

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
16.07.16	1	P. K. Verma	II	Transition Elements	Introduction, position in periodic table
18.07.16	2	P. K. Verma	II	Transition Elements	Electronic configuration
19.07.16	1	Dr. S. K. Vernwal	III	Carbohydrates	Classification
20.07.16	2	Dr. S. K. Vernwal	III	Carbohydrates	Ring structure of Glucose
21.07.16	1	Dr. Ram Sahay	I	Thermodynamics - I	Introduction: Definition of Terms: System, Surrounding, Open System, Isolated System
					Intensive & Extensive Properties
22.07.16	2	Dr. Ram Sahay	I	Thermodynamics - I	State and path function, and their Differentials
23.07.16	3	P. K. Verma	II	Transition Elements	Atomic & Ionic Radii
25.07.16	4	P. K. Verma	II	Transition Elements	Variable oxidation states
26.07.16	3	Dr. S. K. Vernwal	III	Carbohydrates	Ring Structure of Fructose
27.07.16	4	Dr. S. K. Vernwal	III	Carbohydrates	Properties of Glucose & Fructose
28.07.16	3	Dr. Ram Sahay	I	Thermodynamics - I	Concept of Heat and Work First Law of Thermodynamics
29.07.16	4	Dr. Ram Sahay	I	Thermodynamics - I	Concept of Internal Energy & Enthalpy, Heat Capacities at Constant Volume & Pressure & Their Relationship
30.07.16	5	P. K. Verma	II	Transition Elements	Ability to Form Complexes
01.08.16	6	P. K. Verma	II	Transition Elements	Formation of colored ions
02.08.16	5	Dr. S. K. Vernwal	III	Carbohydrates	Interconversions in the Carbohydrate Series, Kilami-Fischer synthesis
03.08.16	6	Dr. S. K. Vernwal	III	Carbohydrates	Ruff Degradation
04.08.16	5	Dr. Ram Sahay	I	Thermodynamics - I	Calculation of w, q & dU, dH for the expansion of ideal Gases Under isothermal
05.08.16	6	Dr. Ram Sahay	I	Thermodynamics - I	Adiabatic conditions for a Reversible process
08.08.16		Dr. Ram Sahay		Class Teaching	
09.08.16	7	P. K. Verma	II	Transition Elements	Magnetic (μ_S & μ_{eff}) Behaviour
10.08.16	8	P. K. Verma	II	Transition Elements	Catalytic Behaviour
11.08.16	7	Dr. S. K. Vernwal	II	Aromatic Hydrocarbons	General Methods of Preparation
12.08.16	8	Dr. S. K. Vernwal	III	Aromatic Hydrocarbons	Molecular orbital structure of Benzene

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
13.08.16	7	Dr. Ram Sahay	I	Thermodynamics - I	Standard State, Standard Enthalpy of Formation
16.08.16	9	P. K. Verma	II	Transition Elements	General Comparative Treatment of 4D & 5D Elements
17.08.16	10	P. K. Verma	II	Acid base concept	Introduction, Lewis Concept
19.08.16	9	Dr. S. K. Vernwal	III	Aromatic Hydrocarbons	Aromaticity
20.08.16	10	Dr. S. K. Vernwal	III	Mechanism of Aromatic	Halogenation & Nitration
22.08.16	8	Dr. Ram Sahay	I	Electrophilic Substitutions Thermodynamics - I	Hess's law of Constant heat Summation & its Applications
23.08.16		Dr. Ram Sahay		Class Teaching	
24.08.16	11	P. K. Verma	II	Acid Base concept	Classification of hard & soft Acids & Bases
26.08.16	12	P. K. Verma	II	Acid Base concept	Classification of hard & soft Acids & Bases
27.08.16	11	Dr. S. K. Vernwal	III	Mechanism of Aromatic	Sulphonation, Friedel-Craft's Alkylation
29.08.16	12	Dr. S. K. Vernwal	III	Electrophilic Substitutions Mechanism of Aromatic	Friedel-Craft's Acylation
30.08.16	9	Dr. Ram Sahay	I	Electrophilic Substitutions Thermodynamics - I	Heat of Reaction at Constant Pressure & Constant Volume, Bond Dissociation Energy
31.08.16		Dr. Ram Sahay		Monthly Evaluation	
01.09.16	13	P. K. Verma	II	Acid Base concept	Application of HSAB Principle
02.09.16	14	P. K. Verma	II	Acid Base concept	Application of HSAB Principle
03.09.16	13	Dr. S. K. Vernwal	III	Aromatic Electrophilic	Orientation in Aromatic Substitution
05.09.16	14	Dr. S. K. Vernwal	III	Substitutions Aromatic Electrophilic	Ortho- Para Ratio
06.09.16	10	Dr. Ram Sahay	I	Substitutions Thermodynamics - I	Calculation From Thermochemical data, Kirchhoff's Equation
07.09.16				Class Teaching	
08.09.16	15	P. K. Verma	II	Coordination compounds	Introduction definition classification of

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
					ligands
09.09.16	16	P . K . Verma	II	Coordination compounds	Werner's Postulates
10.09.16	15	Dr. S . K . Vernwal	III	Aromatic Halogen	Types of Aromatic Halogen Compounds,
				Compounds	Chlorobenzene
14.09.16	16	Dr. S . K . Vernwal	III	Aromatic Halogen	Benzyl Chloride
				Compounds	
15.09.16	11	Dr. Ram Sahay	I	Thermodynamics - II	Second Law of Thermodynamics: Concept
					of Entropy, Entropy as A State Function
16.09.16		Dr. Ram Sahay		Class Teaching	
20.09.16	17	P . K . Verma	II	Coordination compounds	Sidgwick's Effective Atomic Number Concept
21.09.16	18	P . K . Verma	II	Coordination compounds	Valence Bond Theory
22.09.16	17	Dr. S . K . Vernwal	III	Aromatic Nitro Compounds	Nitro benzene, Reduction of Nitrobenzene
23.09.16	18	Dr. S . K . Vernwal	III	Aromatic Nitro Compounds	m-Dinitro benzene, T.N.T.
24.09.16	12	Dr. Ram Sahay	I	Thermodynamics - II	Entropy as a Function of U& T, Entropy As
					Function Of P& T, Entropy Change in a
					Physical Process
26.09.16		Dr. Ram Sahay		Monthly Evaluation	
27.09.16	19	P . K . Verma	II	Co - ordination compounds	Valence bond theory
28.09.16	20	P . K . Verma	II	Co - ordination compounds	Chalate effect
29.09.16	19	Dr. S . K . Vernwal	III	Aromatic Amino Compounds	Aniline
				& Diazonium Salts	
31.09.16	20	Dr. S . K . Vernwal	III	Aromatic Amino Compounds	Benzyl amine
				& Diazonium Salts	
04.10.16	21	P . K . Verma	II	Coordination compounds	Nomenclature of only Mono And Dinuclear
					Complexes
05.10.16		P . K . Verma	II	Class Teaching	
06.10.16	21	Dr. S . K . Vernwal	III	Aromatic Amino Compounds	Basicity of Aniline & Toluidines
				& Diazonium Salts	
07.10.16	22	Dr. S . K . Vernwal	III	Aromatic Amino Compounds	Benzine Diazonium chloride

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
				& Diazonium Salts	
08.10.16	13	Dr. Ram Sahay	I	Thermodynamics-II	Gibbes & Helmholtz Function :Criteria for
					thermodynamic Equilibrium & change in
					Entropy
14.10.16	14	Dr. Ram Sahay	I	Chemical Equilibrium	Equilibrium Constant & Free Energy
15.10.16	22	P . K . Verma	II	Coordination Comounds	Stereo Chemistry of Coordination No 2,4,&6
17.10.16		P . K . Verma		Class Teaching	
18.10.16	23	Dr . S . K . Vernwal	III	Aromatic Amino compounds	Synthetic uses of Benzene Diazonium
				& Diazonium Salts	chloride
19.10.16		Dr . S . K . Vernwal	III	Aromatic Amino compounds	Benzene Sulphonic Acid, Sulphanilic Acid
				& Diazonium Salts	
20.10.16	15	Dr. Ram Sahay	I	Chemical Equilibrium	Thermodynamics Derivation of Law of Mass
					Action , Le-Chatelier's principle
21.10.16	16	Dr. Ram Sahay	I	Electrochemistry-I	Electrical Transport- Conduction in metals &
					In Electrolyte Solution Specific Condutance
22.10.16	23	P . K . Verma	II	Coordination Compounds	$[\text{Ag}(\text{NH}_3)_2]^+$, $[\text{Ag}(\text{CN})]$, $[\text{Ni}(\text{CN})_4]^{n+}$
24.10.16		P . K . Verma		Monthly Evaluation	
25.10.16	25	Dr . S . K . Vernwal	III	Aromatic Amino compounds	Saccharine & Chloramine
				& Diazonium Salts	
26.10.16	26	Dr . S . K . Vernwal	III	Phenols	Acid Character, Reactions of Phenols
02.11.16	17	Dr. Ram Sahay	I	Electrochemistry-I	Equivalent Conductance, Measurement of
					Equivalent Conductance
03.11.16	24	Dr . P . K . Rao	I		Variation of Equivalent & Specific
					Conductance with Dilution
04.11.16	24	P . K . Verma	II	Coordination Compounds	$[\text{Cu}(\text{NH}_3)_4]^{++}$, $[\text{Zn}(\text{NH}_3)]^{++}$, $[\text{MnO}_4]$
05.11.16		P . K . Verma		Class Teaching	
08.11.16	27	Dr. S . K . Vernwal	III	Phenols	Picric Acid
09.11.16	28	Dr. S . K . Vernwal	III	Aeromatic Alcohals, Aldehydes & Ketones	Benzaldehyde & Salicyldehyde
10.11.16	19	Dr. Ram Sahay	I	Electrochemistry-I	Migration of Irons & Kohlrausch Law

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
					Arrhenius Theory of Electrolyte Dissociation
					& its Limitation
11.11.16	20	Dr. Ram Sahay	I	Electrochemistry-I	Weak & Strong Electrolytes, Ostwald's
					Dilution Law, Its uses and Limitations
12.11.16	25	P. K. Verma	II	Coordination Compounds	$[\text{Fe}(\text{CN})_6]^{3-}$, $[\text{Fe}(\text{CN})_6]^{4-}$, $[\text{FeF}_6]^{3-}$
15.11.16		P. K. Verma		Class Teaching	
17.11.16	29	Dr. S. K. Vernwal	III	Aromatic Alcohols,	Acetophenone & Benzophenone
				Aldehydes & Ketones	
18.11.16	30	Dr. S. K. Vernwal	III	Aromatic Acids	Preparation & Properties of Cinnamic Acid
19.11.16	21	Dr. Ram Sahay	I	Electrochemistry-I	Debye-Huckel-Onsager's Equation for Strong Electrolytes
21.11.16	22	Dr. Ram Sahay	I	Electrochemistry-I	Activity & Activity Coefficient, Transport
					number, Definition & Determination by Hittorf
					Method & moving Boundary Method
22.11.16	26	P. K. Verma	I	Coordination Compounds	$[\text{Fe}(\text{H}_2\text{O})_6]^{3+}$, $[\text{Fe}(\text{C}_2\text{O}_4)_3]^{3-}$, $[\text{Co}(\text{NH}_3)_3]^{3+}$
23.11.16		P. K. Verma		Monthly Evaluation	
25.11.16	31	Dr. S. K. Vernwal	III	Aromatic Acids	Phthalic Acid & Salicylic Acid
26.11.16	32	Dr. S. K. Vernwal	III	Aromatic Acids	Acid Strength of Benzoic Acid & Substituted
					Benzoic Acids
28.11.16	23	Dr. Ram Sahay		Electrochemistry-I	Application of conductivity measurements
					determination of degree of dissociation,
					Determination of K_a of acids
29.11.16	30	Dr. Ram Sahay		Electrochemistry-I	Determination of solubility product of a
					sparingly Soluble Salt, Conductometric
30.11.16	33	Dr. S. K. Vernwal	III	Polynuclear Hydrocarbons	Noncondensed System: Biphenyl
01.12.16		Dr. S. K. Vernwal		Class Teaching	
02.12.16	25	Dr. Ram Sahay	I	Electrochemistry-II	Types of reversible Electrodes, Gas Metal ion,
					Metal-Metal ion, Metal Insoluble Salt- Anion
					& Redox Electrodes
06.12.16	27	P. K. Verma	II	Coordination Compounds	$[\text{Co}(\text{en})_3]^{3+}$, $[\text{Ni}(\text{NH}_3)_6]^{2+}$, $[\text{PbCl}_6]^{2-}$

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
07.12.16	28	P . K . Verma	II	Coordination Compounds	Isomerism
08.12.16	34	Dr . S . K. Vernwal	III	Polynuclear Hydrocarbons	Condensed System: Naphthalene
09.12.16		Dr . S . K. Vernwal		Class Teaching	
12.12.16	27	Dr. Ram Sahay	I	Electrochemistry-II	Single Electrode Potential, Standard
					Hydrogen Electrode- Reference -Electrode
					Standard Electrode Potential
14.12.16	28	Dr. Ram Sahay	I	Electrochemistry-II	Sign Conventions, Electrochemical Series &
					its significance, Electrolytic & Galvanic Cells
15.12.16	29	P . K . Verma	II	Coordination Compounds	Various Types of Isomerism
16.12.16	30	P . K . Verma	II	Coordination Compounds	Stereoisomerism in CN-4 and CN-6
17.12.16	35	Dr . S . K. Vernwal	III	Polynuclear Hydrocarbons	Naphthols & Naphthylamines
19.12.16		Dr . S . K. Vernwal		Class Teaching	
20.12.16	29	Dr. Ram Sahay	I	Electrochemistry-II	Reversible & Irreversible Cells Conventional
					Representation of Electrochemical Cells
21.12.16	30	Dr. Ram Sahay	I	Electrochemistry-II	EMF of a Cell & its Measurements, Computation
					of Cell EMF, Calculation of Thermodynamic
					Quantities of Cell Reaction (ΔG & ΔH & ΔK)
22.12.16	31	P . K . Verma	II	Non aqueous solvents	General Introduction Classification of
					Solvents
24.12.16	32	P . K . Verma	II	Non aqueous solvents	Characteristic Properties of Solvents
26.12.16	36	Dr . S . K. Vernwal	III	Heterocyclic Compounds	Preparation & Properties of Furan
27.12.16		Dr . S . K. Vernwal		Monthly Evaluation	
28.12.16	31	Dr. Ram Sahay	I	Electrochemistry-II	Concentration Cell with & without Transport,
					Liquid junction Potential
					Application of Concentration Cell
29.12.16	32	Dr. Ram Sahay	I	Electrochemistry-II	Valency of Ions Solubility Product & Activity
					Coefficient Potentiometric Titrations,
					Definition of pH & pKa using Hydrogen
					Quinhydrone & glass electrodes

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

कक्षा : बी.एस-सी. भाग-दो			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायन विज्ञान
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
30.12.16	33	P. K. Verma	II	Non aqueous solvents	Chemical Reaction Occuring in Liquid
					Ammonia
31.12.16	34	P. K. Verma	II	Non aqueous solvents	Chemical Reaction Occuring in Liquid
					Ammonia
02.01.17	37	Dr . S . K. Vernwal	III	Heterocyclic Compounds	Pyrrole & Thiophene
03.01.17		Dr . S . K. Vernwal		Class Teaching	
04.01.17	33	Dr. Ram Sahay	I	Electrochemistry-II	Potentiometric Methods, Buffers Action,
					Henderson-Hazel Equation Hydrolysis of Salt
					Electrochemical Corrosion & its Preservation
06.01.17	34	Dr. Ram Sahay	I	Electrochemistry-II	Statement & Meaning of the Terms Phase
					Component & Degree of Freedom, Derivation
					of Gibbs Phase Rule
07.01.17	35	P. K. Verma	II	Non aqueous solvents	Chemical Reaction Occuring in Liquid SO ₂
09.01.17	36	P. K. Verma	II	Non aqueous solvents	Chemical Reaction Occuring in Liquid SO ₂
10.01.17	38	Dr . S . K. Vernwal	III	Heterocyclic Compounds	Pyridine
11.01.17		Dr . S . K. Vernwal		Class Teaching	
12.01.17	35	Dr. Ram Sahay	I	Phase Equilibrium	Phase Equilibria of one Component System,
					Water & Sulpher
13.01.17	36	Dr. Ram Sahay	I	Phase Equilibrium	Helium First Second Order Phase Transitions,
					Phase Equilibria
16.01.17	37	P. K. Verma	II	Non aqueous solvents	Chemical Reaction Occuring in Liquid SO ₂
17.01.17	38	P. K. Verma	II	Concept of Electrode	E.M.F. Diagram
				Potential	
18.01.17	39	Dr . S . K. Vernwal	III	Numerical Problems	Determination of Structure Based on
					Chemical Reactions
19.01.17		Dr . S . K. Vernwal		Class Teaching	
20.01.17	37	Dr. Ram Sahay	I	Phase Equilibrium	Solid Liquid Equilibria Simple Eutectic Pb-Ag
					System Desilverisation of Lead

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

[illegible]