

**SARDAR PATEL UNIVERSITY**  
**Programme: MSC (Botany)**  
**Semester: III**  
**Syllabus with effect from: June 2011**

<b>Paper Code:</b> PS03EBOT01	<b>Total Credits: 4</b>
<b>Title Of Paper:</b> Systematic Botany	

Unit	Description in detail	Weightage (%)
<b>1</b>	Taxonomy - Aims, principles and functions. Levels of taxonomy: Alpha taxonomy, omega taxonomy, numerical taxonomy, chemotaxonomy, structural, biochemical and molecular systematics.	
<b>2</b>	Species concept - Classical, modern, typological, non-dimensional, multidimensional. Plant Nomenclature: ICBN – principles, rules, recommendations, articles, typification, principle of priority, effective and valid publications, citation of authority, transference, rejection of names, synonyms and homonyms.	
<b>3</b>	Systems of classifications – principles, outlines, merits and demerits of important systems of Plant classifications; Floristic diversity of India, hot - spots, endemic and genetic diversity of plants, floristic works in Gujarat.	
<b>4</b>	Class: Magnoliopsida Salient features, morphological diversity inter-relationships of the following: Sub - class: Magnolidae – Magnoliaceae, Piperaceae. Sub - class: Hamamelidae – Casuarinaceae, Urticaceae. Sub - class: Caryophyllidae – Caryophyllaceae, Polygonaceae. Sub - class: Dilleniidae – Tiliaceae, Sapotaceae. Sub - class: Rosidae – Myrtaceae, Geraniaceae. Sub - class: Asteridae – Scrophulariaceae, Gentianaceae.	
<b>5</b>	Class: Liliopsida. Salient features, morphological diversity inter-relationships of the following Sub - class: Alismatidae – Hydrocharitaceae. Sub - class: Arecidae – Araceae. Sub - class: Commelinadae – Commelinaceae. Sub - class: Zingiberidae – Zingiberaceae. Sub - class: Lilidae – Orchidaceae.	



## Basic Text & Reference Books:

- Ahmedullah M. and M. P. Nair. 1987. Endemic Plants of Indian Region.
- Cronquist A. 1981. An Integrated System of Classification of Flowering Plants.
- Davis P. H. and V. M. Heywood. 1963. Principles of Angiosperm Taxonomy.
- Lawrence G. H. M. 1951. Taxonomy of Vascular Plants.
- Naik V. N. 1984. Taxonomy of Angiosperms.
- Nayar M. P. 1996. Hotspots of Endemic Plants of India, Nepal and Bhutan.
- Rao R. R. 1994. Biodiversity of India.
- Stace C. A. 1980. Plant Taxonomy and Biosystematics.
- Rendle A.R. A classification of flowering plants vol I & vol II Cambridge University press.
- Sokal, S.R and Sneath P.H, Principles of Numerical Taxonomy. N.H Fremen & Co.
- Sivarajan, V.V. Introduction to Principles of Plant Taxonomy. Oxford & IBH Pvt. Ltd.
- Stace Clive, A. Plant Taxonomy and Biosystematics. Edward Arnold.

