Reg. No ..... Name **19P2006**

MSc DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019

SEMESTER 2 : BOTANY

COURSE : **16P2BOTT05 : BRYOLOGY AND PTERIDOLOGY**

(For Regular – 2018 Admission and Supplementary – 2017/2016 Admissions)

Time : Three Hours Max. Marks: 75

Section A

Answer any 8 (2 marks each)

1. Mention the phylogenetic importance of *Rhynia*.
2. What are the xerophytic adaptations of Bryophytes?
3. Describe in brief the structure of sporophyte in *Cyathodium*.
4. Comment on leptoids, hydroids and stereids in *Pogonatum*.
5. Write an account on the internal structure of leaves of *Sphagnum*.
6. The thallus structure of *Marchantia* is complex when compared to that of *Riccia*. Give reasons.
7. Explain strobilus in *Selaginella*.
8. What are club mosses? Why they are called so?
9. Rhizophore of *Selaginella* is a root Substantiate.
10. Describe tassel in *Osmunda.*
11. Compare the trabecula of *Isoetes* and *Selaginella*.
12. The plant body of a Pteridophyte is sporophyte. Substantiate with reasons.

(2 x 8 = 16)

Section B

Answer any 7 (5 marks each)

13. Write a note on fossil history and evolution in Bryophytes.
14. Comment on the concept of Algal and Pteridophytic origin of Bryophytes.
15. Briefly describe the economic importance of Bryophytes.
16. Compare the sporophyte of *Sphagnum* and *Pogonatum*.
17. Compare the photosynthetic region and air pores in members of Marchantiales.
18. Explain alternation of generations in heterosporous Pteridophytes with an example.
19. What are the important features of Pteropsida?
20. Compare the sporangial development in true ferns.
21. With the help of suitable diagrams explain the evolution of stele in Pteridophytes.
22. Give an account on ecologically important ferns.

(5 x 7 = 35)

Section C

Answer any 2 (12 marks each)

23. Discuss the life cycle of any foliose Jungermaniales you have studied.

OR

24. Write an account of the habitat, distribution and external features of the gametophytes of Jungermaniales.

25. Describe the female gametophyte development in heterosporous Pteridophytes you have studied.

OR

26. Write an essay on barcoding of Pteridophytes. What are its applications?

(12 x 2 = 24)