

Lesson plan for the Even semester (April, 2021 to June, 2021)

Name of the Teacher - Dr. Ashima Gakhar

Subject- Botany

Paper- I (Biochemistry & Plant Biotechnology)

Class- B.Sc. III (Medical and Biotech.)

April, 2021 3 rd Week 19 -20 April	-Discovery and Nomenclature -Characteristics of enzymes -Concept of holoenzyme, apoenzyme, coenzyme and co-factors
21 April, 2021 25 April,2021	Ram Navami Sunday (MahavirJayanti)
4 th Week 26 -28 April	-Regulation of enzyme activity and their mechanism of action
02 May, 2021	Sunday
May, 2021 1 st Week 03 May-05 May	-Definitions of Growth and development and their different phase
09 May, 2021	Sunday
2 nd Week 10 May-12 May	-Plant Hormones- Auxins, Gibberellins
14 May, 2021 16 May, 2021	Id-UI-Fitr Sunday
3 rd Week 17 May-19 May	-Plant Hormones- Abscissic acid , Ethylene
23 May, 2021	Sunday
4 th Week 24 May-26 May	-Photomorphogenesis -Phytochromes and their discovery -Physiological role and their mechanism of action
30 May, 2021	Sunday
June, 2021 1 st Week 31 May-02 June	-Lipid metabolism: structure and functions of lipids -Biosynthesis of fatty acids - β -oxidation of fatty acids
06 June, 2021	Sunday

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June, 2021 2 nd Week 07 June-09 June	-Saturated & Unsaturated Fatty acids -Storage & mobilization of fatty acids -Nitrogen Metabolism: Biology of nitrogen Fixation -Importance of nitrate reductase & its regulation
13 June, 2021	Sunday
3 rd Week 14 June-16 June	-Ammonium assimilation Tools & RDT -Cloning-Genomic & cDNA library cloning vectors -Transposable elements -Sessional
13 Dec, 2020	Sunday
3 rd Week 21 June-23 June	- Plant tissue culture -Cellular totipotency -Differentiation & morphogenesis -vectors for gene delivery
27 June, 2021	Sunday
4 th Week 28 June-30 June	-Revision of Syllabus and Class Tests
04 July, 2021	Sunday

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Name of the Teacher-Dr. Ashima Gakhar

Subject-Botany

Paper- II (Economic Botany)

Class- B.Sc. III (Medical and Biotech.)

April, 2021 2 nd Week 16-17, April	-Introduction to Syllabus and Scheme of Exam -Food Plants Cereals: Rice (Origin, Distribution, Botanical description, idea of cultivation and uses)
18 April, 2021 21 April, 2021	Sunday Ram Navami
3 rd Week 19 April, 22-24 April	Cereal- Wheat & Maize (Origin, Distribution, Botanical description, idea of cultivation and uses)
25 April,2021	Sunday (MahavirJayanti)
4 th Week 26 April, 29 April - 01 May	Pulses- Gram, Arhar, Pea
02 May, 2021	Sunday
May, 2021 1 st Week 03 May, 06-08 May	Vegetables- Potato, Tomato, & Onion
09 May, 2021	Sunday
2 nd Week 10 May, 13&15 May	Fibers- Cotton, Jute & Flax
14 May, 2021 16 May, 2021	Id-UI-Fitr Sunday
3 rd Week 17 May, 20-22 May	Oils- Groundnut
23 May, 2021	Sunday

4 th Week 24 May, 27-29 May	Oils- Mustard & Coconut Spices – Coriander, Ferula
30 May, 2021	Sunday
June, 2021 1 st Week 31 May, 03-05 June	Spices- Ginger, Turmeric, cloves
06 June, 2021	Sunday

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Paper- II (Economic Botany)

Class- B.Sc. III (Medical and Biotech.)

June, 2021 2 nd Week 07 June, 10-12 June	Medicinal Plants- <i>Cinchona</i> , <i>Rauwolfia</i> , <i>Atropa</i> , <i>Opium</i> , <i>Cannabis</i> and Neem
13 June, 2021	Sunday
3 rd Week 14 June, 17-19 June	Beverages- Tea & Coffee Sessionals
20 June, 2021	Sunday
4 th Week 21 June, 24-26 June	Rubber- <i>Hevea</i> Sugar- Sugarcane
27 June, 2021	Sunday
July, 2021 1 st Week 28 June, 01-03 July	Revision of Syllabus and Class Tests
04 July, 2021	Sunday

Lesson plan for the even semester (April, 2021 to June, 2021)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- I (Biology and Diversity of Seed Plants-II)

Class- B.Sc. II (Medical and Biotech.)

April, 2021 3 rd Week 19 -20 April	Taxonomy and Systematics Fundamental components of taxonomy (Identification, Classification, Description, Nomenclature and Phylogeny)
21 April, 2021 25 April,2021	Ram Navami Sunday (Mahavir Jayanti)
4 th Week 26 -28 April	Keys to identification of plants (Herbaria, Botanical Gardens, Indexes, Floras, manuals, Monographs, Journals, Glossaries) Role of Chemotaxonomy and Cytotaxonomy Taximetrics in relation to Taxonomy
02 May, 2021	Sunday
May, 2021 1 st Week 03 May-05 May	Binomial Nomenclature; Principles and Rules Principle of priority, Type Concept, Taxonomic Ranks Flower and Types of Inflorescence
09 May, 2021	Sunday
2 nd Week 10 May-12 May	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Malvaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Liliaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Solanaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Rutaceae
14 May, 2021 16 May, 2021	Id-UI-Fitr Sunday
3 rd Week 17 May-19 May	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Brassicaceae. Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Leguminosae (Pappilionaceae) Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Leguminosae (Caesalpinaceae and Mimosaceae)

23 May, 2021	Sunday
4 th Week 24 May-26 May	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Asteraceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Ranunculaceae
30 May, 2021	Sunday
June, 2021 1 st Week 31 May-02 June	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Euphorbiaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Apiaceae
06 June, 2021	Sunday

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Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- I (Biology and Diversity of Seed Plants-II)

Class- B.Sc. II (Medical and Biotech.)

June, 2021 2 nd Week 07 June-09 June	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Lamiaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Poaceae
13 June, 2021	Sunday
3 rd Week 14 June-16 June	Salient features of the systems of classification of angiosperms proposed by Bentham & Hooker Sessional Exams
13 Dec, 2020	Sunday
3 rd Week 21 June-23 June	Salient features of the systems of classification of angiosperms proposed by Engler & Prantl Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Asclepiadaceae Practice of Floral Diagrams

27 June, 2021	Sunday
4 th Week 28 June-30 June	Revision of Syllabus and Class Tests
04 July, 2021	Sunday

Lesson plan for the even semester (April, 2021 to June, 2021)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- II (Plant Embryology)

Class- B.Sc. II (Medical and Biotech.)

April, 2021 2 nd Week 16-17, April	Flower-a modified shoot; functions of various floral parts. Types of inflorescence Flower Variations
18 April, 2021 21 April, 2021	Sunday Ram Navami
3 rd Week 19 April, 22-24 April	Microsporangium, its wall and dehiscence mechanism Microsporogenesis Pollen grains and its structure (pollen wall)
25 April,2021	Sunday (Mahavir Jayanti)
4 th Week 26 April, 29 April - 01 May	Male Gametophyte: Development Microgametogenesis Structure of Megasporangium (ovule)
02 May, 2021	Sunday
May, 2021 1 st Week 03 May, 06-08 May	Ovule Types Megasporogenesis and Megagametogenesis Embryo sac structure and types
09 May, 2021	Sunday
2 nd Week 10 May, 13&15 May	Pollen-pistil interaction and Self incompatibility Pollination (types and agencies)
14 May, 2021	Id-Ul-Fitr

16 May, 2021	Sunday
3 rd Week 17 May, 20-22 May	Double fertilization. Endosperm types and its biological importance Embryogenesis in Dicot
23 May, 2021	Sunday
4 th Week 24 May, 27-29 May	Embryogenesis in Monocot Polyembryony Development of Fruits and Significance
30 May, 2021	Sunday
June, 2021 1 st Week 31 May, 03-05 June	General Structure of Fruit Types of fruits: Simple Dry Types of fruits: Simple Fleshy
06 June, 2021	Sunday

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Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- II (Plant Embryology)

Class- B.Sc. II (Medical and Biotech.)

June, 2021 2 nd Week 07 June, 10-12 June	Types of fruits: Aggregate Types of fruits: Multiple Dispersal of fruits and seeds
13 June, 2021	Sunday
3 rd Week 14 June, 17-19 June	Seed: Development and Parts Structure of Dicot and Monocot Seed
20 June, 2021	Sunday
4 th Week 21 June, 24-26 June	Seed Viability and Seed Dormancy Causes of seed dormancy and methods of breaking seed dormancy Seed Dormancy: Physiological Enigma, its importance
27 June, 2021	Sunday

July, 2021 1st Week 28 June, 01-03 July	Revision of Syllabus and Class Tests
04 July, 2021	Sunday

Lesson plan for the even semester (April,2021 to June, 2021)

Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper- I (Diversity of Archegoniates)

Class- B.Sc. I (Medical and Biotech)

April, 2021 2nd Week 16-17, April	Bryophytes: General characters of Bryophytes
18 April, 2021 21 April, 2021	Sunday Ram Navami
3rd Week 22-24 April	Classification of Bryophytes
25 April,2021	Sunday (Mahavir Jayanti)
4th Week 29 April -01 May	<i>Marchantia</i> -Occurrence and vegetative structure and Reproduction in <i>Marchantia</i>
02 May, 2021	Sunday
May, 2021 1stWeek 06-08 May	<i>Anthoceros</i> - Occurrence and vegetative structure and Reproduction in <i>Anthoceros</i>
09 May, 2021	Sunday
2ndWeek 13&15 May	<i>Funaria</i> - Occurrence and vegetative structure and Reproduction in <i>Funaria</i>
14 May, 2021 16 May, 2021	Id-UI-Fitr Sunday
3rdWeek 20-22 May	Pteridophytes: General characters and Classification of Pteridophytes

23 May, 2021	Sunday
4 th Week 27-29 May	<i>Rhynia</i> -Occurrence, vegetative structure and <i>Selaginella</i> -Occurrence and vegetative structure
30 May, 2021	Sunday
June, 2021 1 st Week 03-05 June	Reproduction in <i>Selaginella</i> , Heterospory and Seed Habit <i>Equisetum</i> - Occurrence and vegetative structure
06 June, 2021	Sunday

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Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper- I (Diversity of Archegoniates)

Class- B.Sc. I (Medical and Biotech)

June, 2021 2 nd Week 10-12 June	Reproduction in <i>Equisetum</i> and <i>Pteris</i> - Occurrence and vegetative structure
13 June, 2021	Sunday
3 rd Week 17-19 June	Sessional Exam
20 June, 2021	Sunday
4 th Week 24-26 June	Reproduction in <i>Pteris</i> Economic importance of Pteridophytes and Bryophytes
27 June, 2021	Sunday
July, 2021 1 st Week 01-03 July	Revision of Syllabus and Class Tests
04 July, 2021	Sunday

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Name of the Teacher-Dr. Seema Sharma

Subject-Botany

Paper- II (Genetics)

Class- B.Sc. I (Medical and Biotech.)

April, 2021 3 rd Week 19 -20 April 23 April	<u>Genetic Material:</u> DNA - the genetic material, structure and Watson & Crick Model
21 April, 2021 25 April,2021	Ram Navami Sunday (Mahavir Jayanti)
4 th Week 26 -28 April 30 April	Replication of DNA, DNA-Protein interaction and
02 May, 2021	Sunday
May, 2021 1 st Week 03 May-05 May 7 May	Genetic Code, Satellite and Repetitive DNA.
09 May, 2021	Sunday
2 nd Week 10 May-12 May	<u>Genetic Inheritance:</u> Mendelism: General Introduction and Laws of Genetic Inheritance and Linkage
14 May, 2021 16 May, 2021	Id-UI-Fitr Sunday
3 rd Week 17 May-19 May 21 May	Gene Interaction : Allelic and non-allelic interactions
23 May, 2021	Sunday
4 th Week 24 May-26 May 28 May	Mutations- spontaneous and induced DNA- damage and repair
30 May, 2021	Sunday
June, 2021 1 st Week 31 May-02 June 4 June	<u>Gene Expression:</u> Modern concept of gene RNA and Ribosomes
06 June, 2021	Sunday

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Name of the Teacher-Dr. Seema Sharma

Subject-Botany

Paper- II (Genetics)

Class- B.Sc. I (Medical and Biotech.)

June, 2021 2 nd Week 07 June-09 June 11 June	Protein Synthesis and Regulation of Gene Expression
13 June, 2021	Sunday
3 rd Week 14 June-16 June 18 June	Structure of Proteins and Extra Nuclear Inheritance
13 Dec, 2020	Sunday
3 rd Week 21 June-23 June	Sessional Exam
27 June, 2021	Sunday
4 th Week 28 June-30 June	Revision of Syllabus and Class Tests
04 July, 2021	Sunday