

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai — 600 044.

B.Sc.(PBPBT) - END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - I

**20UPBCT1001 - Phycology**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Illustrate the modes of reproduction in algae in brief.
2. Describe structural organization and flagellation of Chlorophyceae with examples.
3. Classify life cycles observed in *Sargassum*.
4. Explain the various culture methods of algae.
5. Describe the mass cultivation of *Spirulina*.
6. Prepare a table depicting pigmentation, flagellation and reserve food of algae.
7. Explain the role of *Anabaena* in nitrogen fixation adding a note on algal biofertilizers.
8. Distinguish the various life cycles observed in the class Rhodophyceae.

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Explain the classification of algae by F. E. Fritsch (1945).
10. Classify the modes of reproduction observed in Phaeophyceae and Chlorophyceae.
11. Distinguish the external and internal structures (vegetative and reproduction) of the genera *Ulva* and *Gracilaria* with neat diagrams.
12. Classify the methods of sterilization techniques of culture materials – Discuss in detail.
13. Compare the industrial applications of algae briefing upon the mass cultivation of *Chorella*.

\*\*\*\*\*