

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

Paper Code: US04CBOT03	Total Credit: 3
Title Of Paper: Botany Practical	

Unit	Description in detail	Weighting (%)
1	Study of the life history of Notothylas, Marchantia and Pellia through permanent slides	
2	Study of life history of Psilotum, Isoetes, Selaginella and Marsilea through permanent slides	
3	To dissect out the antheridia and archegonia of Pogonatum.	
4	Structure and reproduction of Pinus: (a) Free hand sections of stem and leaflet (b) Reproductive structures through Permanent slides and specimens	
5	Free hand sectioning of the stem and leaf of Taxus	
6	Free hand sectioning of the stem of Gnetum	
7	Free hand sectioning of the stem and leaf of Neem and Tulsi	
8	Free hand sectioning of the root of Rauwolfia and Adhatoda	
9	Histochemical localization of Tannin ,Gum ,Sugar, Mucilage ,Starch ,Lipids ,Cellulose and Proteins	
10	Study of types of stele through permanent slides	
11	To test the water holding capacity, pH ,carbonate and nitrate of soil samples	
12	Ecological adaptations in Hydrophytes, Xerophytes and Epiphytes	
13	Study of types of stomata through peeling and imprints	
14	Study of laticifers in Papaya, Euphorbia and Calotropis	
15	Study of Cyathial nectary using free hand sectioning	
16	Study of vascular cambium and phloem tissue in T.S. (free hand sectioning)	
17	Study of xylem by maceration technique/ and phloem	
18	Study of secondary tissues in the stem of Leptadenia and Boerhavia (free hand sectioning)	
19	Study of pollen grain germination in Vinca	
20	Study of various stages of Meiosis (Reduction division) in Cuscuta/Onion flower buds(squash preparation)	
21	To dissect out embryo from suitable materials	
22	To test the viability of seed	
23	Separation of amino acids using Paper Chromatography.	

Basic Text & Reference Books: -----

