

B.Sc. Semester - 1 (NEP-2020) Examination

OCT/NOV-2025

BOT: Phycology (Minor)

Time: 2:00 Hours

Marks:50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1 (A) Explain the methods of sexual reproduction in algae based on the behavior, functions, and structure of gametes. (05)
- (B) Discuss the pigmentation in algae. (05)
- OR
- Que.1 (A) Enlist the classes of algae as per Fritsch's classification and discuss the characteristics of the Chlorophyceae class only. (05)
- (B) Explain the structure and types of flagella in algae. (05)
- Que.2 (A) Describe the formation of daughter colonies in *Volvox*. (05)
- (B) Explain the process of sexual reproduction in *Coleochaete*. (05)
- OR
- Que.2 (A) Write a short note on the Palmella stage in *Chlamydomonas*. (05)
- (B) Explain the occurrence and structure of *Oedogonium* thallus. (05)
- Que.3 (A) Describe the vegetative reproduction in *Chara*. (05)
- (B) Explain the external morphology of *Chara*. (05)
- OR
- Que.3 (A) Describe the sexual reproductive organs and fertilization process in *Vaucheria*. (05)
- (B) Write short notes on synzoospores and their germination. (05)
- Que.4 (A) State the differences between unilocular and plurilocular sporangia in *Ectocarpus*. (05)
- (B) Write short notes on the thallus structure of *Ectocarpus*. (05)
- OR
- Que.4 (A) Describe the post-fertilization changes in *Polysiphonia*. (05)
- (B) Write short notes on the tetrasporophyte stage in *Polysiphonia*. (05)
- Que.5 (A) Write short notes on the siphonaceous thallus structure in algae. (05)
- (B) Explain the structure of *Chlamydomonas* with the help of suitable diagrams. (05)
- OR
- Que.5 (A) Write short notes on the globule in *Chara*. (05)
- (B) Discuss the role of algae in industry. (05)
