

D 13099

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Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, NOVEMBER 2021**

(CBCSS)

Botany

BOT 1C 01—PHYCOLOGY, BRYOLOGY, PTERIDOLOGY AND GYMNOSPERMS

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

**General Instructions**

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

**Part A**

*Answer any **four** questions.  
Each question carries 2 weightage.*

1. Discuss the phylogenetic criteria for algal classification giving an example.
2. Comment on the biological importance of phytoplanktons.
3. Give an account of progressive sterilization of sporogenous tissue in bryophytes.
4. Write a general account of fossil bryophytes and their affinities.
5. Write notes on the cytology in Pteridophytes.
6. Discuss the evolutionary and phylogenetic significance of Psilopsida.
7. List the important characters of Pteridospermales.

(4 × 2 = 8 weightage)

**Turn over**

**Part B**

*Answer any **four** questions.  
Each question carries 3 weightage.*

8. Write an account of various modes of reproduction in Chlorophyta.
9. Describe the fine structure of a) Chloroplast and pyrenoid ; b) Flagella ; and c) Eye spot in algae.
10. Discuss the general account of anatomy, reproduction and phylogeny of Sphagnales.
11. Write a detailed account on the evolutionary trends in the gametophyte of pteridophytes.
12. Give an account on the economic importance of pteridophytes.
13. Discuss the distribution of gymnosperms in India.
14. Describe the morphology, reproduction and interrelationship of Gnetales.

(4 × 3 = 12 weightage)

**Part C**

*Answer any **two** questions.  
Each question carries 5 weightage.*

15. 'There exists a definite range and wide variety of thalli in algae'. Elaborate the statement.
16. Write a detailed account on the economic importance of bryophytes.
17. Bring out detailed account of the origin and evolution of sporangia in pteridophytes.
18. Write an essay on the reproductive structures in different orders of gymnosperms mentioned in the syllabus.

(2 × 5 = 10 weightage)