

Bachelor of Science (B.Sc.) Semester—II Examination  
 BOTANY (NEW)  
 Optional Paper—I  
 (Palaeobotany Pteridophytes, Gymnosperms and Soil Analysis)

Time : Three Hours]

[Maximum Marks : 50

1. Write on :—

- (a) Geological time scale  
 (b) Petrification and impression.

5×2

OR

Write short notes on :—

- ~~(a) Scutum~~  
~~(b) Importance of fossils~~  
~~(c) Cast-Mold~~  
~~(d) *Glossopteris*.~~

2.5×4

- ~~(a) Rhynis~~  
 (b) T.S. *Equisetum* stem through internode.

5×2

OR

Write short notes on :—

- ~~(a) General characteristics of Pteridophytes.~~  
 (d) Types of protosteles (Any two).  
 (e) T.S. Stem of *Selaginella* (Diagram only).  
 (f) Gametophyte of *Equisetum*.

2.5×4

3. Write on :—

- (a) V.S. Leaflet of *Cycas*.  
 (b) *Cycadeoidea* flower.

5×2

OR

Write short notes on :—

- ~~(a) T.S. Coralloid root (Diagram only)~~  
~~(b) T.S. *Pinus* needle (Diagram only)~~  
 (c) V.S. *Cycas* Ovule (Diagram only)  
~~(d) R.L.S. *Pinus* Stem (Diagram only)~~

2.5×4

4. Write on :—

- (a) Types of Soil.
- (b) Available nitrogen and its analysis.

5×2

OR

Write short notes on :—

- (c) Water holding capacity
- (d) Carbonates in soil
- (e) Soil texture
- (f) Bulk density.

2.5×4

5. Write in two or three lines only (any ten) :—

- ~~(a) Fossil~~
- ~~(b) Amber~~
- (c) Era
- (d) Sporangiphore
- (e) Trabecular
- (f) Seed habit
- ~~(g) Resin Canal~~
- ~~(h) Canada balsam~~
- (i) Canada balsam
- (j) Water rising capacity
- (k) Soil Porosity
- (l) Soil pH.

1×10