

2022

1st Semester Examination

BOTANY

Paper : BOT 104

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

BOT 104.1

(Pteridophytes)

1. Answer any *two* of the following : 2×2=4
 - (i) Name two early vascular plants. Mention their age of occurrence.
 - (ii) Distinguish between marginal and submarginal sori.
 - (iii) What is meant by apospory? Name an extant pteridophyte where apospory is found.
 - (iv) How does leptosporangiate pteridophytes differ from eusporangiate ones?

2. Write short notes on any *two* of the following : 4×2=8
 - (i) Ecological and economic importance of pteridophytes.

P.T.O.

(ii) Gametophytic structures of early vascular plant.

(iii) Male fructifications of *Lepidodendron*.

(iv) *Protolepidodendron* sp.

3. Answer any *one* of the following : $8 \times 1 = 8$

(i) Characterize Trimerophytopsida. How does the group differ from Zosterophylloids. Why Trimerophytopsida is regarded as a cardinal group regarding evolution of higher groups of pteridophytes. $3+2+3$

(ii) Who discovered the group progymnospermopsida? Write down the basis of this discovery. Diagrammatically describe the vegetative structures of *Archaeopteris*. $1+2+5$

BOT 104.2

(Gymnosperms)

4. Answer any *two* of the following : $2 \times 2 = 4$

(i) What are seed ferns? Why they are so named?

(ii) What is pre-pollen? Cite an example.

(iii) Name one parasitic gymnosperm. Mention its host plant.

(iv) Write two angiospermic characters of Gnetales.

5. Write short notes on any *two* of the following : $4 \times 2 = 8$

(i) Evolutionary trends among the different male fructifications of *Medullosa*;

- (ii) Medicinal importance of gymnosperms;
- (iii) Evolution of sporophylls in cycads; and
- (iv) Male and female fructifications of *Pentoxylon* plant.

6. Answer any **one** of the following : 8×1=8

- (i) Illustrate leaf and female fructifications of *Glossopteris* plant. 4+4
 - (ii) Give an account of classification of conifer families with characteristic features and distribution. Cite example to each. 4+4
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