

**MEHR CHAND MAHAJAN DAV College for Women,  
Sector – 36-A, Chandigarh  
Monthly Teaching Plans [FIFTH (Odd) Semester]  
Session: 2023-24**

**Name of the Teacher/s:** Dr. Purnima Bhandari

**Department:** Botany

**Class:** B.Sc. (Med.) THIRD year

**Subject:** Paper A (PLANT PHYSIOLOGY-I; Subject Code: 0454)

Month	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
July-August	27.7.2023	31.8.2023	Plant Water Relations: Importance of water to plant life; physical properties of water; imbibition, diffusion, Osmosis, Plasmolysis and Deplasmolysis, concept of osmotic potential, water potential and pressure potential Absorption of water, active and passive mechanism of water absorption; transport of water, mechanism and theories to explain ascent of sap; transpiration types. Mechanism of opening and closing of stomata.	Lecture Method – PPT/Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
September	01.09.2022	30.09.2022	Mechanism of transpiration, factors affecting transpiration, anti-transpirants; Mineral nutrition: Hydroponics and its importance; essential macro- and micro elements, essentiality criteria, deficiency symptoms and their role; Mineral uptake; mechanism of mineral uptake	Lecture Method – PPT/Notes – Assignments

			(active, passive absorption and modern concepts)	
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
October	01.10.2023	31.10.2023	Nitrogen Metabolism: Biological nitrogen fixation; Importance of nitrate reductase and its regulation; Ammonia .Lipid Metabolism: Structure and function of lipids; $\beta$ – oxidation; saturated and unsaturated fatty acids. Proteins: Classification, role and structure (primary, secondary and tertiary) of proteins.	Lecture Method – PPT/Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test</b>				
November	01.11.2023	22.11.2023	Basics of enzymology: Discovery and nomenclature; classification, structure, properties, factors affecting enzyme activity, mechanism of enzyme action. Classification, structure, properties, factors affecting enzyme activity, mechanism of enzyme action. REVISION TESTS	Lecture Method – PPT/Notes – Assignments
December			P.U. Semester Examination	

**MEHR CHAND MAHAJAN DAV College for Women,  
Sector – 36-A, Chandigarh  
Monthly Teaching Plans [SIXTH (Even) Semester]  
Session: 2022-23**

**Name of the Teacher/s:** Dr. Purnima Bhandari

**Department:** Botany

**Class:** B.Sc. (Med.) THIRD year

**Subject:** Paper A (PLANT PHYSIOLOGY-II; Subject Code: 0550)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
January	09.01.2024	31.01.2024	Photosynthesis: Significance, historical aspect; photosynthetic pigments; action spectra and enhancement effects; concept of two photosystems, cyclic and non-cyclic photophosphorylation. Calvin cycle; C4 pathway; CAM plants; photorespiration; factors affecting photosynthesis; transport of organic substances: Mechanism of phloem transport, source-sink relationship, factors affecting translocation.	Lecture Method; PPT Charts;Notes – Assignments
February	01.02.2024	28.02.2024	Respiration: ATP – The biological energy currency; aerobic and anaerobic respiration;Krebs cycle; electron transport mechanism (Chemi-osmotic theory); redox potential; oxidative phosphorylation; pentose phosphate	Lecture Method; PPT;Charts;Notes – Assignments

			pathway; respiratory quotient,	
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test</b>				
March	01.03.2024	30.03.2024	Growth and development: Definitions; phases of growth and development; kinetics of growth, factors affecting growth; Biotechnology: Functional definition; basic aspects of plant tissue culture, its applications and somatic hybridization. Plant movements; the concept of photoperiodism.	Lecture Method;PPT; Charts;Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
April	01.04.2024	22.04.2024	Physiology of flowering; florigen concept; roles of plant hormones– auxins, gibberellins, cytokinin's, abscisic acid and ethylene, history of their discovery. <b>Revision/doubt clearing SESSIONS</b>	Lecture Method –PPT; Charts;Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
May			P.U. Practical/ Theory Examination	

**MEHR CHAND MAHAJAN DAV College for Women,  
Sector – 36-A, Chandigarh**

**Monthly Teaching Plans [FIFTH (Odd) Semester]**

**Session: 2022-23**

**Name of the Teacher/s:** Dr. Jasleen Kaur

**Department:** Botany

**Class:** B.Sc. (Med.) 3rd year

**Subject:** Paper B (PLANT ECOLOGY; Subject Code: 0455)

Month	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
July-August	24.7.2023	31.8.2023	Definition, scope, relationship with other sciences, Plant Environment: Climatic Factor Edaphic, topographic and biotic factors affecting growth and distribution of Plants.	Lecture Method;PPT; Charts;Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
September	01.09.2023	30.09.2023	Ecosystem : Concept, structure; abiotic and biotic components; trophic levels, food chain, food web, Ecological pyramids, energy flow, biogeochemical cycles of carbon, nitrogen and water. Community Ecology: Community characteristics, frequency, density cover, life forms, biological Spectrum.	Lecture Method;PPT; Charts;Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
October	01.10.2023	31.10.2023	Ecological succession – Hydrosere and Xerosere ,	Lecture Method;PPT; Charts;Notes – Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test</b>				
November	01.11.2023	22.11.2023	Applied Ecology: a) Air,	Lecture Method;PPT;

			<p>water, soil pollution and their control.</p> <p>b) Conservation and management of natural resources. (renewable and non-renewable):</p> <p><b>Revision Classes</b></p>	<p>Charts;Notes – Assignments</p>
December			<b>PU Semester examinations</b>	

**MEHR CHAND MAHAJAN DAV College for Women,  
Sector – 36-A, Chandigarh  
Monthly Teaching Plans [SIXTH (Even) Semester]  
Session: 2022-23**

**Name of the Teacher/s:** Dr. Jasleen Kaur

**Department:** Botany

**Class:** B.Sc. (Med.) 3rd year

**Subject:** Paper B (ECONOMIC BOTANY; Subject Code: 0551)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans semester</b>				
January	09.01.2024	31.01.2024	Crop production: Area of cultivation, soil requirement, cultivation practices and high yielding varieties of: i) Cereals (Wheat, Rice and Maize) ii) Fibres (Cotton) iii) Vegetables (Potato)	Lecture Method – Notes/PPT/ Assignments;
February	01.02.2024	28.02.2024	Crop production: Area of cultivation, soil requirement, cultivation practices and high yielding varieties of: i) Fruits (Mango, Grapes, Lemon) ii) Sugar-yielding plants (Sugarcane) iii) Oil-yielding plants (Groundnut, Mustard) Elementary knowledge of the following plants (Botanical names, families, parts used and economic	Lecture Method – Notes/PPT/ Assignments

			importance) : i) Wheat, Maize, Rice, Moong, Gram (Food).	
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans Mid Semester Test</b>				
March	01.03.2024	31.03.2024	Botanical names, families, parts used and economic importance): Teak, Shisham, Deodar, Sal (Timbers). Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance): iii) Cotton, Jute, Coir, Flax (Fibres). Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance) : Fennel, Coriander, Turmeric, Ginger, Mint, Clove (Spices and Condiments).	Lecture Method – Notes/PPT/ Assignments
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
April	01.04.2024	22.04.2024	Elementary knowledge of the following plants (Botanical names, families, parts used and economic importance) : i) Bamboo, <i>Eucalyptus</i> (Pulp plants). ii) Liquorice, Belladonna, Aconite, Ashwagandha, Arjun, Poppy, Amla (Medicinal plants). iii) Tea and Coffee (Beverages). Forestry: Forest conservation, wood	Lecture Method – Notes/PPT/ Assignments

			seasoning and its preservation. <b>Revision/doubt clearing Sessions</b>	
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b>				
May			P.U. Practical/ Theory Examination	