



**Title of the paper: Plant science (Allied-7)**

**Contact Hours per week: 4**

**Credits: 2**

**Contact Hours per semester: 60**

**Subject Code: UIMBA31**

**Objectives:**

- 1) To develop basic knowledge of plants.
- 2) To guide them towards natural medicines for the treatment of some diseases.
- 3) To improve the interest towards the environment & plant cultivation.

**Unit-I**

**(12 Hours)**

Basics of classification: Species, Genus, Family, Nomenclature-Binomial system. Systems of classification (upto order level) - Artificial (Linnaean system of classification) Natural (Bentham & Hooker system of classification) and Phylogenetic system of classification (Engler and Prantle).

**Unit-II**

**(12 Hours)**

General features and classification up to class level for algae (Fritch), fungi (Alexopoulos & Mims). Algae: structure and reproduction of *Chlamydomonas*, *Sargassum*. Fungi: structure and reproduction of *Yeast*, *Agaricus* – Economic importance of algae and fungi.

**Unit-III**

**(12 Hours)**

General characters of Bryophytes and Pteridophytes. Bryophytes: structure and reproduction of *Riccia*, *Funaria*. Pteridophytes: structure and reproduction of *Selaginella*.

**Unit-IV**

**(12 Hours)**

General characters of Gymnosperms. Gymnosperms: structure and reproduction of *Pinus* and *Cycas*. Economic importance of gymnosperms. Angiosperm: Description of a typical monocot (*Allium cepa*) and dicot (*Tribulus terrestris*) flowers.

**Unit-V**

**(12 Hours)**

General features of lichens, Type study-*Usnea*. Economic importance of lichens. Medicinal importance of plants (Tulsi, Neem, Turmeric, Ginger and Pepper).

**Text books**

**Unit-I**

- 1) Subhash Chandra datta. A hand book of systematic botany-Asia publishers.
- 2) Hirenra Chandra gangulee. College botany-New central book agency.

**Unit-II**

- 1) B.P.Pandey. The algae- S.Chand & company.
- 2) B.R.Vasishta. Algae - S.Chand & company.
- 3) B.P.Pandey. A text book of botany-Fungi- S.Chand & company.
- 4) S.Gupta. Text book of fungi-Oxford & IBH publishing pvt ltd.

**Unit-III**

- 1) V.Venkateswarlu – Bryophyta - Educational publishers.
- 2) Kogakusha-Cryptogamic botany-Vol-I. Bryophytes & Pteridophytes.
- 3) P.C.Vasishta-Vascular cryptogams: Pteridophytes- S.Chand & company



VIRUDHUNAGAR HINDU NADARS' SENTHIKUMARA NADAR COLLEGE

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#### **Unit-IV**

- 1) Hirenra Chandra gangulee. College botany- New central book agency.
- 2) P.C.Vasishta.Taxonomy of angiosperms - S.Chand & company
- 3) V.Venkateswarlu.Angiosperms- S.Chand & company.

#### **Unit-V**

- 1) V.Verma. A text book of economic botany- Emkay publications.
- 2) Aibert F.Hill. Economic botany - Tata Mc Graw Hill. Publishing company Ltd.

#### **References:**

1. A.C.Dutta: Botany for degree students, Oxford university press.
2. G.M.Smith: Cryptogamic botany, vol.I & II, Tata Mc Graw Hill.
3. Outlines of botany- Narayasamy et al - Viswanathan (Printers & Publishers ltd).
4. W.T.Tailor and R.J.Wehe: General biology, East west press pvt ltd.