

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
01.08.2015	1	Dr. S.K.Vernwal	III	Structure & Reactivity	Hybridisation, Homolysis & Heterolysis
03.08.2015	2	Dr. S.K.Vernwal	III	Structure & Reactivity	Free radicals, carbocations & carbanions
04.08.2015	1	Dr. Ram Sahay	I	Gaseous State	Postulate of kinetic theory of gases
05.08.2015	2	Dr. Ram Sahay	I	Gaseous State	Deviation from ideal behaviour
06.08.2015	1	P. K. Verma	I	Atomic structure & periodic table	Quantum numbers
07.08.2015		P. K. Verma		CLASS TEACHING	
08.08.2015	3	Dr. S.K.Vernwal	III	Structure & Reactivity	Stability of free radicals, carbocations & carbanions
10.08.2015	4	Dr. S.K.Vernwal	III	Structure & Reactivity	Polarity of covalent bonds, Inductive effect
11.08.2015	3	Dr. Ram Sahay	I	Gaseous State	Van der waals equation of state
12.08.2015	4	Dr. Ram Sahay	I	Gaseous State	Critical phenomena, P.V. isotherm of Van der waals equation
13.08.2015	2	P. K. Verma	I	Atomic structure & periodic table	Shapes of s, p, d, orbitals, Aufbau principle
14.08.2015		P. K. Verma		CLASS TEACHING	
17.08.2015	5	Dr. S.K.Vernwal	III	Structure & Reactivity	Electromeric effect
18.08.2015	6	Dr. S.K.Vernwal	III	Structure & Reactivity	Resonance & Hyperconjugation
20.08.2015	5	Dr. Ram Sahay	I	Gaseous State	Continuity of state, the isotherms of Van der waals equation
21.08.2015	6	Dr. Ram Sahay	I	Gaseous State	Relationship between critical constants and Van der waals constant
22.08.2015	3	P. K. Verma	I	Atomic structure & Periodic table	Pauli's exclusion principle, Hund's rule, Energy level diagram, Long form of periodic table
23.08.2015		P. K. Verma		MONTHLY EVALUATION	
24.08.2015	7	Dr. S.K.Vernwal	III	Structure & Reactivity	Hydrogen bonding
25.08.2015	8	Dr. S.K.Vernwal	III	Stereochemistry	Chirality, element of symmetry
26.08.2015	7	Dr. Ram Sahay	I	Gaseous State	The law of corresponding states, reduced equation of state
27.08.2015	8	Dr. Ram Sahay	I	Gaseous State	Root mean, square, Average velocities
31.08.2015	4	P. K. Verma	I	Periodic properties of elements	Types of Radii
01.09.2015		P. K. Verma		CLASS TEACHING	
03.09.2015	9	Dr. S.K.Vernwal	III	Stereochemistry	Optical isomerism of lactic acid
04.09.2015	10	Dr. S.K.Vernwal	III	Stereochemistry	Racemisation & Resolution
07.09.2015	9	Dr. Ram Sahay	I	Gaseous State	Most probable velocities
08.09.2015	10	Dr. Ram Sahay	I	Gaseous State	Qualitative discussion of Maxwell's distribution of

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
					molecular velocity
09.09.2015	5	P. K. Verma	I	Periodic properties of elements	Periodic properties - Electron affinity, Ionisation potential
10.09.2015		P. K. Verma		CLASS TEACHING	
11.09.2015	11	Dr. S.K.Vernwal	III	Stereochemistry	D,L & R, S- Nomenclature
12.09.2015	12	Dr. S.K.Vernwal	III	Stereochemistry	Geometrical Isomerism, E-Z nomenclature
14.09.2015	11	Dr. Ram Sahay	I	Gaseous State	Collision number, Mean free path
15.09.2015	12	Dr. Ram Sahay	I	Gaseous State	Collision Diameter
16.09.2015	6	P. K. Verma	I	Periodic properties of elements	Concept of effective nuclear charge & shielding effect
18.09.2015		P. K. Verma		CLASS TEACHING	
19.09.2015	13	Dr. S.K.Vernwal	III	Stereochemistry	Conformation of ethane & n-butane
21.09.2015	14	Dr. S.K.Vernwal	III	Carboxylic Acids	Structure of Carboxyl group, Acid strength
22.09.2015	13	Dr. Ram Sahay	I	Gaseous State	Liquifaction of Gases
23.09.2015	14	Dr. Ram Sahay	I	Liquid State	Intermolecular forces
24.09.2015	7	P. K. Verma	I	Periodic properties of elements	Electronegativity-Pauling's scale
26.09.2015		P. K. Verma		MONTHLY EVALUATION	
28.09.2015	15	Dr. S.K.Vernwal	III	Carboxylic Acids	Mechanism of Esterification & Acetylation
29.09.2015	16	Dr. S.K.Vernwal	III	Carboxylic Acids	A_{AC}^{-2} & B_{AC}^{-2} Mechanism of ester hydrolysis
01.10.2015	15	Dr. Ram Sahay	I	Liquid State	Structure of Liquids
03.10.2015	16	Dr. Ram Sahay	I	Liquid State	Structural difference between solid, liquid & gases
05.10.2015	8	P. K. Verma	I	Periodic properties of elements	Mullikens and Rochow scale and its variation
06.10.2015		P. K. Verma		CLASS TEACHING	
07.10.2015	17	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Addition of hydrogen, halogens & halogen acids
				& Cycloalkanes	
08.10.2015	18	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Addition of sulphuric acid & water
				& Cycloalkanes	
09.10.2015	17	Dr. Ram Sahay	I	Liquid State	Liquid crystal : Difference between liquid
					crystals, solid & liquid
10.10.2015	18	Dr. Ram Sahay	I	Liquid State	Classification, Structure of Nematic, smectic &
					cholesteric phases & applications
14.10.2015	9	P. K. Verma	I	Chemical Bonding	Ionic radius- Conditions and radius ratio, Lattice energy

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
15.10.2015		P. K. Verma		MONTHLY EVALUATION	
16.10.2015	19	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Hydroboration, Epoxidation, Ozonolysis & Hydroxylation
				& Cycloalkanes	
17.10.2015	20	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Acetylene as carbon acid, Addition reactions of acetylene
				& Cycloalkanes	
19.10.2015	19	Dr. Ram Sahay	I	Solid State	Definition of Space lattice, unit cell
28.10.2015	20	Dr. Ram Sahay	I	Solid State	Law of constancy of interfacial angles
29.10.2015	10	P. K. Verma	I	Chemical Bonding	Born Haber cycle, Polarisation of ions, Fajan's rule
30.10.2015		P. K. Verma		CLASS TEACHING	
31.10.2015	21	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Stability & addition reactions of 1,3-Butadiene
				& Cycloalkanes	
02.11.2015	22	Dr. S.K.Vernwal	III	Alkenes, Alkynes, Alkadienes	Preparation & Properties of small Ring Cycloalkanes
				& Cycloalkanes	
03.11.2015	21	Dr. Ram Sahay	I	Solid State	Law of rationality of indices, Law of symmetry
					symmetry elements in Crystals
04.11.2015	22	Dr. Ram Sahay	I	Solid State	Solid state Derivation of Bragg's equation,
					Determination of crystal structure of NaCl & KCl
05.11.2015	11	P. K. Verma	I	Chemical Bonding	Covalent Bond, sp, sp ² , sp ³ , sp ³ d, sp ³ d ²
06.11.2015		P. K. Verma		CLASS TEACHING	
07.11.2015	23	Miss Priyanka Mishra	III	Alkyl Halides & Grignards Reagents	Mechanism of Nucleophilic substitution reactions
					of Alkyl Halides
14.11.2015	24	Miss Priyanka Mishra	III	Alkyl Halides & Grignards Reagents	Preparation of Grignards Reagent & Synthatic applications
16.11.2015	23	Dr. Ram Sahay	I	Solid state	A brief introduction to point defects in crystals,
					Semi-conductors
18.10.2015	24	Dr. Ram Sahay	I	Solid state	Superconductor & Nano-materials
19.11.2015	12	P. K. Verma	I	Chemical Bonding	Determination of shape of molecules NH ₃ , H ₂ O, H ₃ O ⁺
20.11.2015		P. K. Verma		CLASS TEACHING	
21.11.2015	25	Miss Priyanka Mishra	III	Alkyl Halides & Grignards Reagents	Synthetic applications of Grignards Reagent
23.11.2015	26	Miss Priyanka Mishra	III	Alcohols & Ethers	Classification & distinction of primary, secondary &
					tertiary alcohols

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
24.11.2015	25	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Definition of colloids & classification of colloids
25.11.2015	26	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Properties, kinetic, optical & electrical
26.11.2015	13	P. K. Verma	I	Chemical Bonding	SF ₄ , ClF ₃ , ICl ₃ , I ₃ Three Centre Bond
27.11.2015		P. K. Verma		CLASS TEACHING	
28.11.2015	27	Miss Priyanka Mishra	III	Alcohols & Ethers	Mechanism of Dehydration of Alcohols
30.11.2015	28	Miss Priyanka Mishra	III	Alcohols & Ethers	Isomerism of Propanols, Butanols & Pentanols
01.12.2015	27	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Stability of colloids, protective action, Hardy-
					Schulze law, gold number
03.12.2015	28	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Types of emulsion, preparation, Emulsifier
07.12.2015	14	P. K. Verma	I	Chemical Bonding	Maximum Covalency, Odd Electron Bond
08.12.2015		P. K. Verma		CLASS TEACHING	
09.12.2015	29	Miss Priyanka Mishra	III	Alcohols & Ethers	Industrial Preparation and Reaction of Glycerol
11.12.2015	30	Miss Priyanka Mishra	III	Alcohols & Ethers	Williamson's Synthesis. Formation and Cleavage
					of Oxonium Salts
12.12.2015	29	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Liquids in solids, Classification, preparation &
					properties inhibition general applications of colloids
14.12.2015	30	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Determination of molecular weight of macromolecules
					by Osmotic pressure & viscosity methods
15.12.2015	15	P. K. Verma	I	Chemical Bonding	Hydrogen Bondings Metallic Bond
16.12.2014		P. K. Verma		CLASS TEACHING	
17.12.2015	31	Miss Priyanka Mishra	III	Alcohols & Ethers	Crown Ethers
18.12.2015	32	Miss Priyanka Mishra	III	General reaction of carbonyl compound	Mechanism of Addition of Sodium Bisulphate & HCN
19.12.2015	31	Dr. Pradeep K. Rao	I	Colloidal State & Macromolecules	Concept of Micelles & critical micelle concentrations a
					brief introduction to conducting & light emitting polymers
21.12.2015	32	Dr. Pradeep K. Rao	I	Chemical Kinetics & Catalysis	Rate of a reaction: Factor influencing, the rate
					of reaction such as : Concentration, Temperature
					pressure, solvent, light & Catalyst
22.12.2015	16	P. K. Verma	I	General Studies of s & p Block element	Discussion on I, II & 13 th group element
28.12.2015		P. K. Verma		MONTHLY EVALUATION	
29.12.2015	33	Miss Priyanka Mishra	III	General reaction & carbonyl compounds	Aldol, Cannizzaro Reaction

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

कक्षा : बी.एस-सी. भाग-एक		पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : रसायन विज्ञान (Chemistry)	
दिनांक	व्याख्यान	प्राध्यापक का नाम		अध्याय	शीर्षक
30.12.2014	34	Miss Priyanka Mishra	III	General reaction & carbonyl compounds	Wolff-Kishner Reduction, Clemmensen Reduction
31.12.2014	33	Dr. Pradeep K. Rao	I	Chemical Kinetics & Catalysis	Concentration dependence of rates, mathematical characteristics
					of simple chemical reaction zero, order First order, Second
					order & pseudo order, half life, mean life
01.01.2016	34	Dr. Pradeep K. Rao	I	Chemical Kinetics & Catalysis	Determination of the order of reaction, differential
					method of integration, method of half life & isolation method
					radioactive decay as a first order phenomenon
					experimental methods for the studies of chemical kinetics
02.01.2016	17	Dr. Ram Sahay	I	General studies of p block elements	Discussion of 14 th , 15 th & 16 th Group Elements
04.01.2016		Dr. Ram Sahay		CLASS TEACHING	
06.01.2016	35	Miss Priyanka Mishra	III	General reactions of carbonyl	Catalytic Reduction, LiAlH ₄ , Meerwein-Ponndorf-
				compounds	Verley Reduction
07.01.2016	36	Miss Priyanka Mishra	III	Compounds containing Reactive	Preparation and Synthetic uses of Acetoacetic Ester
				Methylene Group	
08.01.2016	35	Dr. Pradeep K. Rao	I	Chemical Kinetics & catalysis	Effect of temp on rate of reaction arrhenicis effecttion,
					concept of activation energy, simple collision theory
					based on hard spere model. Transition state theory
					expression for the thermodynamic constant &
					thermodynamic aspects, Catalysis Classification of
					catalysis industrial catalyst & enzyme
09.01.2016	36	Dr. Ram Sahay	I	Mathematical Concepts &	Logarithmic relation curve sketching linear graphs &
				computers	calculation of slopes, Differential of function f(x), e ^x , x ⁿ ,
					sin x, log x, maxima & Minima
11.01.2016	18	Dr. Ram Sahay	I	Occurance,Extraction isolation of metals	Ores & metallurgy of Be, F ₂ & Li
12.01.2016		Dr. Ram Sahay		CLASS TEACHING	
13.01.2016	37	Miss Priyanka Mishra	III	Compounds containing Reactive	Keto-Enol Tautomerism, Prepration of Malonic Ester
				Methylene Group	
16.01.2016	38	Miss Priyanka Mishra	III	Compounds containing Reactive	Synthetic uses of Malonic Ester
				Methylene Group	

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

कक्षा : बी.एस-सी. भाग-एक पाठ्यक्रम योजना : सत्र २०१५-२०१६ विषय : रसायन विज्ञान (Chemistry)					
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
18.01.2016	37	Dr. Pradeep K. Rao	I	Mathematical Concepts & Computers	Partial differentiation and reciprocity relations,
					Integration of some useful relevant functions
19.01.2016	38	Dr. Pradeep K. Rao	I	Mathematical Concepts & Computers	Permutations & combinations factorials & probability
20.01.2016	19	Dr. Ram Sahay	I	Preparation, Properties & Structure	Diborane
21.01.2016		Dr. Ram Sahay		CLASS TEACHING	
22.01.2016	39	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Preparation and Distinction between Alkyl Nitrites
					& Nitro Alkanes
23.01.2016	40	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Alkyl Cyanides and Alkyl isocyanides
25.01.2016	39	Dr. Pradeep K. Rao	I	Mathematical Concepts & Computers	General introduction to Computers, different
					components of a Computer
27.01.2016	40	Dr. Pradeep K. Rao	I	Mathematical Concepts & Computers	Hardware & Software, input-output devices
28.01.2016	20	Dr. Ram Sahay	I	Preparation, Properties & Structure	Borazine
29.01.2016		Dr. Ram Sahay		MONTHLY EVALUATION	
30.01.2016	41	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Amines, Classification & Distinction
Extra	42	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Separation of Primary, Secondary & Tertiary Amines
	41	Dr. Pradeep K. Rao	I	Mathematical Concepts & Computers	Binary numbers & arithmetic introduction to
					computer languages
	42	Dr. Ram Sahay	I	Computers	Programming, Operating Systems
	21	Dr. Ram Sahay	I	Preparation, Properties & Structure	Hydrazine
	22	Dr. Ram Sahay	I	Preparation, Properties & Structure	Interhalogen, Polyhalogen, Fluorides of Xenon
	43	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Preparation of Amines and General Reactions, Relative
					Basicities of Amines
	44	Miss Priyanka Mishra	III	Nitrogen Containing Compounds	Relative basicities of Amines
	23	Dr. Ram Sahay	I	Structure & Basicities	Oxyacids of B
	24	Dr. Ram Sahay	I	Structure & Basicities	Oxyacids of P
	25	Dr. Ram Sahay	I	Structure & Basicities	Oxyacids of S
	45	Dr. S.K.Vernwal	III	Numerical question	Numerical questions based on determination
					of structural formula