

Roll No.

Total Pages : 3

MDE/M-24

4714

GYMNOSPERMS AND ETHNOBOTANY

Paper–BOT–203

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer following short type questions : $8 \times 2 = 16$

- (a) Why is Gnetales split into three independent orders by some botanists?
- (b) Name any two form-genera of Lyginopteridaceae.
- (c) What is the main difference between *Glossopteris* and *Gangamopteris*?
- (d) What are coralloid roots?
- (e) What is cleavage polyembryony?
- (f) Name two gymnosperms with motile sperms?
- (g) What is Ethnoveterinary?
- (h) How is the dwarf shoot of *Ginkgo* different from that of *Pinus*?

UNIT–I

2. Write concise notes on the following :

- (a) Medullosaceae. 8
 - (b) Caytoniaceae. 8
3. Describe the different form-genera of the following families :
- (a) Lyginopteridaceae. 8
 - (b) Glossopteridaceae. 8

UNIT–II

4. Write a general account of the following orders :

- (a) Cordiales. 8
 - (b) Ginkgoales. 8
5. (a) Discuss the development of Female gametophyte in *Cycas*. 8
- (b) Discuss the alternation of Generation in *Cycas*. 8

UNIT–III

6. (a) Discuss the anatomy of *Pinus* root. 8
- (b) Write a concise note on Somatic embryogenesis for propagation of Gymnosperms. 8

7. (a) What are the economic importance of Gymnosperms? 8
- (b) Write a concise note on protoplast culture for propagation of Gymnosperms. 8

UNIT-IV

8. Write concise notes on the following :
- (a) Ethnomedicobotany. 8
- (b) Impact of modernization on Ethnobotany. 8
9. (a) Discuss the importance of Ethnozoology. 8
- (b) Discuss about some plants that are used as Emergency food by tribals in India. 8