

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

OCT/NOV-2025

BOT.Phycology (Major-2)

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) Discuss the filamentous form of thallus organization in algae with neat labelled diagrams. (05)
- (B) Write an outline chart of Fritsch's classification of algae and mention the basis of classification. (05)
- OR
- Que.1 (A) Explain the structure and components of algal cells with reference to pigments, cell wall, and reserve food materials. (05)
- (B) Explain ecological role of algae in terrestrial ecosystem. (05)
- Que.2 (A) Describe the structure and reproduction of *Chlamydomonas* with a suitable diagram. (05)
- (B) Write short notes on the habit, habitat, and colony organization of *Volvox*. (05)
- OR
- Que.2 (A) Describe systematic position and structure of *Oedogonium*. (05)
- (B) Write an illustrated note on the reproduction in *Coleochaete*. (05)
- Que.3 (A) Describe the vegetative reproduction in *Chara*. (05)
- (B) Write short note on: Morphology of *Chara* with diagram. (05)
- OR
- Que.3 (A) Describe the structure of sexual reproductive organ of *Vaucheria* with neat labelled diagrams. (05)
- (B) Write a note on the systematic position and occurrence of *Vaucheria*. (05)
- Que.4 (A) Describe the morphology of *Ectocarpus* with labelled diagrams. (05)
- (B) Explain the general characteristics of Phaeophyta (brown algae). (05)
- OR
- Que.4 (A) Describe the morphology of *Polysiphonia* with suitable diagrams. (05)
- (B) Discuss the economic importance and role of algae in environment, agriculture, and industry. (05)
- Que.5 (A) Compare the pigment system and reserve food materials among different algal divisions. (05)
- (B) Write an essay on the biotechnological and environmental applications of algae (05)
- OR
- Que.5 (A) Give an account of flagellar structure and types of locomotion in algae. (05)
- (B) Discuss the evolutionary trends in thallus organization among algae. (05)
