

B.Sc. I (BOTANY)

LESSON PLAN 2021-2022

SANJAY KUMAR

SEMESTER-I

UNIT-I (OCT)

Bacteria : Structure, nutrition, reproduction and economic importance; general account of cyanobacteria (with reference to *Nostoc*).

Algae: General characters, classification (upto classes) and economic importance; important features and life-history (excluding development) of *Volvox*, *Oedogonium* (Chlorophyceae), *Vaucheria* (Xanthophyceae), *Ectocarpus* (Phaeophyceae) and *Polysiphonia* (Rhodophyceae).

UNIT-II (NOV)

Viruses: General account of Viruses including structure of TMV and Bacteriophages.

Fungi: General characters, classification (upto classes) and economic importance; important features and life-history of *Phytophthora* (Mastigomycotina), *Mucor* (Zygomycotina), *Penicillium* (Ascomycotina), *Puccinia*, *Agaricus* (Basidiomycotina), *Colletotrichum* (Deuteromycotina); General account of Lichens.

PAPER –II CELL BIOLOGY (DEC)

UNIT-I

The Cell Envelopes: Structure and functions of Cell Wall and Plasma Membrane.

Ultrastructure and function of nucleus, Golgi Apparatus, Endoplasmic Reticulum, Chloroplast, Mitochondria, Lysosomes, Peroxisomes and Vacuoles.

UNIT-II

Cell Division: Mitosis and Meiosis.

Chromosome: Morphology, organization, ultrastructure of Centromere and Telomere; Chromosomal alterations- deletions, duplications, translocations, inversions; Variations in chromosome number- aneuploidy, polyploidy; sex chromosomes and sex determination.

