D1ABT2101   **(2 Pages)**   Name..............................
                                                               Reg.No..........................

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2021
(Regular/Improvement/Supplementary)

BOTANY
FBOT1C01-PHYCOLOGY, BRYOLOGY, PTERIDOLOGY AND GYMNOSPERMS

Time: 3 Hours   **Maximum Weightage: 30**

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Describe the ultrastructure of flagella in algae.

2. Write a note on the economic importance of algae.

3. Describe the structure of male and female gametophytes in Ephedrales.

4. Write an account of Andreales. Discuss its affinities.

5. Write an account on apogamy and apospory in pteridophytes. Discuss their evolutionary significance.

6. Describe the morphological and anatomical features of Gnetales. Discuss their affinities with angiosperms.

7. Write an account on the diversity of sorii and sporangia of Schizaeales.

                                                          (4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Write an account on pigments in algae. Discuss their phylogenetic significance.

9. Describe the features of pigments and thallus organisation in Rhodophyta.

10. Write a note on Fossil bryophytes. Describe the features of any one in detail.

11. Describe the feature of Sphenophyllales. Discuss their phylogenetic affinities.

12. Write an account on Polyploidy in pteridophytes. Cite an example of polyploidy series and their features.

13. Describe the features of Welwitschiales. Discuss their affinities.

14. Write an account on the Pentoxylales. Discuss their phylogenetic affinities.

                                                          (4 × 3 = 12 weightage)

                                                          (P.T.O.)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Write an account on the classification of Algae by Fritsch. Discuss its approaches on phylogeny.

16. Write an account on the trends in the phylogeny of Bryophytes. Discuss the salient features of major orders.

17. Discuss the diversity and evolutionary trends in the gametophytes of Pteridophytes.

18. Write a note on the classification of Gymnosperms. Discuss its affinities with pteridophytes and angiosperms.

(2 × 5 = 10 weightage)