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# **BOT-502**

## Biology and Diversity of Algae, Bryophyta and Pteridophyta

M.Sc. Botany(MSCBOT)

1st Year Examination, 2023 (June)

Time : 2 Hours]

#### [Max. Marks : 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

## SECTION–A (Long Answer Type Questions)

**Note :** Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

**1.** Discuss the various methods of vegetative and asexual reproduction in algae with the help of suitable diagrams.

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- **2.** Give an account on the evolution of stelar system in Pteridophytes.
- **3.** Write the general characteristics of Phaeophyta. Describe the life cycle of *Ectocarpus*.
- 4. Give a detailed description of thallus structure in Anthocerotales. Discuss how it differs from Marchantiales.
- **5.** Give a detailed account of classification of algae. Discuss the characteristic features of important classes with examples of the members.

#### SECTION-B

### (Short Answer Type Questions)

- **Note :** Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)
- **1.** Write a short note on Telome theory.
- **2.** Describe retrogressive evolution of gametophyte in Bryophytes.
- 3. Discuss in brief about the economic importance of algae.

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- 4. Give a brief account of fossil Pteridophytes.
- 5. Give a brief account of classification of Bryophytes.
- 6. Discuss secondary growth in Pteridophytes.
- 7. Differentiate the following :
  - (a) Leptosporangiate and Eusporangiate development.
  - (b) Parasitic and Epiphytic algae.
- 8. Write a brief note on general account of Xanthophyceae.