?

SECTION-C

7. What is batch, fed-batch and continuous fermentation? Explain with suitable examples and their applications.
8. What are various food and water borne bacterial infections? Which microbes are involved and what is their prophylaxis?
9. Discuss in details various feedstocks for industrial fermentations, their various sources and properties.

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.