Reg. No ..................... Name ............................. **16P2006**

## MSc DEGREE END SEMESTER EXAMINATION- APRIL 2018
### SEMESTER 2 : BOTANY
COURSE : **16P2BOTT05 ; BRYOLOGY AND PTERIDOLOGY**
*(For Regular - 2016 admission)*

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. Explain any two types of vegetative reproduction found in Bryophytes with examples.
4. What is the difference in the rhizoids of liverworts and mosses?
5. Write down four important characters of Jungermaniales.
6. Comment on spore dispersal in Marchantiales.
7. Explain heterospory with two examples.
8. What are club mosses? Why they are called so?
9. What is organ sui-generis?
10. Describe tassel in *Osmunda.*
11. Name a fern without roots. How do they absorb nutrients?
12. How solenostele is developed from protostele?

**(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 water relations exhibited by Bryophytes citing examples.
15. Compare the internal structure of the gametophytes of *Targionia* and *Lunularia.*
16. How do Jungermaniales resemble Marchantiales?
17. 'Peridophytes were the simplest vascular plants'. Discuss.
18. Give a brief account on Smith's classification.
19. Describe the strobilus and spore dispersal mechanisms in *Equisetum.*
20. Write brief explanatory notes on the heterospory and origin of seed habit.
21. With the help of suitable diagrams explain the evolution of stele in Pteridophytes.
22. Give an account on pteridophytes used as food source.

**(5 x 7 = 35)**

### Section C
### Answer any 2 (12 marks each)

23. Give a comparative and illustrated account of the gametophytes of *Sphagnum* and *Pogonatum.*

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evolutionary link to higher plants?

25. Give an account on the structure and development of gametophytse in Lycopsida.

26. Suggest the possible steps along which the evolution of sporophytic generation might have taken place among vascular cryptogams.

**(12 x 2 = 24)**