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

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

**Session – (2020-21)**

**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)

**Sections:** A+ B

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| **S.No.** | **Date**  **(Monthly)** | | **Topics to be Covered** | **Academic Activity Undertaken\*** |
| **From** | **To** |
| August | 13.8.2020 | 29.8.2020 | 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 | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom |
| **Departmental Meeting was held on 31.8.2020 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| September | 03.09.2020 | 25.09.2020 | Absorption of water, active and passive mechanism of water absorption; transport of  water, mechanism and theories to explain ascent of sap; transpiration types | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom, Videos from Youtube |
| **Departmental Meeting was held on 30.9.2020 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| October | 01.10.2020 | 31.10.2020 | Mechanism of opening and  closing of stomata, 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; | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom, Videos from Youtube |
| **Departmental Meeting was held on 30.10.2020 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| November | 05.11.2020 | 28.11.2020 | Mineral uptake; mechanism of mineral uptake (active,  passive absorption and modern concepts); Nitrogen Metabolism: Biological nitrogen fixation; Lipid Metabolism: Structure and function of lipids; β – oxidation; saturated and unsaturated fatty acids. | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom, |
| **Departmental Meeting was held on 30.11.2020 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| December | 3.12.2020 | 24.12.2020 | Importance of nitrate reductase and its regulation;  ammonia assimilation. | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom; Online tests/ Assignments |
| **MST’s from 7 December – 12 December 2020; Departmental Meeting was held on 24.12.2020 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| January | 1.01.2021 | 30.01.2021 | Proteins: Classification, role and structure (primary, secondary and tertiary) of proteins.  Basics of enzymology: Discovery and nomenclature; classification, structure, properties, factors affecting  enzyme activity, mechanism of enzyme action. | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom, |
| February | 4.02.2021 | 13.02.2021 | Classification, structure, properties, factors affecting  enzyme activity, mechanism of enzyme action. REVSION TESTS  P.U. Semester Examination | ONLINE Lecture Method – PPT/Notes – Google meet, Google Classroom, Group Discussion; ONLINE Test/Assignments |

**\*Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.

Other Methods adopted by the teacher – Please write the specific teaching method

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

**Monthly Teaching Plans [SIXTH (Even) Semester]**

**Session (2020-21)**

**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)

**Sections:** A

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| **S.No.** | **Date**  **(Monthly)** | | **Topics to be Covered** | **Academic Activity Undertaken\*** |
| **From** | **To** |
| **Departmental Meeting shall be held on 15.03.2021 to discuss the various activities to be undertaken in this semester and Review the Monthly plan of the semester** | | | | |
| March | 18.03.2021 | 27.03.2021 | Photosynthesis: Significance, historical aspect; photosynthetic pigments; action spectra and enhancement  effects; concept of two photosystems, cyclic and non- cyclic photophosphorylation | Lecture Method; PPT; CHARTS |
| **Departmental Meeting shall be held on 31.01.2021 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| April | 01.04.2021 | 28.04.2021 | Calvin cycle; C4  pathway; CAM plants; photorespiration; factors affecting photosynthesis; transport of organic  substances: Mechanism of phloem transport, source-sink relationship, factors affecting translocation.Respiration: ATP – The biological energy currency; aerobic and anaerobic respiration; | Lecture Method;PPT |
| **Departmental Meeting shall be held on 30.04.2021 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| May | 01.05.2021 | 29.05.2021 | Krebs cycle;  electron transport mechanism (Chemi-osmotic theory); redox potential; oxidative phosphorylation;  pentose phosphate pathway; respiratory quotient, Growth and development: Definitions; phases of growth and development; kinetics of growth, factors  affecting growth | Lecture Method |
| **Departmental Meeting shall be held on 31.5.2021 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| June | 03.06.2021 | 26.06.2021 | Plant movements; the concept of photoperiodism, physiology of flowering; florigen  concept; roles of plant hormones– auxins, gibberellins, cytokinins, abscisic acid and ethylene, history of  their discovery. **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | Lecture Method |
| July | 1.07.2021 | 31.07.2021 | Biotechnology: Functional definition; basic aspects of plant tissue culture, its applications and somatic  hybridization. | Lecture Method |
| August | 1.08.2021 | 30.08.2021 | PU Semester Examination |  |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |

**\*Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.

Other Methods adopted by the teacher – Please write the specific teaching method

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

**Monthly Teaching Plans (Odd Semester)**

**Session–(2020-21)**

**Name of the Teacher/s:** Dr. Ruby Singh

**Department:** Botany

**Class:** B.Sc. (Med.) 3rdyear

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

**Sections:** A +B

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| **S.No.** | **Date**  **(Monthly)** | | **Topics to be Covered** | **Academic Activity Undertaken\*** |
| **From** | **To** |
| August | 13.8.2020 | 30.8.2020 | Definition, scope, relationship with other sciences | Online Lecture Method |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| September | 01.09.2020 | 30.09.2020 | Plant Environment: Climatic, edaphic, topographic and biotic factors affecting growth and distribution of  plants. | Online Lecture Method |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| October | 01.10.2020 | 31.10.2020 | Ecosystem : Concept, structure; abiotic and biotic components; trophic levels, food chain, food web,  ecological pyramids, energy flow, biogeochemical cycles of carbon, nitrogen and water. | Online Lecture Method, Charts ,PPT |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| November | 01.11.2020 | 30.11.2020 | Community Ecology: Community characteristics, frequency, density cover, life forms, biological  spectrum; | Online Lecture Method, Charts ,PPT |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| December | 1.12.2020 | 6.12.2020 | Applied Ecology : a) Air, water | Online Lecture Method, Charts ,PPT |
|  | 7.12.2020 | 14.12.2020 | MST |  |
|  | 15.12.2020 | 24.12.2020 | Applied Ecology : soil pollution and their control.  b) Conservation and management of natural resources. (renewable and non-renewable) | Online Lecture Method, Charts ,PPT |
| January | 2.1.2021 | 31.1.2021 | ecological succession – Hydrosere and Xerosere Online Test | Online Lecture Method, Charts ,PPT |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| February | 1.2.2021 | 10.2.2021 | Revision |  |
|  | 15.2.2021 | 28.2.2021 | P.U. Semester Examination |  |

**\*Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.

Other Methods adopted by the teacher – Please write the specific teaching method

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

**Monthly Teaching Plans (Even Semester)**

**Session–(2020-21)**

**Name of the Teacher/s:** Dr. Ruby Singh

**Department:** Botany

**Class:** B.Sc. (Med.) 3rdyear

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

**Sections:** A+ B

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| **S.No.** | **Date**  **(Monthly)** | | **Topics to be Covered** | **Academic Activity Undertaken\*** |
| **From** | **To** |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| April | 1.4.2021 | 30.04.2021 | 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, Field Study |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| May | 01.05.2021 | 31.05.2021 | 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  importance) :  i) Wheat, Maize, Rice, Moong, Gram (Food). | Lecture Method, Field Study |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| June | 01.06.2021 | 30.06.2021 | 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, Field Study |
|  |  |  | Tentative Mid Semester Examination |  |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | | | | |
| July | 01.07.2021 | 31.07.2021 | Elementary knowledge of the following plants (Botanical names, families, parts used and economic  importance) :  i) Bamboo, Eucalyptus (Pulp plants).  ii) Liquorice, Belladona, Aconite, Ashwagandha, Arjun, Poppy, Amla (Medicinal plants).  iii) Tea and Coffee (Beverages).  Forestry: Forest conservation, wood seasoning and its preservation.  \***Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans** | Lecture Method, Field study |
| August | 01.8.2021 | 30.08.2021 | Tentative PU Semester Examination |  |

**\*Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.

Other Methods adopted by the teacher – Please write the specific teaching method

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

**MonthlyTeaching Plans (Odd Semester)**

**Session–(2017-18)**

**Name of the Teacher/s:** Dr. Purnima Bhandari and Dr. Aditi Shreeya Bali

**Department:** Botany

**Class:** B.Sc. (Med.) 3rdyear

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

**Sections:** A and B