

महाराणा प्रताप पी.जी. कालेज, जंगल धूसड़, गोरखपुर

Class : B.Sc. I st		LESSION PLAN : 2019-20			Subject : Chemistry
DATE	LECTURE	TEACHER'S NAME	PAPER	CHAPTER	TOPIC
01.08.2019	1	DR. R. SAHAY	I	Gaseous State	Postulates of kinetic theory of gases
02.08.2019	2	DR. R. SAHAY	I	Gaseous State	Deviation from ideal behaviour
03.08.2019	1	P. K.VERMA	II	Atomic Structure & Periodic Table	Quantum numbers
06.08.2019	2	P. K.VERMA	II	Atomic Structure & Periodic Table	Shapes of orbitals
07.08.2019	1	DR. S. K. VERNWAL	III	Structure and Reactivity	Hybridisation
08.08.2019		DR. S. K. VERNWAL	CT		
09.08.2019	3	DR. R. SAHAY	I	Gaseous State	van der Waals equation of state, PV-isotherm of real gases
10.08.2019	4	DR. R. SAHAY	I	Gaseous State	Continuity of states, Isotherm of van der Waals equation
13.08.2019	3	P. K.VERMA	II	Atomic Structure & Periodic Table	Pauli's exclusion principle, Hund's rule
14.08.2019	4	P. K.VERMA	II	Atomic Structure & Periodic Table	Aufbau principle, Variation of orbital energies and Energy level diagram
16.08.2019	2	DR. S. K. VERNWAL	III	Structure and Reactivity	Homolysis and Heterolysis
17.08.2019		DR. S. K. VERNWAL	CT		
19.08.2019	5	DR. R. SAHAY	I	Gaseous State	Relationship between critical constant & van der Waals constant, Law of corresponding state
20.08.2019	6	DR. R. SAHAY	I	Gaseous State	Reduced equation of state, root mean square, average & most probable velocity
21.08.2019	5	P. K.VERMA	II	Atomic Structure & Periodic Table	Long form of periodic table
22.08.2019	6	P. K.VERMA	II	Periodic properties of Elements	Types of radii
24.08.2019	3	DR. S. K. VERNWAL	III	Structure and Reactivity	Free radicals, Carbocations and Carbanions
26.08.2019		DR. S. K. VERNWAL	ME		
27.08.2019	7	DR. R. SAHAY	I	Gaseous State	Qualitative discussion of the Maxwell's distribution of molecular velocities
28.08.2019	8	DR. R. SAHAY	I	Gaseous State	Collision number, Mean free path & collision diameter, Liquefaction of gases
29.08.2019	7	P. K.VERMA	II	Periodic properties of Elements	Electron affinity & its variation
30.08.2019	8	P. K.VERMA	II	Periodic properties of Elements	Ionisation potential
02.09.2019	4	DR. S. K. VERNWAL	III	Structure and Reactivity	Polarity of covalent bonds, Inductive effect
03.09.2019		DR. S. K. VERNWAL	CT		
04.09.2019	9	DR. R. SAHAY	I	Liquid State	Intermolecular forces, Structure of liquids
05.09.2019	10	DR. R. SAHAY	I	Liquid State	Structural differences between solids, liquids & gases
06.09.2019	9	P. K.VERMA	II	Periodic properties of Elements	Concept of effective nuclear charge & shielding effect
07.09.2019	10	P. K.VERMA	II	Periodic properties of Elements	Electronegativity & its variation
09.09.2019	5	DR. S. K. VERNWAL	III	Structure and Reactivity	Electromeric effect, Resonance
11.09.2019		DR. S. K. VERNWAL	CT		
13.09.2019	11	DR. R. SAHAY	I	Liquid State	Structural differences between liquid crystal, solid & liquid
14.09.2019	12	DR. R. SAHAY	I	Liquid State	Classification, structure of nematic, smectic & cholesteric phases & applications

16.09.2019	11	P. K.VERMA	II	Periodic properties of Elements	Pauling, Mulliken & Allred Rochow Scale
17.09.2019	12	S. JAISWAL	II	Chemical Bonding	Ionic bonds, Radius ratio in ionic solids
19.09.2019	6	DR. S. K. VERNWAL	III	Structure and Reactivity	Hyperconjugation
20.09.2019		DR. S. K. VERNWAL	CT		
21.09.2019	13	DR. R. SAHAY	I	Solid State	Definition of space lattice & unit cell
23.09.2019	14	DR. R. SAHAY	I	Solid State	Law of constancy of interfacial angles
24.09.2019	13	S. JAISWAL	II	Chemical Bonding	Lattice energy & Born-Haber cycle
25.09.2019	14	S. JAISWAL	II	Chemical Bonding	Polarisation of ions & Fajan's rule
26.09.2019	7	DR. S. K. VERNWAL	III	Structure and Reactivity	Hydrogen bonding
27.09.2019		DR. S. K. VERNWAL	ME		
30.09.2019	15	DR. R. SAHAY	I	Solid State	Law of symmetry, symmetry element in crystal
01.10.2019	16	DR. R. SAHAY	I	Solid State	Derivation of Bragg's equation
03.10.2019	15	S. JAISWAL	II	Chemical Bonding	Covalent bonds
04.10.2019	16	S. JAISWAL	II	Chemical Bonding	sp, sp ² , sp ³ , sp ³ d & sp ³ d ² hybridisation
05.10.2019	8	DR. S. K. VERNWAL	III	Stereochemistry	Chirality, elements of symmetry
12.10.2019		DR. S. K. VERNWAL	CT		
14.10.2019	17	S. JAISWAL	II	Chemical Bonding	Determination of shape of molecules: NH ₃ , H ₂ O, H ₃ O ⁺ , ICl ₂ ⁻ , I ₃ ⁻ by VSEPR theory
15.10.2019	18	S. JAISWAL	II	Chemical Bonding	Determination of shape of molecules: NH ₃ , H ₂ O, H ₃ O ⁺ , ICl ₂ ⁻ , I ₃ ⁻ by VSEPR theory
16.10.2019	9	DR. S. K. VERNWAL	III	Stereochemistry	Optical isomerism of Lactic acid and Tartaric acid
17.10.2019	10	DR. S. K. VERNWAL	III	Stereochemistry	Racemisation and Resolution
18.10.2019	17	DR. R. SAHAY	I	Solid State	Determination of crystal structure of NaCl & KCl
21.10.2019		DR. R. SAHAY	ME		
22.10.2019	19	S. JAISWAL	II	Chemical Bonding	Odd electron bond, Maximum covalency
23.10.2019	20	S. JAISWAL	II	Chemical Bonding	Hydrogen bonding, Metallic bonding
30.10.2019	11	DR. S. K. VERNWAL	III	Stereochemistry	Newmann and Sawhorse projection formula
31.10.2019	12	DR. S. K. VERNWAL	III	Stereochemistry	D, L and R, S nomenclature
01.11.2019	18	DR. R. SAHAY	I	Colloidal State & Macromolecules	Definition & classification of colloids, Macromolecule kinetics, optical & electrical stability of colloids
04.11.2019		DR. R. SAHAY	CT		
05.11.2019	21	P. K.VERMA	II	General studies of s & p block elements	Discussion of I & II group elements
06.11.2019	22	P. K.VERMA	II	General studies of s & p block elements	Discussion of 13 & 14 group elements
07.11.2019	13	DR. S. K. VERNWAL	III	Stereochemistry	Geometrical isomerism, E- Z nomenclature
09.11.2019	14	DR. S. K. VERNWAL	III	Stereochemistry	Conformations of Ethane and n-Butane
11.11.2019	19	DR. R. SAHAY	I	Colloidal State & Macromolecules	Protective action, Hardy-Schulze law, Gold number, Type of emulsion,

					Preparation of emulsified
13.11.2019		DR. R. SAHAY	CT		
14.11.2019	23	P. K.VERMA	II	General studies of s & p block elements	Discussion of 15 &16 group elements
15.11.2019	24	P. K.VERMA	II	General studies of s & p block elements	Discussion of 15 &16 group elements
16.11.2019	15	PRIYANKA MISHRA	III	Alkyl halides & Grignard reagents	Mechanism of nucleophilic substitution reaction of alkyl halides
18.11.2019	16	PRIYANKA MISHRA	III	Alkyl halides & Grignard reagents	Preparation of Grignard reagent and synthetic applications
19.11.2019	20	DR. R. SAHAY	I	Colloidal State & Macromolecules	Liquid in solid (Gels) classification, preparation & properties inhibition general application of colloids
20.11.2019		DR. R. SAHAY	CT		
21.11.2019	25	S. JAISWAL	II	Occurrence, extraction & isolation of metals	Ores & metallurgy of Li
22.11.2019	26	S. JAISWAL	II	Occurrence, extraction & isolation of metals	Ores & metallurgy of Be & F ₂
23.11.2019	17	PRIYANKA MISHRA	III	Alkyl halides & Grignard reagents	Synthetic applications of Grignard reagent
25.11.2019	18	PRIYANKA MISHRA	III	Alkyl halides & Grignard reagents	Synthetic applications of Grignard reagent
26.11.2019	21	DR. R. SAHAY	I	Colloidal State & Macromolecules	Determination of molecular weight of macro molecules by osmotic pressure & viscosity method, concept of micelles and critical concentration
27.11.2019		DR. R. SAHAY	ME		
28.11.2019	27	S. JAISWAL	II	Preparation, properties & structure	Diborane
29.11.2019	28	S. JAISWAL	II	Preparation, properties & structure	Borazine
30.11.2019	19	PRIYANKA MISHRA	III	Alcohols and Ethers	Classification and distinction of primary, secondary and tertiary alcohols
02.12.2019	20	PRIYANKA MISHRA	III	Alcohols and Ethers	Mechanism of dehydration of alcohols
03.12.2019	22	DR. R. SAHAY	I	Colloidal State & Macromolecules	A brief introduction of conducting and light emitting polymer
07.12.2019		DR. R. SAHAY	CT		
09.12.2019	21	PRIYANKA MISHRA	III	Alcohols and Ethers	Isomerism of propanols, butanols and pentanols
11.12.2019	22	PRIYANKA MISHRA	III	Alcohols and Ethers	Industrial preparation and reactions of Glycerol
12.12.2019	23	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Concentration, dependence of rate mathematical characteristics
13.12.2019	24	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Simple chemical reaction, Zero order reaction
14.12.2019	29	S. JAISWAL	II	Preparation, properties & structure	Hydrazine
16.12.2019		S. JAISWAL	CT		
17.12.2019	23	PRIYANKA MISHRA	III	Alcohols and Ethers	Williamson synthesis, formation and cleavage of oxonium salts
18.12.2019	24	PRIYANKA MISHRA	III	Alcohols and Ethers	Crown ethers
19.12.2019	25	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	First, second order of reaction
20.12.2019	26	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Pseudo order reaction, Determination of the order of reaction, Differential method, Method of integration

21.12.2019	30	S. JAISWAL	II	Structure & Properties	Interhalogen compounds & Polyhalides
23.12.2019		S. JAISWAL	CT		
24.12.2019	25	DR. S. K. VERNWAL	III	Carboxylic Acids	Structure of carboxyl group
26.12.2019	26	DR. S. K. VERNWAL	III	Carboxylic Acids	Mechanism of esterification and acetylation
27.12.2019	27	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Method of integration, Half life period and isolation method
28.12.2019	28	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Radioactive decay as a first order phenomenon
30.12.2019	31	S. JAISWAL	II	Structure & Properties	Fluorides of Xenone
31.12.2019		S. JAISWAL	ME		
01.01.2020	27	DR. S. K. VERNWAL	III	Carboxylic Acids	A_{AC}^2 and B_{AC}^2 mechanism of ester hydrolysis
02.01.2020	28	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Addition of Hydrogen, Halogens and Halogen acids
03.01.2020	29	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Experimental method for the study of chemical kinetics
04.01.2020	30	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Effect of temperature on rate of reaction
06.01.2020	32	S. JAISWAL	II	Structure & Basicities	Oxyacids of Boron
07.01.2020		S. JAISWAL	CT		
08.01.2020	29	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Addition of Water and Sulphuric acid
09.01.2020	30	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Ozonolysis, Hydroboration, Hydroxylation and Epoxydation
10.01.2020	31	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Arrhenius equation, Concept of activation energy
11.01.2020	32	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Simple collision theory based on hard sphere model, Transition state theory
13.01.2020	33	S. JAISWAL	II	Structure & Basicities	Oxyacids of Phosphorous
16.01.2020		S. JAISWAL	CT		
17.01.2020	31	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Acetylene as carbon acid, Addition reactions of Acetylene
18.01.2020	32	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Stability and addition reactions of 1,3-Butadiene
20.01.2020	33	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Expression for the rate constant based on equilibrium
22.01.2020	34	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Characteristics of catalysed reaction, classification of catalyst
23.01.2020	34	S. JAISWAL	II	Structure & Basicities	Oxyacids of Sulphur
24.01.2020		S. JAISWAL	ME		
25.01.2020	33	DR. S. K. VERNWAL	III	Alkenes, Alkynes, Alkadienes & Cycloalkanes	Preparation and properties of small ring Cycloalkanes
27.01.2020	34	PRIYANKA MISHRA	III	General reactions of carbonyl compounds	Mechanism of addition of Sodium bisulphite and Hydrogen cyanide
28.01.2020	35	DR. R. SAHAY	I	Chemical Kinetics & Catalysis	Characteristics of catalysed reaction, classification of catalyst
29.01.2020	36	DR. R. SAHAY	I	Mathematical Concept & Computer	Logarithm relation sketching linear graph
30.01.2020	35	S. JAISWAL	II	Problems & Solutions	Nuramerical Problems

31.01.2020		S. JAISWAL	ME		
Extra*	37	DR. R. SAHAY	I	Mathematical Concept & Computer	Calculation of slopes, Differentiation of function of $f(x)$, x^n , e^x , $\sin x$, $\log x$
	38	DR. R. SAHAY	I	Mathematical Concept & Computer	Partial difference & integration
*	36	S JAISWAL	II	Problems & Solutions	Numerical Problems
*	35	PRIYANKA MISHRA	III	General reactions of carbonyl compounds	Aldol condensation, Cannizzaro reaction
*	36	PRIYANKA MISHRA	III	General reactions of carbonyl compounds	Wolf-Kishner reduction, Clemmensen reduction
*	37	PRIYANKA MISHRA	III	General reactions of carbonyl compounds	Meerwein-Ponndorf-Verley reduction, Catalytic reduction, $LiAlH_4$
*	38	PRIYANKA MISHRA	III	General reactions of carbonyl compounds	Preparation and synthetic uses of Acetoacetic ester
*	38	DR. R. SAHAY	I	Mathematical Concept & Computer	, integration of some relevant function
*	39	DR. R. SAHAY	I	Mathematical Concept & Computer	Permutation, combination, factorial & probability
*	37	S. JAISWAL	II	Problems & Solutions	Numerical Problems
*	38	S. JAISWAL	II	Problems & Solutions	Numerical Problems
*	39	PRIYANKA MISHRA	III	Compounds containing reactive methylene group	Keto-enol tautomerism, Preparation of Malonic ester
*	40	PRIYANKA MISHRA	III	Compounds containing reactive methylene group	Synthetic uses of Malonic ester
*	40	DR. R. SAHAY	I	Mathematical Concept & Computer	General introduction of computer & component of computer
*	41	DR. R. SAHAY	I	Mathematical Concept & Computer	Hardware, Software, Input, Output device, Binary number & Arithmetic
*	39	S. JAISWAL	II	Problems & Solutions	Numerical Problems
*	40	S. JAISWAL	II	Problems & Solutions	Numerical Problems
*	41	PRIYANKA MISHRA	III	Nitrogen containing compounds	Preparation and distinction between Alkyl nitrites and Nitro alkanes
*	42	PRIYANKA MISHRA	III	Nitrogen containing compounds	Alkyl cyanides and Alkyl isocyanides
*	42	DR. R. SAHAY	I	Mathematical Concept & Computer	Introduction to computer languages, programming, operating system
*	43	PRIYANKA MISHRA	III	Nitrogen containing compounds	Amines, classification and distinction
*	44	PRIYANKA MISHRA	III	Nitrogen containing compounds	Separation of primary, secondary and tertiary amines
*	45	PRIYANKA MISHRA	III	Nitrogen containing compounds	Preparation of amines, and general reactions
*	46	PRIYANKA MISHRA	III	Nitrogen containing compounds	Relative basicities of amines
*	47	DR. S. K. VERNWAL	III	Numerical questions	Numerical questions based on determination of structural formula

*	48	DR. S. K. VERNWAL	III	Numerical questions	Numerical questions based on determination of structural formula
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