

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

P. Pages : 2

Time : Three Hours



GUG/W/24/11543

Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labelled diagram wherever necessary.

1. a) Write in detail about male and female sex organs in Funaria. 5
b) Economic importance of Bryophyta. 5

OR

Write short notes on:

- c) Range of thallus organization in Bryophyta (morphology). 2½
d) Thallus structure in Riccia. 2½
e) Sexual reproduction in Riccia. 2½
f) Classification of Bryophyta (B.G.M Smith) up to order 2½
2. a) Economic importance of Pteridophytes. 5
b) Type of stele in Pteridophytes. 5

OR

Write short notes on:

- c) Systematic position and morphology of Rhynie. 2½
d) T. S. stem of Equisetum (Diagram only) 2½
e) Structure of sporocarp (HLS) in Marsilea. 2½
f) Structure of L. S. cone in Equisetum. 2½
3. a) Structure of microsporangium and microsporogenesis in Cycas. 5
b) Economic importance of Gymnosperm. 5

OR

Write short notes on:

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| c) | Classification of Gymnosperm (by K. R. Sporne) up to order | 2½ |
| d) | Types of roots in Cycas | 2½ |
| e) | L. S. female cone in Pinus (Diagram only) | 2½ |
| f) | Branches in Pinus | 2½ |
| 4. a) | The processes of Fossilization. | 5 |
| b) | Write in detail about Geological time scale. | 5 |

OR

Write short notes on:

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| c) | Contribution of Paleobotanists Birbal Sahni. | 2½ |
| d) | Importance and significance of Paleobotany. | 2½ |
| e) | Types of fossils. | 2½ |
| f) | Glossopteris | 2½ |
| 5. | Write any ten questions in one or two lines only (Diagrams are not necessary) | 1x10
=10 |
| a) | Rhizoids | |
| b) | Calyptra | |
| c) | Paraphyses | |
| d) | Vascular Cryptogams | |
| e) | Heterospory | |
| f) | Indusium | |
| g) | Exarch | |
| h) | Sori | |
| i) | Cappa | |
| j) | Proterozoic | |
| k) | Cycadeoidea | |
| l) | Coal balls | |
