

M.Sc. (Part—II) Semester—III (CBCS) Examination
BOTANY
(Biology and Diversity of Pteridophytes and Gymnosperms)
Paper—IX

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) All questions are compulsory and carry equal marks.

(2) Illustrate your answer with suitable example and diagrams.

1. Discuss in detail on Telome theory and add a note on merits of Telome theory. 16

OR

Write an account on process of Fossilization. 16

2. Write on :

- (a) Sporophytes of *Isoetes* 5
(b) Strobilus of *Selaginella* 5
(c) Sex organs of Filicales. 6

OR

- (d) Anatomy of *Equisetum stem* 5
(e) Prothallus of *Lycopodium* 5
(f) Structure of Synangium in *Psilotum*. 6

3. Discuss on :

- (g) General characters of coniferales 5
(h) Classification of Gymnosperm by D.D. Pant 5
(i) Evolutionary trends of megasporophylls. 6

OR

- (j) Contribution of Prof. Birbal Sahani 5
(k) Pollen germination in Gymnosperms 5
(l) Economic importance of Gymnosperms. 6

4. Give brief account of order Glossopteridales. 16

OR

Describe morphology, anatomy and evolutionary trends of order cordaitales. 16

5. Explain :

- (m) Male and Female cone of *Taxus* 5
(n) Peculiarities of *Ginkgo biloba* 5
(o) Wood of *Podocarpus* 6

OR

- (p) Stem of *Cupressus* 5
(q) Female flower of *Podocarpus* 5
(r) Sporophyte of *Cephalotaxus*. 6

