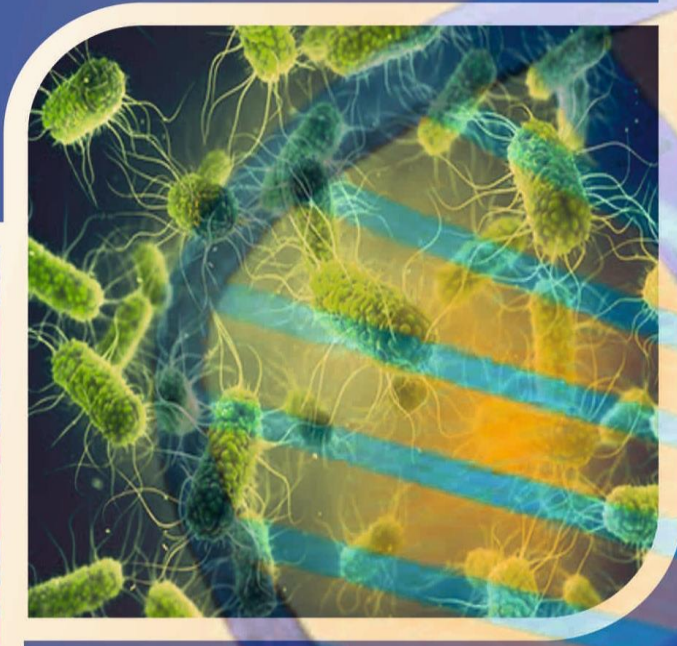
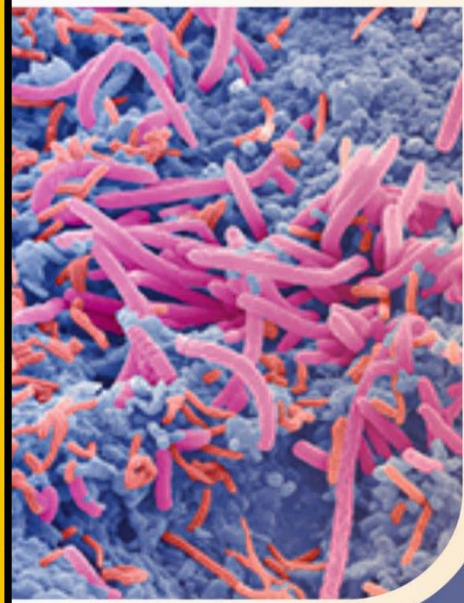


A Textbook On

# INTERDISCIPLINARY MICROBIOLOGY

(Volume- I)



**DR. TANMAY GHOSH**  
**DR. JOY SARKAR**

**Kripa Drishti Publications, Pune.**

# **A TEXTBOOK ON INTERDISCIPLINARY MICROBIOLOGY**

**(Volume- I)**

**As per Latest Syllabus (UGC Prescribed NEP Curriculum)**

**A Textbook for B.Sc. Hons, IDC (Inter Disciplinary Course), M.Sc.  
Microbiology Students.**

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## **PREFACE**

From deepest of heart containing the warm pleasuring well wishes we are feeling very lucky and honoured to present you the thoroughly revised, willingly prepared and studied with high efforts, the first edition of.

We hope the book will become helpful to all the readers of this book who have taken it as a source of knowledge what they seek for. The book is written with immense hard work; dedication and desperation. We have tried to put all the information available to me on these topics for the readers and tried to make it as easy as possible for the easy and correct understanding of the topics by readers. The book is written with dedicated practices of restless work with determination and passion for the writing of a book helpful on this subject. The book is containing the information mostly for the students but we believe that it can also be helpful for everyone.

The book is consisting 7 Units al together in it. The unit 1 is focusing on the topic History of Development of Microbiology. The unit 2 is containing the about Diversity of Microorganisms. Unit 3 is filled with the Information about the Different types of Microscopy. The details on the Different types of sterilization technique is described in unit 4. Microbes in Human Health (Medical Microbiology and Immunology) & Environmental Microbiology is widely discussed in unit 5. The unit 6 contains about Industrial Microbiology or Microbes used in Industry. The Unit 7 is discussed about the Food and Dairy Microbiology.

We are thankful to the publishers for the speedy and quality production. We shall welcome the constructive suggestion, if any, from the reader.

**AUTHORS,  
Dr. Tanmay Ghosh  
Dr. Joy Sarkar**

## Abbreviations

Adenosine Triphosphate (ATP)  
Subunit rRNA (SSU rRNA)  
Ribosomal RNA (rRNA)  
International Code of Botanical Nomenclature (ICBN)  
International Code of Zoological Nomenclature (ICZN)  
Hepatitis Delta Virus (HDV)  
Hepatitis B Virus (HBV)  
Tobacco Necrosis Satellite Virus (TNV)  
Satellite Tobacco Necrosis Virus (STNV)  
Cellular PrP (PrP<sup>c</sup>)  
Conversion Into Prion (PrP<sup>Sc</sup>)  
Transmissible Spongiform Encephalopathies (TSEs)  
Fatal Familial Insomnia (FFI)  
Lymph Reticular System (LRS)  
Potato Virus Y (PVY)  
Cucumber Mosaic Virus (CMV)  
Cowpea Mosaic Virus (CPMV)  
Human Papillomavirus (HPV)  
Human Immunodeficiency Virus (HIV)  
Deoxyribonucleic Acid (DNA)  
Ribonucleic Acid (RNA)  
Numerical Aperture (NA)  
Resolving Power (RP)  
Transmission Electron Microscope (TEM)  
Scanning Electron Microscope (SEM)  
Secondary Electron Detector (SED)  
Scanning Electron Microscope (SCEM)  
Back Scattered Electrons (BSE)  
Secondary Electrons (SE)  
Critical Point Drier (CPD)  
Backscattered Electron Detectors (EBSD)

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