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Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.BT (2011 to 2017) (Sem.-1)
PRINCIPLES OF MICROBIOLOGY

Subject Code : MSBT-109

M.Code : 15005

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 :

- a) Pasteurization
- b) Lyophilization
- c) Bacterial endospore
- d) Lysogeny
- e) Heterocyst
- f) Generation time
- g) Membrane filtration
- h) Chemical sterilization
- i) Biological nitrogen fixation
- j) Exotoxins vs. Endotoxins

SECTION-B

2. What is enrichment medium? Describe the enrichment techniques for the cultivation of microorganisms.
3. Describe the molecular characteristics used in microbial taxonomy for identification of microbes.
4. Describe various nutritional categories of micro organisms.
5. Describe the microbial interactions in carbon and sulphur cycles of soil.
6. Describe briefly the characteristics of various fungal divisions.

SECTION-C

7. What are Pure Culture Techniques? Describe various pure culture techniques with advantages and disadvantages in each case.
8. Draw a bacterial growth curve and describe its parts. Also highlight the factors affecting bacterial growth.
9. What are Antimicrobial Drugs? Describe their characteristics, mechanism of action and factors influencing their effectiveness.

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.