

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: 2nd Medical			Faculty Name: Mr. Gourav
Subject: Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to syllabus and course outcomes
	08-01-2025	Wednesday	concept of rate of reaction
	09-01-2025	Thursday	factors affecting rate of reaction
	10-01-2025	Friday	factors affecting rate of reaction
Week 2	13-01-2025	Monday	order and molecularity of reaction
	14-01-2025	Tuesday	integrated rate expression for zero order reaction and half life time
	15-01-2025	Wednesday	integrated rate expression for 1st order reaction
	16-01-2025	Thursday	Arrhenius equation
	17-01-2025	Friday	numerical practices , doubts
Week 3	20-01-2025	Monday	Introduction to Nernst Distribution Law its conditions
	21-01-2025	Tuesday	thermodynamical derivation of Nernst Distribution law
	22-01-2025	Wednesday	Modification in Nernst Distribution Law
	23-01-2025	Thursday	Modification in Nernst Distribution Law
	24-01-2025	Friday	Application of Nernst Distribution Law
Week 4	27-01-2025	Monday	numerical practices , doubts
	28-01-2025	Tuesday	Introduction to Alkanes and its nomenclature
	29-01-2025	Wednesday	isomerism in alkanes
	30-01-2025	Thursday	methods of formation of alkanes
	31-01-2025	Friday	methods of formation of alkanes
Week 5	04-02-2025	Tuesday	mechanism of free radical halogenation of alkanes : reactivity and selectivity
	05-02-2025	Wednesday	Introduction to Cycloalkanes and its nomenclature
	06-02-2025	Thursday	Baeyer's Strain Theory and its limitation , Strainless theory
	07-02-2025	Friday	Discuss problems , doubts
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Introduction to alkenes and its structure
	13-02-2025	Thursday	methods of formation of alkenes including all name reactions
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Discussion and Showing Sessional exam results
	18-02-2025	Tuesday	Saytzeff rule and stability of alkenes
	19-02-2025	Wednesday	Markownikoff's rule
	20-02-2025	Thursday	important name reaction and its mechanism
	21-02-2025	Friday	important name reaction and its mechanism
Week 8	24-02-2025	Monday	Hydrogen Bonding, and its types
	25-02-2025	Tuesday	application of H-Bonding
	27-02-2025	Thursday	Brief discussion on van der waals forces
	28-02-2025	Friday	Brief discussion on van der waals forces
Week 9	03-03-2025	Monday	Qualitative idea of Valence Band theories
	04-03-2025	Tuesday	Theory of metallic bond (conductors, semiconductors and insulators)
	05-03-2025	Wednesday	Semiconductors and its types
	06-03-2025	Thursday	Application of semiconductors
	07-03-2025	Friday	
Week 10	10-03-2025	Monday	doubts class
	11-03-2025	Tuesday	Valence Bond theory
	12-03-2025	Wednesday	Apply VBT on simple inorganic molecules
	13-03-2025	Thursday	Apply VBT on simple inorganic molecules
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	VSEPR theory
	19-03-2025	Wednesday	VSEPR theory
	20-03-2025	Thursday	VSEPR theory
	21-03-2025	Friday	Discussion and Showing Sessional exam results
Week 12	24-03-2025	Monday	Molecular Orbital Theory for Homo and Hetero diatomic molecules
	25-03-2025	Tuesday	MO Diagrams of N ₂ and O ₂
	26-03-2025	Wednesday	MO Diagrams of NO and CO
	27-03-2025	Thursday	Dipole moment and its application
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Ionic structures and its properties
	02-04-2025	Wednesday	Discuss structures of NaCl and CsCl
	03-04-2025	Thursday	Discuss structures of CaF ₂ and ZnS
	04-04-2025	Friday	Practices these ionic structures
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Radius ratio rule and its limitations
	08-04-2025	Tuesday	Concept of Lattice energy
	09-04-2025	Wednesday	Born Haber cycle
	11-04-2025	Friday	Born Haber cycle
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	numerical practices , doubts
	17-04-2025	Thursday	numerical practices , doubts
	18-04-2025	Friday	Solvation energy relationship between solubility of ionic solids
	21-04-2025	Monday	Fajan's Rule

Week 16	22-04-2025	Tuesday	Fajan's Rule
	23-04-2025	Wednesday	Doubt class
	24-04-2025	Thursday	Discuss important questions
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: HC 2nd		Faculty Name: Dr. Anuradha	
Subject: Chemistry-II			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to the syllabus
	08-01-2025	Wednesday	Valence bond theory
	09-01-2025	Thursday	shapes of molecules
	10-01-2025	Friday	VSEPR theory
Week 2	13-01-2025	Monday	Hybridization
	14-01-2025	Tuesday	Examples of different molecular shapes
	15-01-2025	Wednesday	MOT
	16-01-2025	Thursday	Dipole moment
Week 3	17-01-2025	Friday	Ionic character in molecules
	20-01-2025	Monday	Ionic solids and structures
	21-01-2025	Tuesday	Ionic solids and structures
	22-01-2025	Wednesday	Radius ratio rule
Week 4	23-01-2025	Thursday	Lattice energy
	24-01-2025	Friday	Born Haber cycle
	27-01-2025	Monday	Solvation energy
	28-01-2025	Tuesday	Fajan's Rules
Week 5	29-01-2025	Wednesday	Doubt session
	30-01-2025	Thursday	Chemical kinetics introduction
	31-01-2025	Friday	Factors influencing rates of reactions
	04-02-2025	Tuesday	Order and molecularity
Week 6 40% syllabus to be completed till 14 February, 2025	05-02-2025	Wednesday	Arrhenius equation
	06-02-2025	Thursday	Rate expressions for different orders
	07-02-2025	Friday	Nernst distribution law
	10-02-2025	Monday	CLASS TEST- 1
Week 7	11-02-2025	Tuesday	Degree of hydrolysis
	13-02-2025	Thursday	Dissociation and association
	14-02-2025	Assignment submission-I	
	17-02-2025	Monday	Nomenclature of alkanes
Week 8	18-02-2025	Tuesday	Isomerism in alkanes
	19-02-2025	Wednesday	Methods of formation
	20-02-2025	Thursday	Wurtz reaction, Kolbe reaction
	21-02-2025	Friday	Decarboxylation of acids
Week 9	24-02-2025	Monday	Physical properties
	25-02-2025	Tuesday	Halogenation of alkanes
	27-02-2025	Thursday	Reactivity and selectivity
	28-02-2025	Friday	Cycloalkanes
Week 10	03-03-2025	Monday	Baeyer's strain theory
	04-03-2025	Tuesday	Alkenes
	05-03-2025	Wednesday	Methods of formation
	06-03-2025	Thursday	Methods of formation
Week 11 80% syllabus to be completed till 21 March, 2025	07-03-2025	Friday	Methods of formation
	10-03-2025	Monday	Saytzeff rule
	11-03-2025	Tuesday	Chemical reactions of alkenes
	12-03-2025	Wednesday	Addition reactions
Week 12	13-03-2025	Thursday	Doubt Session
	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Ozonolysis
	19-03-2025	Wednesday	Markovnikov's rule
Week 13	20-03-2025	Thursday	Hakogen acids
	21-03-2025	Friday	oxymercuration reduction
	24-03-2025	Monday	Free radical additions
	25-03-2025	Tuesday	Hydroboration oxidation
Week 14 100% syllabus to be completed till 11 April, 2025	26-03-2025	Wednesday	Hydrogen bonding
	27-03-2025	Thursday	Effects on different properties
	28-03-2025	Assignment submission-II	
	01-04-2025	Tuesday	Van der Waals forces
Week 15	02-04-2025	Wednesday	Metallic bonds
	03-04-2025	Thursday	Valence bond theory
	04-04-2025	Friday	Band theory
	07-04-2025	Monday	Conductors and Insulators
Week 16	08-04-2025	Tuesday	Semiconductors
	09-04-2025	Wednesday	Semiconductor types
	11-04-2025	Friday	Applications of solids
	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 17	16-04-2025	Wednesday	Doubt session and PYQ analysis
	17-04-2025	Thursday	Doubt session and PYQ analysis
	18-04-2025	Friday	Doubt session and PYQ analysis
	21-04-2025	Monday	Doubt session and PYQ analysis
Week 18	22-04-2025	Tuesday	Doubt session and PYQ analysis
	23-04-2025	Wednesday	Doubt session and PYQ analysis
	24-04-2025	Thursday	Doubt session and PYQ analysis
	25-04-2025	Friday	Doubt session and PYQ analysis

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Lesson Plan: Even Semester- 2024-25

Class: 2nd Non -Medical			Faculty Name: Mr. Gourav
Subject: Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to syllabus and course outcomes
	08-01-2025	Wednesday	concept of rate of reaction
	09-01-2025	Thursday	factors affecting rate of reaction
	10-01-2025	Friday	
Week 2	13-01-2025	Monday	order and molecularity of reaction
	14-01-2025	Tuesday	integrated rate expression for zero and 1st order reaction
	15-01-2025	Wednesday	Arrhenius equation
	16-01-2025	Thursday	numerical practices , doubts
Week 3	17-01-2025	Friday	
	20-01-2025	Monday	Introduction to Nernst Distribution Law and its thermodynamical derivation
	21-01-2025	Tuesday	Modification in Nernst Distribution Law
	22-01-2025	Wednesday	Modification in Nernst Distribution Law
	23-01-2025	Thursday	Application of Nernst Distribution Law
Week 4	24-01-2025	Friday	
	27-01-2025	Monday	numerical practices , doubts
	28-01-2025	Tuesday	Introduction to Alkanes and its nomenclature
	29-01-2025	Wednesday	isomerism in alkanes
	30-01-2025	Thursday	methods of formation of alkanes
Week 5	31-01-2025	Friday	
	04-02-2025	Tuesday	mechanism of free radical halogenation of alkanes : reactivity and selectivity
	05-02-2025	Wednesday	Introduction to Cycloalkanes and its nomenclature
	06-02-2025	Thursday	Baeyer's Strain Theory and its limitation , Strainless theory
Week 6	07-02-2025	Friday	
	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Introduction to alkenes and its structure
	13-02-2025	Thursday	methods of formation of alkenes including all name reactions
Week 6 40% syllabus to be completed till 14 February, 2025 14-02-2025 Assignment submission-I			
Week 7	17-02-2025	Monday	Saytzeff rule and stability of alkenes
	18-02-2025	Tuesday	Markownikoff's rule
	19-02-2025	Wednesday	important name reaction and its mechanism
	20-02-2025	Thursday	important name reaction and its mechanism
	21-02-2025	Friday	
Week 8	24-02-2025	Monday	Hydrogen Bonding, its types and its application
	25-02-2025	Tuesday	Brief discussion on van der Waals forces
	27-02-2025	Thursday	Brief discussion on van der Waals forces
	28-02-2025	Friday	
Week 9	03-03-2025	Monday	Qualitative idea of Valence Band theories
	04-03-2025	Tuesday	Theory of metallic bond (conductors, semiconductors and insulators)
	05-03-2025	Wednesday	Semiconductors and its types
	06-03-2025	Thursday	Application of semiconductors
	07-03-2025	Friday	
Week 10	10-03-2025	Monday	doubts class
	11-03-2025	Tuesday	Valence Bond theory
	12-03-2025	Wednesday	Apply VBT on simple inorganic molecules
	13-03-2025	Thursday	Apply VBT on simple inorganic molecules
Week 11	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	VSEPR theory
	19-03-2025	Wednesday	VSEPR theory
	20-03-2025	Thursday	VSEPR theory
	21-03-2025	Friday	
Week 12	24-03-2025	Monday	Molecular Orbital Theory for Homo and Hetero diatomic molecules
	25-03-2025	Tuesday	MO Diagrams of N ₂ and O ₂
	26-03-2025	Wednesday	MO Diagrams of NO and CO
	27-03-2025	Thursday	Dipole moment and its application
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Ionic structures and its properties
	02-04-2025	Wednesday	Discuss structures of NaCl and CsCl
	03-04-2025	Thursday	Discuss structures of CaF ₂ and ZnS
	04-04-2025	Friday	
Week 14	07-04-2025	Monday	Radius ratio rule and its limitations
	08-04-2025	Tuesday	Concept of Lattice energy
	09-04-2025	Wednesday	Born-Haber cycle
	11-04-2025	Friday	
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Born-Haber cycle
	17-04-2025	Thursday	numerical practices , doubts
	18-04-2025	Friday	
	21-04-2025	Monday	Solvation energy relationship between solubility of ionic solids

Week 16	22-04-2025	Tuesday	Fajan's Rule
	23-04-2025	Wednesday	Fajan's Rule
	24-04-2025	Thursday	Doubt class
	25-04-2025	Friday	

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Lesson Plan: Even Semester- 2024-25

Class: Hons. Chemistry			Faculty Name: Mr. Gourav
Subject: Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to syllabus and course outcomes , marking scheme
	08-01-2025	Wednesday	Familiarization in chemical labelling
	09-01-2025	Thursday	Handling hazardous chemicals
	10-01-2025	Friday	Handling of glasswares
Week 2	13-01-2025	Monday	sodium metal disposal
	14-01-2025	Tuesday	solution preparation and standardization
	15-01-2025	Wednesday	Equivalent mass and molar mass , specific gravity
	16-01-2025	Thursday	concentration terms (normality, molarity , formality, ppm , etc)
	17-01-2025	Friday	concentration terms (normality, molarity , formality, ppm , etc)
Week 3	20-01-2025	Monday	concentration terms (normality, molarity , formality, ppm , etc)
	21-01-2025	Tuesday	acidity , basicity
	22-01-2025	Wednesday	oxidizing and reducing agents
	23-01-2025	Thursday	question practices
	24-01-2025	Friday	revision , doubt class
Week 4	27-01-2025	Monday	Determination of concentration and percentage purity
	28-01-2025	Tuesday	Standardization of solutions
	29-01-2025	Wednesday	knowledge about primary and secondary standard ,
	30-01-2025	Thursday	Indicators and its preparation
	31-01-2025	Friday	knowledge about Buffer solutions and its types
Week 5	04-02-2025	Tuesday	preparation of buffer solutions
	05-02-2025	Wednesday	revision , doubt class
	06-02-2025	Thursday	preparation of Complexometric solutions
	07-02-2025	Friday	titration in complexometric solutions
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Management of chemical waste
	13-02-2025	Thursday	Discuss sessional exam and showing results ,
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Purification of chemicals by various methods
	18-02-2025	Tuesday	Purification of chemicals by various methods
	19-02-2025	Wednesday	Knowledge about potentiometer
	20-02-2025	Thursday	knowledge about conductometer
	21-02-2025	Friday	lab visit for practical analysis
Week 8	24-02-2025	Monday	What are electrodes and its types
	25-02-2025	Tuesday	discuss various electrodes like (SHE, CE, GE, etc.....)
	27-02-2025	Thursday	discuss various electrodes like (SHE, CE, GE, etc.....)
	28-02-2025	Friday	operating knowledge ,calibration and maintenance about Ph meter and glass electrodes
Week 9	03-03-2025	Monday	operating knowledge , calibration and maintenance about refractometer
	04-03-2025	Tuesday	lab visit for instruments seeing
	05-03-2025	Wednesday	operating knowledge , calibration and maintenance about refractometer
	06-03-2025	Thursday	operating knowledge , calibration and maintenance about refractometer
	07-03-2025	Friday	operating knowledge , calibration and maintenance about Polarimeter
Week 10	10-03-2025	Monday	presentation day
	11-03-2025	Tuesday	presentation day
	12-03-2025	Wednesday	operating knowledge , calibration and maintenance about Polarimeter
	13-03-2025	Thursday	revision , doubt class
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	operating knowledge , calibration and maintenance about Flame photometer
	19-03-2025	Wednesday	Discuss sessional exam and showing results ,
	20-03-2025	Thursday	presentation day
	21-03-2025	Friday	presentation day
Week 12	24-03-2025	Monday	operating knowledge , calibration and maintenance about Flame photometer
	25-03-2025	Tuesday	operating knowledge , calibration and maintenance about Spectrophotometer
	26-03-2025	Wednesday	operating knowledge , calibration and maintenance about Spectrophotometer
	27-03-2025	Thursday	presentation day
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	presentation day
	02-04-2025	Wednesday	lab visit
	03-04-2025	Thursday	operating knowledge , calibration and maintenance about interferometer
	04-04-2025	Friday	operating knowledge , calibration and maintenance about Dipole meter
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	operating knowledge , calibration and maintenance about Dipole meter
	08-04-2025	Tuesday	revision , doubt class
	09-04-2025	Wednesday	presentation day
	11-04-2025	Friday	discuss important questions
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	remedial classes
	17-04-2025	Thursday	
	18-04-2025	Friday	
Week 16	21-04-2025	Monday	
	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class:			Faculty Name:
Subject:			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction
	10-01-2025	Friday	Chemistry of Elements of Second and Third Transition Series
Week 2	13-01-2025	Monday	General characteristics
	14-01-2025	Tuesday	General characteristics
	17-01-2025	Friday	General characteristics
Week 3	20-01-2025	Monday	General characteristics
	21-01-2025	Tuesday	Revision
	24-01-2025	Friday	comparative treatment with their 3d-analogues in respect f ionic radii,
Week 4	27-01-2025	Monday	comparative treatment with their 3d-analogues in respect f ionic radii,
	28-01-2025	Tuesday	oxidation states
	31-01-2025	Friday	magnetic behaviour,
Week 5	04-02-2025	Tuesday	spectral properties
	07-02-2025	Friday	stereochemistry.
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Presentation
	14-02-2025	Assignemnt submission-I	
Week 7	17-02-2025	Monday	Presentation
	18-02-2025	Tuesday	Presentation
	21-02-2025	Friday	Presentation
Week 8	24-02-2025	Monday	Revision
	25-02-2025	Tuesday	Chemistry of Mo and W in different oxidation states
	28-02-2025	Friday	Chemistry of Mo and W in different oxidation states
Week 9	03-03-2025	Monday	Isopolyacids of Mo and W: aqueous chemistry of Mo and W(VI),
	04-03-2025	Tuesday	Isopolyacids of Mo and W: aqueous chemistry of Mo and W(VI),
	07-03-2025	Friday	isopoly molybedates and isopolytungustates
Week 10	10-03-2025	Monday	
	11-03-2025	Tuesday	
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Acids and Bases: Arrhenius,
	21-03-2025	Friday	Acids and Bases: Bronsted- Lowry
Week 12	24-03-2025	Monday	Acids and Bases: the Lux- Flood
	25-03-2025	Tuesday	solvent system
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Revision
	04-04-2025	Friday	Lewis concepts of acids and bases
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	relative strength of acids and bases
	08-04-2025	Tuesday	the levelling effect.
	11-04-2025	Friday	Revision
Commencement of Sessional Examination			
Week 15	15-04-2025	Tuesday	
	18-04-2025	Friday	Revision
Week 16	21-04-2025	Monday	Revision
	22-04-2025	Tuesday	Revision
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B.Sc HC 4th		Faculty Name: Ms.Jyoti	
Subject: Organic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Infrared absorption spectroscopy introduction
	08-01-2025	Wednesday	Hook's law, selection rules
	09-01-2025	Thursday	Intensity and position of IR bands , Measurement of IR spectrum
	10-01-2025	Friday	
Week 2	13-01-2025	Monday	Fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple
	14-01-2025	Tuesday	Hydrocarbons, hydroxyl compounds
	15-01-2025	Wednesday	Aldehydes, ketones, esters , anhydrides, amides and Nitro compounds
	16-01-2025	Thursday	Applications of IR spectroscopy in structure elucidation of organic compounds
	17-01-2025	Friday	
Week 3	20-01-2025	Monday	Structure and nomenclature of amines
	21-01-2025	Tuesday	Physical properties
	22-01-2025	Wednesday	Stereo Chemistry of amines
	23-01-2025	Thursday	Separation of a mixture of primary, secondary and tertiary amines
	24-01-2025	Friday	
Week 4	27-01-2025	Monday	Structural features affecting basicity of amines
	28-01-2025	Tuesday	Amines salt as phase transfer catalysts
	29-01-2025	Wednesday	Preparation of alkyl and aryl amines
	30-01-2025	Thursday	Reduction of Nitro compounds, nitriles , reductive amination of aldehydes and ketones
	31-01-2025	Friday	
Week 5	04-02-2025	Tuesday	Gabriel - phthalimide reaction
	05-02-2025	Wednesday	Hofman bromanide reaction
	06-02-2025	Thursday	Reactions of amines , electrophilic aromatic substitution in aryl amines
	07-02-2025	Friday	
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Reactions of amines with nitrous acid
	13-02-2025	Thursday	Mechanism of diazotisation, structure of benzene diazonium chloride
	14-02-2025 Assignment submission-I		
	17-02-2025	Monday	Replacement of diazo groups by H , OH, F, Cl, Br, I, NO ₂ and CN groups
Week 7	18-02-2025	Tuesday	Reduction of diazonium salts to hydrazines
	19-02-2025	Wednesday	Coupling reaction and it's synthetic application
	20-02-2025	Thursday	Preparation and reactions of cyanides and isocyanides
	21-02-2025	Friday	
	24-02-2025	Monday	Urea and diazomethane
Week 8	25-02-2025	Tuesday	Preparation of nitroalkanes and nitroarenes and their chemical reactions
	27-02-2025	Thursday	Mechanism of electrophilic substitution in nitroarenes and their reduction in acidic , neutral and alkaline media
	28-02-2025	Friday	
	03-03-2025	Monday	Halonitroarenes reactivity
Week 9	04-03-2025	Tuesday	Nomenclature and structure of the carbonyl group
	05-03-2025	Wednesday	Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides
	06-03-2025	Thursday	Advantages of oxidation of alcohols with chromium trioxide, PCC and PDC
	07-03-2025	Friday	
Week 10	10-03-2025	Monday	Synthesis of aldehydes and ketones using 1,3- dithianes
	11-03-2025	Tuesday	Gatterman aldehyde synthesis
	12-03-2025	Wednesday	Gatterman koch reaction
	13-03-2025	Thursday	Synthesis of ketones from nitriles and carboxyl acids
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Physical properties
	19-03-2025	Wednesday	Comparison of reactivities of aldehydes and ketones
	20-03-2025	Thursday	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, Aldol, Perkin
	21-03-2025 Friday		
Week 12	24-03-2025	Monday	Knoevenagel condensation
	25-03-2025	Tuesday	Condensation with ammonia and it's derivatives
	26-03-2025	Wednesday	Wittig reaction
	27-03-2025	Thursday	Mannich reaction
	28-03-2025 Assignment submission-II		
Week 13	01-04-2025	Tuesday	Michael reaction
	02-04-2025	Wednesday	Use of acetals as protecting group
	03-04-2025	Thursday	Oxidation of aldehydes , Baeyer- Villiger reaction of ketones
	04-04-2025	Friday	
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Cannizzaro reaction, MPV, Clemmensen, Wolff - Kishner
	08-04-2025	Tuesday	LiAlH ₄ and NaBH ₄ reductions, Halogenation of enolizable ketones
	09-04-2025	Wednesday	An introduction to unsaturated aldehydes and ketones
	11-04-2025 Friday		
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	
	17-04-2025	Thursday	
	18-04-2025	Friday	
Week 16	21-04-2025	Monday	
	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B.Sc. Hons. Chemistry Sem IV		Faculty Name: Dr Jitender Jindal	
Subject: Physical Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Second law of thermodynamics and different definitions
	08-01-2025	Wednesday	Carnot cycle and efficiency
	09-01-2025	Thursday	Concept of entropy
	10-01-2025	Friday	Concept of entropy
Week 2	13-01-2025	Monday	Clausius inequality
	14-01-2025	Tuesday	Entropy as criteria of spontaneity and equilibrium
	15-01-2025	Wednesday	Entropy change in ideal gases and mixing of gases
	16-01-2025	Thursday	Gibbs free energy function
Week 3	17-01-2025	Friday	Helmholtz and Gibbs function
	20-01-2025	Monday	Criteria of spontaneity of reversible processes
	21-01-2025	Tuesday	Variation of G and A with P,V and T
	22-01-2025	Wednesday	Variation of G and A with P,V and T
Week 4	23-01-2025	Thursday	Revision unit I
	24-01-2025	Friday	Gibbs Helmholtz equation
	27-01-2025	Monday	Gibbs Helmholtz equation and applications
	28-01-2025	Tuesday	Clausius- clapeyron equation
Week 5	29-01-2025	Wednesday	Nernst heat theorem
	30-01-2025	Thursday	Third law of thermodynamics
	31-01-2025	Friday	Applications of third law
	04-02-2025	Tuesday	Partial molar quantities
Week 6 40% syllabus to be completed till 14 February, 2025	05-02-2025	Wednesday	Partial molar quantities
	06-02-2025	Thursday	Chemical potential
	07-02-2025	Friday	Gibbs Duhem equation
	10-02-2025	Monday	CLASS TEST- 1
Week 7	11-02-2025	Tuesday	Gibbs adsorption equation and applications
	13-02-2025	Thursday	Variation of chemical potential with T and P
	14-02-2025	Assignemnt submission-I	Variation of chemical potential with T and P
	17-02-2025	Monday	Revision unit II
Week 8	18-02-2025	Tuesday	Redox reactions
	19-02-2025	Wednesday	Electrolytic and galvanic cells
	20-02-2025	Thursday	Reversible and irreversible cells
	21-02-2025	Friday	Types of reversible electrodes
Week 9	24-02-2025	Monday	Types of reversible electrodes
	25-02-2025	Tuesday	Electrode reactions and salt bridge
	27-02-2025	Thursday	Electrode reactions and its determination
	28-02-2025	Friday	Standard Hydrogen electrode and reference electrodes
Week 10	03-03-2025	Monday	Standard cell and sign convention
	04-03-2025	Tuesday	Electrochemical series
	05-03-2025	Wednesday	Nernst equation for reversible cell
	06-03-2025	Thursday	Calculation of thermodynamic quantities for cell
Week 11 80% syllabus to be completed till 21 March, 2025	07-03-2025	Friday	Calculation of thermodynamic quantities for cell
	10-03-2025	Monday	Polarization over potential
	11-03-2025	Tuesday	Hydrogen over voltage
	12-03-2025	Wednesday	Revision unit III
Week 12	13-03-2025	Thursday	Conductometric method
	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Potentiometric method
	19-03-2025	Wednesday	Optical method
Week 13	20-03-2025	Thursday	Polarimetry
	21-03-2025	Friday	Spectrophotometer
	24-03-2025	Monday	Theories of reaction rates
	25-03-2025	Tuesday	Effect of temperature on rate of reaction
Week 14 100% syllabus to be completed till 11 April, 2025	26-03-2025	Wednesday	Collision theory
	27-03-2025	Thursday	Collision theory
	28-03-2025	Assignment submission-II	Hard sphere model theory
	01-04-2025	Tuesday	Expression of rate constants
Week 15	02-04-2025	Wednesday	Definition of pH and determination
	03-04-2025	Thursday	Determination of pH using quinhydrone and glass electrode
	04-04-2025	Friday	Buffer action
	07-04-2025	Monday	Hydrolysis of salts
Week 16	08-04-2025	Tuesday	Corrosion and types
	09-04-2025	Wednesday	Methods of controlling corrosion
	11-04-2025	Friday	Revision
	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 17	16-04-2025	Wednesday	Revision
	17-04-2025	Thursday	Revision
	18-04-2025	Friday	Revision
	21-04-2025	Monday	Revision
Week 18	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class:B.Sc HZ 4th		Faculty Name: Ms. Jyoti	
Subject - Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Physical properties of a solvent
	08-01-2025	Wednesday	Types of solvent and their general characteristics
	09-01-2025	Thursday	Reactions in non - aqueous solvents with reference to liquid Ammonia and liquid Sulphur dioxide
	10-01-2025	Friday	Acids and Bases
Week 2	13-01-2025	Monday	HSAB concept
	14-01-2025	Tuesday	Arrhenius , Bronsted- Lowry,the Lux- Flood
	15-01-2025	Wednesday	Solvent system and Lewis concepts of acids and bases
	16-01-2025	Thursday	Relative strength of acids and bases
	17-01-2025	Friday	Concept of Hard and Soft Acids and Bases
Week 3	20-01-2025	Monday	Chemistry of f- block elements
	21-01-2025	Tuesday	Lanthanoids occurrence
	22-01-2025	Wednesday	Electronic structure, oxidation states
	23-01-2025	Thursday	Ionic radii and lanthanide contraction
	24-01-2025	Friday	Complex formation of lanthanide compounds
Week 4	27-01-2025	Monday	Actinides
	28-01-2025	Tuesday	General features and chemistry of actinides
	29-01-2025	Wednesday	comparison of properties of lanthanides and Actinides and with transition elements
	30-01-2025	Thursday	Elementary idea about the transuranic elements
	31-01-2025	Friday	Introduction to thermodynamics
Week 5	04-02-2025	Tuesday	Third law of thermodynamics
	05-02-2025	Wednesday	Nernst Heat theorem, thermodynamic functions G,H,E,A&S
	06-02-2025	Thursday	Criteria for thermodynamic equilibrium and spontaneity of a process in terms of thermodynamic functions
	07-02-2025	Friday	Chemical equilibrium
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	Class test -1
	11-02-2025	Tuesday	Equilibrium constant and free energy
	13-02-2025	Thursday	Concept of chemical potential
	14-02-2025	Assignment submission-I	Thermodynamic derivation of law of chemical equilibrium
Week 7	17-02-2025	Monday	Clapeyron equation
	18-02-2025	Tuesday	Claudius - Clapeyron equation and it's applications
	19-02-2025	Wednesday	Electrochemistry
	20-02-2025	Thursday	Electrolytic and Galvanic cells
	21-02-2025	Friday	Reversible and irreversible cells
Week 8	24-02-2025	Monday	Conventional representation of electrochemical cells
	25-02-2025	Tuesday	Emf of cell and it's measurement
	27-02-2025	Thursday	Weston standard cell, activity and activity coefficients
	28-02-2025	Friday	Calculation of thermodynamic quantities of cell reaction
Week 9	03-03-2025	Monday	Nernst equation, prediction of single electrode potential ,sign convention
	04-03-2025	Tuesday	Electrochemical series and it's applications
	05-03-2025	Wednesday	Infrared absorption spectroscopy
	06-03-2025	Thursday	Molecular vibrations, Hook's law
	07-03-2025	Friday	Selection rules, intensity and position of IR bands
Week 10	10-03-2025	Monday	Measurement of IR spectrum
	11-03-2025	Tuesday	Fingerprint region , characteristic absorptions of various functional groups
	12-03-2025	Wednesday	Amines structure and nomenclature of amines
	13-03-2025	Thursday	Physical properties
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Separation of a mixture of primary, secondary and tertiary amines
	19-03-2025	Wednesday	Structural features affecting basicity of amines
	20-03-2025	Thursday	Gabriel - phthalimide reaction
	21-03-2025	Friday	Hofmann bromamide reaction
Week 12	24-03-2025	Monday	Electrophilic aromatic substitution in aryl amines
	25-03-2025	Tuesday	Reactions of amines with nitrous acid
	26-03-2025	Wednesday	Diazonium salts, mechanism of NO ₂ and CN groups
	27-03-2025	Thursday	Aldehyde and ketones
	28-03-2025	Assignment submission-II	Nomenclature and structure of the carbonyl group
Week 13	01-04-2025	Tuesday	Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chloride
	02-04-2025	Wednesday	Advantages of oxidation of alcohols with chromium trioxide, PCC and PDC
	03-04-2025	Thursday	Comparison of reactivities of aldehydes and ketones
	04-04-2025	Friday	Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin and aldol condensation
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Condensation with ammonia and it's derivatives
	08-04-2025	Tuesday	Witting reaction
	09-04-2025	Wednesday	Mannich reaction
	11-04-2025	Friday	Revision
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	
	17-04-2025	Thursday	
	18-04-2025	Friday	
Week 16	21-04-2025	Monday	
	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: M.Sc (P) Sem-II		Faculty Name: Dr. Vikas Sangwan	
Subject: Indain Knowledge System			
Weeks	Date	Day	Content to be covered
Week 1	08-01-2025	Wednesday	Introduction to Syllabus
	09-01-2025	Thursday	Bibliography Of Scientist in the field of Chemical Sciences
Week 2	13-01-2025	Monday	Bibliography Of Scientist in the field of Chemical Sciences
	15-01-2025	Wednesday	Bibliography Of Scientist in the field of Chemical Sciences
	16-01-2025	Thursday	Bibliography Of Scientist in the field of Chemical Sciences
Week 3	20-01-2025	Monday	Contribution made the Chemistr of Ancient India like Nagarjuna
	22-01-2025	Wednesday	Kanada
	23-01-2025	Thursday	Shanti Swarup Bhatnagar Award
Week 4	27-01-2025	Monday	Fatherof Research Laboratories in India
	29-01-2025	Wednesday	Role of CSIR
	30-01-2025	Thursday	Establishment of CSIR
	05-02-2025	Wednesday	CV Raman
	06-02-2025	Thursday	Raman Effect, Basics of Raman Spectroscopy
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	13-02-2025	Thursday	Jagdish Chandra Bose: Invrestigation of Radio
	14-02-2025	Assignemnt submission-I	
Week 7	17-02-2025	Monday	Micrp waves Optics
	19-02-2025	Wednesday	Prafulla Chandra Ray: Contribution towartds develop,ment of Chemical education
	20-02-2025	Thursday	Research in IndiaRole of Bengal Chemical
Week 8	24-02-2025	Monday	Pharmaceutical Work
	27-02-2025	Thursday	Development of New Processesof manufacturing drugs
Week 9	03-03-2025	Monday	Asima Chatterjee: Her Contributins to medicinal Chemistry
	05-03-2025	Wednesday	Synthesis of Bioactive natural products
	06-03-2025	Thursday	Chatterjee's Cntribution towards development of epi-leptic
Week 10	10-03-2025	Monday	Antimalarial Drugs
	12-03-2025	Wednesday	Vinca Alkaloids
	13-03-2025	Thursday	Vinca Alkaloids
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	19-03-2025	Wednesday	Prof. CNR Rao Contribution to different areas of Chemistry
	20-03-2025	Thursday	Prof. CNR Rao Contribution to different areas of Chemistry
	21-03-2025	Friday	Material Chemistry
Week 12	24-03-2025	Monday	Solid State Chemistry
	26-03-2025	Wednesday	Structural Chemistry
	27-03-2025	Thursday	Multiferric Oxide, pervoskites and nanomaterial
	28-03-2025	Assignment submission-II	
	02-04-2025	Wednesday	Prof. Akhlesh Lakhtakia : Material Sciences
	03-04-2025	Thursday	Nanotechnology
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Material for photoneic devices
	09-04-2025	Wednesday	Material for photoneic devices
	11-04-2025	Friday	Material for photoneic devices
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Telecommunication
	17-04-2025	Thursday	Telecommunication
Week 16	21-04-2025	Monday	Sensors
	23-04-2025	Wednesday	Sensors
	24-04-2025	Thursday	Important Question Discussion

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: 4th Medical			Faculty Name: Dr. Anuradha
Subject: Inorganic chemistry			
Weeks	Date	Day	Content to be covered
	08-01-2025	Wednesday	Introduction to the syllabus
Week 2	13-01-2025	Monday	Electronic configuration of lanthanides
	15-01-2025	Wednesday	oxidation states
Week 3	20-01-2025	Monday	ionic radii and lanthanide contraction
	22-01-2025	Wednesday	Complex formation
Week 4	27-01-2025	Monday	occurrence and isolation
	29-01-2025	Wednesday	lanthanide compounds
	05-02-2025	Wednesday	Introduction to Actinides
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025 Assignment submission-I		
Week 7	17-02-2025	Monday	General features of actinides
	19-02-2025	Wednesday	Chemistry of separation of actinides
Week 8	24-02-2025	Monday	Comparison of lanthanides with actinides
Week 9	03-03-2025	Monday	Introduction to chemical analysis
	05-03-2025	Wednesday	acidic radicals
Week 10	10-03-2025	Monday	acidic radicals
	12-03-2025	Wednesday	combinations of acidic radicals
Week 11 80% syllabus to be completed till 21	17-03-2025	Monday	CLASS TEST- 2
	19-03-2025	Wednesday	interference of acidic radicals
Week 12	24-03-2025	Monday	removal of acidic radical combinations with basic radicals
	26-03-2025	Wednesday	Basic radicals
	28-03-2025 Assignment submission-II		
	02-04-2025	Wednesday	Basic radicals
Week 14 100% syllabus to be completed till 11 April 2025	07-04-2025	Monday	Basic radicals
	09-04-2025	Wednesday	Precipitation and Purification of precipitates
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Doubt session and PYQ analysis
Week 16	21-04-2025	Monday	Doubt session and PYQ analysis
	23-04-2025	Wednesday	Doubt session and PYQ analysis

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: HC-6th			Faculty Name: Dr. Vikas Sangwan
Subject: Inorganic -I			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Organic Reagents in Inorganic Analysis: Criteria for choice of organic reagents,
Week 2	13-01-2025	Monday	DMG, Cupferron, 8-hydroxyquinoline
	14-01-2025	Tuesday	Beta-Nitrososnaphthol, EDTA, Acetyl acetone
Week 3	20-01-2025	Monday	Dithiozone, Dithiocarbamate
	21-01-2025	Tuesday	Advantages and disadvantages of organic reagents in inorganic analysis
Week 4	27-01-2025	Monday	Analytical Chemistry: Sources of errors in chemical analysis
	28-01-2025	Tuesday	Classification of errors, Accuracy, Precision
Week 5	04-02-2025	Tuesday	Numerical Problems
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Inorganic Polymers: Definition, Classification
	14-02-2025 Assignment submission-I		
Week 7	17-02-2025	Monday	polymers based on hetroatomic structure
	18-02-2025	Tuesday	PON polymer, Polythiazyl
Week 8	24-02-2025	Monday	Synthetic inorganic fibres , Coordination Polymer
	25-02-2025	Tuesday	Solvent Extraction: Basic principles of solvent extraction
Week 9	03-03-2025	Monday	Mechanism of extraction
	04-03-2025	Tuesday	Extraction equilibria, technique of Extraction
Week 10	10-03-2025	Monday	Applications in analytical chemistry
	11-03-2025	Tuesday	Ion-Exchange: Characteristics of ion-exchangers, mecahnism of ion-exchange
Week 11 80% syllabus to be completed till 21	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Plate theory for ion-exchange
	24-03-2025	Monday	Applications of ion exchange for separations.
Week 12	25-03-2025	Tuesday	Chromatography: Classification of chromatographic methods
	28-03-2025 Assignment submission-II		
Week 13	01-04-2025	Tuesday	Chromatographic terminology - Rf value
Week 14 100% syllabus to be completed till 11 April 2025	07-04-2025	Monday	Dyanmics of chromatography
	08-04-2025	Tuesday	Basic principles of adsorption
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 16	21-04-2025	Monday	Partition chromatography, Applications
	22-04-2025	Tuesday	Importan Question Discussion

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: HC 6th		Faculty Name: Dr. Isha Gupta	
Subject: Inorganic Chemistry II			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction of Syllabus
	08-01-2025	Wednesday	Air Pollution:Primary and secondary pollutants
	09-01-2025	Thursday	sources of Air Pollution
	10-01-2025	Friday	pollution effects and control of the gaseous hydrocarbons
Week 2	13-01-2025	Monday	Control carbon monoxide, carbon dioxide, hydrogen sulphide
	14-01-2025	Tuesday	Control carbon dioxide, hydrogen sulphide
	15-01-2025	Wednesday	Control carbon monoxide, carbon dioxide, hydrogen sulphide
	16-01-2025	Thursday	Oxides of sulfur and nitrogen and ozone
	17-01-2025	Friday	Mechanism of photochemical smog formation
Week 3	20-01-2025	Monday	Air purification by micro organisms
	21-01-2025	Tuesday	Acid rain
	22-01-2025	Wednesday	Effects of Acid Rain
	23-01-2025	Thursday	Revision of Unit I
	24-01-2025	Friday	Introduction Unit II
Week 4	27-01-2025	Monday	Types of water pollution
	28-01-2025	Tuesday	sources of water pollution
	29-01-2025	Wednesday	sources of water pollution
	30-01-2025	Thursday	approaches to prevent and control water pollution
	31-01-2025	Friday	approaches to prevent and control water pollution
Week 5	04-02-2025	Tuesday	Introduction , characteristics of industrial wastes
	05-02-2025	Wednesday	Introduction , characteristics of industrial wastes
	06-02-2025	Thursday	types of industrial wastes
	07-02-2025	Friday	types of industrial wastes
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	principles of industrial waste treatment
	13-02-2025	Thursday	principles of industrial waste treatment
	14-02-2025	Assignemnt submission-I	
Week 7	17-02-2025	Monday	principles of industrial waste treatment
	18-02-2025	Tuesday	disposal of industrial wastes
	19-02-2025	Wednesday	disposal of industrial wastes
	20-02-2025	Thursday	Composition of Nuclei
	21-02-2025	Friday	structure of nucleus
Week 8	24-02-2025	Monday	forces operative within nucleus
	25-02-2025	Tuesday	nuclear stability
	27-02-2025	Thursday	nuclear stability
	28-02-2025	Friday	mass energy equivalence (binding energy)
Week 9	03-03-2025	Monday	Numericals
	04-03-2025	Tuesday	Nuclear reactions: Types of nuclear reactions
	05-03-2025	Wednesday	Nuclear reactions: Types of nuclear reactions
	06-03-2025	Thursday	the compound nucleus theories
	07-03-2025	Friday	the compound nucleus theories
Week 10	10-03-2025	Monday	thermonuclear reactions
	11-03-2025	Tuesday	Nuclear fission
	12-03-2025	Wednesday	Nuclear fusion
	13-03-2025	Thursday	radiation detection and measurement
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	radiation detection and measurement
	19-03-2025	Wednesday	gaseous ion collection methods
	20-03-2025	Thursday	gaseous ion collection methods
	21-03-2025	Friday	(G.M., ionisation and proportional counters)
Week 12	24-03-2025	Monday	(G.M., ionisation and proportional counters)
	25-03-2025	Tuesday	scintillation counter
	26-03-2025	Wednesday	semi - conductors detectors
	27-03-2025	Thursday	Revision unit III
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Activation analysis
	02-04-2025	Wednesday	isotopic dilution analysis
	03-04-2025	Thursday	radiometric titrations
	04-04-2025	Friday	Structures of binary compounds such as zinc blende, wurtzite
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Structure of NiAs, CsCl, CaF ₂
	08-04-2025	Tuesday	Structure of Cristobalite, CdI ₂ , BiI ₃ , ReO ₃
	09-04-2025	Wednesday	Structure of corundum and Mn ₂ O ₃
	11-04-2025	Friday	factors affecting crystal structures
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Revision Unit IV
	17-04-2025	Thursday	Revision
	18-04-2025	Friday	Revision
Week 16	21-04-2025	Monday	Revision
	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: M.Sc Final -IV Sem.		Faculty Name: Dr. Vikas Sangwan	
Subject: Organometallics			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction of the Syllabus
	08-01-2025	Wednesday	Introduction and Classification of organometallic compounds by bond types
	09-01-2025	Thursday	Covalent
	10-01-2025	Friday	Ionic
Week 2	13-01-2025	Monday	Electron deficient
	14-01-2025	Tuesday	Cluster compounds.
	15-01-2025	Wednesday	Alkyls and Aryls of Transition Metals
	16-01-2025	Thursday	Their Types
	17-01-2025	Friday	Routes of synthesis
Week 3	20-01-2025	Monday	Stability
	21-01-2025	Tuesday	Decomposition pathways
	22-01-2025	Wednesday	Organocopper in organic synthesis
	23-01-2025	Thursday	Transition metal π -complexes with unsaturated molecules- alkenes,
	24-01-2025	Friday	Alkynes
Week 4	27-01-2025	Monday	Allyl
	28-01-2025	Tuesday	Dienyl
	29-01-2025	Wednesday	Arene
	30-01-2025	Thursday	Trienyl complexes
	31-01-2025	Friday	Important reactions related to nucleophilic attack on ligands
Week 5	04-02-2025	Tuesday	Compounds of Transition Metal-Carbon Multiple Bonds
	05-02-2025	Wednesday	Alkylidenes
	06-02-2025	Thursday	Alkylidynes
	07-02-2025	Friday	Low valent carbenes
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Low valent carbenes
	13-02-2025	Thursday	Nucleophilic and electrophilic reactions on the ligands
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Transition Metal Compounds with Bonds to Hydrogen
	18-02-2025	Tuesday	Organometallic Reagents: Principle, preparations,
	19-02-2025	Wednesday	Applications of the reagents
	20-02-2025	Thursday	Lithium
	21-02-2025	Friday	Magnesium
Week 8	24-02-2025	Monday	Boron
	25-02-2025	Tuesday	Silicon
	27-02-2025	Thursday	Sulphur
	28-02-2025	Friday	Iodine
Week 9	03-03-2025	Monday	Titanium
	04-03-2025	Tuesday	Chromium
	05-03-2025	Wednesday	Iron
	06-03-2025	Thursday	Cobalt
	07-03-2025	Friday	Nickel
Week 10	10-03-2025	Monday	Copper
	11-03-2025	Tuesday	Zinc
	12-03-2025	Wednesday	Zinc
	13-03-2025	Thursday	Rhodium
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Rhodium
	19-03-2025	Wednesday	Palladium
	20-03-2025	Thursday	Palladium
	21-03-2025	Friday	Cadmium
Week 12	24-03-2025	Monday	Cadmium
	25-03-2025	Tuesday	Cadmium
	26-03-2025	Wednesday	Chemical problems related to reagents
	27-03-2025	Thursday	Chemical problems related to reagents
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Chemical problems related to reagents
	02-04-2025	Wednesday	Chemical problems related to reagents
	03-04-2025	Thursday	Chemical problems related to reagents
	04-04-2025	Friday	Chemical problems related to reagents
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Chemical problems related to reagents
	08-04-2025	Tuesday	Chemical problems related to reagents
	09-04-2025	Wednesday	Chemical problems related to reagents
	11-04-2025	Friday	
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Doubt Discussion
	17-04-2025	Thursday	Doubt Discussion
	18-04-2025	Friday	Doubt Discussion
Week 16	21-04-2025	Monday	Doubt Discussion
	22-04-2025	Tuesday	Previous year paper solution
	23-04-2025	Wednesday	Previous year paper solution
	24-04-2025	Thursday	Previous year paper solution
	25-04-2025	Friday	Previous year paper solution

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: 6th Medical			Faculty Name: Dr. Shankar Sharma
Subject: Inorganic Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	08-01-2025	Wednesday	Introduction of syllabus
	10-01-2025	Friday	Basics of organomettalic chemistry
Week 2	15-01-2025	Wednesday	Nomenclature of organomettalic compounds
	17-01-2025	Friday	Preparation of organomettalic compounds
Week 3	22-01-2025	Wednesday	Bonding of organomettalic compounds
	24-01-2025	Friday	Mononuclear carbonyl and nature of bonding in metal carbonyl
Week 4	29-01-2025	Wednesday	Metal ethylenic complex
	31-01-2025	Friday	Acids and bases concept
Week 5	05-02-2025	Wednesday	Arrhenius, Bronsted Lowry and Lux-Flood concept
	07-02-2025	Friday	Solvent system, concept of hard and soft acids and bases
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025	Assignment submission-I	
Week 7	19-02-2025	Wednesday	Lewis concept of acids and bases
	21-02-2025	Friday	Relative strength of acids and bases
Week 8	28-02-2025	Friday	Symbiosis
Week 9	07-03-2025	Friday	Electronegativity and hardness and softness
Week 10	12-03-2025	Wednesday	Essential elements in biological processes
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	19-03-2025	Wednesday	Trace elements in biological processes
	21-03-2025	Friday	Hemoglobin Structure
Week 12	26-03-2025	Wednesday	Myoglobin Structure
	28-03-2025	Assignment submission-II	
Week 13	02-04-2025	Wednesday	Biological role of alkali metals
	04-04-2025	Friday	Concept of Nitrogen fixation
Week 14	09-04-2025	Wednesday	Silicones Introduction
	11-04-2025	Friday	Silicones preparation, Properties and Structure
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Phosphazenes preparation, Properties
	18-04-2025	Friday	Phosphazenes structure
Week 16	23-04-2025	Wednesday	Phosphazenes Uses
	25-04-2025	Friday	Important Questions Discussion

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: Medical 6th		Faculty Name: Ms. Gajal	
Subject: physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	introduction to syllabus
Week 2	1-10-2025	Friday	concept of potential energy curves for bonding and antibonding molecular orbitals
	1-13-2025	Monday	qualitative description of selection rules
	1-14-2025	Tuesday	Franck-condon principle
Week 3	1-17-2025	Friday	qualitative description of sigma and pie and n molecular orbital
	1-20-2025	Monday	their energy level and respective transitions
	1-21-2025	Tuesday	interaction of radiation with matter
Week 4	1-24-2025	Friday	thermal and photochemical processes
	1-27-2025	Monday	laws of photochemistry
	1-28-2025	Tuesday	Jablonski diagram
Week 5	1-31-2025	Friday	quantum yield, photosensitized reactions
	2-4-2025	Tuesday	energy transfer processes
	2-7-2025	Friday	Ideal and non ideal solutions
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	concentration of solutions
	14-02-2025	Assignment submission-I	
Week 7	2-17-2025	Monday	activity and activity coefficient, dilute solution
	2-18-2025	Tuesday	colligative properties, Raoult's law
	2-21-2025	Friday	relative lowering in vapour pressure
Week 8	2-24-2025	Monday	depression in freezing point
	2-25-2025	Tuesday	osmotic pressure
	2-28-2025	Friday	experimental determination of two properties
Week 9	3-3-2025	Monday	elevation in boiling point
	3-4-2025	Tuesday	experimental determination of two properties
	3-7-2025	Friday	abnormal molecular mass
Week 10	3-10-2025	Monday	degree of dissociation and association of solutes
	3-11-2025	Tuesday	relation between molecular weight and colligative properties
	3-17-2025	Monday	CLASS TEST- 2
Week 11 80% syllabus to be completed till 21 March, 2025	3-18-2025	Tuesday	revision section C
	3-21-2025	Friday	statement and meaning of terms - phase, component and degree of freedom
	3-24-2025	Monday	Gibbs phase rule derivation
Week 12	3-25-2025	Tuesday	phase equilibria of one component system
	28-03-2025	Assignment submission-II	
	4-1-2025	Tuesday	phase diagram of water and sulphur systems
Week 13			
	4-4-2025	Friday	phase diagram of two component systems
	4-7-2025	Monday	lead-silver system
	4-8-2025	Tuesday	desilverisation of lead
Week 14 100% syllabus to be completed till 11 April, 2025			
	4-11-2025	Friday	revision
	4-15-2025	Tuesday	Commencement of Sessional Examination
Week 15	4-18-2025	Friday	revision
	4-21-2025	Monday	revision
	4-22-2025	Tuesday	revision
Week 16			
	4-25-2025	Friday	revision

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Lesson Plan: Even Semester- 2024-25

Class: 4th NM A			Faculty Name: Dr. Anuradha
Subject: Inorganic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to the syllabus
	10-01-2025	Friday	Electronic configuration of lanthanides
	14-01-2025	Tuesday	oxidation states
	17-01-2025	Friday	ionic radii and lanthanide contraction
	21-01-2025	Tuesday	Complex formation
	24-01-2025	Friday	occurrence and isolation
	28-01-2025	Tuesday	lanthanide compounds
	31-01-2025	Friday	Introduction to Actinides
Week 5	04-02-2025	Tuesday	General features of actinides
	07-02-2025	Friday	Chemistry of separation of actinides
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025	Assignment submission-I	
	18-02-2025	Tuesday	Comparison of lanthanides with actinides
	21-02-2025	Friday	Doubt session
	25-02-2025	Tuesday	Introduction to chemical analysis
	28-02-2025	Friday	acidic radicals
	04-03-2025	Tuesday	acidic radicals
	07-03-2025	Friday	combinations of acidic radicals
	11-03-2025	Tuesday	interference of acidic radicals
	17-03-2025	Monday	CLASS TEST- 2
Week 11 80% syllabus to be completed till 21 March, 2025	18-03-2025	Tuesday	removal of acidic radical combinations with basic radicals
	21-03-2025	Friday	Basic radicals
	25-03-2025	Tuesday	Basic radicals
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Basic radicals
	04-04-2025	Friday	Precipitation
	08-04-2025	Tuesday	Purification of precipitates
	11-04-2025	Friday	Doubt session and PYQ analysis
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	18-04-2025	Friday	Doubt session and PYQ analysis
	22-04-2025	Tuesday	Doubt session and PYQ analysis
	25-04-2025	Friday	Doubt session and PYQ analysis

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Lesson Plan: Even Semester- 2024-25

Class: B.Sc. NM -A Sem IV			Faculty Name: Dr. Anil Kumar
Subject: Organic Chemistry			
Weeks	Date	Day	Content to be covered
	10-01-2025	Friday	Molecular vibrations, Hooke's law
Week 2	13-01-2025	Monday	selection rules, intensity and position of IR bands,
	17-01-2025	Friday	Applications of IR spectroscopy in structure elucidation of simple organic compounds.
Week 3	20-01-2025	Monday	Structure and nomenclature of amines, physical properties
	24-01-2025	Friday	Separation of a mixture of primary, secondary and tertiary amines
Week 4	27-01-2025	Monday	Structural features affecting basicity of amines. Preparation of alkyl and aryl amines
	31-01-2025	Friday	reduction of nitro compounds, nitriles,
	07-02-2025	Friday	reductive amination of aldehydic and ketonic compounds
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025	Assignment submission-I	Gabrielphthalimide reaction, Hofmann bromamide reaction.
Week 7	17-02-2025	Monday	electrophilic aromatic substitution in aryl amines
	21-02-2025	Friday	reactions of amines with nitrous acid.
Week 8	24-02-2025	Monday	Mechanism of diazotisation,
	28-02-2025	Friday	Replacement of diazo group by H, OH, F, Cl, Br, I, NO ₂ and CN groups
Week 9	03-03-2025	Monday	Preparation of nitro alkanes and nitro arenes
	07-03-2025	Friday	Mechanism of electrophilic substitution reactions in nitro arenes
Week 10	10-03-2025	Monday	Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones
Week 11 80% syllabus to be completed till 21	17-03-2025	Monday	CLASS TEST- 2
	21-03-2025	Friday	oxidation of alcohols with chromium trioxide (Sarett reagent) (PCC) and pyridinium dichromate
Week 12	24-03-2025	Monday	Comparison of reactivities of aldehydes and ketones.
	28-03-2025	Assignment submission-II	benzoin, aldol, Perkin and Knoevenagel condensations.
	04-04-2025	Friday	Wittig reaction. Mannich reaction. Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones,
Week 14 100% syllabus to be completed till 11 April 2025	07-04-2025	Monday	Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner
	11-04-2025	Friday	LiAlH ₄ and NaBH ₄ reductions.
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	18-04-2025	Friday	Revision
Week 16	21-04-2025	Monday	Revision
	25-04-2025	Friday	Revision

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Class: B.Sc 4th NM A		Faculty Name: Ms. Jyoti	
Subject: Physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	
	08-01-2025	Wednesday	Introduction to thermodynamics
	09-01-2025	Thursday	Second law of thermodynamics, need for the law
	10-01-2025	Friday	
Week 2	13-01-2025	Monday	
	14-01-2025	Tuesday	
	15-01-2025	Wednesday	Different statements of the law
	16-01-2025	Thursday	Carnot cycle and it's efficiency
Week 3	17-01-2025	Friday	
	20-01-2025	Monday	
	21-01-2025	Tuesday	
	22-01-2025	Wednesday	Carnot theorem, thermodynamic scale of temperature
Week 4	23-01-2025	Thursday	Concept of entropy - entropy as a state function
	24-01-2025	Friday	
	27-01-2025	Monday	
	28-01-2025	Tuesday	
Week 5	29-01-2025	Wednesday	Entropy as a function of T, V and P
	30-01-2025	Thursday	Entropy change in physical change, entropy as a criteria for spontaneity and equilibrium
	31-01-2025	Friday	
	04-02-2025	Tuesday	
Week 6 40% syllabus to be completed till 14 February, 2025	05-02-2025	Wednesday	Entropy change in ideal gases and mixing of gases
	06-02-2025	Thursday	Third law of thermodynamics, Nernst Heat theorem
	07-02-2025	Friday	
	10-02-2025	Monday	CLASS TEST- 1
Week 7	11-02-2025	Tuesday	
	13-02-2025	Thursday	
	14-02-2025	Assignment submission-I	
	17-02-2025	Monday	
Week 8	18-02-2025	Tuesday	
	19-02-2025	Wednesday	Statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data
	20-02-2025	Thursday	Gibbs and Helmholtz functions as thermodynamic quantities
	21-02-2025	Friday	
Week 9	24-02-2025	Monday	
	25-02-2025	Tuesday	
	27-02-2025	Thursday	A & G as criteria for thermodynamic equilibrium and spontaneity and their advantage over entropy change
	28-02-2025	Friday	
Week 10	03-03-2025	Monday	
	04-03-2025	Tuesday	
	05-03-2025	Wednesday	Variation of G and A with P, V and T
	06-03-2025	Thursday	Electrolytic and galvanic cells, reversible and irreversible cells
Week 11 80% syllabus to be completed till 21 March, 2025	07-03-2025	Friday	
	10-03-2025	Monday	
	11-03-2025	Tuesday	
	12-03-2025	Wednesday	Conventional representation of electrochemical cells
Week 12	13-03-2025	Thursday	Emf of cell and it's measurement , Weston standard cell, activity and activity coefficients
	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	
	19-03-2025	Wednesday	Calculation of thermodynamic quantities of cell reaction, types of reversible electrodes
Week 13	20-03-2025	Thursday	Nernst equation, derivation of cell emf and single electrode potential, standard hydrogen electrode
	21-03-2025	Friday	
	24-03-2025	Monday	
	25-03-2025	Tuesday	
Week 14 100% syllabus to be completed till 11 April, 2025	26-03-2025	Wednesday	standard electrode potential, electrochemical series and it's applications
	27-03-2025	Thursday	Concentration cells with and without transference, liquid junction potential
	28-03-2025	Assignment submission-II	
	01-04-2025	Tuesday	
Week 15	02-04-2025	Wednesday	Applications of emf measurement
	03-04-2025	Thursday	Potentiometric titration, determination of PH using Hydrogen electrode
	04-04-2025	Friday	
	07-04-2025	Monday	
Week 16	08-04-2025	Tuesday	
	09-04-2025	Wednesday	Quinhydrone electrode and glass electrode by potentiometric titration
	11-04-2025	Friday	
	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 17	16-04-2025	Wednesday	
	17-04-2025	Thursday	
	18-04-2025	Friday	
	21-04-2025	Monday	
Week 18	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

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Lesson Plan: Even Semester- 2024-25

Class: 4th NM B			Faculty Name: Dr. Anuradha
Subject: Inorganic chemistry			
Weeks	Date	Day	Content to be covered
	09-01-2025	Thursday	Introduction to the syllabus
	10-01-2025	Friday	Electronic configuration of lanthanides
	16-01-2025	Thursday	oxidation states
	17-01-2025	Friday	ionic radii and lanthanide contraction
	23-01-2025	Thursday	Complex formation
	24-01-2025	Friday	occurrence and isolation
	30-01-2025	Thursday	lanthanide compounds
	31-01-2025	Friday	Introduction to Actinides
	06-02-2025	Thursday	General features of actinides
	07-02-2025	Friday	Chemistry of separation of actinides
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025	Assignment submission-I	
	20-02-2025	Thursday	Comparison of lanthanides with actinides
	21-02-2025	Friday	Doubt session
	27-02-2025	Thursday	Introduction to chemical analysis
	28-02-2025	Friday	acidic radicals
	06-03-2025	Thursday	acidic radicals
	07-03-2025	Friday	combinations of acidic radicals
	13-03-2025	Thursday	interference of acidic radicals
	17-03-2025	Monday	CLASS TEST- 2
Week 11 80% syllabus to be completed till 21 March, 2025	20-03-2025	Thursday	removal of acidic radical combinations with basic radicals
	21-03-2025	Friday	Basic radicals
	27-03-2025	Thursday	Basic radicals
	28-03-2025	Assignment submission-II	
	03-04-2025	Thursday	Basic radicals
	04-04-2025	Friday	Precipitation and Purification of precipitates
	11-04-2025	Friday	Doubt session and PYQ analysis
	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 15	18-04-2025	Friday	Doubt session and PYQ analysis
	24-04-2025	Thursday	Doubt session and PYQ analysis
	25-04-2025	Friday	Doubt session and PYQ analysis

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Lesson Plan: Even Semester- 2024-25

Class:			Faculty Name:
Subject:			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to Syllabus, Scheme of Exam & Learning Objectives/ Outcomes
	09-01-2025	Thursday	Infrared (IR) absorption spectroscopy – intensity and position of IR bands,
Week 2	14-01-2025	Tuesday	measurement of IR spectrum, fingerprint region,
	16-01-2025	Thursday	characteristic absorptions of various functional groups and nitriles (saturated and unsaturated), hydroxy compounds, aldehydes, ketones, esters, amides, acid anhydrides.
Week 3	21-01-2025	Tuesday	physical properties. Stereochemistry of amines.
	23-01-2025	Thursday	Separation of a mixture of primary, secondary and tertiary amines.
	28-01-2025	Tuesday	Structural features affecting basicity of amines.
Week 5	30-01-2025	Thursday	reductive amination of aldehydic and ketonic compounds.
	04-02-2025	Tuesday	
Week 6 40% syllabus to be completed till 14 February, 2025	06-02-2025	Thursday	
	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Reactions of amines, electrophilic aromatic substitution in aryl
	13-02-2025	Thursday	Diazonium Salts : Mechanism of diazotisation,
14-02-2025 Assignment submission-I			
Week 7	18-02-2025	Tuesday	
	20-02-2025	Thursday	Preparation of nitroalkanes and nitroarenes. and their chemical
Week 8	25-02-2025	Tuesday	Preparation of nitroalkanes and nitroarenes. and their chemical reactions.
	27-02-2025	Thursday	Mechanisms of electrophilic substitution in nitroarenes
Week 9	04-03-2025	Tuesday	aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,
	06-03-2025	Thursday	with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate.
Week 10	11-03-2025	Tuesday	synthesis of aldehydes and ketones using 1, 3 - dithianes
	13-03-2025	Thursday	Gatterman aldehyde synthesis, Gatterman Koch reaction,
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	synthesis of ketones from nitriles.
	20-03-2025	Thursday	Method of formation of carbonyl compound.
	25-03-2025	Tuesday	Physical properties.
Week 12	27-03-2025	Thursday	Comparison of reactivities of aldehydes and ketones.
	28-03-2025	Assignment submission-II	
	01-04-2025	Tuesday	additions to carbonyl group with particular emphasis on benzoin, Aldol, condensations.
Week 13	03-04-2025	Thursday	Wittig reaction. Mannich reaction, Michael reaction.
	08-04-2025	Tuesday	Clemmensen,
Week 14	09-04-2025	Wednesday	Revision
	15-04-2025	Tuesday	
Week 15	17-04-2025	Thursday	Commencement of Sessional Examination
	22-04-2025	Tuesday	Revision
Week 16	24-04-2025	Thursday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
class - B.Sc 4th NM B		Faculty Name: Ms. Jyoti	
Subject: Physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	
	08-01-2025	Wednesday	Introduction to thermodynamics
	09-01-2025	Thursday	
	10-01-2025	Friday	
Week 2	13-01-2025	Monday	Second law of thermodynamics, need for the law, different statements of the law
	14-01-2025	Tuesday	
	15-01-2025	Wednesday	Carnot cycle and it's efficiency
	16-01-2025	Thursday	
	17-01-2025	Friday	
Week 3	20-01-2025	Monday	Carnot theorem, thermodynamic scale of temperature
	21-01-2025	Tuesday	
	22-01-2025	Wednesday	Concept of entropy - entropy as a state function , entropy as a function of T, V and P
	23-01-2025	Thursday	
	24-01-2025	Friday	
Week 4	27-01-2025	Monday	Entropy change in physical change, entropy as a criteria of spontaneity and equilibrium
	28-01-2025	Tuesday	
	29-01-2025	Wednesday	Entropy change in ideal gases and mixing of gases
	30-01-2025	Thursday	
	31-01-2025	Friday	
Week 5	04-02-2025	Tuesday	
	05-02-2025	Wednesday	Third law of thermodynamics, Nernst Heat theorem, statement of concept of residual entropy
	06-02-2025	Thursday	
	07-02-2025	Friday	
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	
	13-02-2025	Thursday	
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Evaluation of absolute entropy from heat capacity data, Gibbs and Helmholtz functions
	18-02-2025	Tuesday	
	19-02-2025	Wednesday	Gibbs and Helmholtz function as thermodynamic quantities
	20-02-2025	Thursday	
	21-02-2025	Friday	
Week 8	24-02-2025	Monday	A and G as criteria for thermodynamic equilibrium and spontaneity and their advantage over entropy change
	25-02-2025	Tuesday	
	27-02-2025	Thursday	Variation of G and A with P, V and T
	28-02-2025	Friday	
Week 9	03-03-2025	Monday	Electrolytic and Galvanic cells, reversible and irreversible cells
	04-03-2025	Tuesday	
	05-03-2025	Wednesday	Conventional representation of electrochemical cells, emf of cell and it's measurement
	06-03-2025	Thursday	
	07-03-2025	Friday	
Week 10	10-03-2025	Monday	Weston standard cell, activity and activity coefficients, calculation of thermodynamic quantities of cell reaction
	11-03-2025	Tuesday	
	12-03-2025	Wednesday	Types of reversible electrodes, electrode reactions, Nernst equation, derivation of cell emf and single electrode potential
	13-03-2025	Thursday	
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	
	19-03-2025	Wednesday	
	20-03-2025	Thursday	Standard Hydrogen electrode and reference electrodes, electrochemical series and it's applications
	21-03-2025	Friday	
Week 12	24-03-2025	Monday	Concentration cells with and without transference, liquid junction potential
	25-03-2025	Tuesday	
	26-03-2025	Wednesday	Applications of emf measurement, potentiometric titration
	27-03-2025	Thursday	
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	
	02-04-2025	Wednesday	Determination of PH using Hydrogen electrode
	03-04-2025	Thursday	
	04-04-2025	Friday	
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Quinhydrone electrode and glass electrode by potentiometric titration
	08-04-2025	Tuesday	
	09-04-2025	Wednesday	Revision
	11-04-2025	Friday	
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	
	17-04-2025	Thursday	
	18-04-2025	Friday	
Week 16	21-04-2025	Monday	
	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

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Class: 6th NM-A			Faculty Name: Dr. Vikas Sangwan
Subject: Inorganic Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	08-01-2025	Wednesday	Introduction of syllabus
	10-01-2025	Friday	Basics of organometallic chemistry
Week 2	15-01-2025	Wednesday	Nomenclature of organometallic compounds
	17-01-2025	Friday	Preparation of organometallic compounds
Week 3	22-01-2025	Wednesday	Bonding of organometallic compounds
	24-01-2025	Friday	Mononuclear carbonyl and nature of bonding in metal carbonyl
Week 4	29-01-2025	Wednesday	Metal ethylenic complex
	31-01-2025	Friday	Acids and bases concept
Week 5	05-02-2025	Wednesday	Arrhenius, Bronsted Lowry and Lux-Flood concept
	07-02-2025	Friday	Solvent system, concept of hard and soft acids and bases
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	14-02-2025	Assignment submission-I	
Week 7	19-02-2025	Wednesday	Lewis concept of acids and bases
	21-02-2025	Friday	Relative strength of acids and bases
Week 8	28-02-2025	Friday	Symbiosis
Week 9	07-03-2025	Friday	Electronegativity and hardness and softness
Week 10	12-03-2025	Wednesday	Essential elements in biological processes
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	19-03-2025	Wednesday	Trace elements in biological processes
	21-03-2025	Friday	Hemoglobin Structure
Week 12	26-03-2025	Wednesday	Myoglobin Structure
	28-03-2025	Assignment submission-II	
Week 13	02-04-2025	Wednesday	Biological role of alkali metals
	04-04-2025	Friday	Concept of Nitrogen fixation
Week 14	09-04-2025	Wednesday	Silicones Introduction
	11-04-2025	Friday	Silicones preparation, Properties and Structure
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Phosphazenes preparation, Properties
	18-04-2025	Friday	Phosphazenes structure
Week 16	23-04-2025	Wednesday	Phosphazenes Uses
	25-04-2025	Friday	Important Questions Discussion

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Class: B. Sc (NM) 6th sem		Faculty Name: Mr Narender Saini	
Subject: Organic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Introduction of Heterocyclic compounds
	1-8-2025	Wednesday	molecular structure and aromaticity of pyrrole, furan
	1-9-2025	Thursday	molecular structure and aromaticity of thiophene and pyridine
	1-10-2025	Friday	method of synthesis and chemical reaction with particular emphasis on the mechanism of electrophilic substitution
Week 2	1-13-2025	Monday	mechanism of Nucleophilic substitution reaction in pyridine derivative
	1-14-2025	Tuesday	comparison of basicity of pyridine piperidine and pyrrole
	1-15-2025	Wednesday	introduction
	1-16-2025	Thursday	introduction to heterocyclic 2 compounds
	1-17-2025	Friday	introduction to condensed five membered heterocyclic compounds
Week 3	1-20-2025	Monday	introduction to condensed six membered heterocyclic compounds
	1-21-2025	Tuesday	preparation of indole
	1-22-2025	Wednesday	reaction of indole
	1-23-2025	Thursday	preparation of quinoline
	1-24-2025	Friday	reaction of quinoline
Week 4	1-27-2025	Monday	preparation of isoquinoline
	1-28-2025	Tuesday	Reaction of isoquinoline
	1-29-2025	Wednesday	fischer indole synthesis
	1-30-2025	Thursday	skrap synthesis
	1-31-2025	Friday	Bischler Naperlaski synthesis
Week 5	2-4-2025	Tuesday	mechanism of electrophilic substitution reaction of quinoline
	2-5-2025	Wednesday	mechanism of electrophilic substitution reaction of isoquinoline
	2-6-2025	Thursday	introduction of organosulphur compounds
	2-7-2025	Friday	nomenclature of organosulphur
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	structure, formation of thiol
	2-13-2025	Thursday	formation and chemical reaction of thiols
	14-02-2025	Assignment submission-I	pyq Based on Heterocyclic reaction
Week 7	2-17-2025	Monday	formation of thioether
	2-18-2025	Tuesday	chemical reaction of thioether
	2-19-2025	Wednesday	formation of sulphonc acid and sulphaguanidine
	2-20-2025	Thursday	chemical reaction of sulphonc acid and sulphaguanidine
	2-21-2025	Friday	synthetic detergents
Week 8	2-24-2025	Monday	aryl and alkyl sulphonates
	2-25-2025	Tuesday	organic synthesis via enolates ion introduction
	2-27-2025	Thursday	acidity of alpha hydrogen
	2-28-2025	Friday	alkylation of ethyl malonate and ethyl acetoacetate
Week 9	3-3-2025	Monday	synthesis of ethyl acetoacetate the claisen condensation
	3-4-2025	Tuesday	addition polymerisation
	3-5-2025	Wednesday	condensation polymerisation
	3-6-2025	Thursday	free radical vinyl polymerisation
	3-7-2025	Friday	ionic vinyl polymerisation
Week 10	3-10-2025	Monday	zeiglar natta vinyl polymerisation
	3-11-2025	Tuesday	vinyl polymerisation
	3-12-2025	Wednesday	condensation and step growth polymerisation
	3-13-2025	Thursday	polyester polyamide urea formaldehyde resin
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST -2
	3-18-2025	Tuesday	epoxy resins poly urethanes
	3-19-2025	Wednesday	Natural rubber
	3-20-2025	Thursday	synthetic rubber
	3-21-2025	Friday	introduction of amino acids peptides proteins
Week 12	3-24-2025	Monday	classification of amino acid
	3-25-2025	Tuesday	acid base behaviour of amino acid
	3-26-2025	Wednesday	isoelectric point
	3-27-2025	Thursday	electrophoresis
	28-03-2025	Assignment submission-II	pyq based on organosulphur compounds and polymer
Week 13	4-1-2025	Tuesday	preparation of amino acids
	4-2-2025	Wednesday	preparation and structure of peptides and proteins
	4-3-2025	Thursday	structure determination of peptides
	4-4-2025	Friday	end group analysis and solid phase synthesis
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	classical peptide synthesis and hydrolysis of peptide synthesis
	4-8-2025	Tuesday	structure of peptides
	4-9-2025	Wednesday	primary structure
	4-11-2025	Friday	secondary structure
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	
	4-17-2025	Thursday	
	4-18-2025	Friday	
Week 16	4-21-2025	Monday	
	4-22-2025	Tuesday	
	4-23-2025	Wednesday	
	4-24-2025	Thursday	
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: 6thNMA		Faculty Name: Ms. Gajal	
Subject: physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1			
	1-9-2025	Thursday	concept of potential energy curves for bonding and antibonding molecular orbitals
	1-10-2025	Friday	selection rules and Franck condon principle
Week 2			
	1-16-2025	Thursday	qualitative description of orbitals their energy level and transitions
	1-17-2025	Friday	thermal and photochemical processes
Week 3			
	1-23-2025	Thursday	laws of photochemistry
	1-24-2025	Friday	jablonski diagram
Week 4			
	1-30-2025	Thursday	quantum yield, photosensitized reactions
	1-31-2025	Friday	energy transfer processes, stern volmer equation
Week 5			
	2-6-2025	Thursday	ideal and non ideal solutions, concentration terms
	2-7-2025	Friday	activity and activity coefficient, dilute solutions
Week 6			
	2-13-2025	Thursday	colligative properties, Raoult's law
	14-02-2025	Assignment submission-I	
Week 7			relative lowering in vapour pressure
	2-20-2025	Thursday	elevation in boiling point
	2-21-2025	Friday	depression in freezing point
Week 8			
	2-27-2025	Thursday	osmotic pressure
	2-28-2025	Friday	experimental determination of colligative properties
Week 9			
	3-6-2025	Thursday	abnormal molar mass, degree of dissociation and degrees of association
	3-7-2025	Friday	statement and meaning of terms - phase, component and degrees of freedom
Week 10			
	3-13-2025	Thursday	thermodynamics derivation of gibbs phase rule
Week 11			
	3-20-2025	Thursday	phase equilibria of one component system, water and sulphur system
	3-21-2025	Friday	phase equilibria of two component systems
Week 12			lead silver equilibria
	3-27-2025	Thursday	desilverisation of lead
	28-03-2025	Assignment submission-II	
Week 13			
	4-3-2025	Thursday	revision
	4-4-2025	Friday	revision
Week 14			
	4-11-2025	Friday	revision
Week 15			revision
	4-17-2025	Thursday	revision
	4-18-2025	Friday	
Week 16			
	4-24-2025	Thursday	revision
	4-25-2025	Friday	revision

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: 6th NM-B			Faculty Name: Dr. Vikas Sangwan
Subject: Inorganic Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction of syllabus
	08-01-2025	Wednesday	Basics of organomettallic chemistry
Week 2	14-01-2025	Tuesday	Nomenclature of organomettallic compounds
	15-01-2025	Wednesday	Preparation of organomettallic compounds
Week 3	21-01-2025	Tuesday	Bonding of organomettallic compounds
	22-01-2025	Wednesday	Mononuclear carbonyl and nature of bonding in metal carbonyl
Week 4	28-01-2025	Tuesday	Metal ethylenic complex
	29-01-2025	Wednesday	Acids and bases concept
Week 5	04-02-2025	Tuesday	Arrhenius, Bronsted Lowry and Lux-Flood concept
	05-02-2025	Wednesday	Solvent system, concept of hard and soft acids and bases
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Lewis concept of acids and bases
	14-02-2025	Assignment submission-I	
Week 7	18-02-2025	Tuesday	Relative strength of acids and bases
	19-02-2025	Wednesday	Symbiosis
Week 8	25-02-2025	Tuesday	Electronegativity and hardness and softness
Week 9	04-03-2025	Tuesday	Essential elements in biological processes
	05-03-2025	Wednesday	Trace elements in biological processes
Week 10	11-03-2025	Tuesday	Hemoglobin Structure
	12-03-2025	Wednesday	Myoglobin Structure
Week 11	18-03-2025	Tuesday	Biological role of alkali metals
	19-03-2025	Wednesday	Concept of Nitrogen fixation
Week 12	25-03-2025	Tuesday	Silicones Introduction
	26-03-2025	Wednesday	Silicones preparation, Properties and Structure
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Phosphazenes preparation, Properties
	02-04-2025	Wednesday	Phosphazenes structure
Week 14	08-04-2025	Tuesday	Phosphazenes Uses
	09-04-2025	Wednesday	Important Questions Discussion
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Important Questions Discussion
Week 16	22-04-2025	Tuesday	Important Questions Discussion
	23-04-2025	Wednesday	Important Questions Discussion

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B. Sc (NM) 6th sem		Faculty Name: Mr Narender Saini	
Subject: Organic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Introduction of Heterocyclic compounds
	1-8-2025	Wednesday	molecular structure and aromaticity of pyrrole, furan
	1-9-2025	Thursday	molecular structure and aromaticity of thiophene and pyridine
	1-10-2025	Friday	method of synthesis and chemical reaction with particular emphasis on the mechanism of electrophilic substitution
Week 2	1-13-2025	Monday	mechanism of Nucleophilic substitution reaction in pyridine derivative
	1-14-2025	Tuesday	comparison of basicity of pyridine piperidine and pyrrole
	1-15-2025	Wednesday	introduction
	1-16-2025	Thursday	introduction to heterocyclic 2 compounds
	1-17-2025	Friday	introduction to condensed five membered heterocyclic compounds
Week 3	1-20-2025	Monday	introduction to condensed six membered heterocyclic compounds
	1-21-2025	Tuesday	preparation of indole
	1-22-2025	Wednesday	reaction of indole
	1-23-2025	Thursday	preparation of quinoline
	1-24-2025	Friday	reaction of quinoline
Week 4	1-27-2025	Monday	preparation of isoquinoline
	1-28-2025	Tuesday	Reaction of isoquinoline
	1-29-2025	Wednesday	fischer indole synthesis
	1-30-2025	Thursday	skrap synthesis
	1-31-2025	Friday	Bischler Naperlaski synthesis
Week 5	2-4-2025	Tuesday	mechanism of electrophilic substitution reaction of quinoline
	2-5-2025	Wednesday	mechanism of electrophilic substitution reaction of isoquinoline
	2-6-2025	Thursday	introduction of organosulphur compounds
	2-7-2025	Friday	nomenclature of organosulphur
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	structure, formation of thiol
	2-13-2025	Thursday	formation and chemical reaction of thiols
	14-02-2025	Assignment submission-I	pyq Based on Heterocyclic reaction
Week 7	2-17-2025	Monday	formation of thioether
	2-18-2025	Tuesday	chemical reaction of thioether
	2-19-2025	Wednesday	formation of sulphonc acid and sulphaguanidine
	2-20-2025	Thursday	chemical reaction of sulphonc acid and sulphaguanidine
	2-21-2025	Friday	synthetic detergents
Week 8	2-24-2025	Monday	aryl and alkyl sulphonates
	2-25-2025	Tuesday	organic synthesis via enolates ion introduction
	2-27-2025	Thursday	acidity of alpha hydrogen
	2-28-2025	Friday	alkylation of ethyl malonate and ethyl acetoacetate
Week 9	3-3-2025	Monday	synthesis of ethyl acetoacetate the claisen condensation
	3-4-2025	Tuesday	addition polymerisation
	3-5-2025	Wednesday	condensation polymerisation
	3-6-2025	Thursday	free radical vinyl polymerisation
	3-7-2025	Friday	ionic vinyl polymerisation
Week 10	3-10-2025	Monday	zeiglar natta vinyl polymerisation
	3-11-2025	Tuesday	vinyl polymerisation
	3-12-2025	Wednesday	condensation and step growth polymerisation
	3-13-2025	Thursday	polyester polyamide urea formaldehyde resin
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST -2
	3-18-2025	Tuesday	epoxy resins poly urethanes
	3-19-2025	Wednesday	Natural rubber
	3-20-2025	Thursday	synthetic rubber
	3-21-2025	Friday	introduction of amino acids peptides proteins
Week 12	3-24-2025	Monday	classification of amino acid
	3-25-2025	Tuesday	acid base behaviour of amino acid
	3-26-2025	Wednesday	isoelectric point
	3-27-2025	Thursday	electrophoresis
	28-03-2025	Assignment submission-II	pyq based on organosulphur compounds and polymer
Week 13	4-1-2025	Tuesday	preparation of amino acids
	4-2-2025	Wednesday	preparation and structure of peptides and proteins
	4-3-2025	Thursday	structure determination of peptides
	4-4-2025	Friday	end group analysis and solid phase synthesis
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	classical peptide synthesis and hydrolysis of peptide synthesis
	4-8-2025	Tuesday	structure of peptides
	4-9-2025	Wednesday	primary structure
	4-11-2025	Friday	secondary structure
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	
	4-17-2025	Thursday	
	4-18-2025	Friday	
Week 16	4-21-2025	Monday	
	4-22-2025	Tuesday	
	4-23-2025	Wednesday	
	4-24-2025	Thursday	
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: 6th NM B		Faculty Name: Ms. Gajal	
Subject: physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	concept of potential energy curves for bonding and antibonding molecular orbitals
Week 2	1-13-2025	Monday	selection rules and franck condon principle
	1-14-2025	Tuesday	qualitative description of sigma, pie and MO their energy level and transition
Week 3	1-20-2025	Monday	thermal and photochemical processes
	1-21-2025	Tuesday	laws of photochemistry
Week 4	1-27-2025	Monday	jablonski diagram
	1-28-2025	Tuesday	quantum yield
Week 5	2-4-2025	Tuesday	photosensitization, different reactions
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	ideal and non ideal solutions. and concentration terms
	14-02-2025	Assignment submission-I	
Week 7	2-17-2025	Monday	dilute solutions, activity and activity coefficient
	2-18-2025	Tuesday	raoult's law, colligative properties
Week 8	2-24-2025	Monday	Relative lowering in vapour pressure
	2-25-2025	Tuesday	elevation in boiling point
Week 9	3-3-2025	Monday	depression in freezing point
	3-4-2025	Tuesday	osmotic pressure
Week 10	3-10-2025	Monday	abnormal molecular mass, degree of dissociation and association of solutes
	3-11-2025	Tuesday	experimental methods for determining various colligative properties
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST- 2
	3-18-2025	Tuesday	statement and meaning of terms- phase, component and degrees of freedom
Week 12	3-24-2025	Monday	thermodynamic derivation of gibbs phase rule
	3-25-2025	Tuesday	phase equilibria of one component system, water and sulfur
Week 13	28-03-2025	Assignment submission-II	
	4-1-2025	Tuesday	phase equilibria of two component system
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	desilverisation of lead
	4-8-2025	Tuesday	revision
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
Week 16	4-21-2025	Monday	revision
	4-22-2025	Tuesday	revision

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: M.Sc. Previous			Faculty Name: Dr. Anuradha
Subject: Inorganic Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to the syllabus
	08-01-2025	Wednesday	Electronic spectra
	09-01-2025	Thursday	Microstates
	10-01-2025	Friday	Spectroscopic term symbols
Week 2	13-01-2025	Monday	Vector diagrams for orbital angular momentum
	14-01-2025	Tuesday	Spin orbit coupling
	15-01-2025	Wednesday	Spectroscopic terms
	16-01-2025	Thursday	Spectral terms
	17-01-2025	Friday	Orgel diagrams
Week 3	20-01-2025	Monday	T-S diagrams
	21-01-2025	Tuesday	Charge transfer spectra
	22-01-2025	Wednesday	Magnetic moment
	23-01-2025	Thursday	Magnetic exchange coupling and spin crossover
	24-01-2025	Friday	Metal carbonyls
Week 4	27-01-2025	Monday	Structure and bonding
	28-01-2025	Tuesday	Chemical reactions of metal carbonyls
	29-01-2025	Wednesday	Vibrational spectra and structure elucidation
	30-01-2025	Thursday	Preparation of metal carbonyls
	31-01-2025	Friday	Important reactions of metal nitrosyls
Week 5	04-02-2025	Tuesday	N ₂ and O ₂ complexes
	05-02-2025	Wednesday	Tertiary phosphine as ligand
	06-02-2025	Thursday	Doubt session and PYQ analysis
	07-02-2025	Friday	Doubt session and PYQ analysis
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Introduction to metal clusters
	13-02-2025	Thursday	Boranes
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Nomenclature and synthesis
	18-02-2025	Tuesday	Properties of some boranes
	19-02-2025	Wednesday	Bonding in boranes
	20-02-2025	Thursday	STYX code
	21-02-2025	Friday	Borane anions
Week 8	24-02-2025	Monday	Carboranes
	25-02-2025	Tuesday	Preparation and properties
	27-02-2025	Thursday	Polyhedral electron pair theory
	28-02-2025	Friday	Metalloboranes
Week 9	03-03-2025	Monday	Isolobal analogy
	04-03-2025	Tuesday	Metal halide clusters
	05-03-2025	Wednesday	M-M bonds
	06-03-2025	Thursday	Compounds having M-M bonds
	07-03-2025	Friday	Structure of these compounds
Week 10	10-03-2025	Monday	Calculation of M-M bonds
	11-03-2025	Tuesday	Doubt session and PYQ analysis
	12-03-2025	Wednesday	Doubt session and PYQ analysis
	13-03-2025	Thursday	Doubt session and PYQ analysis
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Photochemistry
	19-03-2025	Wednesday	Photochemical laws
	20-03-2025	Thursday	Quantum yield
	21-03-2025	Friday	Jablonski diagram
Week 12	24-03-2025	Monday	Internal conversion
	25-03-2025	Tuesday	Inter System Crossing
	26-03-2025	Wednesday	Fluorescence and phosphorescence
	27-03-2025	Thursday	Rules of fluorescence
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Doubt session and PYQ analysis
	02-04-2025	Wednesday	Frank condon principle
	03-04-2025	Thursday	Radiative lifetime
	04-04-2025	Friday	Bimolecular quenching
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Stern Volmer relation
	08-04-2025	Tuesday	Photochemical kinetics
	09-04-2025	Wednesday	Photochemical stages
	11-04-2025	Friday	Types of Photochemical stages
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Doubt session and PYQ analysis
	17-04-2025	Thursday	Doubt session and PYQ analysis
	18-04-2025	Friday	Doubt session and PYQ analysis
Week 16	21-04-2025	Monday	Doubt session and PYQ analysis
	22-04-2025	Tuesday	Doubt session and PYQ analysis
	23-04-2025	Wednesday	Doubt session and PYQ analysis
	24-04-2025	Thursday	Doubt session and PYQ analysis
	25-04-2025	Friday	Doubt session and PYQ analysis

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: M. Sc chemistry 2nd sem		Faculty Name: Mr Narender Saini	
Subject: Organic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Aromatic Electrophilic Substitution
	1-8-2025	Wednesday	Theoretical treatment of aromatic substitution reactions
	1-9-2025	Thursday	structure-reactivity relationship in mono substituted benzene ring
	1-10-2025	Friday	orientation in other ring systems,
Week 2	1-13-2025	Monday	partial rate factor
	1-14-2025	Tuesday	energy profile diagram
	1-15-2025	Wednesday	Vilsmeier-Haack reaction,
	1-16-2025	Thursday	Reimer-Tiemann reaction
	1-17-2025	Friday	Bischler-Napieralski reaction
Week 3	1-20-2025	Monday	Pechmann reaction
	1-21-2025	Tuesday	Houben-Hoesch reaction
	1-22-2025	Wednesday	Fries rearrangement.
	1-23-2025	Thursday	Nucleophilic Aromatic Substitution
	1-24-2025	Friday	
Week 4	1-27-2025	Monday	addition-elimination
	1-28-2025	Tuesday	elimination-addition mechanism (involving arynes)
	1-29-2025	Wednesday	von-Richter rearrangement
	1-30-2025	Thursday	Sommelet-Hauser
	1-31-2025	Friday	Stevens rearrangements.
Week 5	2-4-2025	Tuesday	Smiles rearrangements.
	2-5-2025	Wednesday	General aspects of generation, structure of arynes.
	2-6-2025	Thursday	General aspects of stability of arynes.
	2-7-2025	Friday	General aspects of reactivity of arynes.
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	Neighbouring Group Participation and Carbocation Rearrangements
	2-13-2025	Thursday	Anchimeric assistance, neighbouring group participation by non-bonding electrons
	14-02-2025	Assignment submission-I	
			Pyq based on aromatic nucleophilic and electrophilic substitution reaction
Week 7	2-17-2025	Monday	sigma and -bonds, classical and non-classical carbocations.
	2-18-2025	Tuesday	Carbocations rearrangements: migratory aptitudes,
	2-19-2025	Wednesday	Wagner Meerwein rearrangement,
	2-20-2025	Thursday	pinacol pinacolone rearrangement,
	2-21-2025	Friday	Demjanov rearrangement
Week 8	2-24-2025	Monday	Tiffeneau-Demjanov ring expansion,
	2-25-2025	Tuesday	aldehyde-ketone rearrangement,
	2-27-2025	Thursday	dienone-phenol rearrangement
	2-28-2025	Friday	trans-annular rearrangements
Week 9	3-3-2025	Monday	Stieglitz rearrangement.
	3-4-2025	Tuesday	Free Radicals General aspects of generation
	3-5-2025	Wednesday	structure, stability
	3-6-2025	Thursday	reactivity of free radicals,
	3-7-2025	Friday	types of free radical reactions
Week 10	3-10-2025	Monday	halogenation including allylic halogenation (NBS),
	3-11-2025	Tuesday	auto-oxidation,
	3-12-2025	Wednesday	decomposition of azo compounds and peroxides,
	3-13-2025	Thursday	coupling of alkynes,
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST- 2
	3-18-2025	Tuesday	homolytic aromatic substitution,
	3-19-2025	Wednesday	Sandmeyer reaction and Hunsdiecker reaction.
	3-20-2025	Thursday	Addition to C-C Multiple Bond General mechanistic considerations,
	3-21-2025	Friday	Mechanism of addition of hydrogen halide, H ₂ O,
Week 12	3-24-2025	Monday	halogens, HOX and mercuric salt to alkenes and alkynes
	3-25-2025	Tuesday	Hydroboration, formation of C-C bonds via organoboranes,
	3-26-2025	Wednesday	hydroboration of acetylenes, nucleophilic addition to alkenes.
	3-27-2025	Thursday	Addition to Carbon-Hetero Atoms Multiple Bonds
	28-03-2025	Assignment submission-II	
Week 13			pyq based on free radical reaction and addition to c-c multiple bond
	4-1-2025	Tuesday	General mechanistic considerations and reactivity, Hydration
	4-2-2025	Wednesday	Addition of Alcohols to Aldehydes, Ketones and Acids.
	4-3-2025	Thursday	Reactivity of carbonyl compounds towards Addition.
Week 14 100% syllabus to be completed till 11 April, 2025	4-4-2025	Friday	Lithium aluminium hydride reduction- carbonyl compounds, acids, esters, nitriles.
	4-7-2025	Monday	Additions of Grignard reagents. Reformatsky reaction, Wittig reaction,
	4-8-2025	Tuesday	Claisen condensation, Dieckmann reaction, Aldol condensation, Knoevenagel condensation, Perkin reaction,
	4-9-2025	Wednesday	Cannizzaro reaction, Benzoin condensation, Mannich Reaction, Robinson-Mannich reaction,
	4-11-2025	Friday	
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	
	4-17-2025	Thursday	
	4-18-2025	Friday	
Week 16	4-21-2025	Monday	
	4-22-2025	Tuesday	
	4-23-2025	Wednesday	
	4-24-2025	Thursday	
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: B.Sc. Med Sem IV			Faculty Name: Dr. Anil Kumar
Subject: Organic Chemistry Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Molecular vibrations
	08-01-2025	Wednesday	Hooke's law,
	09-01-2025	Thursday	selection rules
Week 2	14-01-2025	Tuesday	intensity and position of IR bands
	15-01-2025	Wednesday	measurement of IR spectrum
	16-01-2025	Thursday	fingerprint region
Week 3	21-01-2025	Tuesday	characteristic absorptions of various functional groups
	22-01-2025	Wednesday	interpretation of IR spectra of simple organic compounds
	23-01-2025	Thursday	Applications of IR spectroscopy in structure elucidation of simple organic compounds.
Week 4	28-01-2025	Tuesday	Structure and nomenclature of amines
	29-01-2025	Wednesday	Separation of a mixture of primary, secondary and tertiary amines
	30-01-2025	Thursday	Structural features affecting basicity of amines.
Week 5	04-02-2025	Tuesday	Preparation of alkyl and aryl amines
	05-02-2025	Wednesday	reduction of nitro compounds, nitriles,
	06-02-2025	Thursday	reductive amination of aldehydic and ketonic compounds
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Gabrielphthalimide reaction
	13-02-2025	Thursday	Hofmann bromamide reaction.
	14-02-2025	Assignment submission-I	
	18-02-2025	Tuesday	electrophilic aromatic substitution in aryl amines,
Week 7	18-02-2025	Tuesday	reactions of amines with nitrous acid.
	19-02-2025	Wednesday	Mechanism of diazotisation, structure of benzene diazonium chloride
	20-02-2025	Thursday	Replacement of diazo group by H, OH,
Week 8	25-02-2025	Tuesday	F, Cl, Br, I, NO ₂ and CN groups
	27-02-2025	Thursday	reduction of diazonium salts to hydrazines
Week 9	04-03-2025	Tuesday	coupling reaction and its synthetic application
	05-03-2025	Wednesday	Preparation of nitro alkanes and nitro arenes
	06-03-2025	Thursday	their chemical reactions
Week 10	11-03-2025	Tuesday	Mechanism of electrophilic substitution reactions in nitro arenes
	12-03-2025	Wednesday	and their reductions in acidic
	13-03-2025	Thursday	neutral and alkaline medium
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Nomenclature and structure of the carbonyl group
	19-03-2025	Wednesday	synthesis of aldehydes from acid chlorides,
	20-03-2025	Thursday	advantage of oxidation of alcohols with chromium trioxide (Sarett reagent)
Week 12	25-03-2025	Tuesday	pyridinium chlorochromate (PCC) and pyridinium dichromate.
	26-03-2025	Wednesday	Physical properties. Comparison of reactivities of aldehydes and ketones
	27-03-2025	Thursday	benzoin, aldol,
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Perkin and Knoevenagel condensations
	02-04-2025	Wednesday	Wittig reaction. Mannich reaction
	03-04-2025	Thursday	Oxidation of aldehydes
Week 14	08-04-2025	Tuesday	Baeyer-Villiger oxidation of ketones
	09-04-2025	Wednesday	Cannizzaro reaction, MPV
Week 15	15-04-2025	Tuesday	Clemmensen, Wolff-Kishner, LiAlH ₄ and NaBH ₄ reductions.
	16-04-2025	Wednesday	Commencement of Sessional Examination
	17-04-2025	Thursday	Revision
Week 1	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B. Sc (HC) 5th sem		Faculty Name: Mr Narender Saini	
Subject: Organic chemistry- 1			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Topics in Biological Chemistry: Introduction to enzymes,
	1-8-2025	Wednesday	nomenclature of enzymes
	1-9-2025	Thursday	characteristics of enzymes
	1-10-2025	Friday	general picture of mechanism of enzymes action
Week 2	1-13-2025	Monday	co- enzymes
	1-14-2025	Tuesday	co- enzymes derived from niacin
	1-15-2025	Wednesday	co- enzymes derived from thiamine
	1-16-2025	Thursday	lipoic acid
	1-17-2025	Friday	co - enzyme- A
Week 3	1-20-2025	Monday	energy production in biological system
	1-21-2025	Tuesday	glycolysis
	1-22-2025	Wednesday	tricarboxylic acid cycle
	1-23-2025	Thursday	Fermentation introduction
	1-24-2025	Friday	Anaerobic fermentation,
Week 4	1-27-2025	Monday	aerobic fermentation
	1-28-2025	Tuesday	production of alcohol
	1-29-2025	Wednesday	citric acid formation
	1-30-2025	Thursday	lactic acid formation
	1-31-2025	Friday	Fats, Oil and Detergents: introduction
Week 5	2-4-2025	Tuesday	Occurrence hydrogenated oils,
	2-5-2025	Wednesday	chemical composition and importance, hydrogenated oils,
	2-6-2025	Thursday	Rancidity
	2-7-2025	Friday	acid value
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	saponification
	2-13-2025	Thursday	iodine numbers
	14-02-2025 Assignment submission-I		
	Pyq based on enzymes and fermentation		
Week 7	2-17-2025	Monday	difference between toilet and washing soaps
	2-18-2025	Tuesday	comparison of soap and detergents
	2-19-2025	Wednesday	classification detergents
	2-20-2025	Thursday	principle of cleansing action of detergents.
	2-21-2025	Friday	Drugs-I Introduction
Week 8	2-24-2025	Monday	relation of chemical structure and physiological activity with suitable examples
	2-25-2025	Tuesday	mechanism of chemotherapeutic action
	2-27-2025	Thursday	Nomenclature of organic chemical systems
	2-28-2025	Friday	stereochemical notations
	3-3-2025	Monday	General aspects, preparation and uses of the following drugs: Analgesics and antipyretics
Week 9	3-4-2025	Tuesday	General aspects, preparation and uses of the following drugs: Analgesics and antipyretics : aspirine
	3-5-2025	Wednesday	General aspects, preparation and uses of the following drugs - analgesic and antipyretic paracetamol
	3-6-2025	Thursday	Anti-inflammatory
	3-7-2025	Friday	Ibuprofen
	3-10-2025	Monday	Antiseptics and disinfectants
Week 10	3-11-2025	Tuesday	Chloro cresol
	3-12-2025	Wednesday	povidone – Iodine
	3-13-2025	Thursday	General aspects, preparation and uses of the following drugs - Antimalarials : Chloroquinine
	3-17-2025	Monday	CLASS TEST- 2
Week 11 80% syllabus to be completed till 21 March, 2025	3-18-2025	Tuesday	General aspects, preparation and uses of the following drugs - Antimalarials : Chloroquinine
	3-19-2025	Wednesday	General aspects, preparation and uses of the following drugs -Antihistamines :
	3-20-2025	Thursday	General aspects, preparation and uses of the following drugs-Antihistamines :
	3-21-2025	Friday	General aspects, preparation and uses of the following drugs - Antifungal Undecylenic acid
	3-24-2025	Monday	Insect repellants
Week 12	3-25-2025	Tuesday	Dibutyl phthalate
	3-26-2025	Wednesday	Antibiotics
	3-27-2025	Thursday	Chloroamphenicol
	28-03-2025 Assignment submission-II		
	Pyq based on fats, oils, detergents and drugs		
Week 13	4-1-2025	Tuesday	Anti-inflammatory drugs
	4-2-2025	Wednesday	Ibuprofen drugs
	4-3-2025	Thursday	Sulpha drugs
	4-4-2025	Friday	Sulphacetamide
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	Local anaesthetics
	4-8-2025	Tuesday	Benzocaine
	4-9-2025	Wednesday	Anti amoebic drugs
	4-11-2025	Friday	Metronidazole
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	
	4-17-2025	Thursday	
	4-18-2025	Friday	
	4-21-2025	Monday	
Week 16	4-22-2025	Tuesday	
	4-23-2025	Wednesday	
	4-24-2025	Thursday	
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B.Sc. Hons. Chemistry Sem IV		Faculty Name: Dr. Anil Kumar	
Subject: Organic Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction, essential oils,
	08-01-2025	Wednesday	classification of terpenes,
	09-01-2025	Thursday	isolation, isoprene rule
	10-01-2025	Friday	isolation,
Week 2	13-01-2025	Monday	structure elucidation
	14-01-2025	Tuesday	synthesis of citral and geraniol.
	15-01-2025	Wednesday	Alkaloids
	16-01-2025	Thursday	Introduction, classification
	17-01-2025	Friday	extraction, physiological action in alkaloids
Week 3	20-01-2025	Monday	general characteristics
	21-01-2025	Tuesday	general methods of determining structures
	22-01-2025	Wednesday	Hofman's exhaustive methylation,
	23-01-2025	Thursday	isolation, structure elucidation
	24-01-2025	Friday	synthesis of nicotine
Week 4	27-01-2025	Monday	cocaine,
	28-01-2025	Tuesday	coniine
	29-01-2025	Wednesday	piperine.
	30-01-2025	Thursday	Pesticides:
	31-01-2025	Friday	- Classification,
Week 5	04-02-2025	Tuesday	Natural pesticides: Nicotinides
	05-02-2025	Wednesday	Pyrethroids,
	06-02-2025	Thursday	Rotenoids,
	07-02-2025	Friday	Sabodilla,
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	CLASS TEST- 1
	11-02-2025	Tuesday	Ryania,
	13-02-2025	Thursday	Synthetic pesticides: Nitrophenols,
	14-02-2025	Assignment submission-I	Synthetic pesticides
	17-02-2025	Monday	Halogens derivatives of aromatic hydrocarbons
Week 7	18-02-2025	Tuesday	alicyclic hydrocarbons,
	19-02-2025	Wednesday	organo phosphorus pesticides
	20-02-2025	Thursday	Preparation, reactions
	21-02-2025	Friday	and uses of DDT
Week 8	24-02-2025	Monday	BHC, Malathion
	25-02-2025	Tuesday	Parathion.
	27-02-2025	Thursday	Vitamins
	28-02-2025	Friday	Introduction,
Week 9	03-03-2025	Monday	classification,
	04-03-2025	Tuesday	pro vitamins,
	05-03-2025	Wednesday	occurrence , structure
	06-03-2025	Thursday	deficiency diseases of vitamins A,
	07-03-2025	Friday	B complex (B 1 , B 2
Week 10	10-03-2025	Monday	B 6 and B 12),
	11-03-2025	Tuesday	C, D
	12-03-2025	Wednesday	E, H
	13-03-2025	Thursday	and K
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Harmones:
	19-03-2025	Wednesday	Introduction,
	20-03-2025	Thursday	functions,
	21-03-2025	Friday	difference between hormones and vitamins
Week 12	24-03-2025	Monday	classification and study of Th yroxine
	25-03-2025	Tuesday	Adrenalin
	26-03-2025	Wednesday	Insulin,
	27-03-2025	Thursday	Testosterone,
	28-03-2025	Assignment submission-II	Progesterone,
Week 13	01-04-2025	Tuesday	Estrogens,
	02-04-2025	Wednesday	Cortison
	03-04-2025	Thursday	structure ,
	04-04-2025	Friday	secreting gland
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	and functions
	08-04-2025	Tuesday	Revision
	09-04-2025	Wednesday	Revision
	11-04-2025	Friday	
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	Revision
	17-04-2025	Thursday	Revision
	18-04-2025	Friday	Revision
Week 16	21-04-2025	Monday	Revision
	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B. Sc (Medical) 6th sem		Faculty Name: Mr Narender Saini	
Subject: Organic chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Introduction of Heterocyclic compounds
	1-8-2025	Wednesday	molecular structure and aromaticity of pyrrole, furan
	1-9-2025	Thursday	molecular structure and aromaticity of thiophene and pyridine
	1-10-2025	Friday	method of synthesis and chemical reaction with particular emphasis on the mechanism of electrophilic substitution
Week 2	1-13-2025	Monday	mechanism of Nucleophilic substitution reaction in pyridine derivative
	1-14-2025	Tuesday	comparison of basicity of pyridine piperidine and pyrrole
	1-15-2025	Wednesday	introduction
	1-16-2025	Thursday	introduction to heterocyclic 2 compounds
	1-17-2025	Friday	introduction to condensed five membered heterocyclic compounds
Week 3	1-20-2025	Monday	introduction to condensed six membered heterocyclic compounds
	1-21-2025	Tuesday	preparation of indole
	1-22-2025	Wednesday	reaction of indole
	1-23-2025	Thursday	preparation of quinoline
	1-24-2025	Friday	reaction of quinoline
Week 4	1-27-2025	Monday	preparation of isoquinoline
	1-28-2025	Tuesday	Reaction of isoquinoline
	1-29-2025	Wednesday	fischer indole synthesis
	1-30-2025	Thursday	skrap synthesis
	1-31-2025	Friday	Bischler Naperlaski synthesis
Week 5	2-4-2025	Tuesday	mechanism of electrophilic substitution reaction of quinoline
	2-5-2025	Wednesday	mechanism of electrophilic substitution reaction of isoquinoline
	2-6-2025	Thursday	introduction of organosulphur compounds
	2-7-2025	Friday	nomenclature of organosulphur
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	structure, formation of thiol
	2-13-2025	Thursday	formation and chemical reaction of thiols
	14-02-2025	Assignment submission-I	pyq Based on Heterocyclic reaction
Week 7	2-17-2025	Monday	formation of thioether
	2-18-2025	Tuesday	chemical reaction of thioether
	2-19-2025	Wednesday	formation of sulphonc acid and sulphaguanidine
	2-20-2025	Thursday	chemical reaction of sulphonc acid and sulphaguanidine
	2-21-2025	Friday	synthetic detergents
Week 8	2-24-2025	Monday	aryl and alkyl sulphonates
	2-25-2025	Tuesday	organic synthesis via enolates ion introduction
	2-27-2025	Thursday	acidity of alpha hydrogen
	2-28-2025	Friday	alkylation of ethyl malonate and ethyl acetoacetate
Week 9	3-3-2025	Monday	synthesis of ethyl acetoacetate the claisen condensation
	3-4-2025	Tuesday	addition polymerisation
	3-5-2025	Wednesday	condensation polymerisation
	3-6-2025	Thursday	free radical vinyl polymerisation
	3-7-2025	Friday	ionic vinyl polymerisation
Week 10	3-10-2025	Monday	zeiglar natta vinyl polymerisation
	3-11-2025	Tuesday	vinyl polymerisation
	3-12-2025	Wednesday	condensation and step growth polymerisation
	3-13-2025	Thursday	polyester polyamide urea formaldehyde resin
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST -II
	3-18-2025	Tuesday	epoxy resins poly urethanes
	3-19-2025	Wednesday	Natural rubber
	3-20-2025	Thursday	synthetic rubber
	3-21-2025	Friday	introduction of amino acids peptides proteins
Week 12	3-24-2025	Monday	classification of amino acid
	3-25-2025	Tuesday	acid base behaviour of amino acid
	3-26-2025	Wednesday	isoelectric point
	3-27-2025	Thursday	electrophoresis
	28-03-2025	Assignment submission-II	pyq based on organosulphur compounds and polymer
Week 13	4-1-2025	Tuesday	preparation of amino acids
	4-2-2025	Wednesday	preparation and structure of peptides and proteins
	4-3-2025	Thursday	structure determination of peptides
	4-4-2025	Friday	end group analysis and solid phase synthesis
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	classical peptide synthesis and hydrolysis of peptide synthesis
	4-8-2025	Tuesday	structure of peptides
	4-9-2025	Wednesday	primary structure
	4-11-2025	Friday	secondary structure
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	
	4-17-2025	Thursday	
	4-18-2025	Friday	
Week 16	4-21-2025	Monday	
	4-22-2025	Tuesday	
	4-23-2025	Wednesday	
	4-24-2025	Thursday	
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: Hons chemistry 6th sem		Faculty Name: Ms. Gajal	
Subject: Physical chemistry II			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	introduction to syllabus
	1-8-2025	Wednesday	planck's law
	1-9-2025	Thursday	Heat capacity of solids
	1-10-2025	Friday	Bohr's model of hydrogen atom
Week 2	1-13-2025	Monday	defects of bohr's model
	1-14-2025	Tuesday	Compton effect
	1-15-2025	Wednesday	MOT
	1-16-2025	Thursday	basic idea of MOT
	1-17-2025	Friday	criteria for forming MO from AO
Week 3	1-20-2025	Monday	Construction of MO diagrams
	1-21-2025	Tuesday	Construction of MO by LCAO
	1-22-2025	Wednesday	Revision of section A
	1-23-2025	Thursday	calculation of energy levels from wave function
	1-24-2025	Friday	physical picture of bonding and antibonding wave function
Week 4	1-27-2025	Monday	Hybrid orbital
	1-28-2025	Tuesday	calculation of coefficient of atomic used in these hybrid orbitals
	1-29-2025	Wednesday	introduction of valence bond model of H2
	1-30-2025	Thursday	Comparison of molecular orbital
	1-31-2025	Friday	Valence bond model
Week 5	2-4-2025	Tuesday	Revision of Section B
	2-5-2025	Wednesday	catalysis
	2-6-2025	Thursday	homogenous and heterogeneous catalysis
	2-7-2025	Friday	enzyme catalysis
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	theory of catalysis
	2-13-2025	Thursday	Intermediate compound formation theory
	14-02-2025	Assignment submission-I	
Week 7	2-17-2025	Monday	adsorption theory
	2-18-2025	Tuesday	general characteristics of catalysis
	2-19-2025	Wednesday	positive catalysis
	2-20-2025	Thursday	negative catalysis
	2-21-2025	Friday	autocatalysis
Week 8	2-24-2025	Monday	shape selective catalysis
	2-25-2025	Tuesday	revision section C
	2-27-2025	Thursday	numerical problems
	2-28-2025	Friday	Chromatography
Week 9	3-3-2025	Monday	classification of Chromatographic methods
	3-4-2025	Tuesday	Principle of differential migration
	3-5-2025	Wednesday	nature of differential migration
	3-6-2025	Thursday	Adsorption phenomenon
	3-7-2025	Friday	Nature of adsorbent
Week 10	3-10-2025	Monday	solvent system
	3-11-2025	Tuesday	Rf values
	3-12-2025	Wednesday	basic principle of partition chromatography
	3-13-2025	Thursday	paper chromatography
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST- 2
	3-18-2025	Tuesday	column Chromatography
	3-19-2025	Wednesday	Thin layer chromatography
	3-20-2025	Thursday	liquid-liquid partition
	3-21-2025	Friday	high performance liquid chromatography
Week 12	3-24-2025	Monday	application of all Chromatography
	3-25-2025	Tuesday	revision
	3-26-2025	Wednesday	revision
	3-27-2025	Thursday	revision
	28-03-2025	Assignment submission-II	
Week 13	4-1-2025	Tuesday	revision
	4-2-2025	Wednesday	revision
	4-3-2025	Thursday	revision
	4-4-2025	Friday	pyq discussion
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	pyq discussion
	4-8-2025	Tuesday	pyq discussion
	4-9-2025	Wednesday	pyq discussion
	4-11-2025	Friday	pyq discussion
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	revision
	4-17-2025	Thursday	doubt class
	4-18-2025	Friday	doubt class
Week 16	4-21-2025	Monday	doubt class
	4-22-2025	Tuesday	doubt class
	4-23-2025	Wednesday	doubt class
	4-24-2025	Thursday	doubt class
	4-25-2025	Friday	doubt class

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B.Sc 4th medical		Faculty Name: Ms. Jyoti	
Subject: Physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction to thermodynamics
	08-01-2025	Wednesday	
	09-01-2025	Thursday	
	10-01-2025	Friday	Second law of thermodynamics: need for the law
Week 2	13-01-2025	Monday	Different states of second law of thermodynamics
	14-01-2025	Tuesday	Carnot cycle and it's efficiency
	15-01-2025	Wednesday	
	16-01-2025	Thursday	
	17-01-2025	Friday	Carnot theorem
Week 3	20-01-2025	Monday	Thermodynamic scale of temperature
	21-01-2025	Tuesday	Concept of entropy - entropy as a state function
	22-01-2025	Wednesday	
	23-01-2025	Thursday	
	24-01-2025	Friday	Entropy as a function of T, V and P
Week 4	27-01-2025	Monday	Entropy change in physical change
	28-01-2025	Tuesday	Entropy as a criteria of spontaneity and equilibrium
	29-01-2025	Wednesday	
	30-01-2025	Thursday	
	31-01-2025	Friday	Entropy change in ideal gases and mixing of gases
Week 5	04-02-2025	Tuesday	Third law of thermodynamics
	05-02-2025	Wednesday	
	06-02-2025	Thursday	
	07-02-2025	Friday	Nernst Heat theorem
Week 6 40% syllabus to be completed till 14 February, 2025	10-02-2025	Monday	Statement and concept of residual entropy
	11-02-2025	Tuesday	Evaluation of absolute entropy from heat capacity data
	13-02-2025	Thursday	
	14-02-2025	Assignment submission-I	
Week 7	17-02-2025	Monday	Gibbs and Helmholtz functions
	18-02-2025	Tuesday	Gibbs and Helmholtz function as thermodynamic quantities
	19-02-2025	Wednesday	
	20-02-2025	Thursday	
	21-02-2025	Friday	A and G as criteria for thermodynamic equilibrium and spontaneity
Week 8	24-02-2025	Monday	Variation of G and A with P, V and T
	25-02-2025	Tuesday	Electrolytic and galvanic cells
	27-02-2025	Thursday	
	28-02-2025	Friday	Reversible and irreversible cells
Week 9	03-03-2025	Monday	Conventional representation of electrochemical cells
	04-03-2025	Tuesday	Emf of cell and it's measurement
	05-03-2025	Wednesday	
	06-03-2025	Thursday	
	07-03-2025	Friday	Weston standard cell
Week 10	10-03-2025	Monday	Activity and activity coefficients
	11-03-2025	Tuesday	Calculation of thermodynamic quantities of cell reaction
	12-03-2025	Wednesday	
	13-03-2025	Thursday	
Week 11 80% syllabus to be completed till 21 March, 2025	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	Types of reversible electrodes
	19-03-2025	Wednesday	
	20-03-2025	Thursday	
	21-03-2025	Friday	Electrode reactions
Week 12	24-03-2025	Monday	Nernst equations, derivation of cell emf and single electrode potential
	25-03-2025	Tuesday	Electrochemical series and it's applications
	26-03-2025	Wednesday	
	27-03-2025	Thursday	
	28-03-2025	Assignment submission-II	
Week 13	01-04-2025	Tuesday	Concentration cell with and without transference, liquid junction potential
	02-04-2025	Wednesday	
	03-04-2025	Thursday	
	04-04-2025	Friday	Applications of emf measurement
Week 14 100% syllabus to be completed till 11 April, 2025	07-04-2025	Monday	Determination of PH using Hydrogen electrode
	08-04-2025	Tuesday	Quinhydrone and glass electrode by potentiometric methods
	09-04-2025	Wednesday	
	11-04-2025	Friday	Revision
Week 15	15-04-2025	Tuesday	Commencement of Sessional Examination
	16-04-2025	Wednesday	
	17-04-2025	Thursday	
	18-04-2025	Friday	
Week 16	21-04-2025	Monday	
	22-04-2025	Tuesday	
	23-04-2025	Wednesday	
	24-04-2025	Thursday	
	25-04-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: B.Sc. Hons. Chemistry Sem VI		Faculty Name: Dr Jitender Jindal	
Subject: Physical Chemistry			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction of syllabus.
	08-01-2025	Wednesday	General terms of Spectroscopy
	09-01-2025	Thursday	Rotational Spectroscopy
	10-01-2025	Friday	Energy Level Diagram
Week 2	13-01-2025	Monday	Isotopic Substitution
	14-01-2025	Tuesday	Sec-A: Vibrational spectrum::
	15-01-2025	Wednesday	vibrational energy level of a simple harmonic oscillator
	16-01-2025	Thursday	Anharmonic oscillator.
Week 3	17-01-2025	Friday	Energy Level Diagram
	20-01-2025	Monday	selection rules,
	21-01-2025	Tuesday	pure vibrational spectrum of diatomic molecules.
	22-01-2025	Wednesday	determination of force constant
Week 4	23-01-2025	Thursday	qualitative relation of force constant and bond energy.
	24-01-2025	Friday	idea of vibrational frequencies of different functional groups.
	27-01-2025	Monday	vibrational rotational spectra,
	28-01-2025	Tuesday	vibrational rotational spectra,
Week 5	29-01-2025	Wednesday	normal modes of vibrations of polyatomic molecules.
	30-01-2025	Thursday	isotopic effect of vibrational rotational spectrum.
	31-01-2025	Friday	revision of sec-A .
	04-02-2025	Tuesday	revision of sec-A .
Week 6 40% syllabus to be completed till 14 February, 2025	05-02-2025	Wednesday	Sec-B: Raman spectrum
	06-02-2025	Thursday	General introduction of raman spectra
	07-02-2025	Friday	concept of polarizability.
	10-02-2025	Monday	pure rotational raman spectra of diatomic molecules.
Week 7	11-02-2025	Tuesday	CLASS TEST- 1
	13-02-2025	Thursday	selection rules,
	14-02-2025	Assignment submission-I	quantum theory of raman spectrum.
	17-02-2025	Monday	quantum theory of rotation-vibrational Raman spectrum,
Week 8	18-02-2025	Tuesday	vibrational Raman spectrum,
	19-02-2025	Wednesday	applications of raman spectra.
	20-02-2025	Thursday	general introduction of NMR spectrum
	21-02-2025	Friday	principle of NMR
Week 9	24-02-2025	Monday	chemical shift
	25-02-2025	Tuesday	nmr technique.
	27-02-2025	Thursday	Revision
	28-02-2025	Friday	Revision
Week 10	03-03-2025	Monday	Sec-C: Electronic spectrum:
	04-03-2025	Tuesday	concept of potential energy curves for bonding and antibonding orbitals.
	05-03-2025	Wednesday	concept of potential energy curves for bonding and antibonding orbitals.
	06-03-2025	Thursday	qualitative description of selection rule.
Week 11 80% syllabus to be completed till 21 March, 2025	07-03-2025	Friday	Franck condon principle,
	10-03-2025	Monday	idea of term symbol and parity.
	11-03-2025	Tuesday	Practice of examples
	12-03-2025	Wednesday	qualitative description of sigma and pi and n molecular orbitals
Week 12	13-03-2025	Thursday	Their energy level and respective transitions.
	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	applications of ESR spectroscopy.
	19-03-2025	Wednesday	Revision
Week 13	20-03-2025	Thursday	Revision
	21-03-2025	Friday	Sec-D: Quantum mechanics-1:
	24-03-2025	Monday	dual nature of light with matter,
	25-03-2025	Tuesday	photoelectric effect.
Week 14 100% syllabus to be completed till 11 April, 2025	26-03-2025	Wednesday	wave function
	27-03-2025	Thursday	Significance of Wave Function
	28-03-2025	Assignment submission-II	role of operators in quantum mechanics,
	01-04-2025	Tuesday	Hamiltonian operator.
Week 15	02-04-2025	Wednesday	eigen value and eigen function
	03-04-2025	Thursday	eigen equation
	04-04-2025	Friday	postulates of quantum mechanics.
	07-04-2025	Monday	Determination of wave function
Week 16	08-04-2025	Tuesday	Energy of a particle in one dimensional box.
	09-04-2025	Wednesday	pictorial representation and significance of particle in 1-D box.
	11-04-2025	Friday	Revision
	15-04-2025	Tuesday	Commencement of Sessional Examination
Week 17	16-04-2025	Wednesday	Revision
	17-04-2025	Thursday	Revision
	18-04-2025	Friday	Revision
	21-04-2025	Monday	Revision
Week 18	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision
	25-04-2025	Friday	Revision

RPS Degree College, Balana, Mahendergarh, Haryana Lesson Plan: Even Semester- 2024-25			
Class: M. Sc. CHEMISTRY 1ST SEM		Faculty Name: Ms. Gajal	
Subject: Physical chemistry			
Weeks	Date	Day	Content to be covered
Week 1	1-7-2025	Tuesday	Introduction to syllabus
	1-8-2025	Wednesday	Introduction to quantum Mechanics
	1-9-2025	Thursday	difference between Classical and quantum mechanics
	1-10-2025	Friday	
Week 2	1-13-2025	Monday	operators in quantum mechanics
	1-14-2025	Tuesday	commutation relation
	1-15-2025	Wednesday	Commutation relation between operators
	1-16-2025	Thursday	postulates of quantum mechanics
	1-17-2025	Friday	
Week 3	1-20-2025	Monday	Uncertainty principle
	1-21-2025	Tuesday	Eigen function and Eigen values
	1-22-2025	Wednesday	Schrodinger equation
	1-23-2025	Thursday	PIB model
	1-24-2025	Friday	
Week 4	1-27-2025	Monday	particle in a box with a finite barrier tunneling problem
	1-28-2025	Tuesday	tunneling through a rectangular barrier
	1-29-2025	Wednesday	Schrodinger equation for SHO and its solution, Zero point energy
	1-30-2025	Thursday	revision of section A
	1-31-2025	Friday	
Week 5	2-4-2025	Tuesday	energy levels and wave functions of rigid rotor
	2-5-2025	Wednesday	Schrodinger equation for H-atom
	2-6-2025	Thursday	Radial distribution
	2-7-2025	Friday	
Week 6 40% syllabus to be completed till 14 February, 2025	2-10-2025	Monday	CLASS TEST- 1
	2-11-2025	Tuesday	angular momentum and its quantization
	2-13-2025	Thursday	angular momentum operators
	14-02-2025	Assignment submission-I	
Week 7	2-17-2025	Monday	Commutation relations
	2-18-2025	Tuesday	Ladder operators
	2-19-2025	Wednesday	shapes of atomic orbitals s, p, d, f
	2-20-2025	Thursday	discussion of shapes
	2-21-2025	Friday	
Week 8	2-24-2025	Monday	revision of section B
	2-25-2025	Tuesday	Revision of section B
	2-27-2025	Thursday	Polymer chemistry discussion
	2-28-2025	Friday	
Week 9	3-3-2025	Monday	Kinetics of polymerization
	3-4-2025	Tuesday	mechanism and kinetics of Chain growth polymerization
	3-5-2025	Wednesday	free radical polymerization
	3-6-2025	Thursday	cationic and anionic polymerization
	3-7-2025	Friday	
Week 10	3-10-2025	Monday	coordination polymerization
	3-11-2025	Tuesday	mechanism and kinetics of step growth polymerization
	3-12-2025	Wednesday	comparison between chain and step growth polymerization
	3-13-2025	Thursday	molecular mass of polymers
Week 11 80% syllabus to be completed till 21 March, 2025	3-17-2025	Monday	CLASS TEST- 2
	3-18-2025	Tuesday	polydispersity
	3-19-2025	Wednesday	determination of molecular mass by viscosity method
	3-20-2025	Thursday	electrically conducting polymers
	3-21-2025	Friday	
Week 12	3-24-2025	Monday	flame retardant polymer
	3-25-2025	Tuesday	Liquid crystal polymers
	3-26-2025	Wednesday	revision of section C
	3-27-2025	Thursday	Nuclear stability and binding energy
	28-03-2025	Assignment submission-II	
Week 13	4-1-2025	Tuesday	mass and binding energy, nuclear fission and nuclear fusion
	4-2-2025	Wednesday	fission cross section
	4-3-2025	Thursday	chain fission, fission product
	4-4-2025	Friday	
Week 14 100% syllabus to be completed till 11 April, 2025	4-7-2025	Monday	interaction of nuclear radiation with matter, detectors
	4-8-2025	Tuesday	counters and their principles
	4-9-2025	Wednesday	unit of measuring radiation absorbed and radiation dosimetry
	4-11-2025	Friday	
Week 15	4-15-2025	Tuesday	Commencement of Sessional Examination
	4-16-2025	Wednesday	revision
	4-17-2025	Thursday	revision
	4-18-2025	Friday	
Week 16	4-21-2025	Monday	revision
	4-22-2025	Tuesday	revision
	4-23-2025	Wednesday	revision
	4-24-2025	Thursday	revision
	4-25-2025	Friday	

RPS Degree College, Balana, Mahendergarh, Haryana

Lesson Plan: Even Semester- 2024-25

Class: M.Sc. Chemistry 2nd Sem			Faculty Name: Dr Jitender Jindal
Subject: Spectroscopy and XRD			
Weeks	Date	Day	Content to be covered
Week 1	07-01-2025	Tuesday	Introduction of syllabus.
	08-01-2025	Wednesday	General terms of Spectroscopy
	09-01-2025	Thursday	Rotational Spectroscopy
	10-01-2025	Friday	Energy Level Diagram
Week 2	13-01-2025	Monday	Isotopic Substitution
	14-01-2025	Tuesday	Sec-A: Vibrational spectrum::
	15-01-2025	Wednesday	vibrational energy level of a simple harmonic oscillator
	16-01-2025	Thursday	Anharmonic oscillator.
Week 3	17-01-2025	Friday	Energy Level Diagram
	20-01-2025	Monday	selection rules,
	21-01-2025	Tuesday	pure vibrational spectrum of diatomic molecules.
	22-01-2025	Wednesday	determination of force constant
Week 4	23-01-2025	Thursday	qualitative relation of force constant and bond energy.
	24-01-2025	Friday	idea of vibrational frequencies of different functional groups.
	27-01-2025	Monday	vibrational rotational spectra,
	28-01-2025	Tuesday	vibrational rotational spectra,
Week 5	29-01-2025	Wednesday	normal modes of vibrations of polyatomic molecules.
	30-01-2025	Thursday	isotopic effect of vibrational rotational spectrum.
	31-01-2025	Friday	revision of sec-A .
	04-02-2025	Tuesday	revision of sec-A .
Week 6	05-02-2025	Wednesday	Sec-B: Raman spectrum
	06-02-2025	Thursday	General introduction of raman spectra
	07-02-2025	Friday	concept of polarizability.
	10-02-2025	Monday	pure rotational raman spectra of diatomic molecules.
Week 7	11-02-2025	Tuesday	CLASS TEST- 1
	13-02-2025	Thursday	selection rules,
	14-02-2025	Assignment submission-I	quantum theory of raman spectrum.
	17-02-2025	Monday	quantum theory of rotation-vibrational Raman spectrum,
Week 8	18-02-2025	Tuesday	vibrational Raman spectrum,
	19-02-2025	Wednesday	applications of raman spectra.
	20-02-2025	Thursday	general introduction of NMR spectrum
	21-02-2025	Friday	principle of NMR
Week 9	24-02-2025	Monday	chemical shift
	25-02-2025	Tuesday	nmr technique.
	27-02-2025	Thursday	Revision
	28-02-2025	Friday	Revision
Week 10	03-03-2025	Monday	Sec-C: Electronic spectrum:
	04-03-2025	Tuesday	concept of potential energy curves for bonding and antibonding orbitals.
	05-03-2025	Wednesday	concept of potential energy curves for bonding and antibonding orbitals.
	06-03-2025	Thursday	qualitative description of selection rule.
Week 11	07-03-2025	Friday	Franck condon principle,
	10-03-2025	Monday	idea of term symbol and parity.
	11-03-2025	Tuesday	Practice of examples
	12-03-2025	Wednesday	qualitative description of sigma and pi and n molecular orbitals
Week 12	13-03-2025	Thursday	Their energy level and respective transitions.
	17-03-2025	Monday	CLASS TEST- 2
	18-03-2025	Tuesday	applications of ESR spectroscopy.
	19-03-2025	Wednesday	Revision
Week 13	20-03-2025	Thursday	Revision
	21-03-2025	Friday	Symmetry elements in crystals
	24-03-2025	Monday	stereographic projections, point groups
	25-03-2025	Tuesday	(illustration of R, R-bar, Rm, R/m, (R-bar)m point groups only),
Week 14	26-03-2025	Wednesday	criteria for determining unit cell of lattice, space lattices, space groups
	27-03-2025	Thursday	P1, Pbar1, P2, P21, Pm, Pc, C2, Cm, Cc.
	28-03-2025	Assignment submission-II	Bragg's Law, Reciprocal lattice concept and its importance, Definition
	01-04-2025	Tuesday	of Reciprocal lattice vector (derivation excluded). Interplanar spacing
Week 15	02-04-2025	Wednesday	using reciprocal lattice concept for cubic, tetragonal, orthorhombic and
	03-04-2025	Thursday	hexagonal crystal systems,
	04-04-2025	Friday	Structure factor calculations for primitive,
	07-04-2025	Monday	base-centered, body-centered and face centered unit cells. Relation of
Week 16	08-04-2025	Tuesday	structure factor to electron density and intensities (derivation
	09-04-2025	Wednesday	excluded), Interpretation of powder photographs for cubic crystals,
	11-04-2025	Friday	Data reduction (Brief overview), Phase problem (definition only)
	15-04-2025	Tuesday	Commencement of Sessional Exams
Week 17	16-04-2025	Wednesday	
	17-04-2025	Thursday	Revision
	18-04-2025	Friday	Revision
	21-04-2025	Monday	Revision
Week 18	22-04-2025	Tuesday	Revision
	23-04-2025	Wednesday	Revision
	24-04-2025	Thursday	Revision
	25-04-2025	Friday	Revision