

SARDAR PATEL UNIVERSITY
Programme: BSC (BOTANY)
Semester: IV
Syllabus with effect from: November 2012

Paper Code: US04CBOT01	Total Credit: 3
Title Of Paper: Higher Cryptogams, Pharmacognosy and Environmental Biology	

Unit	Description in detail	Weighting (%)
1	Bryophyta: Classification, morphology, anatomy and reproduction of Marchantia, Notothallus, Peltia and Pogonatum	
2	Pteridophyta : Distribution, Morphology, Structure and life history of Psilotum, Selaginella and Marsilea. Types and evolution of stele in Pteridophytes Gymnosperms - Distribution, morphology and reproduction of Pinus and Gnetum	
3	Basic Pharmacognosy Introduction to the parts of medicinal plants Classification of crude drugs Cultivation, collection and processing of herbal drugs Sources, active constituents and uses of Neem, Adhatoda, Ashwagandha and Plantago	
4	Environmental Biology Definition, scope and applications Biotic and Abiotic factors of ecosystem Energy flow in Ecosystem Ecological pyramids (Number, Biomass and Energy) Environmental adaptation in plants (Hydrophytes, Epiphytes, Xerophytes) Succession: Definition, causes, types, process, Hydrosere and Xerosere Environmental challenges in India Forest degradation and conservation Environmental monitoring and impact assessment	

Basic Text & Reference Books:

- College Botany Vol 2 : Gangulee and Kar
- Pharmacognosy : Kokate ,Purohit and Gokhle
- Ecology and environment : P.D.Sharma
- Text Book of Pteridophyta by B. R. Vasistha and N. S. Parihar
- Text book of Gymnosperm by P.C. Vasistha

