

PROGRAMME OUTCOMES

BOTANY

SEMESTER-I

Paper-A: PLANT DIVERSITY-I

The basic objective of this paper is to make students aware about the diversity in various life forms of plant kingdom. It gives an idea about the most simple group of plants. A systematic study of algae and fungi included in this group would familiarize students not only with structural differentiation but also provide an insight about the heterotrophic and autotrophic modes of nutrition in the plant kingdom. This paper in fact forms the basis of any advance study in Botany.

Paper-B: Cell Biology

This paper deals with the basic structural unit of life i.e. Cell & its organelles. It provides an insight into structural and cytological basis of functional differentiation in plants. Coupled with the study of prokaryotic and eukaryotic diversity of life forms included in Paper-A, the course material of this paper gives an idea about cellular, molecular and biochemical basis of such differentiation.

SEMESTER-II

Paper-A: Plant Diversity-II

The basic objective of this paper is to make the students aware about the diversity in various life forms of plant kingdom. It gives an idea about how different life forms have evolved from simpler to complex ones. A sequential study ranging from Bryophytes (the amphibians of plant kingdom) and then to Pteridophytes -the first vascular land plants, would enable students to have a broad prospective of evolutionary trends in plant kingdom.

Paper-B: Genetics

This paper deals with various aspects of hereditary trends observed in successive generations. It provides an insight into genetic basis of such evolutionary trends in plants. Coupled with the study of Variations in life forms included in Paper A, the course material of Paper B provides an idea about the important role that genetics plays in structural and functional differentiation of plants.

SEMESTER-III

Paper-A: Diversity of Seed Plants and Their Systematics- I

This paper deals with highly advance and evolved group of plants with naked seeds i.e. Gymnosperms. The course work of this paper gives a fair idea about the general features, economic importance and study of fossil as well as living gymnosperms.

Paper-B: Structure, Development and Reproduction in Flowering Plants-I

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.

SEMESTER-IV

Paper-A: Diversity of Seed Plants and Their Systematics- II

This paper deals with highly advance and evolved group of plants i.e. Angiosperms. The study of gradual transition from seedless plants to seed plants would make students familiar with origin of

structural and functional complexity in plant kingdom. The systematics part of this paper is in fact backbone of the study of Botany. Without having knowledge of taxonomy and species concept, no further research work can be pursued. The identification, nomenclature and classification of the concerned plants make the first step of any research work in Botany.

Paper-B: Structure, Development and Reproduction in Flowering Plants-II

This paper deals with structure development and reproduction in flowering plants – the most fascinating group of plants on earth. The course material of this paper deals with internal structure of various plant parts, their growth patterns and abnormalities in structural development. The vast range of variation found in this group of plants provides a platform to students for acquiring basic knowledge of flowering plants which makes a foundation of applied branches like horticulture, floriculture and arboriculture

SEMESTER –V

Paper-A: Plant Physiology-I

The basic aim of this paper is to familiarize the students with various concepts of functions and metabolism of plants. The course material of this paper would enable the students to correlate structural diversity of various plant forms with functional differentiation and its biological aspects including biological nitrogen fixation and mineral nutrition. In practicals, students will be familiarize with the various experiments pertaining to theory syllabus

Paper-B: Plant Ecology

The basic objective of this paper is to make students aware about the role of environment in causing structural and functional variation in plants. Since the present day problems of varied nature like pollution, Global Warming etc. are directly or indirectly related to ecology, it is more than desired to provide the students with knowledge of basic concepts of ecology.

SEMESTER –VI

Paper-A: Plant Physiology-II

The main objective of this paper is to familiarize the students with growth and metabolic processes of the plants. It also deals with the plant development, differentiation and their regulatory mechanism along with basic concepts in tissue culture.

Paper-B: Economic Botany

The basic objective of this paper is aimed to give an insight into plant wealth such as medicinal plants; crop plants; beverages; spices; condiments; sugar; fiber; pulp & oil yielding plants of commercial & economic importance. Both the aspects of this paper give a sound basis of ecology and economic botany so that students can venture into fields like Environmental Biology, Conservation Biology, Forestry, Agriculture, Horticulture and Crop production etc.