

BS/2110

10381/NH
B.Sc. (Botany) Part-II (SEMESTER-III) PAPER V:

DIVERSITY AND SYSTEMATICS OF GYMNOSPERMS

Time Allowed: 3 Hours

Marks: 40 marks

NOTE: Candidates are required to attempt two questions from each section A and B and the entire section C, which is compulsory.

SECTION: A

6*6=12

1. Give in detail of the Economic Importance of Indian Gymnosperms
2. Give the detail origin and evolution of seed habit.
3. Write short notes on (i) General characters of Pro-Gymnosperms (ii) morphological features of *Arachaeopteris*
4. Give in detail the Distribution of Gymnosperms

SECTION: B

6*6=12

5. Describe in detail the life cycle of *Cycas*
6. Morphology and anatomy of *Ephedra*
7. Reproduction and life cycle of *Gnetum*
8. Describe the male and female cones of *Pinus*

SECTION: C

8*2=16

9. Write short notes on
 - a. Medicinal importance of *Ephedra*
 - b. Coroloid Roots
 - c. Botanical names of Kauri pine, Chir pine and Chilchoza pine
 - d. Wood of *Gnetum* and its evolutionary significance
 - e. Differentiate between the Dwarf shoots and long shoots
 - f. *Aneurophyton*
 - g. Importance of Gymnosperms in timber industry
 - h. Cytology of Gymnosperms