

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022
(Regular/Improvement/Supplementary)

BOTANY
GBOT3B03T: PHYCOLOGY, BRYOLOGY, PTERIDOLOGY & GYMNOSPERMS

Time: 2 Hours

Maximum Marks: 60

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 Marks)

1. Write an account of reproduction in *Nostoc*.
2. Describe sexual organs in *Chara*.
3. Describe the thallus structure in *Sargassum*.
4. Mention the reserve food materials in Chlorophyceae, Xanthophyceae, Phaeophyceae and Rhodophyceae.
5. Why the fossilization process is very difficult in bryophytes?
6. Differentiate the structure and function of elaters and nurse cells.
7. Describe different types of steles in pteridophytes.
8. Write four major characters of a moss.
9. Differentiate the dwarf shoot and long shoot in *Pinus*.
10. Differentiate apogamy and apospory
11. What are the angiosperm characters of gymnosperm?
12. What are coralloid roots and in which plant it is found?

SECTION B: Answer the following questions. Each carries *five* marks
(Ceiling 30 Marks)

13. Explain the internal thallus structure of *Riccia* with diagram.
14. Write an account of reproduction in *Polysiphonia*.
15. Describe the different vegetative reproduction in bryophytes.
16. Explain heterospory and seed habit
17. Explain the affinities of pteridophytes with other groups.
18. Describe the internal structure of the leaflet of *Cycas* with a neat labelled diagram
19. Explain the male cone and female cone of *Pinus*.

SECTION C: Answer any *one* question. Each carries *ten* marks

20. Describe the following structures of *Psilotum* with labelled diagrams:

(a) Sporophyte,	(b) Gametophyte	(c) Reproductive organs.
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21. Explain in detail the economic importance of algae.

(1 × 10 = 10 Marks)