

# **DEPARTMENT OF BOTANY**

Govt. Pt. Madhav Rao Sapre College, Pendra Road, Dist.- Gaurella Pendra Marawhi (C.G.)

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## **PROGRAMME OUTCOMES**

### **B. Sc. (Subject – Botany)**

- PO1. Knowledge and understanding of:** 1. The range of plant diversity in terms of structure, function and environmental relationships. 2. The evaluation of plant diversity. 3. Plant classification and the flora of Chhattisgarh. 4. The role of plants in the functioning of the global ecosystem. 5. A selection of more specialized, optional topics. 6. Statistics as applied to biological data.
- PO2. Intellectual skills – able to:** 1. Think logically and organize tasks into a structured form. 2. Assimilate knowledge and ideas based on wide reading and through the internet. 3. Transfer of appropriate knowledge and methods from one topic to another within the subject. 4. Understand the evolving state of knowledge in a rapidly developing field. 5. Construct and test hypothesis. 6. Plan, conduct and write a report on an independent term project.
- PO3. Practical skills:** Students learn to carry out practical work, in the field and in the laboratory, with minimal risk. They gain introductory experience in applying each of the following skills and gain greater proficiency in a selection of them depending on their choice - 1. Interpreting plant morphology and anatomy. 2. Plant identification. 3. Vegetation analysis techniques. 4. A range of physiochemical analyses of plant materials in the context of plant physiology and biochemistry. 5. Analyze data using appropriate statistical methods.
- PO4. Transferable skills:** 1. Use of IT (use of internet and databases). 2. Communication of scientific ideas in writing and orally. 3. Ability to work as part of a team. 4. Ability to use library resources. 5. Time management. 6. Career planning.

- PO5. Scientific Knowledge:** Apply the knowledge of basic science, life sciences and fundamental process of plants to study and analyze any plant form.
- PO6. Problem analysis:** Identify the taxonomic position of plants and analyze endangered plants with substantiated conclusions using first principles and methods of nomenclature and classification in Botany.
- PO7. Uses of medicinal plants and their parts :** Apply the knowledge of Medicinal plants for health problems, disorders and disease of human beings and estimate the phytochemical content of plants which meet the specified needs to appropriate consideration for the public health
- PO8. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern instruments and Equipments for Biochemical estimation, Molecular Biology, Biotechnology, Plant Tissue culture experiments, cellular and physiological activities of plants with an understanding of the application and limitations.
- PO9. The Botanist and society:** Apply reasoning informed by the contextual knowledge to assess plant diversity, its importance for society, health, safety, legal and environmental issues and the consequent responsibilities relevant to the biodiversity conservation practice.
- PO10. Environment and sustainability:** Understand the impact of the plant diversity in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.
- PO11. Ethics:** Apply ethical principles and commit to environmental ethics and responsibilities and norms of the biodiversity conservation.
- PO12. Individual and team work:** Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.

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