

**MCM DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans (Odd Semester)**  
**Session–(2019-20)**

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

**Department:** Botany

**Class:** B.Sc. (Med.) 1st year

**Subject:** Paper A Plant Diversity-I

**Sections:** A and B

| S.No.   | Date<br>(Monthly) |            | Topics to be Covered  | Academic Activity<br>Undertaken* |
|---|-------------------|------------|---|----------------------------------|
|   | From              | To         |   |                                  |
| July  | 15.07.2019        | 31.07.2019 | Bacteria: Salient features, types and cell structure.<br>Algae: General Characters; systematic position,  | Lecture Method, PPT              |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| August  | 01.08.2019        | 31.08.2019 | structure and life history of<br>Oscillatoria<br>(Cyanophyceae)<br>Volvox, Cladophora<br>(Chlorophyceae);<br>Vaucheria<br>(Xanthophyceae).            | Lecture Method, PPT              |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| September   | 02.09.2019        | 30.9.2019  | Systematic position, structure and life history of<br>Dictyota (Phaeophyceae);<br>Batrachospermum<br>(Rhodophyceae) and economic importance of algae. | Lecture Method, PPT              |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| October   | 01.10.2019        | 09.10.2019 | Fungi: General characters; systematic position, structure and life history of<br>Albugo (White rust of crucifers: Albugo candida)                     | Lecture Method, PPT              |
|   | 10.10.2019        | 17.10.2019 | Mid Semester Examination  |                                  |

|   |            |            |   |                     |
|---|------------|------------|---|---------------------|
|   | 18.10.2019 | 31.10.2019 | General characters;<br>systematic position,<br>structure and life history of<br>Rhizopus and<br>Saccharomyces.  | Lecture Method, PPT |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |   |                     |
| November  | 1.11.2019  | 30.11.2019 | Systematic position,<br>structure and life history of<br>Agaricus, Ustilago (Loose<br>smut of wheat: Ustilago<br>tritici), Puccinia (Black<br>rust of wheat: Puccinia<br>graminis tritici),<br>Colletotrichum (Red rot of<br>sugarcane:<br>Colletotrichum falcatum);<br>general account of Lichens<br>and their economic<br>importance. | Lecture Method, PPT |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |   |                     |
| December  | 2.12.2019  | 24.12.2019 | Tentative P.U. Semester<br>Examination  |                     |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |   |                     |

\*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

**MCM DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans (Even Semester)**  
**Session–(2019-20)**

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

**Department:** Botany

**Class:** B.Sc. (Med.) 1st year

**Subject:** Paper A (Plant Diversity-II)

**Sections:** A and B

| S.No.   | Date<br>(Monthly) |            | Topics to be Covered  | Academic Activity<br>Undertaken* |
|---|-------------------|------------|---|----------------------------------|
|   | From              | To         |   |                                  |
| January   | 09-01-.2020       | 31.01.2020 | Bryophyta: General characters; systematic position, structure, reproduction and life cycle of Marchantia and Riccia (Hepaticopsida) excluding developmental stages.                   | Lecture Method, PPT              |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| February  | 01.02.2020        | 29.02.2020 | Systematic position, structure, reproduction and life cycle of Anthoceros (Anthocerotopsida) and Funaria (Bryopsida) excluding developmental stages.                                  | Lecture Method, PPT              |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| March   | 02.3.2020         | 30.3.2020  | Pteridophyta: General characters; systematic position, structure, reproduction and life cycle of Rhynia (Psilophytopsida) and Selaginella (Lycopsida) excluding developmental stages. | Lecture Method, PPT              |

|   |            |            |  |                     |
|---|------------|------------|--|---------------------|
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                     |
| April   | 01.04.2020 | 19.04.2020 | Systematic position, structure, reproduction and life cycle of Equisetum (Sphenopsida) and Pteris (Pteropsida) excluding developmental stages. | Lecture Method, PPT |
|   | 20.4.2020  | 27.4.2020  | Tentative PU Practical Examination   |                     |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                     |
| May   | 03.5.2020  | 30.5.2020  | Tentative PU Semester Examination  |                     |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                     |

\*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

**MCM DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans (Odd Semester)**  
**Session–(2019-20)**

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

**Department:** Botany

**Class:** B.Sc. (Med.) 1<sup>st</sup> year

**Subject:** Paper B (Cell Biology)

**Sections:** A and B

| S.No.   | Date<br>(Monthly) |            | Topics to be Covered   | Academic Activity<br>Undertaken* |
|---|-------------------|------------|--|----------------------------------|
|   | From              | To         |  |                                  |
| July  | 15.07.2019        | 31.07.2019 | Ultrastructure and functions of a typical plant cell and its organelles:   | Lecture Method                   |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |  |                                  |
| August  | 01.08.2019        | 31.08.2019 | Nucleus, Mitochondrion, Plastids, Ribosome, Endoplasmic reticulum,   | Lecture Method                   |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |  |                                  |
| September   | 02.09.2019        | 30.9.2019  | Ultrastructure and functions of a typical plant cell and its organelles:<br>Golgi apparatus, Lysosomes; Structure and functions of cell wall and plasma membrane: fluid mosaic model only. | Lecture Method                   |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |  |                                  |
| October   | 01.10.2019        | 09.10.2019 | Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes  | Lecture Method                   |
|   | 10.10.2019        | 17.10.2019 | Mid Semester Examination   |                                  |

|   |            |            |  |                |
|---|------------|------------|--|----------------|
|   | 18.10.2019 | 31.10.2019 | Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance. Cell divisions: Mitosis and Meiosis in plants and their significance, Synaptonemal complex, DNA: Structure (Watson and Crick model),                                     | Lecture Method |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |
| November  | 1.11.2019  | 30.11.2019 | Nucleosome, types of DNA and role of DNA, Replication of DNA. Structure and concept of gene: One gene-one enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types; Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). | Lecture Method |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |
| December  | 2.12.2019  | 24.12.2019 | P.U. Semester Examination  |                |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |

\*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

**MCM DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans (Even Semester)**  
**Session–(2019-20)**

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

**Department:** Botany

**Class:** B.Sc. (Med.) 1st year

**Subject:** Paper B (Genetics)

**Sections:** A and B

| S.No.   | Date<br>(Monthly) |            | Topics to be Covered  | Academic Activity<br>Undertaken* |
|---|-------------------|------------|---|----------------------------------|
|   | From              | To         |   |                                  |
| January   | 09.01.2020        | 31.01.2020 | Mendelism : Mendel's experiments and results, Mendel's Laws of Dominance, Segregation and Independent assortment; Linkage: complete and incomplete linkage, linkage groups, linkage maps, importance of linkage, cytological interpretation of Mendelism.             | Lecture Method                   |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |                   |            |   |                                  |
| February  | 01.02.2020        | 29.02.2020 | Non-allelic Gene Interactions: Dominant and recessive epistasis, supplementary genes, complementary genes, quantitative or polygenic inheritance, duplicate genes. Allelic gene interactions: Incomplete dominance, codominance, multiple alleles, pleiotropic genes. | Lecture Method                   |

| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |
|---|------------|------------|--|----------------|
| March   | 02.3.2020  | 30.3.2020  | Chromosome theory of heredity, parallelism between chromosome and Mendelian factors, Sex linked inheritance; Characteristics and examples (Haemophilia, colour-blindness); Cytoplasmic or extranuclear inheritance: mitochondrial and plastid DNA; plastid inheritance in <i>Mirabilis</i> , mitochondrial inheritance in Yeast.         | Lecture Method |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |
| April   | 01.04.2020 | 19.04.2020 | Genetic variations: Continuous and Discontinuous; Mutations: characteristics, types, importance, factors affecting mutations; Mutagens: Physical and chemical, mechanism of gene mutations; DNA damage and repair: Types of damage (Single base change and structural distortion), types of repair system in prokaryotes and eukaryotes. | Lecture Method |
|   | 20.4.2020  | 27.4.2020  | PU Practical Examination   |                |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |
| May   | 03.5.2020  | 30.5.2020  | PU Semester Examination  |                |
| <b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans</b> |            |            |  |                |

\*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