Roll No. : .....

Total No. of Questions : **11**] [Total No. of Printed Pages : **3**

BPMS–513

M.Sc. (Previous) Examination, 2023

MICROBIOLOGY

Paper - I

(General Microbiology, Bacteriology and Virology)

*Time : **3** Hours*] [*Maximum Marks : **75***

Section–A **(Marks : 2 × 10 = 20)**

Note :– Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section–B **(Marks : 5 × 5 = 25)**

Note :– Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section–C **(Marks : 10 × 3 = 30)**

Note :– Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section–A

1. (i) What are TNTC and TFTC ?

   (ii) What do you understand by Phylogeny ?

(iii) What is Synchronous Growth ?

(iv) What is EMB ?

(v) Write *two* names of any two Gram-Negative Pathogenic Bacteria.

(vi) Write any *two* names of Photosynthetic Bacteria.

(vii) Write any *two* names of any SS-r.n.a. viruses.

(viii) Flu is caused by ..... virus.

(ix) What are Virulent Phages ?

(x) What do you understand by Phage Burst Size ?

Section–B

2. What is the main difference between Lithotrophs and Chemotrophs ?

Or

Write in brief about the cell walls of Gram-Positive Bacteria.

3. Write a short note on Bacterial Growth Curve.

Or

Why is the wet sterilization process more effective ?

4. Write the importance of Lactobacillus in Dairy microbiology.

Or

Write in brief about Archaebacteria.

5. Write a short note on DNA Viruses.

Or

Write a short note on the Plaque Infectivity Assay,

6. Write a short note on RNA Viruses.

Or

Write briefly about Hepatitis Viruses.

Section–C

7. Write an essay on the main differences between Bergey's manual of systematic and Bergey's manual of determinative bacteriology.
8. Write an essay on the types of Media with suitable example.
9. Write an essay on Biological Nitrogen Fixation.
10. Write an essay on the Cultivation of Viruses.
11. Write an essay on virulent and temperate bacteriophages.