

Exam. Code : 103201

Subject Code : 1292

B.A./B.Sc. 1<sup>st</sup> Semester

BOTANY

Paper—I (B)

(Diversity of Cryptogams)

Time Allowed—3 Hours] [Maximum Marks—35

**Note** :— Attempt *five* questions in all. Question No. 1 is compulsory. Each question carries 7 marks.

1. (i) What is the characteristic common to bryophytes and pteridophytes ?
- (ii) What is the difference between elaters of *Marchantia* and of *Equisetum* ?
- (iii) Define Heterospory.
- (iv) Define Actinostele.
- (v) How is columella of *Anthoceros* different from that of *Funaria* ?
- (vi) What is ligule ?
- (vii) What is gemma ? Explain its germination.
2. Draw neat labeled diagrams of the following :
  - (i) V.S. sporophyte of *Anthoceros*.
  - (ii) V.S. capsule of *Funaria*.

3. How does the thallus of *Anthoceros* differ from that of *Marchantia* morphologically as well as anatomically ?
4. Explain sexual reproduction in *Funaria*.
5. What type of alternation of generations is present in bryophytes ? Explain the life cycle of bryophytes.
6. Explain in detail the sporophyte of *Selaginella*.
7. Describe the structure and reproduction in *Rhynia*.
8. Give an illustrated account of morphological as well as anatomical features of sporophyte of *Marsilea*.
9. Explain the structure of fertile leaflet of *Pteris*, giving the dehiscence of sporangia also.