

**SCHEME FOR CHOICE BASED CREDIT SYSTEM IN
B.Sc. MICROBIOLOGY
B.SC. III YEAR SYLLABUS (2022 onwards)
SUBJECT -MICROBIOLOGY
V SEMESTER (4 HPW-4Credits)
GE 531 Paper MICROBIOLOGY AND HUMAN HEALTH**

Overall course objective: To explain the relevance of microorganisms in daily life

Unit Wise Course Objectives:

GE 531.COb1: Overview on history of microbiology, cultivation and staining of microbes

GE 531.COb2: Study of various infectious diseases

GE 531.COb3: Learn the significance of immune system

GE 531.COb4: Understand the safe disposal of industrial and Biomedical waste

UNIT-1: INTRODUCTION

15hr

Historic developments of Microbiology

1hr

Contributions of Van Leeuwenhoek, Edward Jenner, Louis Pasteur, Robert Koch.

4hr

Types of microorganisms

2hr

Morphological characteristics of bacteria, Staining

3hr

Cultivation methods of bacteria, Culture Media used for the growth of microorganisms.

4hr

UNIT-2: MICROORGANISMS: GOOD AND BAD

15hr

Microorganisms related to human health.

1hr

Normal microbial flora, Human microbiome concept.

3hr

Bacterial disease: Typhoid, Tuberculosis, Syphilis

4hr

Viral diseases: Flu, MERS, SARS, CoV-2, HIV

4hr

Insect borne: Malaria and Dengue

4hr

UNIT-3: IMMUNITY AND HEALTH

15hr

Introduction to immune system

1hr

Understanding the terms: Disease, Infection, Pathogenicity, Prophylaxis,

Host resistance

4hr

Innate immunity and Acquired immunity.

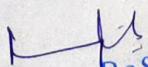
4hr

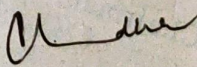
Epidemics, Endemics and Pandemics.

1hr

Importance of probiotics and vaccines for human health.

5hr


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