


ACA/DI/37	Teaching Plan (A. Y. 2025-26)	Academic Year: 2025-26
Rev : 00	Subject : CHEMISTRY	Subject code : 55
Date: 07/05/2025		Class : XII Science




Pimpri Chinchwad Education Trust's

S.B. PATIL COLLEGE OF SCIENCE & COMMERCE, RAVET

Sr. no. 110, Gate No 1, Ravet, Pune- 412101

www.sbpatilcollege.com, email-sbpc.science@gmail.com

UDISE NO: 27252001412 College Index No: J.11.16.066



Sr. No.	Ch.No	Name Of The Topic	Sub-topic	Planned date of commencing	Teaching Aid	Remarks
1	3	Ionic Equilibria	Types of electrolytes	2/5/2025	White board & marker	
			Arrhenius theory of acids and bases	5/5/2025		
			Ionisation of acids and bases : Ostwald's dilution law	6/5/2025		
			Autonization of water & pH scale	7/5/2025		
			Hydrolysis of salts ; Buffer solutions	8/5/2025		
			Solubility Product	9/5/2025		
			Common Ion Effect ; Numericals	10/5/2025		
2	2	Solutions	Types of solutions	2/6/2025	White board & marker	
			Effect of solubility on diff.factors	3/6/2025		
			Vapour pressure of solutions of liquids in liquids, Raoult's law	4/6/2025		
			Colligative properties of nonelectrolyte solutions : Vapour pressure lowering	5/6/2025		
			Elevation in boiling point, Depression in freezing point	6/6/2025		
			Numericals	9/6/2025		
			Osmotic pressure	10/6/2025		
			Colligative properties of electrolytes, van't Hoff factor	11/6/2025		
			Numericals	12/6/2025		

3	1	Solid state	Crystalline & Amorphous solids	13/6/2025	PPT, White board & marker	
			Classification of crystalline solids	14/6/2025		
			Lattice point, unit cell & crystal lattice; Cubic system	16/6/2025		
			Packing of particles in crystal lattice	17/6/2025		
			Coordination number	18/6/2025		
			Packing efficiency	19/6/2025		
			Numericals based on density & molar mass	20/6/2025		
			Crystall defects	23/6/2025		
			Electric properties of solids; Magnetic properties of solids	24/6/2025		
			Semiconductors	25/6/2025		
4	10	Halogen derivatives	Classification of halogen derivatives	26/6/2025	PPT, White board & marker	
			Nomenclature	27/6/2025		
			Methods of Preparation of Alkyl Halides	28/6/2025		
			Physical properties of alkyl halides, Optical isomerism in halogen derivatives	1/7/2025		
			SN1 Mechanism	2/7/2025		
			SN2 Mechanism	3/7/2025		
			Reactions of alkyl halides	4/7/2025		
			Reactions of haloarenes-1	7/7/2025		
			Reactions of haloarenes- 2	8/7/2025		
			Uses & environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT	9/7/2025		
5	7	Elements of Groups 16, 17 and 18	Introduction, Occurrence, Electronic configuration,	10/7/2025	PPT, White board & marker	
			Atomic & Physical properties of elements of group 16, 17 & 18	11/7/2025		
			Allotropy, oxoacids of sulphur & chlorine	12/7/2025		
			Revision for UT 1	15/7/2025		
			Oxygen & compounds of oxygen	21/7/2025		
			Sulphur & Compounds of sulphur	22/7/2025		
			Chlorine & compounds of chlorine	23/7/2025		
			Interhalogen compounds	24/7/2025		
			Compounds of Xenon	25/7/2025		

6	8	Transition & Inner transition elements	General introduction, electronic configuration , oxidation states of transition elements	26/7/2025	PPT, White board & marker	
			Trends in proprties of transition elements	28/7/2025		
			Preparation & properties of K ₂ Cr ₂ O ₇	29/7/2025		
			Preparation & properties of KMnO ₄	30/7/2025		
			Metallurgy : Extraction of iron from heamatite ore	31/7/2025		
			Inner transition elements : Lanthanoids- electronic configuration, oxidation states, lanthanoid contraction, Applications	1/8/2025		
			Actinoids : Electronic configuration, properties, applications, comparison with lanthanoids	4/8/2025		
7	4	Chemical Thermodynamics	Types & properties of system	5/8/2025	White board & marker	
			Nature of heat & work	6/8/2025		
			Concept of maximum work	7/8/2025		
			Numericals	8/8/2025		
			First law of thermodynamics : Internal energy & enthalpy, Relationship between ΔH & ΔU	11/8/2025		
			Enthalpies of physical transformations	12/8/2025		
			Thermochemistry, standard enthalpies	13/8/2025		
			Bond enthalpy, Hess's law of constant heat summation	14/8/2025		
			Numericals	18/8/2025		
			Spontaneous process, Intoduction to entropy, Second law thermodynamics,	19/8/2025		
			Gibbs energy change for spontaneous & nonspontaneous process, criteria for equilibrium & spontaneity	20/8/2025		
			Numericals	21/8/2025		
8	6	Chemical Kinetics	Rate of reactions	22/8/2025	White board & marker	
			Rate laws & rate constant	23/8/2025		
			Order & Molecularity of reaction	25/8/2025		
			Integrated rate law & half life of first order reactions	26/8/2025		

8	6	Chemical Kinetics	Zero order reactions : Rate law , half life & examples	28/8/2025		
			Collision theory & Arrhenius equation	29/8/2025		
			Effect of Catalyst on rate of reaction ; Numericals	30/8/2025		
9	5	Electro chemistry	Electric conduction Metallic electrolytic conduction Conductance specific conductance Molar conductivity its significance	2/9/2025	PPT, White board & marker	
			Effect of concentration on conductance , molar conductance	3/9/2025		
			Variation of Λ_m with concentration , Kohlraush law	4/9/2025		
			Revision for UT 2	8/9/2025		
			Molar conductivity & degree of dissociation , measurement of conductivity	13/9/2025		
			Electrochemical cells , Electrolytic cells	15/9/2025		
			Quantitative aspects of electrolysis	16/9/2025		
			Galvanic cells	17/9/2025		
			Electrode potential , S.E.P., Nernst equation	18/9/2025		
			Gibbs energy of cell reaction & cell potential	19/9/2025		
			S.H.E., Dry cell	22/9/2025		
			Lead storage battery, Fuel cells	23/9/2025		
			Electrochemical series	24/9/2025		
			Numericals	25/9/2025		
10	16	Green Chemistry and Nano chemistry	Introduction, principles of green chemistry	26/9/2025	PPT, White board & marker	
			Role of green chemistry	27/9/2025		
			Introduction to nanochemistry	29/9/2025		
			Characteristic features of nanoparticles, synthesis of nanomaterials, Applications of nanomaterials	30/9/2025		
10	15	Introduction to Polymer Chemistry	Introduction, Classification of polymers (based on source & structure)	1/10/2025	PPT, White board & marker	
			Classification of polymers (based on mode of polymerisation)	3/10/2025		
			Classification of polymers (based on intermolecular forces, type of monomers, biodegradability)	6/10/2025		

11	15	Introduction to Polymer Chemistry	Some Important Polymers : Natural Rubber, Polythene, Teflon;Polyacrylonitrile, polyamides, polyesters	7/10/2025	PPT, White board & marker	
			Phenol- formaldehyde & related polymers	8/10/2025		
			Revision for Term I	9/10/2025		
12	14	Biomolecules	Carbohydrates : Classification & Nomenclature	3/11/2025	PPT, White board & marker	
			Glucose : Preparation & chemical properties	4/11/2025		
			Ring structure of glucose, Haworth projection formula	6/11/2025		
			Disaccharides : Maltose, Lactose, Sucrose	6/11/2025		
			Polysachharides : Starch,Cellulose, Glycogen	7/11/2025		
			Alpha amino acids	8/11/2025		
			Peptide bond, types of proteins;Structure of proteins	10/11/2025		
			Denaturation of proteins, Enzymes	10/11/2025		
13	9	Coordination compounds	Introduction, ligands, Types of ligands, coordination number,coordination sphere	11/11/2025	PPT, White board & marker	
			Werner's theory, classification of complexes, VBT, CFT	12/11/2025		
			IUPAC Nomenclature of coordination compounds	13/11/2025		
			EAN Rule	14/11/2025		
			Isomerism (structural & stereo), bonding	17/11/2025		
			Stabilty of coordination compounds	18/11/2025		
			Valence Bond Theory	19/11/2025		
			Crystal Field Theory	19/11/2025		
			Importance of coordination compounds	20/11/2025		
14	11	Alcohols , Phenols & Ethers	Introduction, Classification of alcohols , phenols & ethers	21/11/2025	PPT, White board & marker	
			IUPAC Nomenclature of alcohols	22/11/2025		
			IUPAC Nomenclature of phenols & ethers	24/11/2025		
			Methods of preparation of alcohols - I	25/11/2025		
			Methods of preparation of alcohols - II	26/11/2025		
			Methods of preparation of phenols	27/11/2025		

14	11	Alcohols , Phenols & Ethers	Physical properties of alcohols	28/11/2025	PPT, White board & marker	
			Chemical properties of alcohols	28/11/2025		
			Physical properties of phenols	29/11/2025		
			Chemical properties of phenols	1/12/2025		
			Preparation of ethers	2/12/2025		
			Chemical properties of ethers	3/12/2025		
15	12	Aldehyde, Ketone & Carboxylic acid	Aldehydes & ketones : Nomenclature & classification	4/12/2025	White board & marker	
			Aldehydes & ketones : Methods of preparation-1	5/12/2025		
			Aldehydes & ketones : Methods of preparation-2	8/12/2025		
			Physical and chemical properties	9/12/2025		
			Aldehydes & ketones :Chemical Reactions-1	10/12/2025		
			Aldehydes & ketones :Chemical Reactions-2	11/12/2025		
			Aldehydes & ketones : Oxidation & Reduction reactions	12/12/2025		
			Carboxylic Acids : Nomenclature , Acidic character of carboxylic acids	15/12/2025		
			Carboxylic Acids : Methods of preparation	16/12/2025		
			Carboxylic Acids : Chemical Reactions	17/12/2025		
16	13	Amines	Amines : Nomenclature & Classification	18/12/2025	White board & marker	
			Methods of preparation of amines	19/12/2025		
			Physical properties of amines	22/12/2025		
			Chemical properties of amines	23/12/2025		
			Reactions of aryl diazonium salts	24/12/2025		

Chemistry Department

Mrs. Kanchan Patil

Mrs. Bhagyashri Dhopate

Mrs.Anita Madhekar

Mrs. Kalyani Bhondve

Coordinator

Mr. S.N.Patil

Principal

ACA/DI/37		Teaching Plan (A.Y. 2025-26)	Academic Year 25-26
Rev : 00		Subject : CHEMISTRY	Subject Code: 55
Date: 7/05/2025			Class XII
Exam	Date	Topics	
Unit Test 1	15th to 18th July 2025	1)Solid state 2) Solutions and 3)Ionic Equilibria	
Unit Test 2	9 to 12 th Sep 2025	4)Chemical Thermodynamics , 5)Electrochemistry, 7)Elements of Groups 16,17 and 18, 8)Transition & Inner transition elements, 10)Halogen Derivative	
Term 1 Exam	10 to 17th Oct 2025	1)Solid state 2) Solutions and 3)Ionic Equilibria,4)Chemical Thermodynamics , 5)Electrochemistry, 6)Chemical kinetics,7)Elements of group 16,17 and 18,8)Transition & Inner transtion elements,10) Halogen Derivatives 16)Green Chenmistry and Nanochemistry	
Prelim 1	2 nd to 10 th Jan 2026	All syllabus	
Prelim 2	22nd to30 th Jan 2026	All syllabus	

Mrs. Kanchan Patil
Mrs. Bhagyashri Dhopate
Mrs.Anita Madhekar
(Chemistry Teacher)

Mrs. Kalyani Bhondave

(Academic Co-ordinator)

Mr. S.N.Patil

(Principal, SBPCSC)

XII SCIENCE

Month	Chapter No.	Name of the Chapter
May-25	3	Ionic Equilibria
Jun-25	2	Solutions
	1	Solid state
Jul-25	10	Halogen derivatives
	7	Elements of Groups 16,17 and 18
	8	Transition & Inner transition elements
Aug-25	4	Chemical Thermodynamics
	6	Chemical Kinetics
Sep-25	5	Electrochemistry
	16	Green Chemistry and Nanochemistry
Nov-25	14	Biomolecules
	15	Introduction to Polymer Chemistry
	9	Coordination compounds
Dec-25	11	Alcohols , Phenols & Ethers
	12	Aldehyde, Ketone & Carboxylic acid
	13	Amines