

MAHARANA PRATAP MAHAVIDYALAYA, JUNGLE DHUSAN, GORAKHPUR

Class: M. Sc. III Semester			LESSON PLAN : 2022-23		Subject: CHEMISTRY
DATE	LECTURE	TEACHER'S NAME	PAPER	CHAPTER	TOPIC
08/07/2022	1	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Different type of electronic transitions
	1	Mrs. Priyanka Mishra	II	Cyclosteroisomerism	Configuration and conformation of monosubstituted cyclohexanes
09/07/2022	2	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Lambert- Beer's law
	2	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	General introduction
11/07/2022	3	Dr. Ram Sahay	I	Diffraction Methods	X-ray principle elucidation of crystal structure of NaCl by X-ray
	3	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Elements of symmetry
12/07/2022	1	Dr. Shiv Kumar Vernwal	III	Rearrangements	Pinacol-Pinacolone rearrangement
	1	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Water soluble Vitamins
13/07/2022	2	Dr. Shiv Kumar Vernwal	III	Rearrangements	Pinacol-Pinacolone rearrangement
	2	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Water soluble Vitamins
14/07/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	3	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Structure of Vitamin C
15/07/2022	4	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Chromophore and Auxochrome
	4	Mrs. Priyanka Mishra	II	Cyclosteroisomerism	Stability of monosubstituted cyclohexane
16/07/2022	5	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Solvent effect
	5	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Molecules with more than one chiral Centre
18/07/2022	6	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Red shift and Blue shift
	6	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Threo and Erythro isomer
19/07/2022	3	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wanger-Meerwein rearrangement
	4	Mrs. Priyanka Mishra	IV	WatersolubleVitamin	Structure of Vitamin C
20/07/2022	4	Dr. Shiv Kumar Vernwal	III	Rearrangements	Tiffenev-Demjanovrearrangement
	5	Mrs. Priyanka Mishra	IV	WatersolubleVitamin	Biological function of Vitamin C
21/07/2022	5	Dr. Shiv Kumar Vernwal	III	Rearrangements	Dienone-Phenol rearrangement
	CT	Mrs. Priyanka Mishra	CT	Class Teaching	
22/07/2022	7	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Woodwardsruleforconjugatedcyclic andacyclic diene
	7	Mrs. Priyanka Mishra	II	Cyclosteroisomerism	Configuration and conformation of disubstituted cyclohexane
23/07/2022	8	Dr. Ram Sahay	I	Diffraction Methods	Structure factor and phase problem
	8	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Interconversion of Fischer and Newmann projections
25/07/2022	9	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Woodwards rule for conjugated cyclic and acyclic diene
	9	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Interconversion of Fisher and Sawhorse projection

26/07/2022	6	Dr. Shiv Kumar Vernwal	III	Rearrangements	Sommelet–Hauser rearrangement
	6	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Structure of Vitamin B1
27/07/2022	7	Dr. Shiv Kumar Vernwal	III	Rearrangements	Stevens rearrangement
	7	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Structure of Vitamin B1
28/07/2022	ME	Dr. Shiv Kumar Vernwal	ME	Monthly Evaluation	
	8	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Structure of Vitamin B2
29/07/2022	10	Dr. Ram Sahay	I	UV-Visible Spectroscopy	Woodwards rule for conjugated cyclic and acyclic diene
	10	Mrs. Priyanka Mishra	II	Cyclostereoisomerism	Stability of disubstituted of cyclohexane
30/07/2022	11	Dr. Ram Sahay	I	UV-Visible Spectroscopy	α,β - unsaturated carbonyl compounds
	11	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Interconversion of Newmann and Sawhorse projections
01/08/2022	12	Mr. Abhinav Tripathi	I	IR Spectroscopy	Introduction, Linear harmonic oscillator
	12	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Interconversion of Newmann and Sawhorse projections
03/08/2022	8	Dr. Shiv Kumar Vernwal	III	Rearrangements	Favorskii rearrangement
	9	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Structure of Vitamin B2
04/08/2022	9	Dr. Shiv Kumar Vernwal	III	Rearrangements	Favorskii rearrangement
	10	Mrs. Priyanka Mishra	IV	Water soluble Vitamins	Physiological function of Vitamin B2
05/08/2022	10	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wittig rearrangement
	CT	Mrs. Priyanka Mishra	CT	Class Teaching	
06/08/2022	13	Dr. Ram Sahay	I	Diffraction Methods	Patterson function methods
	13	Mrs. Priyanka Mishra	II	Cyclostereoisomerism	Chirality of disubstituted of cyclohexane
08/08/2022	14	Mr. Abhinav Tripathi	I	IR Spectroscopy	Vibrational energy of diatomic molecules
	14	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	Configurational projections
10/08/2022	15	Mr. Abhinav Tripathi	I	IR Spectroscopy	Zero point energy
	15	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Geometrical isomerism of C=N compounds
11/08/2022	11	Dr. Shiv Kumar Vernwal	III	Rearrangements	Hoffmann rearrangement
	11	Mrs Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin A
13/08/2022	12	Dr. Shiv Kumar Vernwal	III	Rearrangements	Curtius rearrangement
	12	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin A
16/08/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	13	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin A
17/08/2022	16	Dr. Ram Sahay	I	Diffraction Methods	Patterson function methods
	16	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Geometrical isomerism of C=N compounds
19/08/2022	17	Mr. Abhinav Tripathi	I	IR Spectroscopy	Force constant and bond strength
	17	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Geometrical isomerism of N=N compounds

20/08/2022	18	Dr. Ram Sahay	I	Electron Diffraction	Wierl equation
	18	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral Centre	R/S and E/Z nomenclature
22/08/2022	13	Dr. Shiv Kumar Vernwal	III	Rearrangements	Curtius rearrangement
	14	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin A
23/08/2022	14	Dr. Shiv Kumar Vernwal	III	Rearrangements	Lossen rearrangement
	15	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Physiological function of Vitamin A
24/08/2022	15	Dr. Shiv Kumar Vernwal	III	Rearrangements	Lossen rearrangement
	ME	Mrs. Priyanka Mishra	ME	Monthly Evaluation	
25/08/2022	19	Mr. Abhinav Tripathi	I	IR Spectroscopy	Morse potential energy diagram
	19	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Geometrical isomerism of N=N compounds
26/08/2022	20	Dr. Ram Sahay	I	Electron Diffraction	Low energy electron diffraction
	20	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Introduction
27/08/2022	21	Mr. Abhinav Tripathi	I	IR Spectroscopy	Vibrational rotational spectroscopy
	21	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Stereochemistry of S compound
01/09/2022	16	Dr. Shiv Kumar Vernwal	III	Rearrangements	Schmidt rearrangement
	16	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin E
02/09/2022	17	Dr. Shiv Kumar Vernwal	III	Rearrangements	Beckmann rearrangement
	17	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin E
03/09/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	18	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Biological function of Vitamin E
05/09/2022	22	Mr. Abhinav Tripathi	I	IR Spectroscopy	P,Q, R branches
	22	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compounds	Stereochemistry of S compound
06/09/2022	23	Dr .Ram Sahay	I	Electron Diffraction	Low energy electron diffraction
	23	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Homotopic and enantiotopic atoms, groups and faces
07/09/2022	24	Mr. Abhinav Tripathi	I	IR Spectroscopy	Break down of Born-Oppenheimer approximation
	24	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Stereoselectivity
10/09/2022	18	Dr. Shiv Kumar Vernwal	III	Rearrangements	Bayer-Villiger oxidation
	19	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin K
12/09/2022	19	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wolf rearrangement
	20	Mrs. Priyanka Mishra	IV	Fat soluble Vitamins	Structure of Vitamin K
13/09/2022	20	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wolf rearrangement
	CT	Mrs. Priyanka Mishra	CT	Class Teaching	
15/09/2022	25	Mr. Abhinav Tripathi	I	IR Spectroscopy	Break down of Born-Oppenheimer approximation

	25	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Diastereotopic atoms, groups and faces
16/09/2022	26	Mr. Abhinav Tripathi	I	IR Spectroscopy	
	26	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Nomenclature
19/09/2022	27	Dr. Ram Sahay	I	Neutron Diffraction	Principle, Techniques
	27	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving chiral catalysis
20/09/2022	21	Dr. Shiv Kumar Vernwal	III	Rearrangements	Benzidine rearrangement
	21	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Introduction of Estrogen and Androgen
21/09/2022	22	Dr. Shiv Kumar Vernwal	III	Rearrangements	Benzidine rearrangement
	22	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Structure of Estrogen
22/09/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	23	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Synthesis and relationship of estradiol
23/09/2022	28	Mr. Abhinav Tripathi	I	IR Spectroscopy	Selection rule
	28	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving chiral catalysis
24/09/2022	29	Mr. Abhinav Tripathi	I	IR Spectroscopy	Overtone, Hot bands
	29	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Principles of axial & planar chirality
26/09/2022	30	Mr. Abhinav Tripathi	I	IR Spectroscopy	Absorption by common functional groups
	30	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Principles of axial planar chirality
27/09/2022	23	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by correlation method
	24	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Relationship of estradiol
28/09/2022	24	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by correlation method
	25	Mrs. .Priyanka Mishra	IV	Steroidal Hormones	Synthesis of Oestrone
29/09/2022	25	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by FMO method
	ME	Mrs. Priyanka Mishra	ME	Monthly Evaluation	
30/09/2022	31	Mr. Abhinav Tripathi	I	IR Spectroscopy	Absorption by common functional groups
	31	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Synthesis involving auxillary chiral reagents
01/10/2022	32	Dr. Ram Sahay	I	Neutron Diffraction	Differences with electron diffraction
	32	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of biphenyl
07/10/2022	33	Mr. Abhinav Tripathi	I	IR Spectroscopy	Brief description of IR and FTIR.instruments
	33	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of biphenyl
08/10/2022	26	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by FMO method
	26	Mrs. .Priyanka Mishra	IV	Steroidal Hormones	Synthesis of Oestrone
10/10/2022	27	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by PMO method
	27	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Synthesis and relationship of estradiol

11/10/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	28	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Preparation of Progesterone
12/10/2022	34	Dr. Ram Sahay	I	Neutron Diffraction	Difference with electron diffraction
	34	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Synthesis involving auxiliary chiral reagent
13/10/2022	35	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Theories of Raman Effect
	35	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Synthesis involving auxiliary chiral reagent
14/10/2022	36	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Conditions of Raman active vibrations
	36	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of allenes
15/10/2022	28	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by correlation method
	29	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Physiological function of Progesterone
17/10/2022	29	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by correlation method
	30	Mrs. Priyanka Mishra	IV	Non-Steroidal Hormones	Structure of Thyroxine, Physiological function of Thyroxine
18/10/2022	30	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by FMO method
	ME	Mrs. Priyanka Mishra	ME	Monthly Evaluation	
19/10/2022	37	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Selection rules
	37	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Quasi racemate
20/10/2022	38	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Selection rules
	38	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of allenes
28/10/2022	39	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Polarised and Depolarised Raman lines
	39	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Quasi racemate and Optical Purity
29/10/2022	31	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by FMO method
	31	Mrs. Priyanka Mishra	IV	Non-Steroidal Hormones	Structure of Adrenalin
01/11/2022	32	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by PMO method
	32	Mrs. Priyanka Mishra	IV	Steroids	Diel's hydrocarbon determination of ring system in Cholesterol
02/11/2022	CT	Dr. Shiv Kumar Vernwal	CT	Class Teaching	
	33	Mrs. Priyanka Mishra	IV	Steroids	Angular methyl group in cholesterol
03/11/2022	40	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Polarised and Depolarised Raman lines
	40	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of Spiranes
05/11/2022	41	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Study of simple molecules such as SO ₂ , CO ₂ , Study of N ₂ O and C ₂ H ₂
	41	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of Spiranes
07/11/2022	33	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by PMO method

	34	Mrs. Priyanka Mishra	IV	Steroids	Double bond in cholesterol
09/11/2022	34	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of Diel's-Alder reactions
	35	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
10/11/2022	35	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of Diel's-Alder reactions
	36	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
11/11/2022	CT	Dr. Ram Sahay	CT	Class Teaching	
	42	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism of Spiranes
12/11/2022	42	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Hydrogen Bonding
	43	Mrs. Priyanka Mishra	II	Asymmetric Synthesis	Enantiomeric excess
14/11/2022	43	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Metals ion in solution
	44	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism due to intramolecular overcrowding
15/11/2022	36	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of 1,3-sigmatropic shift
	37	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
*Extra	*37	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of 1,5-sigmatropic shift
	*38	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
	*38	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Claisen rearrangement
	*39	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
	*44	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Mutual exclusion principle
	*45	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Interpretation of Raman spectra
	*45	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism due to intramolecular overcrowding
	*46	Mr. Abhinav Tripathi	I	Raman Spectroscopy	Problems related with Raman spectra
	*46	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	Optical isomerism due to intramolecular overcrowding
	*39	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Cope rearrangement
	*40	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Oxy-cope rearrangement
	*41	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Aza-Cope rearrangement
	*47	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/planar chirality	R/S system of nomenclature
	*42	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Group transfer reactions
	*43	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Chelotropic reactions