B.Sc. PLANT BIOLOGY & PLANT BIOTECHNOLOGY

ALGAL BIOTECHNOLOGY
B. Sc. va (Candidates admitted from the academic year 2008-2009)
Special Theory
Paper 1b  ALGAL BIOTECHNOLOGY
B.Sc. va  (Candidates admitted from the academic year 2008-2009)

Special Theory

UNIT I
Introduction to algal biotechnology: Resource potential of algae; commercial utility of algae. Algae as a source of food and feed; Algae as a source of pigments, fine chemicals, fuel and bio-fertilizers. Distribution of economically important algae in India.

UNIT II

UNIT III
Algal production systems; Strain selection; Algal growth curve; Culture media; indoor cultivation methods and scaling up. Measurement of algal growth. Large-scale cultivation of algae. Evaporation and uniform dispersal of nutrients; Harvesting algae. Drying.

UNIT IV

UNIT V
Liquid seaweed fertilizer: Method of preparation and application. Biodiesel from algae: algae producing biodiesel; Advantages over other sources of biodiesel; Cultivation and extraction methods. Phycoremediation. Role of algae in nanobiotechnology.

UNIT VI
Algal control: Methods of control of algae; Algicides-preparation and Application; ultrasonic sound producing devices to control algae. Algal culture collection centers in India and abroad and their importance; Centers pursuing algal research in India and their field of interest.
Suggested Reading


