#### MEHR CHAND MAHAJAN DAV College for Women, Sector – 36 -A, Chandigarh

# Monthly Teaching Plans (Odd Semester- Semester I) Session: 2021-22

Name of the Teacher/s: Dr. Gunjan Sud and Dr. Ruby Singh

**Department:** Botany

Class: B.Sc. (Med.) 1styear

**Subject:** Paper A (Plant Diversity-I; Subject code: 0052)

Date		<b>Topics to be Covered</b>	<b>Academic Activity</b>				
(MONTH)	(Mor	nthly)		<b>Undertaken*</b>			
	From	To					
Departmental N	Departmental Meeting was held on 20.8.2021 to Coordinate and Review the Monthly completion of Syllabus as per						
			lesson plans				
September	25.09.2021	30.09.2021	Bacteria: Salient features,	ONLINE / Lecture			
-			types and cell structure.	Method; Visual			
				presentation through			
				Google meet/Google			
				Classroom			
Review Meeting	was held on 30.9.	2021 to discuss ab	out the Monthly completion of Sylla	abus as per lesson plans			
October	01.10.2021	30.10.2021	Algae: General Characters;	ONLINE/ Lecture			
			systematic position,	Method; Visual			
			structure and life history of	presentation through			
			Oscillatoria (Cyanophyceae)	Google meet/Google			
			Volvox(Chlorophyceae	Classroom			
Departmental M	leeting was held o		oordinate and Review the Monthly	completion of Syllabus as per			
			nd preparation of modules.				
November	05.11.2021	30.11.2021	Cladophora	ONLINE/ Lecture			
			(Chlorophyceae); Vaucheria	Method; Visual			
			(Xanthophyceae);Systematic	presentation through			
			position, structure and life	Google meet/Google			
			history of Dictyota	Classroom; You tube			
			(Phaeophyceae);	animations			
			Batrachospermum				
			(Rhodophyceae) and				
			economic importance of				
			algae. Fungi: General				
			characters; systematic				

			position, structure and life history of Albugo (White rust of crucifers: Albugo candida), Rhizopus and Saccharomyces Systematic position, structure and life history of Agaricus, Ustilago (Loose smut of wheat: Ustilago tritici	
	Mi	d semester Exami	nations - 17.11.2021 to 25.11.2021	
December	01.12.2021	25.12.2021	Systematic position, structure and life history of Puccinia (Black rust of wheat: Puccinia graminis tritici), Colletotrichum (Red rot of sugarcane: Colletotrichum falcatum); general account of Lichens and their economic importance.	ONLINE/ Lecture Method; Visual presentation through Google meet/Google Classroom; You tube animations; Notes
PU Semester examinations from 27.12.2021 – 27.01.2022				

## MEHR CHAND MAHAJAN DAV College for Women, Sector – 36A, Chandigarh

Monthly Teaching Plans - SECOND (Even Semester) Session: 2021-22

Name of the Teacher/s: Dr. Gunjan Sud and Dr. Ruby Singh

**Department:** Botany

Class: B.Sc. (Med.) FIRST year

**Subject:** Paper A (Plant Diversity-II; Subject code: 0152)

Month	Da	ate	<b>Topics to be Covered</b>	<b>Academic Activity</b>		
	(Mor	nthly)		<b>Undertaken*</b>		
	From	To				
Departmental	Departmental Meeting shall be held on 03.02.2022 to discuss the various activities to be undertaken in this semester					
	1		Monthly plan of the semester			
February	03.02.2022	28.02.2022	Bryophyta: General	<b>ONLINE</b> / Lecture		
			characters; systematic	Method; Visual		
			position, structure,	presentation through		
			reproduction and life cycle	Google meet/Google		
			of	Classroom; You tube		
			Marchantia and Riccia	animations; Notes		
			(Hepaticopsida) excluding			
			developmental stages			
Departmental	Meeting shall be h		o Coordinate and Review the Mon	nthly completion of Syllabus as		
		p	er lesson plans			
March	01.03.2022	31.03.2022	Systematic position,	ONLINE Lecture		
			structure, reproduction and	Method; Visual		
			life cycle of Anthoceros	presentation through		
			(Anthocerotopsida) and	Google meet/Google		
			Funaria (Bryopsida)	Classroom; You tube		
			excluding developmental	animations; Notes cum		
			stages.	Numericals		
Departmental	Meeting shall be h		o Coordinate and Review the Mon	nthly completion of Syllabus as		
			er lesson plans			
		Mid semester	r Test 17.3.2022-25.3.2022			
April	01.04.2022	30.04.2022	Pteridophyta: General	ONLINE Lecture		
_			characters, systematic	Method; Visual		
			position, structure,	presentation through		
			•	Google meet/Google		

			Rhynia (Pand S and S (Lycopsi developsi	on and life cycle of silophytopsida) Selaginella da) excluding mental stages.	Classroom; You tube animations; Notes
Departmental Meeting shall be held on 30.04.2022 to Coordinate and Review the Monthly completion of Syllabus as					
3.6	01.05.2022		er lesson plans		
May	01.05.2022	25.05.2022		atic position,	ONLINE/ Lecture
			structure, r	eproduction and	Method; Visual
			life cycle	of Equisetum	presentation through
			(Sphen	opsida) and	Google meet/Google
			Pteris	(Pteropsida)	Classroom; You tube
			excluding	developmental	animations; Assignments
				ision Classes	
*Departm	*Departmental meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
	26.05.2022	05.07.2022	PU Semest	er Examination	

## MEHR CHAND MAHAJAN DAV College for Women,

### Sector-36 -A, Chandigarh

Monthly Teaching Plans (Odd Semester- Semester I) Session: 2021-22

Name of the Teacher/s: Dr. Purnima Bhandari and Ms. Jyoti Shekhawat

**Department:** Botany

Class: B.Sc. (Med.) First Year

Subject: Paper B (Cell Biology; Subject code: 0053)

	Da	ate	<b>Topics to be Covered</b>	Academic Activity			
(MONTH)	(Moi	nthly)		Undertaken*			
	From	To					
Departmental M	Departmental Meeting was held on 20.8.2021 to Coordinate and Review the Monthly completion of Syllabus as per lesson plans						
September	25.09.2021	30.09.2021	Ultrastructure and functions of a typical plant cell and its organelles: Nucleus, Mitochondrion, Plastids, Ribosome, Endoplasmic reticulum,	ONLINE Lecture Method; Visual presentation through Google meet/Google Classroom			
Review Meeting	was held on 30.9.	2021 to discuss abo	out the Monthly completion of Syl	llabus as per lesson plans			
October	01.10.2021	30.10.2021	Ultrastructure and functions of a typical plant cell and its organelles-Golgi apparatus, Lysosomes; Structure and functions of cell wall. Plasma membrane: fluid mosaic model only. Cell divisions: Mitosis	ONLINE Lecture Method; Visual presentation through Google meet/Google Classroom			
Departmental M	<b>Ieeting was held o</b>		ordinate and Review the Monthly nd preparation of modules.	completion of Syllabus as per			
November	05.11.2021	27.11.2021	Meiosis in plants and its significance.	ONLINE Lecture Method; Visual presentation through			

DNA: Structure (Watson and Crick model)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;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes; Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.  PU Semester examinations from 17.12.2021 – 27.01.2022				Synaptonemal complex;	Google meet/Google
Structure (Watson and Crick model)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;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosome; Giant chromosomes; Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					
Crick model)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;  Structure and types; Extractivations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 17.11.2021 to 25.11.2021  Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes; Ciant chromosomes; Polytene and Lampbrush chromosomes; Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					,
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;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes: Polytene and Lampbrush chromosomes: Polytene and Lampbrush chromosomes: Polytene and Lampbrush chromosomes: Polytene and Lampbrush chromosomes: (deletion, duplication, inversion, translocation) and their importance: Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				`	
DNA, Replication of DNA: Structure and concept of gene: One gene-one enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December    O1.12.2021    Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes; Polytene and Lampbrush chromosomes; Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					
DNA.; Structure and concept of gene: One gene-one enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes; Ciant chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				• •	
Structure and concept of gene: One gene-one enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December					
gene: One gene-one enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes; Polytene and Lampbrush chromosomes; Chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				1	
enzyme hypothesis; Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December 01.12.2021 16.12.2021 Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				-	
Genetic Code: Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December					
Characteristics, exceptions, Wobble hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December				• • • • • • • • • • • • • • • • • • • •	
December   O1.12.2021   16.12.2021   Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes; Chromosomes; Chromosomes; Chromosomes; Chromosomes; Chromosomes; Chromosomes (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					
hypothesis; RNA: Structure and types;  Mid semester Examinations - 17.11.2021 to 25.11.2021  December				1	
December      December				-	
December    O1.12.2021    16.12.2021    Transcription and translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosomes; Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					
translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.		Mie	d semester Exami		
translation; Regulation of gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.					
gene expression in prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.	December	01.12.2021	16.12.2021	Transcription and	<b>ONLINE</b> Lecture
prokaryotes (Lac operon and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				translation; Regulation of	Method; Visual
and Tryptophan operon) and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				gene expression in	presentation through
and in eukaryotes (a brief account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				prokaryotes (Lac operon	Google meet/Google
account). Physical structure of chromosome; Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				and Tryptophan operon)	Classroom; You tube
structure of chromosomes: Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				and in eukaryotes (a brief	animations; Notes
Giant chromosomes: Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				account). Physical	
Polytene and Lampbrush chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				structure of chromosome;	
chromosomes; Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				Giant chromosomes:	
Chromosomal alterations (deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				Polytene and Lampbrush	
(deletion, duplication, inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				chromosomes;	
inversion, translocation) and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				Chromosomal alterations	
and their importance; Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				(deletion, duplication,	
Variations in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				inversion, translocation)	
in chromosome number, (aneuploidy and polyploidy) introduction and their importance.				and their importance;	
(aneuploidy and polyploidy) introduction and their importance.				Variations	
polyploidy) introduction and their importance.				in chromosome number,	
and their importance.					
and their importance.				polyploidy) introduction	
<b>PU Semester examinations from 17.12.2021 – 27.01.2022</b>				and their importance.	
		PUS	Semester examina	tions from 17.12.2021 – 27.01.2022	

#### MEHR CHAND MAHAJAN DAV College for Women, Sector – 36A, Chandigarh

Monthly Teaching Plans - SECOND (Even Semester) Session: 2021-22

Name of the Teacher/s: Dr. Purnima Bhandari and Ms. Jyoti

Shekhawat**Department:** Botany **Class:** B.Sc. (Med.) FIRST year

**Subject:** Paper B (Genetics; Subject Code: 0155)

Month	Date		<b>Topics to be Covered</b>	Academic Activity		
	(Monthly)			<b>Undertaken*</b>		
	From	To				
Departmental	Departmental Meeting shall be held on 03.02.2022 to discuss the various activities to be undertaken in this semester					
	1		Monthly plan of the semester			
February	03.02.2022	28.02.2022	Mendelism: Mendel's	ONLINE Lecture		
			experiments and results,	Method; Visual		
			Mendel's Laws of	presentation through		
			Dominance, Segregation	Google meet/Google		
			and	Classroom; You tube		
			Independent assortment;	animations; Notes		
			Linkage: complete and			
			incomplete linkage,			
			linkage groups, linkage			
			maps, importance of			
			linkage, cytological			
			interpretation of			
			Mendelism.			
<b>Departmental</b>	Meeting shall be h	eld on 01.03.2022 t	o Coordinate and Review the Mor	thly completion of Syllabus as		
per lesson plans						
March	01.03.2022	31.03.2022	Non-allelic Gene	ONLINE Lecture		
			Interactions: Dominant and	Method; Visual		
			recessive epistasis,	presentation through		
			supplementary genes,	Google meet/Google		

			Complementary genes,	Classroom; You tube
			quantitative or polygenic	animations; Notes cum
			inheritance, duplicate	Numericals
			genes. Allelic gene	
			interactions: Incomplete	
			dominance, codominance,	
			multiple alleles,	
			pleiotropic genes.	
<b>Departmental</b>	Meeting shall be h		to Coordinate and Review the Mor	nthly completion of Syllabus as
			er lesson plans	
		Mid semeste	r Test 17.3.2022-25.3.2022	
April	01.04.2022	30.04.2022	Genetic variations:	ONLINE Lecture
			Continuous and	Method; Visual
			Discontinuous; Mutations:	presentation through
			characteristics, types,	Google meet/Google
			importance, factors	Classroom; You tube
			affecting mutations;	animations; Notes
			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.	
Departmental 1	 Meeting shall be h	Leld on 30.04.2022 1	to Coordinate and Review the Mor	thly completion of Syllabus as
Depair circum	witeening sman se ii		er lesson plans	imij completion of Synabas as
May	01.05.2022	25.05.2022	Chromosome theory of	<b>ONLINE</b> Lecture
			heredity, parallelism	Method; Visual
			between chromosome and	presentation through
			Mendelian factors; Sex	Google meet/Google
			linked inheritance;	Classroom; You tube
			Characteristics and	animations; Assignments
			examples (Haemophilia,	
			colour-	
			blindness);Cytoplasmicor	
			extranuclear inheritance:	
			mitochondrial and plastid	
			DNA; plastid inheritance in	
			Mirabilis,	
			mitochondrial inheritance	
			in Yeast. Revision Classes	

*Departmental meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans					
	26.05.2022	05.07.2022	PU Semester Examination		