

**2015**

**( October )**

**BOTANY**

**( Elective/Honours )**

**FIRST PAPER**

**( Algae, Bryophytes and Pteridophytes )**

**Marks : 56**

**Time : 3 hours**

*The figures in the margin indicate full marks  
for the questions*

Answer Question No. **1** which is compulsory and  
**four** questions, selecting **one** from each Section

**1. Write short notes on the following :      4×4=16**

- (a) Cell structure of diatoms
- (b) Globule of *Chara*
- (c) Archegoniophore of *Marchantia*
- (d) Strobilus of *Selaginella*



## SECTION—I

2. Describe, in detail, the range of vegetative structures in Chlorophyceae with diagrams. 10
3. Give an account of Fritsch's classification with its salient characters. 10

## SECTION—II

4. Describe, with diagrams, the life cycle of *Polysiphonia*. 10
5. Write, in detail, the evolution of sex in algae. 10

## SECTION—III

6. With the help of suitable diagrams, describe the evolution of sporophytes in bryophytes. 10
7. Give an illustrative account of the range of gametophytic structures in bryophytes. 10

## SECTION—IV

8. Discuss the evolution of stele in pteridophytes with suitable diagrams. 10
9. (a) With suitable diagrams, describe different types of gametophyte of *Lycopodium*. 6
- (b) Write a note on the economic importance of pteridophytes. 4

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