

Govt. College, Safidon (Jind)-126112

Session: 2022-2023 (Even Semester)

Lesson Plan

Name of Teacher:- Jyoti Kanwal

B.Sc:- 1st (Sem II)

Subject:- Botany

Paper Name:- Diversity of Archegoniales

Sr.No.	Months	Topic
1	February	Gen. Characters of Bryophytes, Alternation
2		of Generation, Structure and Reproduction
3		of Class - Hepaticopsida (Type study Marchantia)
4	March	- class Anthocerotopsida (Type study Funaria)
5		Gen. characters of class Bryopsida (Anthoceros)
6		- Revision, class Test I
7		- General characters of pteridophytes
8		- Classification upto class level
9	April	Reproduction and life cycle of Psilopsida
10		Type study Rhynia
11		class Lycopside - (t.s. Selaginella)
12		Class Sphenopsida - (Equisetum, Steenis)
13		Revision
14	May	Class test - II
15		Gen. characters of all classes
16		Comparative account of Bryophytes
17		and Pteridophytes.
18		

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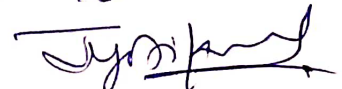
B.Sc.- I (sem II).....

Name of Teacher:- Jyoti Kanwal

Subject:- Botany.....

Paper Name:- Cell Biology & Genetics

Sr.No.	Months	Topic
1	February	- Structure of DNA (as genetic material)
2		- Replication of DNA, Interaction of protein and DNA.
3		- Nucleosome model, - Genetic Code
4	March	- Satellite and Repetitive DNA.
5		- Genetic Inheritance.
6		- Mendel's laws - of segregation
7		- Independent assortment.
8		- Linkage - Analysis and Allele concept.
9	April	Reversion and Class test I,
10		Allelic and non Allelic Interactions
11		Genetic Variations - Mutations (Spontaneous)
12		Linkage - Transposable Elements, - DNA damage
13		- Repair, gene Expression - Gene concept
14	May	- RNA, Ribosome, Genetic Information via
15		- Transcription and Translation Protein and
16		Synthesis + Regulation. Protein structure
17		Extranuclear Inheritance, mt-DNA, Plasmid
18		- Plasmid DNA + Reversion + <u>Class test II</u>

Signature


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Session: 2022-2023 (Even Semester)

Lesson Plan

B.Sc:- IIIrd (sem IV)

Name of Teacher:- Jyoti Kanwal

Subject:- Biology

Paper Name:- Biology & Diversity of seed plants.

Sr.No.	Months	Topic
1	February	Taxonomy, Systematics, Fundamentals
2		of Taxonomy - Identification, Classification,
3		Nomenclature, Phylogeny, chemotaxonomy,
4	March	Taxometrics & cytotaxonomy. Botanical
5		Nomenclature - Rules & principles of Priority
6		Type concept - Taxonomic Ranks,
7		Plant Identification keys, Flower &
8		Inflorescence - Types.
9	April	Revision - & Class Test I - Classification
10		Systems by Bentham & Hooker, Engelm
11		& Planch (Merits & Demerits)
12		Plant family - Ranunculaceae, Brassicaceae,
13		Malvaceae, Solanaceae, Euphorbiaceae
14	May	Rutaceae, Leguminosae, Apiaceae,
15		Asclepiadaceae, Asteraceae, Liliaceae,
16		Poaceae. Comparative study of families
17		Dissection of flower - demonstration
18		Revision & Class Test II

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Session: 2022-2023 (Even Semester)

Lesson Plan

B.Sc:- 7th (sem IV)
 Subject:- Botany

Name of Teacher:- Jyoti Kanwal

Paper Name:- Plant Embryology

Sr.No.	Months	Topic
1	February	Description of flower as modified shoot
2		functions of various floral parts.
3		- Pollen grains (Pollen wall) Morphology
4	March	microsporangium wall, Dehiscence
5		Pollination:- self and Non self incompatibility
6		Self Incompatibility
7		microgametogenesis of non egagametes
8		Revision & Class Test I
9	April	- <u>Megasporangium</u> structure of ovule
10		
11		curvature movements, female gameto-
12		phyte, mono/bi/tetrasporic.
13		<u>Double Fertilization</u> - Endosperm Types
14	May	Dicot and monocot Embryo Development
15		<u>Fruit</u> - Types, Mechanism of
16		Dispersal - Dehiscence of fruit
17		and seed dispersal - Revision
18		class Test II.

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Session: 2022-2023 (Even Semester)

Lesson Plan

B.Sc:- VIth Ed (Sem VI)

Name of Teacher:- Jyoti Kanwal

Subject:- Botany

Paper Name:- Biochemistry & Biotechnology and Physiology

Sr.No.	Months	Topic
1	February	Basics of Enzymology - Enzymes - holoenz.
2		Apoenzyme, coenzyme & cofactors
3		Enzyme Regulation & Activity
4	March	Mode of Enzyme Action
5		Lipid metabolism, Fatty Acid Biosynthesis
6		Biooxidation, Saturated & unsaturated
7		fatty acids, Storage & mobilization of
8		fatty acids, Nitrogen metabolism
9	April	Biology of Nitrogen fixation, Nitrate Redn.
10		Str. and Importance & Regulation of action.
11		Ammonium Assimilation
12		Class Test I, Genetic Engineering
13		Basics, Vectors, Genomic & cDNA libraries
14	May	Transposable elements - Plant tissue culture
15		aspects - Totipotency, Dedifferentiation
16		micropropagation - Agrobacterium - working
17		RDT, marker genes & Gene delivery
18		vectors ; Revision & Class Test II

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Lesson Plan

Name of Teacher: Jyoti Kanwal
 Paper Name: Economic Botany

B.Sc. Wild (sem VI)
 Subject: Botany

Sr.No.	Months	Topic
1	February	Beverages - Tea & coffee, Botanical description
2		Processing and usage, Gen. account on Timber.
3		Energy, plantation and Biofuel.
4	March	Cereals & Rice wheat & maize
5		Fibres - Cotton, Jute & Flax
6		Oils - Groundnut & mustard & Sunflower
7		Cultivation, Morphology economic use - Spices
8		Coriander, Ferula, ginger, cloves
9	April	Medicinal plants - cinchona, Rauwolfia,
10		Atropa, opium, Cannabis, Azadirachta, withania
11		Navidov's centres of origin of crop plants
12		Class Test - I & Revision
13		Rubbers and Cereals - cropping
14	May	Season, methodology.
15		Description of Sugarcane + Rubber
16		Vulcanisation, Revision
17		Class Test II, Alkaloids from
18		medicinal plants - Revision

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