

SYLLABUS

PAPER – B

Objective. This paper deals with the basic body plan and diversity in flowering plant forms. The course work of this paper covers vegetative and reproductive morphology of these plants and will familiarize the students with plants bearing the enclosed seeds.

Teaching Methodology. Teaching methodology includes series of lectures, making use of charts, transparencies, LCD, Models, slides, practical demonstrations, extension lectures from experts, field visits, discussions, quiz competitions etc. In practicals, students would be provided with fresh/preserved materials for their morphological and anatomical studies making use of microscopes and binoculars and hands-on tools/equipment etc.

UNIT-I

The basic body plan of a flowering plant.

Diversity in plant form in annuals, biennials and perennials.

Roots system : Tap root and adventitious root system and their various types : structural and anatomical modifications for storage, respiration and reproduction.

UNIT-II

Stem : Modifications of aerial and underground stem.

Leaf : Venation, phyllotaxy, simple and compound leaves, functions and modifications : internal structure (dicot and monocot leaves).

UNIT-III

Flower : As a modified shoot, functions; structure of anther and pistil; structure and development of male and female gametophytes.

UNIT-IV

Double fertilization and its significance; different types of ovules and embryo-sacs.