

2019

B.Sc. (Hons.)

2nd Semester Examination

BOTANY

Paper—C4T

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *five* questions of the following :

5×2=10

- (a) What is the difference between protonema and gametophore ?
- (b) Write the difference between elaters of *Equisetum* and *Marchantia*.
- (c) Write the generic name of spikemoss. Which pteridophyte is known as horse tail ?
- (d) What is trabeculae ?
- (e) Write the distribution of *Rhynia*.

- (f) What is ovuliferous scale ?
- (g) What is meant by monosporic female gametophyte ?
- (h) Write the differences between eusporangiate and heptosporangiate Gymnosperms.

2. Answer any *four* questions of the following :

4×5=20

- (a) With sketches compare the thalli of *Riccia* and *Marchantia*. 2½+2½
- (b) With sketches describe the sporophyte of *Anthoceros* and write its advanced features. 3+2
- (c) Write the fern character of *Cycas*. Write a short note on male cone of *Cycas*. 2+3
- (d) Why *Gnetum* is regarded as highly advanced among the gymnosperms? Write the names of four Indian species of *Pinus*. 3+2
- (e) Comment on the stelar system of *Selaginella*. 5
- (f) Describe the sex organs of *Pellia*. 5

3. Answer any *one* question of the following :

1×10=10

(a) Write short notes on the following : 5×2

(i) Apospory and Apogamy ;

(ii) Heterospory in Pteridophytes ;

(iii) Telome theory ;

(iv) Heteromorphic alternation of generation;

(v) Ecological importance of Bryophytes.

(b) What are the unifying features of Archegoniate?
Describe the evolutionary trends found in
Bryophytes. 2+8
