20P2006

Reg. No ..... Name .....

M. Sc DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER 2 : BOTANY

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

(For Regular - 2019 Admission & Supplementary 2018/2017/2016 Admissions)

Time : Three Hours Max. Marks: 75

Section A

Answer any 8 (2 marks each)

1. What does the theory of "evolution of sporophyte in bryophytes by progressive reduction" upholds?
2. Comment on leptoids, hydroids and stereids in *Pogonatum*.
3. Write an account on the internal structure of leaves of *Sphagnum*.
4. Write short note on the sporogonium of Fossombronia.
5. Compare the capsule of Fissidens and Hyophila.
6. What is royal fern? Why they are called so?
7. Specify one major difference between microphyllous and Megaphyllous Pteridophytes.
8. What are club mosses? Why they are called so?
9. Rhizophore of *Selaginella* is a root Substantiate.
10. Explain acrostichoid soral condition.
11. What is leptosporangiate and eusporangiate development, give examples for each?
12. How solenostele is developed from protostele?

(2 x 8 = 16)

Section B

Answer any 7 (5 marks each)

13. Describe the evolution of sporophytes in bryophytes that you have studied.
14. Briefly describe the economic importance of Bryophytes.
15. Compare the sporophyte of Fossombronia and Marchantia.
16. Compare the photosynthetic region and air pores in members of Marchantiales.
17. Explain alternation of generations in heterosporous Pteridophytes with an example.
18. Write brief explanatory notes on the heterospory and origin of seed habit.
19. Describe the root anatomy of Isoetes with labeled diagram.
20. Elucidate the sporangial development in pteridophytes.
21. With the help of suitable diagrams explain the evolution of stele in Pteridophytes.
22. Give an account on habitat range in pteridophytes that you have learned.

(5 x 7 = 35)

Section C
Answer any 2 (12 marks each)

23. Compare and contrast the life history of Riccia with that of Marchantia bringing out those features which are of evolutionary significance.

OR

24. Give a comparative account of the sporophyte generation of bryophytes you have studied and point out the line of advancement.

25. Distinguish between homospory and heterospory. Give a comparative account on the structure of strobili of one homosporous and one heterosporous pteridophyte with the help of suitable diagrams.

OR

26. Explain the variation and advancement exhibited in sporophytic generation of pteridophytes.

(12 x 2 = 24)