**Lesson Plan**

**Name Incharge Teacher: –** Dr. Divya Jain

**Subject : -** Botany Theory

**Lesson Plan :** - 17 Weeks (16thJuly- 5th November 2018)

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| **Week** | **Date** | **Class B.Sc.-I (Paper I & II)** | **Class B.Sc-II**  **(Paper II)** |
| 1 | 16.07.2018 | General characters of Algae |  |
| 17.07.2018 | General characters of Algae contd. |  |
| 18.07.2018 | Classification of Algae |  |
| 19.07.2018 | Economic Importance of Algae | Diversity in Plant forms |
| 20.07.2018 | Life-history of *Volvox* | Introduction to Tissues and Tissue Systems |
| 21.07.2018 | Important features and life-history of *Volvox* contd. | Meristematic Tissues : Types and Functions |
| 22.07.2018 | Sunday | |
| 2 | 23.07.2018 | Life-history of *Oedogonium* |  |
| 24.07.2018 | Life-history of *Oedogonium* |  |
| 25.07.2018 | Group discussion on taught topics |  |
| 26.07.2018 | Life-history of *Vaucheria* | Introduction to Simple and Complex Permanent Tissues |
| 27.07.2018 | Life-history of *Vaucheria*. | Parenchyma |
| 28.07.2018 | Life-history of *Ectocarpus.* | Collenchyma |
| 29.07.2018 | Sunday | |
| 3 | 30.07.2018 | Life-history of *Ectocarpus.* |  |
| 31.07.2018 | |  | | --- | | **Shaheed Udham Singh's Martyrdom Day** | | |
| 1.08.2018 | Life-history of *Polysiphonia*. |  |
| 2.08.2018 | Life-history of *Polysiphonia*. | Sclerenchyma |
| 3.08.2018 | Life-history of *Polysiphonia*. | Xylem |
| 4.08.2018 | Bacteria: General Characters | Phloem |
| 5.08.2018 | Sunday | |

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| 4 | 6.08.2018 | Bacteria: Nutrition & Reproduction |  | |
| 7.08.2018 | Cyanobacteria and *Nostoc* | | * **Hydrophily** * **Entomophily** |
|  | 8.08.2018 | General Characters of Fungi | |  |
| 9.08.2018 | General Characters of Fungi | | Cambium Structure and Function |
|  | 10.08.2018 | [Economic](http://www.officeholidays.com/countries/india/india_republic_day.php) importance of Fungi | | Shoot Apical Meristem |
| 11.08.2018 | Classification of Fungi | | Histological organization of dicot stem |
| 12.08.2018 | Sunday | | |
| 5 | 13.08.2018 | Assign topics for Assignment | |  |
| 14.08.2018 | Life history of *Phytophthora* | |  |
| 15.08.2018 | Independence Day   |  | | --- | | **Independence Day** |  |  | | --- | | **Independence Day** | | | |
| 16.08.2018 | Life history of *Phytophthora* | | Histological organization of monocot stem |
| 17.08.2018 | Life history of *Mucor* | | Secondary growth in dicot stem |
| 18.08.2018 | Life history of *Mucor* | | Assign topics for Assignment |
| 19.08.2018 | Sunday | | |
| 6 | 20.08.2018 | Life history of *Penicillium*. | |  |
| 21.08.2018 | Life history of *Penicillium.* | |  |
| 22.08.2018 | **Id-Ul-Zuha (Bakrid)**   |  | | --- | |  | | | |
| 23.08.2018 | Life history of *Agaricus* | | Sap wood and heart wood |
| 24.08.2018 | Life history of *Agaricus* | | Characteristics of growth rings |
| 25.08.2018 | Life history of *Puccinia* | | Periderm |
| 26.08.2018 | Sunday | |  |
| 7 | 27.08.2018 | Life history of *Puccinia* | |  |
| 28.08.2018 | Life history of *Puccinia* | | |

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|  | 29.08.2018 | Life history of *Colletotrichum* falcatum |  |
| 30.08.2018 | Red Rot of Sugarcane | Secondary growth in *Dracaena* |
| 31.08.2018 | General account of Viruses | Secondary growth in *Boerhaavia* |
| 1.09.2018 | TMV | Secondary growth in *Achyranthes* |
| 2.09.2018 | Sunday | |
| 8 | 3.09.2018 | Janamashatmi  **Janamashatmi** | |
| 4.09.2018 | Bacteriophages |  |
| 5.09.2018 | Class Discussion on Plant Pathology |  |
| 6.09.2018 | General account of Lichens | Problems of Unit I and Discussion |
| 7.09.2018 | Types of Lichens and thallus anatomy | Types of Leaves |
| 8.09.2018 | Reproduction in lichens | Phyllotaxy |
| 9.09..2018 | Sunday | |
| 9 | 10.09.2018 | Class Quiz |  |
| 11.09.2018 | Introduction to Cell Biology |  |
| 12.09.2018 | Lysosomes |  |
| 13..09.2018 | Peroxisomes | Epidermis |
| 14.09.2018 | Vacuoles | Epidermal Appendages |
| 15.09.2018 | Cell Wall Structure  and Function | Monocot Leaf |
| 16.09.2018 | Sunday |  |
| 10 | 17.09.2018 | Mitochondria Structure |  |
| 18.09.2018 | Mitochondria Function |  |
| 19.09.2018 | Plasma membrane |  |
| 20.09.2018 | Transport across Membrane | Dicot Leaf |

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|  | 21.09.2018 | Class discussion on the taught topics | Leaf abscission |
| 22.09.2018 | Chloroplast Structure | Cell inclusions in leaf |
| 23.09.2018 | Sunday | |
| 11 | 24.09.2018 | Chloroplast Function |  |
| 25.09.2018 | Nucleus Structure |  |
| 26.09.2018 | Nucleolous |  |
| 27.09.2018 | Nuclear pore complex | Stomatal apparatus |
| 28.09.2018 | Functions of nucleus and chromatin | Stomatal apparatus types |
|  | 29..09.2018 | Endoplasmic Reticulum Structure | Stomatal apparatus types |
| 30.09.2018 | Sunday | |
| 12 | 1.10.2018 | Endoplasmic Reticulum Functions |  |
| 2.10.2018 | **Mahatama Gandhi Jayanti** | **Mahatama Gandhi Jayanti** |
| 3.10.2018 | Golgi Apparatus Structure |  |
| 4.10.2018 | Golgi Apparatus Functions | Root Apical Mersitem |
| 5.10.2018 | Cell Cycle | Monocot Root |
| 6.10.2018 | Regulation of Cell Cycle | Dicot Root |
| 07.10.2018 | Sunday | |
| 13 | 08.10.2018 | Mitosis |  |
| 09.10.2018 | Role of Mitosis |  |
| 10.10.2018 | Maharaja Agrasen Jayanti  Maharaja Agrasen Jayanti | |
| 11.10.2018 | Sessional | Secondary growth in root |
| 12.10.2018 | Meiosis (Introduction) | Class Discussion |
| 13.10.2018 | Meiosis I | Storage Roots Types |
| 14.10.2018 | Sunday | |

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| 14 | 15.10.2018 | Meiosis II |  |
| 16.10.2018 | Synaptinemal Complex and role of meiosis |  |
| 17.10.2018 | Chromosomes |  |
| 18.10.2018 | Dushhera | |
| 19.10.2018 | Sex Chromosome | Sessional |
| 20.10.2018 | Sex Determination | Storage Roots Anatomy |
| 21.10.2018 | Sunday | |
| 15 | 22.10.2018 | Chromosomal abnormalities: Introduction |  |
| 23.10.2018 | Chromosomal abnormalities: Deletions |  |
| 24.10.2018 | Maharishi Valmiki's Birthday | |
| 25.10.2018 | Chromosomal abnormalities: Duplications | Types of Respiratory Roots |
| 26.10.2018 | Chromosomal abnormalities: Inversions | Anatomy of Respiratory Roots |
| 27.10.2018 | Chromosomal abnormalities:  Translocations | Class Quiz |
| 28.10.2018 | Sunday | |
| 16 | 29.10.2018 | Chromosomal abnormalities: Polyploidy |  |
| 30.10.2018 | Chromosomal abnormalities: AutoPolyploidy |  |
| 31.10.2018 | Chromosomal abnormalities:  AlloPolyploidy |  |
| 1.11.2018 | **Haryana Day.** |  |
| 2.11.2018 | Chromosomal abnormalities: Aneuploidy. | Epiphytic Roots |
| 3.11.2018 | Revision | Anatomy of Epiphytic Roots |
| 4.11.2018 | Sunday | |
| 17 | 5.11.2018 | Revision. | Revision |

**Lesson Plan**

**Name Incharge Teacher: –** Dr. Divya Jain

**Subject : -** Botany Practicals

**Lesson Plan :** - 17 Weeks (16thJuly- 5th November 2018)

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| **Week** | **Date** | **Class B.Sc.-I (Practicals)**  **Group A: Mon, Tue**  **Group B: Wed, Thurs**  **Group C : Fri, Sat** | **Class B.Sc-II (Practicals)**  **Group A: Tuesday** |
| 1 | 16.07.2018 | General introduction of lab and microscope |  |
| 17.07.2018 | Microscopic study of *Volvox.* | Introduction to Plant Taxonomy |
| 18.07.2018 | General introduction of lab and microscope |  |
| 19.07.2018 | Microscopic study of *Volvox.* |  |
| 20.07.2018 | General introduction of lab and microscope |  |
| 21.07.2018 | Microscopic study of *Volvox.* |  |
| 22.07.2018 | Sunday | |
| 2 | 23.07.2018 | Microscopic study of *Oedogonium macrandrous* |  |
| 24.07.2018 | Microscopic study of *Oedogonium nananndrous* | Floral Characteristics of *Hibiscus rosa sinensis* |
| 25.07.2018 | Microscopic study of *Oedogonium macrandrous* |  |
| 26.07.2018 | Microscopic study of *Oedogonium nananndrous* |  |
| 27.07.2018 | Microscopic study of *Oedogonium macrandrous* |  |
| 28.07.2018 | Microscopic study of *Oedogonium nananndrous* |  |
| 29.07.2018 | Sunday | |
| 3 | 30.07.2018 | Permanent Slides*.* |  |
| 31.07.2018 | |  | | --- | | Shaheed Udham Singh's Martyrdom Day | | |
| 1.08.2018 | Permanent Slides |  |
| 2.08.2018 | Microscopic study of *Vaucheria* |  |
| 3.08.2018 | Permanent Slides |  |
| 4.08.2018 | Microscopic study of *Vaucheria* |  |
| 5.08.2018 | Sunday | |

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| 4 | 6.08.2018 | Microscopic study of *Vaucheria* |  | |
| 7.08.2018 | Microscopic study of *Ectocarpus* | | Floral Characteristics of *Acacia arabica*   * **Entomophily** |
|  | 8.08.2018 | Microscopic study of *Ectocarpus* | |  |
| 9.08.2018 | Permanent Slides | |  |
|  | 10.08.2018 | Microscopic study of *Ectocarpus* | |  |
| 11.08.2018 | Permanent Slides | |  |
| 12.08.2018 | Sunday | | |
| 5 | 13.08.2018 | Microscopic study of *Polysiphonia Cystocarp* | |  |
| 14.08.2018 | Microscopic study of *Polysiphonia tetrasporophyte* | | Floral Characteristics of *Cassia fistula* |
| 15.08.2018 | Independence Day   |  | | --- | | **Independence Day** |  |  | | --- | | **Independence Day** | | | |
| 16.08.2018 | Microscopic study of *Polysiphonia Cystocarp* | |  |
| 17.08.2018 | Microscopic study of *Polysiphonia Cystocarp* | |  |
| 18.08.2018 | Microscopic study of *Polysiphonia tetrasporophyte* | |  |
| 19.08.2018 | Sunday | | |
| 6 | 20.08.2018 | Microscopic study of *Nostoc* | |  |
| 21.08.2018 | Permanent Slides*.* | | Floral Characteristics of *Ricinus communis* |
| 22.08.2018 | **Id-Ul-Zuha (Bakrid)**   |  | | --- | |  | | | |
| 23.08.2018 | Microscopic study of *Polysiphonia tetrasporophyte.* Permanent Slides | |  |
| 24.08.2018 | Microscopic study of *Nostoc* | |  |
| 25.08.2018 | Permanent Slides | |  |
| 26.08.2018 | Sunday | |  |
| 7 | 27.08.2018 | Introduction of Fungus | |  |
| 28.08.2018 | Microscopic study of *Phytophthora* | | Floral Characteristics of *Jatropha* |

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|  | 29.08.2018 | Introduction of Fungus |  |
| 30.08.2018 | Microscopic study of *Phytophthora* |  |
| 31.08.2018 | Introduction of Fungus |  |
| 1.09.2018 | Microscopic study of *Phytophthora* |  |
| 2.09.2018 | Sunday | |
| 8 | 3.09.2018 | Janamashatmi  **Janamashatmi** | |
| 4.09.2018 | Microscopic study of *Mucor* |  |
| 5.09.2018 | Microscopic study of *Mucor* | Floral Characteristics of *Euphorbia splendens* |
| 6.09.2018 | Permanent slides |  |
| 7.09.2018 | Microscopic study of *Mucor* |  |
| 8.09.2018 | Permanent slides |  |
| 9.09..2018 | Sunday | |
| 9 | 10.09.2018 | Microscopic study of *Penicillium* |  |
| 11.09.2018 | Permanent Slides | Section cutting and staining |
| 12.09.2018 | Microscopic study of *Penicillium* |  |
| 13..09.2018 | Permanent Slides |  |
| 14.09.2018 | Microscopic study of *Penicillium* |  |
| 15.09.2018 | Permanent Slides |  |
| 16.09.2018 | Sunday |  |
| 10 | 17.09.2018 | Microscopic study of *Agaricus* |  |
| 18.09.2018 | Permanent Slides | T.S. of Pinus Needle |
| 19.09.2018 | Microscopic study of *Agaricus* |  |
| 20.09.2018 | Permanent Slides |  |

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|  | 21.09.2018 | Microscopic study of *Agaricus* |  |
| 22.09.2018 | Permanent Slides |  |
| 23.09.2018 | Sunday | |
| 11 | 24.09.2018 | Microscopic study of *Puccina on wheat* |  |
| 25.09.2018 | Microscopic study of *Puccina on berberry* | T.S. of Cycas Leaflet |
| 26.09.2018 | Microscopic study of *Puccina on wheat* |  |
| 27.09.2018 | Microscopic study of *Puccina on berberry* |  |
| 28.09.2018 | Microscopic study of *Puccinia on wheat* |  |
|  | 29..09.2018 | Microscopic study of *Puccinia on berberry* |  |
| 30.09.2018 | Sunday | |
| 12 | 1.10.2018 | Permanent Slides |  |
| 2.10.2018 | Mahatama Gandhi Jayanti | Mahatama Gandhi Jayanti |
| 3.10.2018 | Permanent Slides |  |
| 4.10.2018 | Microscopic study of *Agaricus* |  |
| 5.10.2018 | Permanent Slides |  |
| 6.10.2018 | Microscopic study of *Agaricus* |  |
| 07.10.2018 | Sunday | |
| 13 | 08.10.2018 | Microscopic study of *Agaricus* |  |
| 09.10.2018 | Permanent Slides | T.S. of Dicot Stem |
| 10.10.2018 | Microscopic study of *Colletotrichum falcatum* |  |
| 11.10.2018 | Permanent Slides |  |
| 12.10.2018 | Microscopic study of *Colletotrichum falcatum* |  |
| 13.10.2018 | Permanent Slides |  |
| 14.10.2018 | Sunday | |

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| 14 | 15.10.2018 | Microscopic study of *Colletotrichum falcatum* |  |
| 16.10.2018 | Microscopic study of *lichens* | T.S. of Monocot Stem |
| 17.10.2018 | Microscopic study of *lichens* |  |
| 18.10.2018 | Dushhera | |
| 19.10.2018 | Microscopic study of *lichens* |  |
| 20.10.2018 | Permanent Slides |  |
| 21.10.2018 | Sunday | |
| 15 | 22.10.2018 | Mitosis: Onion root tips |  |
| 23.10.2018 | Mitosis: Onion root tips | T.S. of Dicot Root |
| 24.10.2018 | Maharishi Valmiki's Birthday | |
| 25.10.2018 | Mitosis: Onion root tips |  |
| 26.10.2018 | Mitosis: Onion root tips |  |
| 27.10.2018 | Mitosis: Onion root tips |  |
| 28.10.2018 | Sunday | |
| 16 | 29.10.2018 | Mitosis: Onion root tips |  |
| 30.10.2018 | Mitosis: Onion root tips | T.S. of Monocot Root |
| 31.10.2018 | Mitosis: Onion root tips |  |
| 1.11.2018 | **Haryana Day.** |  |
| 2.11.2018 | Mitosis: Onion root tips |  |
| 3.11.2018 | Mitosis: Onion root tips |  |
| 4.11.2018 | Sunday | |
| 17 | 5.11.2018 | Revision. |  |