# **Course Outcomes Botany**

## PAPER:I: MICROBIAL DIVERSITY, ALGAE & FUNGI

- **CO1**. To know about the origin and evolution of life, formation of earth in the universe and existence of life on earth.
- CO2. To know about microbial diseases regarding to various micro organism in man, animals and plants.
- CO3. To gain knowledge on Algae for growing the populations with lot of Economic importance as food, fodder and feed etc.,
- CO4. To gain knowledge of fungi as pathogen causing many famines as in the past and to overcome and manage the fungal disease and protect the life forms on the earth.

### PAPER: II DIVERSITY OF ARCHEGONIATES AND ANATOMY

- **CO1**. To Know the structure of non-vascular plants.
- **CO2**. To Know the importance of mass plants.
- **CO3**. To know the structure of vascular plants.
- **CO4**. To know the importance plant anatomy

#### PAPER III: PLANT TAXONOMY AND EMBRYOLOGY

- CO1. To acquire knowledge to maintain botanical garden worldwide.To acquire the knowledge of classification of the plants and the comparison, origin and
- **CO2**. evolution of angiosperms which are the most important species in our daily life.
- CO3. To acquire the knowledge of the development of embryo and structure.To know the pollination and fertilization methods to develop with new genetically
- **CO4**. combinations leading to new varieties.

#### PAPER IV: PLANT PHYSIOLOGY AND METABOLISUM

- **CO1**. To Know the Process of various metabolic activities in plant body
- CO2. To Know the process of photosynthesis and respiration
- **CO3**. to know the importance of phyto hormones
- **CO4**. To know the process of stress physiology

## PAPER V: Cell Biology, Genetics and Plant Breeding

- CO1. Knowing about the cell theory and typical eukaryotic and prokaryotic cells.
- CO2. Identifying the differences between plant and animal cells through microscopic observations
- CO3. Understanding the basic concepts of genetic material and it's physical and biochemical natures along with the replication of the genetic material
- **CO4**. Understanding the basic concepts of inheritance of the characters from generation to generations and knowing the main basis for this.
- **CO5**. Studying the significance and basis of recombination in inheritance
- **CO6**. Getting the skills of constructing a genetic map from the frequencies of recombination and applying the concept of Linkage of genes.
- CO7. Knowing the basic principles and methods of Plant breeding and their applications in the improvement of crops

## PAPER VI: Plant Ecology & Phytogeography

- CO1. Understanding the basic principles of the ecosystem structure and functions in relation to its dynamics
- CO2. Observation of different types of ecosystem to appreciate the organization and operations responsible for the ecological balance
- CO3. Knowing the facts about the ecological factors like light, soil, temperature etc.
- **CO4**. Identifying the productivity of the ecosystem by understanding the concepts of energy production and its flow in the ecosystem.
- CO5. Understanding the centers of distribution of plants by getting knowledge of basics in phytogeography.
- CO6. Understanding the basics of Biodiversity, its importance, threats and methods of conservation.

# **PAPER VII: Organic Farming:**

- **CO1**. To appreciate the significance of organic farming
- **CO2**. To understand the requirements for organic farming
- CO3. To identify the nutritional requirements of crop production
- **CO4**. To produce the compost and green manures
- Ability for the: Identification of mineral deficiencies, Compost preparation techniques, Green manure cultivation methods, Application techniques of organic manures, To use them for the crop production

#### PAPER VIII A1: Plants and human welfare

- **CO1**. Understanding the relation between plants and human beings.
- CO2. Understanding Genetic diversity, Species diversity, Plant diversity at the ecosystem Agro biodiversity and cultivated plant taxa, wild taxa.
- CO3. Knowing about the Management of plant biodiversity: Organizations associated with biodiversity management methodology for execution.
- CO4. Appreciating the Environmental Impact Assessment (EIA), Geographical Information System
- **CO5**. Getting awareness on Conservation of genetic diversity, species diversity
- CO6. Appreciating the Importance of forestry, their utilization and commercial aspects

## **PAPER VIIIA2: Ethnobotany and Medicinal Botany**

- **CO1.** Understanding Ethnobotany as an interdisciplinary science and the relevance of ethnobotany in the present context.
- CO2. Appreciating the role of ethnobotany in modern medicine with special example.
- **CO3**. Understanding the role of ethnic groups in the conservation of plant genetic resources.
- CO4. Getting knowledge about Biopiracy, Intellectual Property Rights and protection of traditional Knowledge.
- **CO5**. Knowing about the History, Scope and Importance of Indigenous Medicinal Sciences like Ayurveda, Sidda and Yunani.
- CO6. Understanding the Conservation strategies of endangered and endemic medicinal plants

# PAPER VIII A3: Pharmacognosy and Phytochemistry

- **CO1**. Understand the importance and role of pharmacognosy in determining the purity of crude drugs.
- CO2. Know the methods of organoleptic and microscopic evaluation for the identification of crude drugs.
- **CO3**. Knowing the secondary metabolite biosynthetic pathways.
- **CO4**. Understand the methods for testing the secondary metabolites like alkaloids, phenols, flavonoids, tannins and sterols and applied the learnt knowledge in phytochemistry.
- CO5. Known the use of enzymes, proteins and aminoacids as drugs.