

**D. B. G. GOVT. COLLEGE, PANIPAT**

**Session 2023-2024 (EVEN SEMESTER)**

**NAME OF PROFESSOR:** Dr. Pooja Rani

**DESIGNATION:** Assistant Professor in Botany

**SUBJECT/PAPER:** (Botany) Biochemistry and Plant Biotechnology and Economic Botany

**CLASS-** B.Sc. I (Medical)

<b>SR. NO.</b>	<b>MONTH</b>	<b>TOPICS TO BE COVERED</b>	<b>REMARKS IF ANY</b>
1.	1 <sup>ST</sup> jan -15 <sup>TH</sup> jan  16 jan – 31 Jan	<i>Botanical nomenclature and major rules of ICBN and ICN; Keys to identification of plants. General introduction and importance of herbaria and botanical gardens. Documentation of Floristic Diversity: Brief idea about floras, monographs and journals.</i>  <i>Brief idea of taxonomic evidences. 11 24 Types of inflorescence, flower and parts of flower.</i>	
2.	1 Feb to 15 Feb  16 Feb -29 Feb	<i>Artificial, natural and phylogenetic classifications. Bentham and Hooker system of classification (upto series), Angiosperm Phylogeny Group- general account.</i>  <i>Diagnostic features and economic importance of the following families: Ranunculaceae, Brassicaceae, Malvaceae, Euphorbiaceae, Rutaceae, Leguminosae, Apocynaceae, Lamiaceae, Solanaceae, Asteraceae, Poaceae and Orchidaceae</i>	Assignment 1+Test

*Pooja*



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**CLASS-** B.Sc. III (Medical)

SR. NO.	MONTH	TOPICS TO BE COVERED	REMARKS IF ANY
1.	1 <sup>st</sup> jan -15 <sup>th</sup> jan  16 jan – 31 Jan	<b>Basics of Enzymology:</b> Discovery and nomenclature; characteristics of enzymes; concept of holoenzyme, apoenzyme, coenzyme and co-factors; regulation of enzyme activity; mechanism of action. <b>Growth and development:</b> Definitions; phases of growth and development. <b>Plant hormones-</b> auxins, gibberellins, cytokinins, abscissic acid and ethylene, history of their discovery, mechanism of action photo-morphogenesis; phytochromes and their discovery, physiological role and mechanism of action.:	
2.	1 Feb to 15 Feb  16 Feb -29 Feb	<b>Lipid metabolism:</b> Structure and functions of lipids; fatty acid biosynthesis; B-oxidation; saturated and unsaturated fatty acids; storage and mobilization of fatty acids. <b>Nitrogen metabolism:</b> Biology of nitrogen fixation; importance of nitrate reductase and its regulation; ammonium assimilation.  {23-03-2024-TO 31 03-2024 (Holi vacations)}	Assignment 1+Test

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