

Devi Ahilya Vishwavidyalaya Indore (M.P.)

Department of Higher Education, Govt. of M.P.

Post Graduate Semester wise Syllabus

As recommended and Approved by Board of Studies D.A.V.V.

उच्च शिक्षा विभाग, म.प्र. शासन

स्नातकोत्तर कक्षाओं के लिये सेमेस्टर अनुसार पाठ्यक्रम

अध्ययन मण्डल देवी अहिल्या विश्वविद्यालय द्वारा अनुशंसित तथा अनुमोदित

Session (सत्र) 2019-20

M. Sc. Botany (Semester System)

First Semester

Course PG 103: Biology and Diversity of Pteridophytes and Gymnosperms 85+15

- UNIT I: **Pteridophyta:** General characters, classification, morphology, anatomy and life history of Pteridophyta. Evolution of stele, heterospory and origin of seed habit. Basic idea about Paleobotany. General account of Psilophytopsida.
- UNIT II: **Pteridophyta:** Morphology, anatomy, reproduction of Psilopsida, Lycopsidea, Sphenosida and Pteropsida.
- UNIT III: **Gymnosperms:** General characters, morphology, anatomy, reproduction of Gymnosperms. Classification (Pant and Raizada; Bierhort), economic importance and evolution of Gymnosperms.
- UNIT IV: **Gymnosperms:** General account of Pteridospermales, distribution, morphology, anatomy and reproduction of Cycadeoidales, Corditales, Cycadales and Ginkgoales.
- UNIT V: **Gymnosperms:** Distribution, morphology, anatomy, reproduction and inter relationship of Coniferales, Ephedrales, Welwitschiales and Gnetales.

Suggested Readings

1. Bhatnagar, S.P. and Moitra, A; 1996: Gymnosperms. New Age International Pvt. Ltd., New Delhi.
2. Singh H.; 1978: Embryology of Gymnosperms, Encyclopedia of Plant Anatomy X. Gebruder Borntraeger, Berlin.
3. Sporne K R; 1991: The Morphology of Gymnosperms; Hutchinson Univ. Library; London.
4. Foster A S. and Gifford E. M; Comparative morphology of vascular Plants; Vakils, Feffer, and Simons Private Ltd. Bombay.
5. Chamberlain; Gymnosperms -Structure and Evolution; CBS Publishers and Distributors Delhi.
6. Shukla A C. and Mishra S. P.; Essentials of Paleobotany; Vikas Publishing House Pvt. Ltd. Delhi-Bombay-Gangalore-Calcutta-Kanpur.
7. Campbell; 1939: The evolution of land plants; Stanford University.
8. Sporne, K.R. 1991. The Morphology of Pteridophytes.

06/3/19