

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

OCT/NOV-2024

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** 1) Explain the ecological roles of algae in aquatic ecosystems. (05)
 2) Describe the colonial form of range of thallus organization found in algae with examples. (05)
- OR
- Que-1** 1) Outline the composition of the algal cell wall and explain how the pigment system varies across different groups. (05)
 2) Describe the different types of reserve food materials found in various groups of algae. (05)
- Que-2** 1) Describe the systematic position, habitat, and vegetative structure of *Oedogonium*. (05)
 2) Describe the structure and reproduction in *Coleochaete*, focusing on its role as an advanced form in Chlorophyta. (05)
- OR
- Que-2** 1) Describe the thallus organization and mode of reproduction in *Chlamydomonas*. (05)
 2) Discuss the salient features of Chlorophyta (Green Algae). (05)
- Que-3** 1) Explain the vegetative reproduction and schematic representation of life cycle of *Chara*. (05)
 2) Explain with diagram: Globule in *Chara*. (05)
- OR
- Que-3** 1) Discuss reproduction through aplanospores and akinetes in *Vaucheria*. (05)
 2) Explain with diagram thallus structure of *Vaucheria*. (05)
- Que-4** 1) Explain the role of algae in biotechnology and industry, providing specific examples. (05)
 2) Discuss with diagrams: post fertilization changes in *Polysiphonia*. (05)
- OR
- Que-4** 1) Explain thallus and cell structure in *Ectocarpus*. (05)
 2) Write notes on: Neutral sporangia in *Ectocarpus*. (05)
- Que-5** 1) Give classification proposed by Fritsch in tabular form on the basis of criteria like pigmentation, flagella and reserved food. (05)
 2) Explain reproduction in Globe algae. (05)
- OR
- Que-5** 1) Explain with diagram: Nucule in *Stonewort*. (05)
 2) Explain with diagram: Spematangia of *polysiphonia*. (05)
