

B.Sc.- I Year (NEW / CBCS Pattern) Sem-I
BO-02 - Botany Paper-II : Plant Diversity-II
(Bryophyta, Pteridophyta, Gymnosperm and Paleobotany)

P. Pages : 2

Time : Three Hours



GUG/W/22/11543

Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Write your answers with suitable examples and draw well labelled diagram wherever necessary.

- 1.** Write note on
- | | |
|---------------------------------------|----------|
| a) Economic importance of bryophytes. | 5 |
| b) Reproductive branches in Funaria. | 5 |
- OR**
- | | |
|---|------------|
| c) Adaptation to land habit. | 2 ½ |
| d) Vegetative reproduction in Riccia | 2 ½ |
| e) Sporophyte of Riccia (diagram only) | 2 ½ |
| f) External morphological features of Funaria | 2 ½ |
- 2.** Write note on
- | | |
|---|----------|
| a) General characters of pteridophytes. | 5 |
| b) Types of stele | 5 |
- OR**
- | | |
|--|------------|
| c) Prothallus of equisetum (diagram only) | 2 ½ |
| d) Rhynia | 2 ½ |
| e) Ecological importance of pteridophytes. | 2 ½ |
| f) Marsilea sporocarp HLS (diagram only) | 2 ½ |
- 3.** Write note on
- | | |
|---------------------------------------|----------|
| a) Female cone of Pinus. | 5 |
| b) Economic importance of Gymnosperms | 5 |
- OR**
- | | |
|--|------------|
| c) Morphological features of Pinus | 2 ½ |
| d) Cycas ovule V.S (diagram only) | 2 ½ |
| e) Morphological features of sporophyte in gymnosperm. | 2 ½ |
| f) Megasporophyll of Cycas | 2 ½ |

- 4.** Write note on
- | | | |
|----|---|----------|
| a) | Process of fossilization. Add a note on types of fossils. | 5 |
| b) | Geological time scale | 5 |
- OR**
- | | | |
|----|--------------------------------------|------------|
| c) | Cycadeoidea stem T.S. (diagram only) | 2 ½ |
| d) | Glossopteris | 2 ½ |
| e) | Importance of paleobotany | 2 ½ |
| f) | Birbal Sahni | 2 ½ |
- 5.** Write answers to any **ten** questions in one or two lines only (Diagrams are NOT necessary) **1x10 =10**
- | | | | |
|----|---------------------|----|----------------|
| a) | Peat/Bog moss | b) | Trabeculae |
| c) | Tuberculate rhizoid | d) | Carinal canal |
| e) | Peltate disc | f) | Indusium |
| g) | Spur | h) | Coralloid root |
| i) | Winged pollen | j) | Synangium |
| k) | Era | l) | Paleobotany |
