

No. of Printed Pages : 03

Roll No.

32096

B.Sc. EXAMINATION, 2025

(Second Semester)

(Re-appear Only)

BIOTECHNOLOGY

Paper–III

General Microbiology

Time : 3 Hours]

[Maximum Marks : 40

Before answering the question-paper, candidates must ensure that they have been supplied with correct and complete question-paper. No complaint, in this regard will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. Discuss the following briefly : $2 \times 4 = 8$

- (i) Phase contrast microscopy
- (ii) Gram positive bacteria
- (iii) Microbial growth curve
- (iv) Differential staining.

Unit I

2. (a) Explain the transmission electron microscopy. 4

(b) Discuss about laminar air flow and its types. 4

3. (a) Write a note on physical methods of sterilization. 4

(b) Discuss about dark field microscopy. 4

4. (a) Explain the different types of microbial staining methods. 4

(b) Write a note on autoclaving method of sterilization. 4

Unit II

5. (a) Elaborate the ultrastructure of bacteria. 4

(b) Write a note on AIDS. 4

6. (a) Discuss the various steps of EMP pathway. 4

(b) Write a note on C3 cycle. 4

7. (a) Explain the steps of Krebs's cycle. 4

(b) Write about the diseases caused by bacteria in man. 4

