

Roll No.

Total No. of Pages : 02

Total No. of Questions : 11

M.Sc. (BT) (2018 Onwards Batch) (Sem.-1)

APPLIED MICROBIOLOGY

Subject Code : MBT-102

M.Code : 75660

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

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

SECTION-A

1. Describe briefly :

- (a) Bacteriophage
- (b) Tumour
- (c) Archaeobacteria
- (d) Generation time
- (e) Fed batch system
- (f) Quorum sensing
- (g) Pathogenicity islands
- (h) Secondary metabolite
- (i) Food additives
- (j) Growth curve

SECTION-B

2. Give a brief account of historical perspectives in discovery of microorganisms.
3. Describe briefly morphological and structural organization of microbes.
4. Describe mutagenesis for the improvement of microbial strains.
5. Describe the criteria for the formulation of medium for industrial fermentations.
6. Describe host-pathogen interactions with suitable examples.
7. Give a brief account of microbes causing human infections.
8. Give a brief account of anaerobic bioenergetics with suitable examples.

SECTION-C

9. Describe briefly production of secondary metabolites at industrial scale.
10. Discuss growth kinetics of batch and fed batch system.
11. Discuss the role of pathogenicity islands in bacterial virulence with suitable examples.

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.