

महाराणा प्रताप पी.जी.कॉलेज, जंगल धुसड, गोरखपुर

Class: M.Sc. III rd Sem.		LESSION PLAN : 2020-21		Subject : Chemistry	
DATE	LECTURE	TEACHER'S NAME	PAPER	CHAPTER	TOPIC
16.07.2020	1	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Different type of electronic transition
	1	Mrs. Mrs. Priyanka Mishra	II	Cyclosteroisomerism	Configuration and conformation of monosubstituted cyclohexanes
17.07.2020	2	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Lambert's beer's law
	2	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	General introduction
18.07.2020	3	Pradeep Kumar Verma	I	Diffraction Method	X-ray principle elucidation of crystal structure NaCl by X-ray
	3	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Elements of symmetry
20.07.2020	1	Dr. Shiv Kumar Vernwal	III	Rearrangements	Pinacol- Pinacolone rearrangement
	1	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Water soluble Vitamin
21.07.2020	2	Dr. Shiv Kumar Vernwal	III	Rearrangements	Pinacol- Pinacolone rearrangement
	2	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Water soluble Vitamin
22.07.2020	CT	Dr. Shiv Kumar Vernwal	CT		
	3	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin C
23.07.2020	4	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Chromophore and Auxochrome
	4	Mrs. Priyanka Mishra	II	Cyclosteroisomerism	Stability of monosubstituted cyclohexane
24.07.2020	5	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Solvent effect
	5	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Molecules with more than one chiral centre
27.07.2020	6	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Red shift and Blue shift
	6	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Threo and erythro isomer
28.07.2020	3	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wanger-Meerwein rearrangement
	4	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin C
29.07.2020	4	Dr. Shiv Kumar Vernwal	III	Rearrangements	Tiffenev- Demjanov rearrangement
	5	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Biological function of Vitamin C
30.07.2020	5	Dr. Shiv Kumar Vernwal	III	Rearrangements	Dienone –Phenol rearrangement
		Mrs. Priyanka Mishra	ME	Monthly Evaluation	
31.07.2020	7	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Woodwards rule for conjugated cyclic and acyclic diene

	7	Mrs. Priyanka Mishra	II	Cyclostereoisomerism	Configuration and conformation of disubstituted cyclohexane
04.08.2020	8	Pradeep Kumar Verma	I	Diffraction Method	Structure factor and phase problem
	8	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Interconversion of Fischer and Newmann projections
05.08.2020	9	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Woodwards rule for conjugated cyclic and acyclic diene
	9	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Inter conversion of Fischer and sawhorse projection
06.08.2020	6	Dr. Shiv Kumar Vernwal	III	Rearrangements	Sommelet – Hauser rearrangement
	6	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin B1
07.08.2020	7	Dr. Shiv Kumar Vernwal	III	Rearrangements	Stevens rearrangement

	7	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin B1
08.08.2020		Dr. Shiv Kumar Vernwal	CT		
	8	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin B2
10.08.2020	10	Sanjay Jaiswal	I	UV-Visible Spectroscopy	Woodwards rule for conjugated cyclic and acyclic diene
	10	Mrs. Priyanka Mishra	II	Cyclostereoisomerism	Stability of disubstituted cyclohexane
11.08.2020	11	Sanjay Jaiswal	I	UV-Visible Spectroscopy	α , β unsaturated carbonyl compound
	11		II	Stereochemistry with chiral centre	Interconversion of Newmann and Sawhorse projections
13.08.2020	12	Sanjay Jaiswal	I	IR Spectroscopy	Introduction, Linear harmonic oscillator
	12	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Interconversion of Newmann and Sawhorse projections
14.08.2020	8	Dr. Shiv Kumar Vernwal	III	Rearrangements	Favorskii rearrangement
	9	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Structure of Vitamin B2
17.08.2020	9	Dr. Shiv Kumar Vernwal	III	Rearrangements	Favorskii rearrangement
	10	Mrs. Priyanka Mishra	IV	Water soluble Vitamin	Physiological function of Vitamin B2
18.08.2020	10	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wittig rearrangement
		Mrs. Priyanka Mishra	CT		
19.08.2020	13	Pradeep Kumar Verma	I	Diffraction Method	Patterson function methods
	13	Mrs. Priyanka Mishra	II	Cyclostereoisomerism	Chirality of disubstituted cyclohexane
20.08.2020	14	Sanjay Jaiswal	I	IR Spectroscopy	Vibrational energy of diatomic molecule
	14	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	Configurational projections

21.08.2020	15	Sanjay Jaiswal	I	IR Spectroscopy	Zero point energy
	15	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Geometrical isomerism of C=N compounds
22.08.2020	11	Dr. Shiv Kumar Vernwal	III	Rearrangements	Hoffmaann rearrangement
	11	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin A
24.08.2020	12	Dr. Shiv Kumar Vernwal	III	Rearrangements	Curtius rearrangement
	12	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin A
25.08.2020		Dr. Shiv Kumar Vernwal	ME		
	13	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin A
26.08.2020	16	Pradeep Kumar Verma	I	Diffraction Method	Patterson function methods
	16	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Geometrical isomerism of C=N compounds
27.08.2020	17	Sanjay Jaiswal	I	IR Spectroscopy	Force constant and bond strength
	17	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Geometrical isomerism of N=N compounds
28.08.2020	18	Pradeep Kumar Verma	I	Electron Diffraction	Wierl equation
	18	Dr. Shiv Kumar Vernwal	II	Stereochemistry with chiral centre	R/S and E/Z nomenclature
01.09.2020	13	Dr. Shiv Kumar Vernwal	III	Rearrangements	Curtius rearrangement
	14	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin A
02.09.2020	14	Dr. Shiv Kumar Vernwal	III	Rearrangements	Lossen rearrangement
	15	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Physiological function of Vitamin A

03.09.2020	15	Dr. Shiv Kumar Vernwal	III	Rearrangements	Lossen rearrangement
		Mrs. Priyanka Mishra	CT	Monthly Evaluation	
04.09.2020	19	Sanjay Jaiswal	I	IR Spectroscopy	Morse potential energy diagram
	19	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Geometrical isomerism of N=N compounds
05.09.2020	20	Pradeep Kumar Verma	I	Electron Diffraction	Low energy electron diffraction
	20	Dr. Shiv Kumar Vernwal	II	Topocity and prostereomerism	Introduction
07.09.2020	21	Sanjay Jaiswal	I	IR Spectroscopy	Vibrational rotation spectroscopy
	21	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Stereochemistry of S compound
08.09.2020	16	Dr. Shiv Kumar Vernwal	III	Rearrangements	Schmidt rearrangement

	16	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin E
09.09.2020	17	Dr. Shiv Kumar Vernwal	III	Rearrangements	Beckmann rearrangement
	17	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin E
10.09.2020		Dr. Shiv Kumar Vernwal	CT		
	18	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Biological function of Vitamin E
11.09.2020	22	Sanjay Jaiswal	I	I R Spectroscopy	P, Q, R branches
	22	Mrs. Priyanka Mishra	II	Stereochemistry of S and P compound	Stereochemistry of S compound
12.09.2020	23	Pradeep Kumar Verma	I	Electron Diffraction	Low energy electron diffraction
	23	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Homotopic and enantiotopic atoms, groups and faces
14.09.2020	24	Sanjay Jaiswal	I	IR Spectroscopy	Break down of Born-Oppenheimer approximation
	24	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Stereoselectivity
15.09.2020	18	Dr. Shiv Kumar Vernwal	III	Rearrangements	Bayer -Villiger oxidation
	19	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin K
16.09.2020	19	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wolf rearrangement
	20	Mrs. Priyanka Mishra	IV	Fat soluble Vitamin	Structure of Vitamin K
18.09.2020	20	Dr. Shiv Kumar Vernwal	III	Rearrangements	Wolf rearrangement
		Mrs. Priyanka Mishra	CT		
19.09.2020	25	Sanjay Jaiswal	I	IR Spectroscopy	Break down of Born-Oppenheimer approximation
	25	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Diastereotopic atoms , groups and faces
21.09.2020	26	Sanjay Jaiswal	I	IR Spectroscopy	
	26	Dr. Shiv Kumar Vernwal	II	Topocity and Prostereomerism	Nomenclature
22.09.2020	27	Pradeep Kumar Verma	I	Neutron Diffraction	Principle , Technique
	27	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving chiral catalysis
23.09.2020	21	Dr. Shiv Kumar Vernwal	III	Rearrangements	Benzidine rearrangement
	21	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Introduction of Estrogen and Androgen
24.09.2020	22	Dr. Shiv Kumar Vernwal	III	Rearrangements	Benzidine rearrangement
	22	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Structure of Estrogen

25.09.2020		Dr. Shiv Kumar Vernwal	ME		
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	23	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Synthesis and relationship of estradiol
26.09.2020	28	Sanjay Jaiswal	I	IR Spectroscopy	Selection rule
	28	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving chiral catalysis
28.09.2020	29	Sanjay Jaiswal	I	IR Spectroscopy	Overtone , Hot bands
	29	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Principles of axial & planar chirality
29.09.2020	30	Sanjay Jaiswal	I	IR Spectroscopy	Absorption by common functional groups
	30	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Principles of axial planar chirality
30.09.2020	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
01.10.2020	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
03.10.2020	25	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reactions by FMO method
		Mrs. Priyanka Mishra	CT		
05.10.2020	31	Sanjay Jaiswal	I	IR Spectroscopy	Absorption by common functional groups
	31	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving auxillary chiral reagents
06.10.2020	32	Pradeep Kumar Verma	I	Neutron Diffraction	Difference with electron diffraction
	32	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of biphenyl
07.10.2020	33	Sanjay Jaiswal	I	IR Spectroscopy	Brief description of IR and F.T.I.R. instruments
	33	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of biphenyl
09.10.2020	26	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of electrocyclic reaction by FMO method
	26	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Synthesis of Oestrone
10.10.2020	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
12.10.2020		Dr. Shiv Kumar Vernwal	CT		
	28	Mrs. Priyanka Mishra	IV	Steroidal Hormones	Preparation of Progesteron

13.10.2020	34	Pradeep Kumar Verma	I	Neutron Diffraction	Difference with electron diffraction
	34	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving auxially chiral reagent
14.10.2020	35	Sanjay Jaiswal	I	Raman Spectroscopy	Theories of Raman Effect
	35	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Synthesis involving auxially chiral reagent
15.10.2020	36	Sanjay Jaiswal	I	Raman Spectroscopy	Conditions of Raman active vibrations
	36	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of allenes
16.10.2020	28	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by correlation method
	29	Mrs. Priyanka Mishra	IV	Steroid Hormones	Physiological function of Progesterone
17.10.2020	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
19.10.2020	30	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by FMO method

		Mrs. Priyanka Mishra	ME		
20.10.2020	37		I	Raman Spectroscopy	Selection rules
	37	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Quasireceme
21.10.2020	38	Sanjay Jaiswal	I	Raman Spectroscopy	Selection rules
	38	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of allenes
22.10.2020	39	Sanjay Jaiswal	I	Raman Spectroscopy	Polarised and Depolarised Raman lines
	39	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Quasireceme and Optical Purity
23.10.2020	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
29.10.2020	32	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of cycloaddition reactions by PMO method
	32	Mrs. Priyanka Mishra	IV	Steroids	Diels-Alder hydrocarbon determination of ring system in Cholesterol
31.10.2020		Dr. Shiv Kumar Vernwal	ME		
	33	Mrs. Priyanka Mishra	IV	Steroids	Angula methyl group in cholesterol
02.11.2020	40	Sanjay Jaiswal	I	Raman Spectroscopy	Polarised and Depolarised Raman lines

	40	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of Spiranes, Enantiomeric excess
03.11.2020	41	Sanjay Jaiswal	I	Raman Spectroscopy	Study of simple molecule such as SO ₂ , CO ₂ , Study of simple of N ₂ O and C ₂ H ₂
	41	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of Spiranes, Enantiomeric excess
04.11.2020	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
05.11.2020	34	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of Diel's- Alder reaction
	35	Mrs. Priyanka Mishra	IV	Steroids	Determination of position of side chain in cholesterol
06.11.2020	35	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of Diel's Alder reaction
	36	Mrs. Priyanka Mishra	IV	Steroids	Synthesis of cholesterol
07.11.2020		Sanjay Jaiswal	CT		
	42	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism of Spiranes
09.11.2020	42	Sanjay Jaiswal	I	Raman Spectroscopy	Hydrogen Bonding
	43	Mrs. Priyanka Mishra	II	Asymmetric synthesis	Enantiomeric excess
10.11.2020	43	Sanjay Jaiswal	I	Raman Spectroscopy	Metals ion in solution
	44	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism due to intramolecular overcrowding
17.11.2020	36	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of 1,3- sigmatropic shift
	37	Mrs. Priyanka Mishra	IV	Steroids	Chemistry of Cortisone
18.11.2020	37	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Study of 1,5 -sigmatropic shift
	38	Mrs. Priyanka Mishra	IV	Steroids	Chemistry of Cortisone
19.11.2020	38	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Claisen rearrangement
	39	Mrs. Priyanka Mishra	IV	Steroids	Therapeutic use of Cortisone
21.11.2020	44	Sanjay Jaiswal	I	Raman Spectroscopy	Mutual exclusion principle

		Dr. Shiv Kumar Vernwal	ME	Monthly Evaluation	
23.11.2020	45	Sanjay Jaiswal	I	Raman Spectroscopy	Interpretation of Raman spectra
	45	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism due to intramolecular overcrowding
24.11.2020	46	Sanjay Jaiswal	I	Raman Spectroscopy	Problems related with Raman spectra

	46	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	Optical isomerism due to intramolecular overcrowding
26.11.2020	39	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Cope rearrangement
	40	Mrs. Priyanka Mishra	IV	Steroids	Therapeutic use of Cartisone
27.11.2020	40	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Oxy-cope rearrangement
	41	Mrs. Priyanka Mishra	IV	Steroids	Therapeutic use of Cartisone
28.11.2020	41	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Aza-Cope rearrangement
	42	Mrs. Priyanka Mishra	IV	Steroids	Therapeutic use of Cartisone
Extra*	47	Dr. Shiv Kumar Vernwal	II	Stereochemistry with axial/ planer chirality	R/S system of nomenclature
*	42	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Aza-Cope's rearrangement
*	43	Dr. Shiv Kumar Vernwal	III	Pericyclic Reactions	Group transfer reactions

Note:-Lecture of Mr. Pradeep Verma will teach by Mr. Sanjay Jaiswal.