

**(DBOT 01)**

M.Sc. DEGREE EXAMINATION, MAY 2011.

First Year

Botany

Paper I — BIOLOGY AND DIVERSITY OF ALGAE,  
BRYOPHYTES, PTERIDOPHYTES AND  
GYMNOSPERMS

Time : Three hours

Maximum : 100 marks

SECTION A — (5 × 8 = 40 marks)

Answer any FIVE questions.

Each question carries 8 marks.

1. *Fritschiella*.
2. Flagellar structure in *Chlamydomonas*.
3. Sporophyte of *Sphagnum*.
4. Gemmae.
5. Plectostele.
6. Telome theory.

7. Megasporophyll of Cycas.
8. Anthophyte hypothesis.

SECTION B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

9. (a) Give an account of variation in sexual reproduction in algae.

Or

- (b) Write a note on economic importance of algae.

10. (a) Write an essay on different means for vegetative reproduction in bryophytes.

Or

- (b) Write an essay on the evolution of sporophyte in bryophytes.

11. (a) Write an essay heterospory and evolution of seed habit in pteridophytes.

Or

- (b) Describe the life cycle of an eusporangiate fern.

12. (a) Describe the process of reproduction in Gnetales.

Or

(b) Describe different fossil genera of Glossopteridaceae and compare it with other groups of pteridospermales.

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