



M.Sc. 1st Semester
Examination, Dec.-Jan., 2021-22

BIOTECHNOLOGY

Paper - III

Microbial Physiology

Time : Three Hours] [*Maximum Marks* : 80
[*Minimum Pass Marks* : 16

Note : Answer **all** questions in which Question Number 1 is compulsory. All questions carry equal marks.

1. Write in brief about the following :
 - (a) Peptidoglycan
 - (b) Continuous culture
 - (c) Viroids
 - (d) Broad spectrum antibiotics

(2)

Unit-I

2. What is bacterial taxonomy ? Discuss the techniques of bacterial taxonomy in brief.

OR

Write short notes on the following :

- (a) Bergey's manual of bacterial classification
- (b) Ribotyping

Unit-II

3. What do you mean by microbial growth ?
How the microbial growth is measured ?
Describe the various factors which affects microbial growth.

OR

Write in brief about the following :

- (a) Nitrogen Fixation
- (b) Fermentation diversity

Unit-III

4. Describe the structure and life cycle of any retrovirus with suitable diagram.

OR

Write in brief about the following :

- (a) Halophiles
- (b) Mycoplasma

(3)

Unit-IV

5. What are toxins ? Describe the various types of toxins.

OR

Write in brief about the following :

- (a) Respiratory disease caused by viruses
 - (b) AIDS
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