

B. Sc. (Honours) Examination, 2019
Semester - IV
Botany
Course: BBC – 41 (Core)
(Pteridophytes, Gymnosperms & Palaeobotany)
(For Back Candidates)

Time: 3 Hours

Full Marks: 40

Questions are of value as indicated in the margin.

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

1. Define **any eight** of the following: 1×8=8
- a) Meristele
 - b) Ichno fossil
 - c) Epidogenesis
 - d) Girdle Trace
 - e) Leptosporangia
 - f) Stigmarian root
 - g) Vascular canal
 - h) Diagenesis
 - i) Brachyblasts
 - j) Hartig's net
 - k) Ovuliferous scale
 - l) Coal ball

Group – A
(Pteridophytes)

2. Mention two xerophytic and two hydrophytic characters of *Equisetum*. Describe briefly the internal structure of stem with suitable diagram of this genus. 2+6=8
3. Describe the gametophyte structure of *Pteris* with suitable illustration. What are the advance fern characters as exhibited by this genus? Name one Indian species of *Pteris*. 4+3+1=8
4. Write short notes on **any two** of the following: 4+4=8
- a. *Aglaophyton major*
 - b. Enation theory
 - c. Morphological nature of sporocarp of *Marsilea*

P.T.O.

(2)

Group - B
(Gymnosperms & Palaeobotany)

5. Distinguish between the long shoot and dwarf shoot of *Pinus*. Write down internal structure of *Pinus* stem with suitable diagram. 2+6=8
6. Give a detail account on the NPC classification of pollen. What is Aeropalynology? 7+1=8
7. Write short notes on **any two** of the following: 4+4=8
- a) Fossil nomenclature
 - b) C¹⁴ dating
 - c) *Lyginopteris oldhamia*
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