

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

कक्षा : बी.एस-सी. भाग-तीन			पाठ्यक्रम योजना : सत्र २०१६-२०१७		विषय : रसायनशास्त्र
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
16.07.16	1	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Pinacol- Pinacolone rearrangement
18.07.16	2	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Benzil- Benzilic Acid Rearrangement
18.07.16	1	Dr. S.K. Vernwal	IV	Separation Techniques	Principle & Analytical Application
19.07.16	1	Dr. Ram Sahay	I	Photochemistry	Thermochemical & Photochemical Reaction
					Law of Photochemistry
19.07.16	2	Dr. S.K. Vernwal	IV	Separation Techniques	Solvent Extraction
20.07.16	2	Dr. Ram Sahay	I	Photochemistry	Photophysical Process Jablonski Diagram
21.07.16	1	P.K.Verma	II	Lanthanides	Introduction, Electronic Configuration
22.07.16	2	P.K.Verma	II	Lanthanides	Atomic & Ionic Radii, Lanthanides
					Contraction
23.07.16	3	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Beekmann Rearrangement
25.07.16	4	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Fries Rearrangement
25.07.16	3	Dr. S.K. Vernwal	IV	Separation Techniques	Chromatography (Paper & Thinlayer)
26.07.16	3	Dr. Ram Sahay	I	Photochemistry	Potential Energy Curve Quantum Efficiency
					Reason for Low & High yields
26.07.16	4	Dr. S.K. Vernwal	IV	Separation Techniques	Column Chromatography
27.07.16	4	Dr. Ram Sahay	I	Photochemistry	Photosensitised, Reaction
28.07.16	3	P.K.Verma	II	Lanthanides	Oxidation State & Their Stability
29.07.16	4	P.K.Verma	II	Lanthanides	Consequences of Lanthanides Contraction
30.07.16	5	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Dieckmann's Recation
01.08.16	6	Priyanka Mishra	III	Molecular Rearrangement & Name Reaction	Claisen-Smith Reaction
01.08.16	5	Dr. S.K. Vernwal	IV	Separation Techniques	HPLC, Ion-Exchange Chromatography
02.08.16	5	Dr. Ram Sahay	I	Nuclear Chemistry	Fundamental Particals Nuclear Models
02.08.16	6	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	General Features of Enzymes & Their Active Site

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

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03.08.16	6	Dr. Ram Sahay	I	Nuclear Chemistry	Liquid Drop model Nuclear model
04.08.16	5	P.K.Verma	II	Lanthanides	Colour & Spectral Behaviour of Ln^{3+} Ions
05.08.16	6	P.K.Verma	II	Lanthanides	Ground State Term Symbols
08.08.16		P.K.Verma		Class Teaching	
08.08.16	7	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Ribozymes & Abzymes
09.08.16	8	Priyanka Mishra	III	Polymers	Types of Polymerisation
09.08.16	8	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Enzymes nomenclature & Units of Enzyme Activity
10.08.16	8	Priyanka Mishra	III	Polymers	Mechanism of Polymerisation
11.08.16	7	Dr. Ram Sahay	I	Nuclear Chemistry	Nuclear Forces Nuclear Fission Fusion & its
					Application
12.08.16	8	Dr. Ram Sahay	I	Nuclear Chemistry	Spallation Nuclear Cross Section Radio
					Activity
13.08.16	7	P.K.Verma	II	Lanthanides	Magnetic Moment of Lanthanides
16.08.16	9	Priyanka Mishra	III	Polymers	Mechanism of Polymerisation
16.08.16	9	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Derivation of Michaelis-Menten Equation
17.08.16	10	Priyanka Mishra	III	Polymers	Mechanism of Polymerisation
18.08.16	9	Dr. Ram Sahay	I	Nuclear Chemistry	Application of Radio Activity
20.08.16	10	Dr. Ram Sahay	I	Surface Chemistry	Introduction, Physical & Chemical Adsorption
22.08.16	8	P.K.Verma	II	Lanthanides	Ability to form Complexes
22.08.16	10	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Experimental Determination of K_m & V_{max}
23.08.16		P.K.Verma		Class Teaching	
23.08.16	11	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Physical Significance of K_m , V_{max} & K_{cat}/K_m
24.08.16	11	Priyanka Mishra	III	Polymers	Preparation and use of Teflon, Terrline, Nylon
					& Dynel
26.08.16	12	Priyanka Mishra	III	Polymers	Natural & Synthetic Rubber
27.08.16	11	Dr. Ram Sahay	I	Surface Chemistry	Freundlich & Langmuir Adsorption Isotherm
29.08.16	12	Dr. Ram Sahay	I	Surface Chemistry	B.E.T. Equation Determination Of Surface Area
29.08.16	12	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Competitive Uncompetitive Noncompetitive &
					Suicidal Inhibitors
30.08.16	9	P.K.Verma	II	Lanthanides	Occurrence & Principle of Separation of

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					Lanthanides
30.08.16	13	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Factors Affecting the Enzyme Activity
31.08.16		P.K.Verma		Monthly Evaluation	
01.09.16	13	Priyanka Mishra	III	DYES	Colour & Constitution
02.09.16	14	Priyanka Mishra	III	DYES	Classification of Dyes
03.09.16	13	Dr. Ram Sahay	I	Solution & Colligative	Thermodynamic Derivation of Relation
				Properties	between Molecular Weight & Elevation in
					boiling point & determination in Freezing Point
05.09.16	14	Dr. Ram Sahay	I	Solution & Colligative	Experimental Methods for Determining Various
				Properties	Colligative Properties
05.09.16	14	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Brief Description of Co-Enzymes
06.09.16	10	P.K.Verma	II	Lanthanides	Uses of Lanthanides & their Compounds
06.09.16	15	Dr. S.K. Vernwal	IV	Enzymes & Coenzymes	Function of Thiamine Pyrophosphate(TPP)
07.09.16		P.K.Verma		Class Teaching	
08.09.16	15	Priyanka Mishra	III	DYES	Methyl Orange & Congo Red
09.09.16	16	Priyanka Mishra	III	DYES	Malachite Green & Crystal Violet
10.09.16	15	Dr. Ram Sahay	I	Solution & Colligative	Abnormal Molar Mass Degree of Dissociation
				Properties	& Association of Solutes
14.09.16	16	Dr. Ram Sahay	I	Statistical Thermodynamic	Introduction Microstate Partition Function
					Boltzman Factor
15.09.16	11	P.K.Verma	II	Actinides	Introduction & Electronic Configuration Of
					Actinides
16.09.16		P.K.Verma		Class Teaching	
20.09.16	17	Priyanka Mishra	III	DYES	Phenolphthaline & Fluorescence
20.09.16	16	Dr. Ram Sahay	IV	Nuclic Acids	A General Description of DNA & RNA
21.09.16	18	Priyanka Mishra	III	Polynuclear Hydrocarbons	Chemistry of Anthracene
22.09.16	17	Dr. Ram Sahay	I	Statistical Thermodynamic	Relation between Partition Function &
					Thermodynamic Function
23.09.16	18	Dr. Ram Sahay	I	Statistical Thermodynamic	Translational Rotational & Vibrational
					Partition Function

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24.09.16	12	P.K.Verma	II	Actinides	Atomic & Ionic Radii Ionization Energy of Actinides
26.09.16		P.K.Verma		Monthly Evaluation	
26.09.16	17	Dr. Ram Sahay	IV	Nuclear Acids	Salient Features of Structures of DNA & RNA
27.09.16	19	Priyanka Mishra	III	Polynuclear Hydrocarbons	Chemistry of Anthracene
27.09.16	18	Dr. Ram Sahay	IV	Nuclear Acids	DNA Denaturation & Renaturation Effect of on Radiation on DNA
28.09.16	20	Priyanka Mishra	III	Polynuclear Hydrocarbons	Chemistry of Phenanthrene
29.09.16	19	Dr. Ram Sahay	I	Quantum Mechanics	Black Body Radiation Planks Radiation Law Compton Effect
03.10.16	20	Dr. Ram Sahay	I	Quantum Mechanics	Photoelectric Effect Concept of Wave Motion De- Broglie, hypothesis
04.10.16	21	Priyanka Mishra	III	Polynuclear Hydrocarbons	Chemistry of Phenanthrene
04.10.16	19	Dr. Ram Sahay	IV	Role of Metals in Biological System	Introduction of Fe, Mg, Cu, & Zn
05.10.16		Priyanka Mishra		Class Teaching	
06.10.16	21	Dr. Ram Sahay	I	Quantum Mechanics	Heisenberg's Uncertainty Principle Difference Between Classical & Quantum Mechanics
07.10.16	22	Dr. Ram Sahay	I	Quantum Mechanics	Schrodinger Wave Equation & its Physical Significance
08.10.16	13	P.K.Verma	II	Actinides	Oxidation State & Their Stability
14.10.16	14	P.K.Verma	II	Actinides	Colour & Absorption Spectra of actinides
15.10.16	22	Priyanka Mishra	III	Polynuclear Hydrocarbons	Carcinogenic HydroCarbons
17.10.16		Priyanka Mishra		Class Teaching	
17.10.16	20	Dr. Ram Sahay	IV	Role of Metals in Biological System	Fe in Myoglobin & Hemoglobin
18.10.16	23	Dr. Ram Sahay	I	Quantum Mechanics	Hamiltonian Operator & Importance of SWE
18.10.16	21	Dr. Ram Sahay	IV	Role of Metals in Biological System	Cu in Plastocyanin & Hemocyanin

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

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19.10.16	24	Dr. Ram Sahay	I	Quantum Mechanics	Schrodinger Wave Equation for H-Atom
					Quantum Number & Their Importance
20.10.16	15	P.K.Verma	II	Actinides	Magnetic Properties of Actinides
21.10.16	16	P.K.Verma	II	Actinides	Complex Formation in Actinides
22.10.16	23	Priyanka Mishra	III	Hetrocycles	Chemistry of Indole
24.10.16		Priyanka Mishra		Monthly Evaluation	
24.10.16	22	Dr. Ram Sahay	IV	Role of Metals in Biological	Zn in Carboxypeptidase & Carbonic
					Systems Anhydrase
25.10.16	25	Dr. Ram Sahay	I	Quantum Mechanics	Hydrogen Like Wave Function Radial Wave
					Function -Angular Wave Function
25.10.16	23	Dr. Ram Sahay	IV	Role of Metals in Biological	Mg in Chlorophyll
					Systems
26.10.16	26	Dr. Ram Sahay	I	Quantum Mechanics	M.O.T. Criteria for Forming M.O. from , A.O.
					Construction of M.O's by LCAO Method
02.11.16	17	P.K.Verma	II	Actinides	Chemistry of Separation
03.11.16	18	P.K.Verma	II	Actinides	One Synthesis Each of Np-Lr
04.11.16	24	Priyanka Mishra	III	Hetrocycles	Chemistry of Quinoline
05.11.16		Priyanka Mishra		Class Teaching	
08.11.16	27	Dr. Ram Sahay	I	Quantum Mechanics	H ₂ ⁺ Ion Calculation of Energy Levels from
					Wave Function
09.11.16	28	Dr. Ram Sahay	I	Quantum Mechanics	Physical Picture of Bonding & Antibonding
					Wave Function
10.11.16	19	P.K.Verma	II	Co-Ordination	CFT & its Drawback
11.11.16	20	P.K.Verma	II	Co-Ordination	D-Orbital Splitting in Tetrahedral Field
12.11.16	25	Priyanka Mishra	III	Hetrocycles	Chemistry of Isoquinodline
15.11.16		Priyanka Mishra		Class Teaching	
17.11.16	29	Dr. Ram Sahay	I	Quantum Mechanics	 Orbitals & their
					charateristics
18.11.16	30	Dr. Ram Sahay	I	Spectroscopy	Electromegnetic Radiation Regions of
					Spectrum Basic Features of Different

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					Spectrometers
				Monthly Evaluation	
25.11.16	31	Dr. Ram Sahay	I	Spectroscopy	Born Oppenheimer Approximation Degree of
					Freedom
26.11.16	32	Dr. Ram Sahay	I	Spectroscopy	Diatomic Molecules Energy Levels of a rigid
					Rotor Selection Rule distribution determina
					tion of bond length
28.11.16	23	P.K.Verma	II	Co-Ordination	Calculation of CFSE for d ₁ to d ₉ System
28.11.16	26	P.K.Verma	IV	Errors & Evaluation	Significant Figures Absolute Error Relative
					Error
29.11.16	24	P.K.Verma	II	Co-Ordination	Megnatic Properties on the basis of CFT
29.11.16	27	P.K.Verma	IV	Errors & Evaluation	Application of Statistics
30.11.16	33	Dr. Ram Sahay	I	Spectroscopy	Qualitative Description of Non- Rigid Rotor
					Isotope Effect Infrared Spectrum
01.12.16		Dr. Ram Sahay		Class Teaching	
02.12.16	25	P.K.Verma	II	Co-Ordination	Types of Electronic Transition
03.12.16	26	P.K.Verma	II	Co-Ordination	Selection Rule Charge Transfer
06.12.16	27	Priyanka Mishra	III	Amino Acids Peptides and	Clasification of Amino Acids
				Proteins	
07.12.16	28	Priyanka Mishra	III	Amino Acids Peptides and	Synthesis of Amino Acids
				Proteins	
08.12.16	34	Dr. Ram Sahay	I	Spectroscopy	Pure Vibrational Spectrum Intensity Force
					Constant Anhurmonic motion vibrational
					Frequencies of DifferentFunctional Group

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09.12.16		Dr.Ram Sahay		<i>Class Teaching</i>	
12.12.16	27	P.K.Verma	II	Co-Ordination	Electronic Spectra of $[\text{Ti}(\text{H}_2\text{O})]^{+++}$ &
					$[\text{Cu}(\text{H}_2\text{O})_6]^{++}$
12.12.16	28	P.K.Verma	IV	Errors & Evaluation	Types of Errors
14.12.16	28	P.K.Verma	II	Metal Carbonyls	Introduction Ligand Behaviour of Co
15.12.16	29	Priyanka Mishra	III	Amino Acid Peptides &	Synthesis of Polypeptides
				Proteins	
16.12.16	30	Priyanka Mishra	III	Amino Acid Peptides &	Determination of Structure of Polypeptides
				Proteins	
17.12.16	35	Dr.Ram Sahay	I	Spectroscopy	Raman Spectrum Polarizability Condition for
					Raman Active Vibrations Mutual Exclusion
					Principle
19.12.16		Dr.Ram Sahay		<i>Class Teaching</i>	
19.12.16	29	P.K.Verma	IV	Errors & Evaluation	Determinate, Indeterminate & Gross Errors
20.12.16	29	P.K.Verma	II	Metal Carbonyls	General Method of Preparation
20.12.16	30	P.K.Verma	IV	Errors & Evaluation	Source of Errors & Effect Upon Analytical
					Result
21.12.16	31	P.K.Verma	IV	Errors & Evaluation	Representation of Structure of Binary
					Carbonyls of V, Cr, Mn
22.12.16	31	Priyanka Mishra	III	Amino Acid Peptides &	Classification of Proteins
				Proteins	
24.12.16	32	Priyanka Mishra	III	Amino Acid Peptides &Proteins	Proteins Denaturation & Renaturation
26.12.16	36	Dr.Ram Sahay	I	Spectroscopy	Pure Rotational & Pure Vibrational Raman
					Spectra of Diatomic Molecule
26.12.16	32	P.K.Verma	IV	Errors & Evaluation	Use of Statistics Statical Evaluation of Data
27.12.16		Dr.Ram Sahay		<i>Monthly Evaluation</i>	
27.12.16	33	Priyanka Mishra	IV	Gravimetric Analysis	Introduction and Principle
28.12.16	31	P.K.Verma	II	Metal Carbonyl	Structure of Fe, Co & Ni
29.12.16	32	P.K.Verma	II	Metal Nitrosyls	Ligand Behaviour of $\text{NO}(\text{NO}^+, \text{NO}^-$ and
					Bridging NO)

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30.12.16	33	Priyanka Mishra	III	Amino Acid Peptides & Proteins	Structure of Proteins
31.12.16	34	Priyanka Mishra	III	Elimination Reaction	E1 Reaction
02.01.17	37	Dr.Ram Sahay	I	Spectroscopy	Concept of Potential Energy Curves for
					Bonding & Antibonding Molecular Orbital
02.01.17	34	Priyanka Mishra	IV	Gravimetric Analysis	in Gravimetric Analysis various steps involves
03.01.17		Dr.Ram Sahay		Class Teaching	
03.01.17	35	Priyanka Mishra	IV	Gravimetric Analysis	Estimation of Ba as BaSo ₄
04.01.17	33	P.K.Verma	II	Metal Nitrosyls	Preparation & Structure of Nitrosyls of Cr,Fe,
					& Ru
06.01.17	34	P.K.Verma	II	Metal Nitrosyls	Preparation & Structure of Nitrosyls of Cr,Fe,
					& Ru
07.01.17	35	Priyanka Mishra	III	Elimination Reaction	E1- Reaction
09.01.17	36	Priyanka Mishra	III	Elimination Reaction	E2- Reaction
09.01.17	36	Priyanka Mishra	IV	Gravimetric Analysis	Co Precipitation & Post Precipitation
10.01.17	38	Dr.Ram Sahay	I	Spectroscopy	Franck Condon Principle Selection Rule
10.01.17	37	P.K.Verma	IV	Volumetric Analysis	General Terms Used in Volumetric Analysis
11.01.17		Dr.Ram Sahay		Class Teaching	
12.01.17	35	P.K.Verma	II	Metal Nitrosyls	Carbonyl Nitrosyls & Cyano Nitrosyls
13.01.17	36	P.K.Verma	II	Environmental Chemistry	Earth Atmosphere & its Components
16.01.17	37	Priyanka Mishra	III	Elimination Reaction	E2- Reaction
16.01.17	38	P.K.Verma	IV	Volumetric Analysis	Principle of Acid Base Titration
17.01.17	38	Priyanka Mishra	III	Elimination Reaction	E1CB reaction
17.01.17	39	P.K.Verma	IV	Volumetric Analysis	Redox Titration & Precipitation Titration
18.01.17	39	Dr.Ram Sahay	I	Spectroscopy	Description of & n.M.O.
19.01.17		Dr.Ram Sahay		Class Teaching	
20.01.17	37	P.K.Verma	II	Environmental Chemistry	Types of Pollutants & Their Source
21.01.17	38	P.K.Verma	II	Environmental Chemistry	Green House Effect & Global Warming
23.01.17	39	Priyanka Mishra	III	Elimination Reaction	Distinction Between E1, E2 & E1CB Reaction
23.01.17	40	P.K.Verma	IV	Volumetric Analysis	Iodimetry & Iodometry Complexometrs
24.01.17	40	Priyanka Mishra	III	Reaction Intermediate	Carbocations (Classical & Non-Classical)

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

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