

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१७-२०१८		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
15.07.2017	1	Dr.R.Sahay	I	Gaseous States	Postulates of kinetic theory of gases
17.07.2017	2	Dr.R.Sahay	I	Gaseous States	Deviation from ideal behaviour
18.07.2017	1	P.K.Verma	I	Atomic Structure & Periodic	Quantum numbers
				Table	
19.07.2017	2	P.K.Verma	I	Atomic Structure & Periodic	Shapes of s,p,d Orbitals
				Table	
20.07.2017	1	Dr. S.K.Vernwal	III	Structure and Reactivity	Hybridisation
21.07.2017		Dr. S.K.Vernwal		CLASS TEACHING	
22.07.2017	3	Dr.R.Sahay	I	Gaseous State	van der Waals equation of state, PV-Isotherm of
					real gases
24.07.2017	4	Dr.R.Sahay	I	Gaseous State	Continuity of states, Isotherm
25.07.2017	3	P. K. Verma	I	Atomic Structures & Periodic	Pauli's exclusion principle; Hund's rule
				Table	
26.07.2017	4	P. K. Verma	I	Atomic Structures and Periodic	Aufbau principle, Variation of Orbital Energies and
				Table	energy level diagram
27.07.2017	2	Dr. S.K.Vernwal	III	Structure and Reactivity	Homolysis & Heterolysis
29.07.2017		Dr. S.K.Vernwal		CLASS TEACHING	
31.07.2017	5	Dr.R.Sahay	I	Gaseous State	Relationship between Critical Constant & van der
					Waals constant, Law of Corresponding state
01.08.2017	6	Dr.R.Sahay	I	Gaseous State	Reduced equation of state, root mean square,
					average & most probable velocities
02.08.2017	5	P.K Verma	I	Atomic Structure & Periodic	Long form of periodic table
				Table	
03.08.2017	6	P. K. Verma	I	Periodic properties of elements	Types of radii
04.08.2017	3	Dr.S.K.Vernwal	III	Structure and Reactivity	Free Radicals, Carbocations, & Carbonions
05.08.2017		Dr.S.K.Vernwal		CLASS TEACHING	
08.08.2017	7	Dr.R.Sahay	I	Gaseous State	Qualitative discussion of the Maxwell's
					distribution of molecular velocity, most probable
					Velocity
09.08.2017	8	Dr.R.Sahay	I	Gaseous State	Qualitative discussion of the Maxwell's

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					distribution of molecular Velocities
10.08.2017	7	P.K.Verma	I	Preiodic Properties of Elements	Electron affinities & its variation
11.10.2017	8	P.K.Verma	I	Periodic properties of elements	Ionisation potential
12.08.2017	4	Dr.S.K.Vernwal	III	Structures and Reactivity	Polarity of Covalent bonds, Inductive Effect
13.08.2017		Dr. S.K.Vernwal		CLASS TEACHING	
16.08.2017	9	Dr. R Sahay	I	Gaseous State	Collision number, Mean free path and collision
					diameter, Liquefaction of gases
17.08.2017	10	Dr. R Sahay	I	Liquid State	Intermolecular forces, Structures of liquid
18.08.2017	9	P.K.Verma	I	Periodic Properties of Elements	Concept of effective nuclear charge and shielding
19.08.2017	10	P.K.Verma	I	Periodic Properties of Elements	Electronegativity, Pauling Scale
21.08.2017	5	Dr.S.K.Vernwal	III	Structures aand Reactivity	Electromeric effect, Resonance
22.08.2017		Dr.S.K.Vernwal		CLASS TEACHING	
23.08.2017	11	Dr. Ram Sahay	I	Liquid State	Structrual differences between soilds, liquids
					and gases
24.08.2017	12	Dr.R.Sahay	I	Liquid State	Structural differences between liquid Crystal, Solid
					& liquid
25.08.2017	11	P. K. Verma	I	Period Properties Of Elements	Mulliken & Allred Rochow Scale & its Variation
26.08.2017	12	S.Jaiswal	I	Chemical Bonding	Ionic bonds, Radius ratio in ionic solids
28.08.2017	6	Dr. S.K.Vernwal	III	Structure and Reactivity	Hyperconjugation
29.08.2017		Dr. S.K.Vernwal		CLASS TEACHING	
31.08.2017	13	Dr. R Sahay	I	Liquid State	Classification, Structure of Nematic, Smectic &
					Cholesteric, phases & applicatiions
01.09.17	14	Dr. R Sahay	I	Solid State	Deffiniation of space lattice & unit cell,
					law of constancy of interfacial angles
02.09.17	13	Sanjay Jaiswal	I	Chemical Bonding	Lattice energy and born - haber cycle
05.09.17	14	Sanjay Jaiswal	I	Chemical Bonding	Polarisation of ions and Fajan's rule
06.09.17	7	Dr.S.K.Vernwal	III	Structure and Reactivity	Hydrogen bonding
07.09.17		Dr.S.K.Vernwal		CLASS TEACHING	
08.09.17	15	Dr.R.Sahay	I	Solid State	Law of symmetry, symmerty element in crystal

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09.09.2017	16	Dr. R. Sahay	I	Solid State	Derivation of Bragg's equation
11.09.2017	15	Sanjay Jaiswal	I	Chemical Bonding	Covalent bonds
12.09.2017	16	Sanjay Jaiswal	I	Chemical Bonding	Covalent Bond, sp, sp ² , sp ³ , sp ³ d, sp ³ d ²
13.09.2017	8	Dr.S.K.Vernwal	III	Stereochemistry	Chirality, elements of symmetry
14.09.2017		Dr.S.K.Vernwal		CLASS TEACHING	
15.09.2017	17	Sanjay Jaiswal	I	Chemical Bonding	Determination of shape of molecules NH ₃ , H ₂ O, H ₃ O ⁺
					IQ ² , I ³⁻ by vsper concept
16.09.2017	18	Sanjay Jaiswal	I	Chemical Bonding	Determination of shape of molecules NH ₃ , H ₂ O, H ₃ O ⁺
					IQ ² , I ³⁻ by vsper concept
18.09.2017	9	Dr.S.K.Vernwal	III	Stereochemistry	Optical isomerism of lactic acid & tartaric acids
19.09.2017	10	Dr.S.K.Vernwal	III	Stereochemistry	Racemisation & resolution
21.09.2017	17	Dr.R.Sahay	I	Solidstate	Determination of crystal structure of NaCl & KCl
22.09.2017		Dr.R.Sahay		CLASS TEACHING	
23.09.2017	19	Sanjay Jaiswal	I	Chemical Bonding	Odd electron bond maximum covalency
	20	Sanjay Jaiswal	I	Chemical Bonding	Hydrogen bonding, metallic bonding
26.09.2017	11	Dr.S.K.Vernwal	III	Stereochemistry	Newmann & Sawhorse projection formula
27.09.2017	12	Dr.S.K.Vernwal	III	Stereochemistry	D, L & R, S nomenclature
03.10.2017	18	Dr.R.Sahay	I	Colloidal state &	Definition of colloids & classification of colloids, macromolecules kinetic, optical & electrical, stability of colloids
04.10.2017		Dr.R.Sahay		CLASS TEACHING	
07.10.2017	21	Pradeep Kumar Verma	I	General studies of S & P block	Discussion on I & II group element
	22	Pradeep Kumar Verma	I	General studies of S & P block	Discussion on 13 & 14 group elements
09.10.17	13	Dr.S.K.Vernwal	III	Stereochemistry	Geometrical isomerism, E-Z, nomenclature
10.10.17	14	Dr.S.K.Vernwal	III	Stereochemistry	Conformations of ethane & n-butane
11.10.17	19	Dr.R.Sahay	I	Colloidal State & Macromolecules	Protective action, Hardy Hardy-Schulze law, gold number, types of emulsion, preparation of emulsified
12.10.17		Dr.R.Sahay		CLASS TEACHING	
13.10.17	23	Pradeep Kumar Verma	I	General Studies of p-block	Discussion of 15 th group elements

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				elements	
14.10.17	24	Pradeep Kumar Verma	I	General studies of p-block	Discussion of 16 th group elements
				elements	
16.10.17	15	Priyanka Mishra	III	Alkyl halides and Grignard	Mechanism of nucleophilic substitution reaction
				reagents	of alkyl halides
23.10.17	16	Priyanka Mishra	III	Alkyl Halides and grignard	Preparation of Gignard
				reagents	reagent & synthetic application
24.10.17	20	Dr.R.Sahay	I	Colloidal state &	Liquid in solids (Gels) classification preparation
				macromolecules	& properties, inhibition general application of
					colloids
25.10.17		Dr.R.Sahay		CLASS TEACHING	
26.10.17	25	Sanjay Jaiswal	I	Occuring, extraction, isolation	Ores & metallurgy of Li
				of metals	
27.10.17	26	Sanjay Jaiswal	I	Occurance, extraction, isolation	Be & F ₂
				of metals	
28.10.17	17	Priyanka Mishra	III	Alkylhalides & Grignard reagent	Synthetic applications of Grignard reagent
30.10.17	18	Priyanka Mishra	III	Alkylhalides & Grignard reagent	Synthetic applications of Grignard reagent
31.10.17	21	Dr.R.Sahay	I	Colloidal state & macromolecule	Determination of molecular weight of macro
					molecules by osmotic pressure & viscosity
					method concept of miscelles & critical
					concentration
01.11.17		Dr.R.Sahay		CLASS TEACHING	
02.11.17	27	Sanjay Jaiswal	I	Preparation, Properties &	Diborane
				structure	
03.11.17	28	Sanjay Jaiswal	I	Preparation , Properties &	Borazine
				structure	
06.11.17	19	Priyanka Mishra	III	Alcohols & ethers	Classification & distinction of primary, secondary
					& tertiary alcohols
07.11.17	20	Priyanka Mishra	I	Alcohols & ethers	Mechanism of dehydration of alcohols
08.11.17	22	Dr.R.Sahay	I	Colloidal state &	A brief introduction to conducting & light

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10.10.17		Dr.R.Sahay		CLASS TEACHING	
11.10.17	21	Priyanka Mishra	III	Alcohols & ethers	Isomerism of propanols, butanols & pentanols
13.10.17	22	Priyanka Mishra	III	Alcohols & ethers	Industrial pepration and reactiion of Glycerol
16.11.17	29	Sanjay Jaiwal	II	Preparartion, structure &	Hydrazine
				properties	
17.11.17		Sanjay Jaiswal		CLASS TEACHING	
18.11.17	23	Priyanka Mishra	III	Alcohols & ethers	Williamson's synthesis, formation & cleavage
					of oxonium crown,salts
20.11.17	24	Priyanka Mishra	III	Alcohols & ethers	Crown ethers
21.11.17	25	Dr.R.Sahay	I	Chemical Kinetic &	Concentration, dependence of rates
				Catalysis	mathematical characteristics
22.11.17	26	Dr.R.Sahay	I	Chemical Kinetic &	Simple chemical reaction, zero order reaction
				Catalysis	
23.11.17	30	Sanjay Jaiswal	II	Preparation properties &	Inetrhalogens, polyhalides
				structure	
24.11.17		Sanjay Jaiswal		CLASS TEACHING	
25.11.17	25	Dr.S.K.Vernwal	III	Carboxylic acids	Structure of carboxyl group
27.11.17	26	Dr.S.K.Vernwal	III	Carboxylic acids	Mechanism of esterification & acetylation
28.11.17	27	Dr.R.Sahay	I	Chemical kinetic catalysis	First, second order reaction
29.11.17	28	Dr.R,Sahay	I	Chemical Kinetic catalysis	Pseudo order reaction, detemination of the
					order of reaction, differential method, method
					of intergration
30.11.17	31	Sanjay Jaiswal	II	Structure & basicities	Fluorides of xenon
01.12.17		Sanjay Jaiswal		CLASS TEACHING	
02.12.17	27	Dr.S.K.Vernwal	III	Carboxylic acids	k_{AC}^2 & B_{AC}^2 Mechansim of ester hydrolysis
03.12.17	28	Dr.S.K.Vernwal	III	Alkenes, Alkylnes,	Addition of hydrogen, halogens & halogen
				Alkadienes & Cycloalkanes	acids
06.12.17	29	Dr.R.Sahay	I	Chemical Kinetics &	Method of intergration, Half life period & iso
				Catalysis	lation method
07.12.17	30	Dr.R.Sahay	I	Chemical Kinetics &	Radioactive decay as a first order phenomenon

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08.12.17	32	Dr.R.Sahay	I	Structure & basicities	Oxyacids of B
09.12.17		Sanjay Jaiswal		CLASS TEACHING	
11.12.17	29	Dr.S.K.Vernwal	III	Alkenes, Alkynes	Addition of sulphuric acid & water
				Alkadienes & Cycloalkanes	
12.12.17	30	Dr.S.K.Vernwal	III	Alkenes, Alkynes,	Hydroboration, Expoxidation, Ozonolysis &
				Alkadienes & Cycloalkanes	Hydroxilation
13.12.17	31	Dr.R.Sahay	I	Chemical kinetics &	Experimental method for the studies of
				catalysis	chemical kinetics
14.12.17	32	Dr.R.Sahay	I	Chemical Kinetics &	Effect of temperature on rate of reaction
				catalysis	
15.12.17	33	Sanjay Jaiswal	II	Structure & Basicities	Oxy acids of p
16.12.17		Sanjay Jaiswal		CLASS TEACHING	
18.12.17	31	Dr.S.K.Vernwal	III	Alkenes, Alkynes,	Acetylene as carbon acid, addition reactions
				Alkadienes & Cycloalkanes	of acetylene
19.12.17	32	Dr.S.K.Vernwal	III	Alkenes, Alkynes,	Stability & addition reactions of 1,3 -
				Alkadienes & Cycoalkanes	butadiene
20.12.17	33	Dr.R.Sahay	I	Chemical Kinetics &	Arrheniuj eqquation, concept of activation
				Catalysis	energy
21.12.17	34	Dr.R.Sahay	I	Chemical Kinetics &	Simple collision theory based on hard sphere
				Catalysis	model, transition state theory
22.12.17	35	Dr.R.Sahay	I	Chemical Kinetics &	Exprression for the rate constant based on
				Cataylysis	equilibrium
23.12.17	34	Sanjay Jaiswal	II	Structure & basicities	Oxyacids of S
24.12.17		Sanjay Jaiswal		MONTHLY EVALUATION	
27.12.17	33	Dr.S.K.Vernwal	III	Alkenes,Alkynes,	Preparation & properities of small ring
				Alkadienes & Cycloalkanes	cycloalkanes
28.12.17	34	Priyanka Mishra	III	General reactions of	Mechanism of addition of sodium bisulphite
				carbonyl compounds	& HCN
29.12.17	36	Dr.R.Sahay	I	Chemical Kinetics &	Thermodynamic aspects, charateristics of

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				Catalysis	Catalysis
30.12.17	37	Dr.R.Sahay	I	Chemical Kinetics &	Industrial catalysis & enzyme kinetics
				catalysis	
01.01.18	35	Sanjay Jaiswal	II	Structure & basicities	Oxyacids of S
02.01.18		Sanjay Jaiswal		CLASS TEACHING	
03.01.18	35	Priyanka Mishra	III	General reactions of	Aldol, Cannizzaro reaction
				carbonyl compounds	
04.01.17	36	Priyanka Mishra	III	General reactions of	Wolf-kishner reduction clemmensen
				carbonyl compounds	reduction
05.01.18	38	Dr.R.Sahay	I	Chemical kinetics &	Logarithm relation sketching linear graph
06.01.18	39	Dr.R.Sahay	I	Mathematical Concept	Calculation of slopes, differential of
					functions of $f(x)$, X^n
08.01.18	36	Sanjay Jaiswal	II	Structure & basicities	Numerical problems
09.01.18		Sanjay Jaiswal		CLASS TEACHING	
10.01.18	37	Priyanka Mishra	III	General reactions of	Catalytic reduction, $LiAlH_4$
				carbonyl compounds	Meerwein- Ponndorf - Verley reduction
11.01.18	38	Priyanka Mishra	III	Compounds containing	Preparation & synthetic uses of acetoacetic
				reactive methylene group	ester
12.01.18	40	Dr.R.Sahay	I	Mathematical concept	Function of e^x , $\sin x$, $\log x$
16.01.18	41	Dr.R.Sahay	I	Mathematical concept	Partial difference & reciprocity relations of
					some relevant functions
17.01.18	37	Sanjay Jaiswal	II	Problems & solutions	Problem & solutions
18.01.18		Sanjay Jaiswal		CLASS TEACHING	
19.01.18	39	Priyanka Mishra	III	Compounds containing	Keto-enol Tautomerism, preparation of
				reactive methylene group	malonic ester
20.01.18	40	Priyanka Mishra	III	Compounds containing	Synthetic uses of malonic ester
				reactive methylene group	
22.01.18	42	Dr.R.Sahay	I	Mathematical concept	Permutation & combinations factorials
23.01.18	43	Dr.R.Sahay	I	Computer	General introduction to computer
24.01.18	38	Sanjay Jaiswal	II	Problems & solutions	Problems & solutions

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