

B.Sc.-I (CBCS Pattern) Semester - I  
**BO-02 - Botany Paper-II Plant Diversity-II (Bryophyta, Pteridophyta,  
Gymnosperm and Paleobotany)**

P. Pages : 2

Time : Three Hours



**GUG/S/23/11543**

Max. Marks : 50

- Notes : 1. All questions are compulsory.  
2. Draw well labeled diagram whenever necessary.

**1.** Write notes on-

- a) Range of thallus organization in bryophytes. **5**
- b) Sporophyte of *Funaria*. **5**

**OR**

- c) Adaptations of bryophytes to land habit. **2½**
- d) Classification of bryophytes as per G.M. Smith (outline only). **2½**
- e) Sporophyte of *Riccia*. **2½**
- f) Economic importance of bryophytes. **2½**

**2.** Write notes on-

- a) General characters of pteridophytes. **5**
- b) Classification of pteridophytes according to G. M. Smith (1955) up to classes. **5**

**OR**

- c) *Rhynia*. **2½**
- d) T. S. of aerial shoot of *Equisetum* (Diagram only). **2½**
- e) HLS of *Marsilea* sporocarp (Diagram only). **2½**
- f) Types of protostete. **2½**

**3.** Write notes on-

- a) General characters of gymnosperms. **5**
- b) Classification of gymnosperms according to K. R. Sporne. **5**

**OR**

- c) *Cycas* coralloid roots. **2½**

- d) L. S. of *Cycas ovule* (Diagram only). 2½
- e) L. S. of *Pinus* female cone (Diagram only). 2½
- f) Economic importance of gymnosperms. 2½

4. Write notes on-

- a) Geological time scale. 5
- b) Theories of Fossilization. 5

**OR**

- c) Contributions of Indian Paleobotanist-Birbal Sahni. 2½
- d) Compression fossil. 2½
- e) External features of *Glossopteris*. 2½
- f) Male and Female reproductive structures of *Cycadeoidea*. 2½

5. Write **any ten** questions in one or two lines only. (Diagrams are not necessary). 10

- a) Amphibians of the plant kingdom.
- b) Tuberculate rhizoids.
- c) Fragmentation.
- d) Vascular cryptogams.
- e) Peltate disc.
- f) Solenostele.
- g) Circinate vernation.
- h) Sulphur shower.
- i) Bulbil.
- j) Paleobotany.
- k) Impression.
- l) Fructification.

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