

BS/2110

SHEET NO. 1  
PY

5219/NH

Total No. of Sheets used ~~2~~

Total No. of Questions ~~10~~

Subject ~~Botany~~ Semester III

Paper V

Title of the Paper Diversity and Systematics of Gymnosperms

Time allowed 3 hrs Maximum Marks 40

Minimum Pass Marks ~~8~~

Candidates are required to attempt two questions each from sections A and B of the question paper carrying 6 marks each and the entire section C consisting of 8 short answer type questions carrying 2 marks each.

#### Section A

- Q1. Discuss the evolution of stellar system in Gymnosperms.
- Q2. Discuss the classification of Gymnosperms as proposed by Pant (1957).
- Q3. What are Progymnosperms? Explain their features.

Q4. Discuss the origin of seed in Gymnosperms.

#### Section B

- Q5. Explain the characteristic features of Cycadales.
- Q6. Describe the life cycle of *Pinus* in details.
- Q7. Explain the affinities and evolutionary tendencies of Ephedrales.
- Q8. Describe the life cycle of *Gnetum*.

#### Section C

Q9. Explain briefly:

- i) Economic importance of Gymnosperms.
- ii) What is a fossil?
- iii) What do you understand by a leaf trace?
- iv) What is a seed scale complex?
- v) What do you understand by pycnoxylic wood?
- vi) What is polyembryony?
- vii) Explain the features of archegonia in Gymnosperms.
- viii) Explain the Telome concept.