

B.Sc. (Honours) Examination, 2018
Semester-II (CBCS)
Botany
Paper: CC-4 (Core)
(Archegoniate)

Time – Three Hours

Full Marks: 40

Questions are of value as indicated in the margin.

Answer question **No. 1** and **any two** each from **Group –A**, **Group – B** and **Group-C**

1. Answer **any ten** of the following: 1x10=10
- a) Define anacrogyny.
 - b) What is retort cell?
 - c) Mention two terrestrial adaptive features in land plants.
 - d) Define ligule.
 - e) Why is the polyembryony of *Pinus* called cleavage polyembryony?
 - f) What is cataphyll?
 - g) What is paper coal?
 - h) What is amber?
 - i) Give the scientific name of 'Chir Pine'.
 - j) What is valecular canal?
 - k) Define fossil.
 - l) What is poikilohydry?
 - m) Mention scientific name of two gymnosperms as source of cedarwood oil.
 - n) What is pre ovule?
 - o) Cite a moss having metacranoid type of peristome teeth.

Group – A
(Bryophytes)

2. Distinguish between incubous and succubous arrangement of leaf. Describe briefly about the gametophyte of *Porella* with suitable diagram. 1½+3½=5
3. Describe the spore dispersal mechanism of *Sphagnum*. Write briefly about the economic importance of this genus. 2+3=5
4. Describe briefly the mature structure of sporophyte of *Marchantia*. Mention the ploidy level of elaters. 4+1=5

Group- B
(Pteridophytes)

5. Characterize Zosterophyllopsida. Mention the gametophytic structures of early land plants. Why *Lepidocarpon* is called pseudospermatophyte? 1+2+2=5
6. What is microphyll? With suitable illustration describe the gametophyte structure of *Pteris*. 1+4=5
7. Write short notes on the following: 2½x2=5
(a) Enation theory (b) Sporocarp of *Marsilea*

P.T.O.

(2)

Group-C
(Gymnosperms & Palaeobotany)

- (a) Distinguish between pycnoxylic and manoxylic wood. Describe the female cone of *Pinus* with suitable diagram. $1\frac{1}{2}+3\frac{1}{2}=5$
- (b) What is coralloid root? What do you mean by girdle trace? Name two Indian species of *Cycas*. $2+2+1=5$
- (c) Write short notes on the following: $2\frac{1}{2}\times 2=5$
- Fossil nomenclature
 - Williamsonia seawardiana*
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