



**Government City College (A)**  
**Hyderabad-500002**  
**(Affiliated to Osmania University)**  
**Accredited with B++ Grade by NAAC**  
<https://gdcts.cgg.gov.in/charminar.edu>



**Department Of Botany**  
**Course Outcomes**

**Course Title: Paper-I Microbial Diversity and Lower plants**

On successful completion of the course, Students will be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
CO1	Students will be able to recall and describe the general characteristics of bacteria and their cell reproduction/recombination	Remembering
CO2	Students will understand on the concept of microbial nutrition.	Understanding
CO3	Applying the principles of Classification of viruses based on their characteristics and structures	Applying
CO4	Students will analyze the structural features and properties of human friendly viruses, bacteria, algae and their economic importance	Analyzing
CO5	Using acquired knowledge, students will design and propose experimental techniques and methods of appropriate analysis of Bryophytes, and Pteridophytes	Creating

**Course Title: Paper-II Gymnosperms, Taxonomy of Angiosperms and Ecology**

After completing the course students are expected to be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
CO1	Students will be able to recall the implications of biometrics, numerical taxonomy and cladistics.	Remembering
CO2	Students will Develop critical understanding on morphology, anatomy and reproduction of Gymnosperms	Understanding
CO3	Students will Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Gymnosperms	Applying
CO4	Students will be able to analyze the characteristics of different plant communities.	Analyzing
CO5	Students will Comprehend the basic concepts of plant ecology and taxonomy and botanical nomenclature	Creating

**Course Title: Paper-III Plant Anatomy and Embryology**

After completing the course students are expected to be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
CO1	Students will be able to recall basics of anatomy and embryology	Remembering
CO2	Students will Understand the fundamental concepts of plant anatomy and embryology	Understanding
CO3	Students will be able to Evaluate the structural organization of flower and the process of pollination and fertilization.	Applying
CO4	Students will be able to Analyze and recognize the different organs of plant and secondary growth.	Analyzing
CO5	Students will Examine the structure and functions of eco-system	Creating

**COURSE TITLE: Paper-IV Cell Biology, Genetics and Plant Physiology**

After completing the course students are expected to be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
CO1	Students will be able to Identify the concept that explains chemical composition and structure of cell wall and membrane	Remembering
CO2	Students will Have conceptual understanding of laws of inheritance, genetic basis of loci and alleles and their linkage. Understand Water relation of plants with respect to various physiological processes Classify aerobic and anaerobic respiration	Understanding
CO3	Students will be able to Compare the structure and function of cells & explain the development of cells. Assess dormancy and germination in plants.	Applying
CO4	Student will be able to Analyze the effect of mutations on gene functions and dosage. Examine the structure, function and replication of DNA	Analyzing
CO5	Students will learn how to comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders. Develop critical understanding of chemical basis of genes and their interactions Explain chemical properties and deficiency symptoms in plants Explain the significance of Photosynthesis and respiration.	Creating

**COURSE TITLE: Paper-V Biodiversity and Conservation**

After completing the course students are expected to be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
C01	Students will recollect the basic concepts of Ecosystem and biodiversity	Remembering
C02	Students will Develop understanding of the concept and scope of plant biodiversity	Understanding
C03	Students will be able to Apply skills to manage plant biodiversity	Applying
C04	Identify the causes and implications of loss of biodiversity.	Analyzing
C05	Utilize various strategies for the conservation of biodiversity. After the completion of this course, Conceptualize the role of plants in human welfare with special reference to India.	Creating

**COURSE TITLE: Paper-VI Plant Tissue Culture and Biotechnology**

After completing the course students are expected to be able to:

<b>COS</b>	<b>Course Outcomes</b>	<b>Blooms Taxonomy Classification</b>
C01	Students will be able to recollect the basics of plant characteristics such as totipotency and basics of biotechnology	Remembering
C02	Students will be able to Understand the core concepts and fundamentals of plant biotechnology and genetic engineering	Understanding
C03	Students can develop their competency on different types of plant tissue culture.	Applying
C04	Students will be able to analyze the enzymes and vectors for genetic manipulations.	Analyzing
C05	Students will be able to critically evaluate the major concerns and applications of transgenic technology and Examine gene cloning and evaluate different methods of gene transfer.	Creating