

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

M.Sc.PBPBT - END SEMESTER EXAMINATIONS - APRIL 2025
SEMESTER - II

24PPBCT2005 - Microbiology and Plant Pathology

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Explain the classification of bacteria based on morphological characteristics.
2. Describe the cultural characteristics of Gram-positive and Gram-negative bacteria.
3. Classify mycoplasma and write the structure.
4. Describe the symptoms and control measures of Late Blight of Potato and Red Rot of Sugarcane.
5. Describe the different methods for incorporating resistant genes in plants, both direct and indirect.
6. Compute the reproductive methods in bacteria and their economic importance.
7. Explain the role of ELISA in detecting plant pathogens and write its significance.
8. Determine viruses, viroids, and prions, highlighting their differences in their structure and functions.

Section C

I - Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Describe the various methods of classifying bacteria, including morphological, cultural, physiological, and molecular characteristics.
10. Apply the classification, structure, and multiplication of plant viruses with suitable examples.
11. Examine the important plant diseases in India, such as Late Blight of Potato and Tikka Disease of Groundnut, including their symptoms and control methods.
12. Justify the role of immunofluorescence (IF) in plant disease detection and diagnostics.

II - Compulsory question ($1 \times 10 = 10$ Marks)

13. Apply the process of bacterial growth in both batch culture and continuous culture systems and discuss the growth curve in detail, including the different phases.
