

B.Sc- BOTANY SYLLABUS UNDER CBCS
CORE PAPER..I SEMESTER-I
Microbial Diversity, Algae and Fungi

BLOCK-I ORIGIN OF LIFE, MICROBIAL DIVERSITY

Unit -1: Origin of life

Unit-2: Geological Time Scale

Unit-3: Archaeobacteria, Actinomycetes, Chlamydiae and mycoplasma

BLOCK-II VIRUSES, BACTERIA & CYANOBACTERIA

Unit -4: Viruses

Unit-5: Bacteria

Unit-6: Cyanobacteria

BLOCK-III ALGAE & LICHENS

Unit-7: General account and classification of Algae

Unit-8: Life history of *Oedogonium*, *Sargassum* and *Polysiphonia*.

Unit-9: Lichens

BLOCK-IV FUNGI

Unit-10: General account and classification of Fungi

Unit-11: Life history of *Albugo*, *Penicillium*, *Neurospora*, *Puccinia*, *Agaricus*, *Cercospora*.

Unit-12: Crop diseases

B.Sc PRACTICAL-I, Microbial Diversity, Algae and Fungi

BLOCK I: MICROBIAL DIVERSITY AND ALGAE

Unit-1: Study of viruses and Bacteria using electron micrographs (photographs)

Unit-2: Gram staining of Bacteria

Unit-3: Study of symptoms of plant diseases caused by Viruses, Bacteria, Mycoplasmas, and Fungi

Unit-4: Vegetative and Reproductive structures of Cyanophyceae, Chlorophyceae, Phaeophyceae, Rhodophyceae

BLOCK II: FUNGI AND LICHENS

Unit-5: Vegetative and Reproductive structures of the following taxa

Albugo, *Mucor*, *Penicillium*, *Neurospora*, *Puccinia*, *Agaricus*, *Cercospora*.

Unit-6: Section cutting of diseased material infected by Fungi and identification of Pathogens as per theory syllabus

White rust on Crucifers, Rust on Wheat & Tikka disease of Groundnut

Unit-7: Lichens: Different types of thalli and their external morphology

Unit-8: Examination of important microbial, fungal and algal products- Protein capsules, Antibiotics, Mushrooms, Agar-agar etc.