

Lesson plan for the even semester (Jan, 2020 to March, 2020)

Name of the Teacher - Dr. Ashima Gakhar

Subject-Botany

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

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

1 nd Week 1 Jan, 2020	Taxonomy and Systematics
2 Jan, 2020	GURU GOVIND SINGH JAYANTI
5 Jan, 2020	SUNDAY
2 nd week 6 – 8 Jan, 2020	Fundamental components of taxonomy (Identification, Classification, Description)
12 Jan, 2020	SUNDAY
3 rd Week 13-15 Jan, 2020	Fundamental components of taxonomy (Nomenclature and Phylogeny) Role of Chemotaxonomy and Cytotaxonomy Taximetrics in relation to Taxonomy
19 Jan,2020	SUNDAY
4 th week 20-22 Jan, 2020	Binomial Nomenclature; Principles and Rules Principle of priority, Type Concept, Taxonomic Ranks
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
5 TH week 27-29 Jan,2020	Keys to identification of plants (Herbaria, Floras, Literature) Flower and Types of Inflorescence
30 Jan, 2020	BASANT PANCHAMI
2 Feb, 2020	SUNDAY
1 st Week 3-5 Feb,2020	Salient features of the systems of classification of angiosperms proposed by Bentham & Hooker
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2 nd Week 10-12 Feb,2020	Salient features of the systems of classification of angiosperms proposed by Engler & Prantl.

16Feb, 2020	SUNDAY
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3rd week 17-19 Feb,2020	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: Ranunculaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Brassicaceae.
21 Feb,2020	MAHA SHIVRATRI
23 Feb,2020	SUNDAY
4TH week 24-26 Feb,2020	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Rutaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Euphorbiaceae
1 March ,2020	SUNDAY
1st week 2-4 March,2020	SESSIONAL EXAM
8 March,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2nd week 16-18 March, 2020	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Leguminosae (Pappilionaceae, Caesalpinaceae and Mimosaceae)
22 March,2020	SUNDAY
23 March,2020	BHAGAT SINGH MARTYRS' DAY
3rd week 24-25 March,2020	Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Apiaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Asclepiadaceae
29 March,2020	SUNDAY
4th week 30-31 March & 01 April,2020	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: Solanaceae Diversity of Flowering Plants: Diagnostic features and economic importance of the family: Liliaceae

1st Week 6-8 April, 2020	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: Poaceae Practice of Floral Diagrams
2nd Week 13-15 April, 2020	Revision of Syllabus and Class Tests

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Name of the Teacher- Dr. Aashima Ghakkhar

Subject-Botany

Paper – II (Economic Botany)

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

1nd Week 3-4 Jan, 2020	-Introduction to Syllabus and Scheme of Exam - Cereal- Rice (Origin, Distribution, Botanical description, idea of cultivation and uses)
5 Jan, 2020	SUNDAY
2nd week 9– 11 Jan, 2020	-Cereal- Wheat (Origin, Distribution, Botanical description, idea of cultivation and uses)
12 Jan, 2020	SUNDAY
3rd Week 16-18 Jan, 2020	-Cereal- Maize
19 Jan,2020	SUNDAY
4th week 23-25 Jan, 2020	-Pulses- Gram, Arhar,Pea
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
30 Jan, 2020	BASANT PANCHAMI
5TH week 31 Jan- 1 Feb ,2020	-Vegetables – Tomato, Potato and Onion
2 Feb, 2020	SUNDAY
1st Week 6-8 Feb,2020	-Fibres- Cotton, Jute & Flax
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2nd Week 13-15 Feb,2020	-Oils- Groundnut, Mustard and Coconut
16 Feb, 2020	SUNDAY

21 Feb ,2020	MAHA SHIVRATRI
3rd week 20-22 Feb, 2020	-Spices- Coriander, Ferula -Spices- Ginger , Turmeric & cloves
23 Feb ,2020	SUNDAY
4TH week 27-29 Feb ,2020	-Medicinal Plants- <i>Cinchona,Rauwolfia,Atropa,Opium,Cannabis,Neem</i> - Beverages- Tea & Coffee
1 March ,2020	SUNDAY
1st week 5-7 March ,2020	SESSIONAL EXAM
8 March ,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2nd week 19-21 March , 2020	-Rubber- <i>Hevea</i> -Sugar- Sugarcane
22 March ,2020	SUNDAY
23 March ,2020	BHAGAT SINGH MARTYRS' DAY
3rd week 26-28 March ,2020	Revision of Syllabus and Class Tests
29 March ,2020	SUNDAY

Lesson plan for the even semester (Jan, 2020 to March, 2020)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper- II (Genetics)

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

1 nd Week 1 Jan, 2020	<u>Genetic Material</u> : DNA - the genetic material, structure and Watson & Crick Model .
2 Jan, 2020	GURU GOVIND SINGH JAYANTI
5 Jan, 2020	SUNDAY
2 nd week 6 – 9 Jan, 2020	Replication of DNA, and DNA-Protein interaction.
12 Jan, 2020	SUNDAY
3 rd Week 13-16 Jan, 2020	Genetic Code, Satellite and Repetitive DNA.
19 Jan,2020	SUNDAY
4 th week 20-23 Jan, 2020	Gene Interaction: Allelic and non-allelic interactions.
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
5 TH week 27-29 Jan,2020	<u>Genetic Inheritance</u> : Mendelism: General Introduction and Laws of Genetic Inheritance and Linkage.
30 Jan, 2020	BASANT PANCHAMI
2 Feb, 2020	SUNDAY
1 st Week 3-6 Feb,2020	Mutations- spontaneous and induced. DNA- damage and repair.
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2 nd Week 10-13 Feb,2020	Gene Expression: Modern concept of Gene, RNA and Ribosome.
16Feb, 2020	SUNDAY

3 rd week 17-20 Feb ,2020	Structure of Proteins.
21 Feb ,2020	MAHA SHIVRATRI
23 Feb ,2020	SUNDAY
4 TH week 24-27 Feb ,2020	Extra Nuclear Inheritance.
1 March ,2020	SUNDAY
1 st week 2-5 March ,2020	SESSIONAL EXAM
8 March ,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2 nd week 16-19 March , 2020	Protein Synthesis.
22 March ,2020	SUNDAY
23 March ,2020	BHAGAT SINGH MARTYRS' DAY
3 rd week 24-26 March ,2020	Regulation of Gene Expression and Class Test.
29 March ,2020	SUNDAY
4 th week 30-31 March ,2020	Revision of Syllabus and Class Tests
1 st Week 1-2 April, 2020	Revision of Syllabus and Class Tests

Lesson plan for the even semester (Jan, 2020 to March, 2020)

Name of the Teacher- Dr. Nadia Chowhan

Subject-Botany

Paper - II (Plant Embryology)

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

1 st Week 3-4 Jan, 2020	Flower-a modified shoot; functions of various floral parts.
5 Jan, 2020	SUNDAY
2 nd week 6,7, 9– 11 Jan, 2020	Types of inflorescence Flower Variations
12 Jan, 2020	SUNDAY
3 rd Week 13,14, 16-18 Jan, 2020	Microsporangium, its wall and dehiscence mechanism Microsporogenesis Pollen grains and its structure (pollen wall)
19 Jan,2020	SUNDAY
4 th week 20, 21, 23-25 Jan, 2020	Male Gametophyte: Development Microgametogenesis Structure of Megasporangium (ovule)
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
30 Jan, 2020	BASANT PANCHAMI
5 th week 27, 28, 31 Jan- 1 Feb ,2020	Ovule Types Megasporesogenesis Megagametogenesis
2 Feb, 2020	SUNDAY
1 st Week 3, 4, 6-8 Feb,2020	Embryo sac structure and types Pollen-pistil interaction

	Self incompatibility
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2nd Week 10, 11, 13-15 Feb,2020	Pollination (types and agencies) Double fertilization. Endosperm types and its biological importance.
16Feb, 2020	SUNDAY

21 Feb ,2020	MAHA SHIVRATRI
3rd week 17, 18, 20, 22 Feb, 2020	Embryogenesis in Dicot Embryogenesis in Monocot Polyembryony
23 Feb ,2020	SUNDAY
4TH week 24, 25, 27-29 Feb ,2020	Development of Fruits and Significance General Structure of Fruit Types of fruits: Simple Dry and Fleshy
1 March ,2020	SUNDAY
1st week 2,3, 5-7 March ,2020	SESSIONAL EXAM
8 March ,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2nd week 16, 17, 19-21 March , 2020	Types of fruits: Simple Dry and Fleshy Types of fruits: Aggregate and Multiple Dispersal of fruits and seeds
22 March ,2020	SUNDAY
23 March ,2020	BHAGAT SINGH MARTYRS' DAY

<p>3rd week 23, 24, 26-28 March ,2020</p>	<p>Seed: Development and Parts Structure of Dicot and Monocot Seed Seed Viability and Seed Dormancy</p>
<p>29 March ,2020</p>	<p>SUNDAY</p>
<p>4th week of March and 1st week of April 30-31 March & 2-4 April, 2020</p>	<p>Causes of seed dormancy and methods of breaking seed dormancy Seed Dormancy: Physiological Enigma, its importance Comparative Account of Monocots and Dicots</p>
<p>2nd Week of April 6,7, 9-11 April, 2020</p>	<p>Revision of Syllabus and Class Tests</p>
<p>3rd Week of April 13,14, 16-18 April, 2020</p>	<p>Revision of Syllabus and Class Tests</p>

Lesson plan for the even semester (Jan, 2020 to March, 2020)

Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper - I (Diversity of Microbes)

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

1nd Week 1 Jan and 3-4 Jan, 2020	Bryophytes: General characters of Bryophytes
5 Jan, 2020	SUNDAY
2nd week 8- 11 Jan, 2020	Classification of Bryophytes
12 Jan, 2020	SUNDAY
3rd Week 15-18 Jan, 2020	Marchantia -Occurrence and vegetative structure and Reproduction in Marchantia
19 Jan,2020	SUNDAY
4th week 22-25 Jan, 2020	Anthoceros- Occurrence and vegetative structure and Reproduction in Anthoceros
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
30 Jan, 2020	BASANT PANCHAMI
5TH week 29 Jan and 31 Jan- 1 Feb ,2020	Funaria- Occurrence and vegetative structure and Reproduction in Funaria
2 Feb, 2020	SUNDAY
1st Week 5-8 Feb,2020	Pteridophytes: General characters and Classification of Pteridophytes Rhynia - Occurrence, vegetative structure
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2nd Week 12-15 Feb,2020	Selaginella- Occurrence, vegetative structure and Reproduction in Selaginella, Heterospory and Seed Habit
16 Feb, 2020	SUNDAY

21 Feb ,2020	MAHA SHIVRATRI
3rd week 19-20 Feb and 22 Feb, 2020	Equisetum – Occurrence, vegetative structure and Reproduction in Equisetum
23 Feb ,2020	SUNDAY
4TH week 26-29 Feb ,2020	Pteris – Occurrence, vegetative structure and Reproduction in Pteris.
1 March ,2020	SUNDAY
1st week 4-7 March ,2020	SESSIONAL EXAM
8 March ,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2nd week 18-21 March , 2020	Economic importance of Pteridophytes and Bryophytes
22 March ,2020	SUNDAY
23 March ,2020	BHAGAT SINGH MARTYRS' DAY
3rd week 25-28 March ,2020	Revision of Syllabus and Class Tests
29 March ,2020	SUNDAY
1st week 1-4 April, 2020	Revision of Syllabus and Class Tests

Lesson plan for the even semester (Jan, 2020 to March, 2020)

Name of the Teacher- Dr. Seema Sharma

Subject-Botany

Paper- I (Biochemistry and Plant Biotechnology)

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

1 nd Week 1 Jan, 2020	Discovery and Nomenclature, Characteristics of enzymes; concept of holoenzyme, apoenzyme, coenzyme and co-factors
2 Jan, 2020	GURU GOVIND SINGH JAYANTI
5 Jan, 2020	SUNDAY
2 nd week 6 – 8 Jan, 2020	Regulation of enzyme activity and their mechanism of action -Definitions of Growth and development and their different phase
12 Jan, 2020	SUNDAY
3 rd Week 13-15 Jan, 2020	- Plant hormones- Auxin, Gibberelins, Cytokinin, history of their discovery & mechanism of action
19 Jan,2020	SUNDAY
4 th week 20-22 Jan, 2020	-Plant hormones- Abscissic acid & ethylene (history and their mode of action)
26 Jan, 2020	REPUBLIC DAY (SUNDAY)
5 TH week 27-29 Jan,2020	Photomorphogenesis ; Phtochromes and their discovery , Physiological role and their mechanism of action
30 Jan, 2020	BASANT PANCHAMI
2 Feb, 2020	SUNDAY
1 st Week 4-5 Feb,2020	Lipid metabolism: structure and functions of lipids -Biosynthesis of fatty acids - β -oxidation of fatty acids
9 Feb, 2020	RAVIDAS JAYANTI (SUNDAY)
2 nd Week 10-12 Feb,2020	Saturated & Unsaturated Fatty acids -Storage & mobilization of fatty acids -Oral test of Regulation of enzyme activity and mechanism of action
16Feb, 2020	SUNDAY

3 rd week 17-19 Feb ,2020	-Nitrogen Metabolism: Biology of nitrogen Fixation -Importance of nitrate reductase & its regulation -Ammonium assimilation
21 Feb ,2020	MAHA SHIVRATRI
23 Feb ,2020	SUNDAY
4 TH week 24-26 Feb ,2020	-Tools & techniques of recombinant DNA technology -Cloning vectors
1 March ,2020	SUNDAY
1 st week 2-4 March ,2020	SESSIONAL EXAM
8 March ,2020	SUNDAY
9- 14 March ,2020	HOLI BREAK
2 nd week 16-18 March , 2020	- Genomic & cDNA library -Transposable elements -Vectors for gene delievery and marker gene
22 March ,2020	SUNDAY
23 March ,2020	BHAGAT SINGH MARTYRS' DAY
3 rd week 24-25 March ,2020	-Cellular totipotency -Differentiation & morphogenesis
29 March ,2020	SUNDAY
4 th week 30-31 March ,2020	Revision of Syllabus and Class Tests