

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 102: Biology and Diversity of Algae and Bryophytes

85+15

- UNIT I: **Algae:** General characters, diversified habitats (terrestrial, freshwater, marine); thallus organization, cell ultra-structure; criteria of classification (pigments, reserve food, flagella); economic importance (as food, feed, industry, algal blooms and bio-fertilizer); salient features of Protochlorophyta.
- UNIT II: **Algae:** Salient features, classification, reproduction and economic importance of Chlorophyta, Charophyta and Xanthophyta.
- UNIT III: **Algae:** Salient features, classification, reproduction and economic importance of Bacillariophyta, Phaeophyta and Rhodophyta.
- UNIT IV: **Bryophyta:** General characters, distribution, classification, vegetative propagation, sexual reproduction, alternation of generation and ecological importance of Bryophytes. General account of Sphaerocarpaceae, Marchantiales and Jungermanniales.
- UNIT V: **Bryophyta:** General account of Anthocerotales, Funariales, Sphagnales, Andraeales and Polytrichales.

Suggested Readings

1. Smith G. M., Cryptogamic Botany Vol II (2nd edition)-Tata McGraw-Hill Publishing Company Ltd. Bombay -New Delhi.
2. Kumar H. D. 1988., Introductory Phycology. Affiliated East-West Press Ltd. New Delhi.
3. Parihar, N.S. 1991., Bryophyta. Central Book Depot. Allahabad.
4. Brower, 1926., Primitive Land Plants- Cambridge At the University Press.
5. Kashyap, 1972., Liver worts of Western Himalayas and Punjab. Research co Publication.
6. Smith, G. M., Cryptogamic Botany Vol I (2nd edition), TataMc Graw -Hill Publishing Company, Bombay -New Delhi.
7. Puri P. 1980., Bryophyta -Morphology, Growth and Differentiation. Atmaram and Sons, Delhi.
8. Chopra and Kumar, 1988., Biology of Bryophyta; Wiley Eastern Ltd.
9. Ram Udar; 1970: An Introduction to Bryophyta; Shashidhar Malviya Prakashan.
10. Watson; 1968: Structure and life of Bryophyta; Hutchinson and Co. Ltd.

