

Sr.No.7046

Exam. Code: 210002

Subject Code: 4822

M.Sc. Botany - 2nd Sem.

(2517)

Paper- BOTC-521: Bryophytes & Pteridophytes

Time allowed: 3 hrs.

Max. Marks: 50

Note: Attempt the compulsory question from section A, seven questions from section B and three questions from section C. Draw neatly labeled diagrams wherever required. Marks for each question are indicated in the paper.

Section A

Q1. Write very briefly about each of the following

- | | |
|--------------------------|----------------------|
| (i) Apical notch | (ii) Columella |
| (iii) Resurrection plant | (iv) Apospory |
| (v) Spore sac | (vi) Devonian period |
| (vii) Mixed sorus | (viii) Microphylls |

(8×1=8)

Section B

Attempt any seven of the following questions in not more than two pages each

- Q2. Discuss the habitat preferences of bryophytes with suitable examples.
 Q3. Illustrate the primitive characters of bryophytes.
 Q4. Discuss the unique features of the order Calobryales.
 Q5. Elucidate the shape and internal structure of sporogonium of *Anthoceros*.
 Q6. Draw the plant structure of the Lantern moss.
 Q7. Elucidate the antithetic theory of the origin of sporophyte.
 Q8. Discuss the geological distribution and morphology of Zosterophyllophytales.
 Q9. *Psilotum* is the simplest living vascular cryptogam. Justify the statement.
 Q10. Define apospory? Elucidate its occurrence and genetic effects.
 Q11. Describe the plant body of *Ophioglossum*. Why is it so named.

(7×3=21)

Section C

Attempt any three of the following questions in not more than four pages each

- Q12. Discuss the origin of bryophytes in light of fossil evidence.
 Q13. Elucidate the plant body and life cycle of *Sphagnum* with a special reference to structure of sporogonium and spore dispersal.
 Q14. Prothallus shows a trend of reduction in vascular cryptogams. Justify the statement.
 Q15. Elucidate the organization and evolutionary tendencies of sorus in ferns.
 Q16. What is heterospory? Discuss its occurrence in Pteridophytes and relation to seed habit.

(3×7=21)

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