SARDAR PATEL UNIVERSITY
Programme: BSC (BOTANY)
Semester: III
Syllabus with effect from: June 2012

Paper Code: US03EBOT01	**Total Credit: 2**
Title Of Paper: Phytodiversity and Plant Biotechnology	

Unit	Description in detail	Weighting (%)
1	**Phytodiversity (Algae)** Contribution of Indian scientists in Phycology - Iyengar, Desikachary, Bhardwaj Classification, Distribution, morphology and life cycle of: Scytonema, Gleotrichia, Ulothrix, Chara Economic importance of Algae	
2	**Phytodiversity (Fungi)** Contribution of Indian scientists in Mycology - B V Mundkar, R S Singh, Bilgrami Classification, Distribution, morphology and life cycle of: Albugo, Aspergillus, Peronospora, Pucccinia Mycorrhizae Economic importance of Fungi	
3	**Plant pathology** Principles of plant pathology, Classification of plant diseases, Symptoms of plant diseases. Plant diseases and their control - Late blight of potato, White rust of crucifers, Rust of wheat, and Tikka disease of ground nut.	
4	**Plant Biotechnology** Scope and importance of Biotechnology Application of Biotechnology in medicine, agriculture and industry Biotechnology in biodiversity conservation. Tissue culture - Definition, principle of totipotency of cell Laboratory and Aseptic conditions, equipments. General process of Tissue culture Protoplast culture	

Basic Text & Reference Books:

- College Botany Vol 2 : Gangulee and Kar
- College Botany Vol.1, 2, 3, B. P. Pandey.
- Text Book of Algae, B. R. Vasistha.
- Text Book of Fungi, B. R. Vasistha.
- College Botany Vol 3: Sushil Kumar Mukherjee, New Central Book Agency. Calcutta.
- Economic Botany O. P. Sharma.