

M.Sc. 1st Semester Examination, 2023

BOTANY

PAPER – BOT-104

Full Marks : 50

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

PAPER – BOT-104.1

(Pteridophytes)

[Marks : 20]

1. Answer any *two* questions :

2 × 2

- (i) Write the changed name of *Rhynia major*.
Who had made the change ?

(Turn Over)

- (ii) What are acrostichoid sori ? Where does it occur ?
- (iii) Name the latex producing pteridophyte. Write its distribution.
- (iv) What is ligule ? Name two heterosporous ligulate pteridophytes.

2. Answer any *two* of the following : 4 × 2

- (i) Write down the differences between Rhyniophytes and Zosterophyllophytes. What is resurrection plant ?
- (ii) Write a short note on *Pertica quadrifaria*.
- (iii) Write down the characteristic features of Aneurophytales.
- (iv) Write a brief note on *Leclercqia*.

3. Answer any *one* question : 8 × 1

(i) What is bipolar growth habit ? Write a brief note on reproductive structures of *Lepidodendroides*. 2 + 6

(ii) Characterize *Pteropsida*. Write a comparative account on the reproductive structures of *Schizaeaceae*, *Gleicheniaceae* and *Cyatheaceae*. 2 + 6

PAPER – BOT-104.2

(*Gymnosperms*)

[Marks : 20]

4. Answer any *two* questions : 2 × 2

(i) What is sperganum cortex ?

- (ii) Mention the leaf form and male fructification of *Pentoxylon* plant.
- (iii) Name one halophytic gymnosperm. Mention its family.
- (iv) Name the extinct and extant orders of gymnosperms as per Stewart & Rothwell (1993).

5. Answer any *two* of the following : 4 × 2

- (i) Write briefly about the stem genera of Calamopityaceae.
- (ii) What are different types of resins found in gymnosperms ? State their utilities.
- (iii) Write a brief note on the distribution of modern conifers.
- (iv) Write a note on *Caytonia* fruit.

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

(i) Characterize Pteridospermales. Describe the stem and female fructifications of *Lyginopteris* plant. $2 + 6$

(ii) Write a brief note on extinct Cycads. Illustrate evolutionary tendencies among the megasporophylls of Cycads. $4 + 4$

[Internal Assessment — 5+5 Marks]
