

TM211050TR

Reg. No :

Name :

M. Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2021
[2021 Admissions Regular and 2020 Admissions Improvement & Supplementary]
SEMESTER I - CORE COURSE (BOTANY)
BO1C03TM20 - BRYOLOGY AND PTERIDOLOGY

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight **(8x1=8)**

1. Describe the traditional and modern systems of classification of bryophytes.
2. Explain the rhizome anatomy of Pogonatum.
3. Discuss the anatomical features of gametophyte of Reboulia.
4. Describe mixed sorus with the help of diagram.
5. Explain the features of gradate sorus. Illustrate your answer.
6. How do the sporangia dehisce in leptosprangiate ferns?
7. Give an account on the structure of Ophioglossum spike.
8. Describe the climbing structure in Lygodium.
9. Write short note on the economic importance of Marsilea.
10. How do pteridophytes conserve soil nutrients?

Part B

II. Answer any Six questions. Each question carries 2 weight **(6x2=12)**

11. Write a short account on horticultural importance of bryophytes.
12. Discuss the contributions of Indian bryologist S. C. Srivastava.
13. Compare and contrast the morphological and anatomical features of gametophytes of Targionia and Lunularia.
14. Write a note on the interrelationships and spore dispersal mechanisms of sphaerocarpaceae and marchantiales with reference to the types studied.
15. With the help of schematic diagram describe heterosporous life cycle in Pteridophytes .
16. Explain the leaf and root anatomy of Isoetes with neat labelled diagrams.
17. Write notes on Sphenophyllum.
18. Discuss the Azolla- Anabaena model in soil nutrient enrichment.

Part C

III. Answer any Two questions. Each question carries 5 weight **(2x5=10)**

19. Discuss the origin and evolution of bryophytes with help of suitable examples and diagrams.
20. Describe the origin of independent sporophyte in Pteridophytes with the help of Telome theory.
21. Describe in detail the sexual reproduction and development of gametophyte in Gleichenia, with the help of diagrams.
22. With suitable examples, describe the importance of pteridophytes in stabilizing disturbed habitats.