



Pimpri Chinchwad Education Trust's
S.B. PATIL COLLEGE OF SCIENCE & COMMERCE, RAVET

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ACA/DI/37	TEACHING PLAN	Academic Year: 2026-27
Rev : 00	CHEMISTRY	Subject code : 55
Date: 07/05/2026		Class : XII Science

Sr. No.	Ch.No	Name Of The Topic	Sub-topic	Planned date of commencing	Teaching Aids	Remarks
1	3	Ionic Equilibria	Types of electrolytes	5/5/2026	PPT, White board & marker	
			Arrhenius theory of acids and bases	5/6/2026		
			Ionisation of acids and bases : Ostwald's dilution law	5/7/2026		
			Autonization of water & pH scale	5/8/2026		
			Hydrolysis of salts ; Buffer solutions	5/9/2026		
			Solubility Product	6/1/2026		
			Common Ion Effect ; Numericals	6/1/2026		
2	2	Solutions	Types of solutions	6/2/2026	PPT, White board & marker	
			Effect of solubility on diff.factors	6/3/2026		
			Vapour pressure of solutions of liquids in liquids, Raoult's law	6/4/2026		
			Colligative properties of nonelectrolyte solutions : Vapour pressure lowering	6/5/2026		
			Elevation in boiling point, Depression in freezing point	6/8/2026		
			Numericals	6/9/2026		
			Osmotic pressure	6/10/2026		
			Colligative properties of electrolytes, van't Hoff factor	6/11/2026		
			Numericals	6/12/2026		
						Crystalline & Amorphous solids

Sr. No.	Ch.No	Name Of The Topic	Sub-topic	Planned date of commencing	Teaching Aids	Remarks
3	1	Solid state	Classification of crystalline solids	6/16/2026	PPT, White board & marker	
			Lattice point, unit cell & crystal lattice; Cubic system	6/17/2026		
			Packing of particles in crystal lattice	6/18/2026		
			Coordination number	6/19/2026		
			Packing efficiency	6/22/2026		
			Numericals based on density & molar mass	6/23/2026		
			Crystall defects	6/24/2026		
			Electric properties of solids; Magnetic properties of solids	6/25/2026		
			Semiconductors	6/26/2026		
4	7	Elements of Groups 16, 17 and 18	Introduction, Occurrence, Electronic configuration,	6/27/2026	PPT, White board & marker	
			Atomic & Physical properties of elements of group 16, 17 & 18	6/27/2026		
			Allotropy, oxoacids of sulphur & chlorine	6/29/2026		
			Revision for UT 1	6/30/2026		
			Oxygen & compounds of oxygen	7/1/2026		
			Sulphur & Compounds of sulphur	7/1/2026		
			Chlorine & compounds of chlorine	7/2/2026		
			Interhalogen compounds	7/2/2026		
Compounds of Xenon	7/3/2026					
5	8	Transition & Inner transition elements	General introduction, electronic configuration, oxidation states of transition elements	7/6/2026	PPT, White board & marker	
			Trends in properties of transition elements	7/7/2026		
			Preparation & properties of $K_2Cr_2O_7$	7/8/2026		
			Preparation & properties of $KMnO_4$	7/8/2026		
			Metallurgy: Extraction of iron from hematite ore	7/9/2026		
			Inner transition elements: Lanthanoids- electronic configuration, oxidation states, lanthanoid contraction, Applications	7/10/2026		
			Actinoids: Electronic configuration, properties, applications, comparison with lanthanoids	7/10/2026		
		Green Chemistry and Nano chemistry	Introduction, principles of green chemistry	7/17/2026	PPT,	
			Role of green chemistry	7/20/2026		

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6	16		Introduction to nanochemistry	7/21/2026	White board & marker	
			Characteristic features of nanoparticles, synthesis of nanomaterials, Applications of nanomaterials	7/21/2026		
7	4	Chemical Thermodynamics	Types & properties of system	7/22/2026	PPT, White board & marker	
			Nature of heat & work	7/23/2026		
			Concept of maximum work	7/24/2026		
			Numericals	7/27/2026		
			First law of thermodynamics : Internal energy & enthalpy, Relationship between ΔH & ΔU	7/28/2026		
			Enthalpies of physical transformations	7/29/2026		
			Thermochemistry, standard enthalpies	7/29/2026		
			Bond enthalpy, Hess's law of constant heat summation	7/30/2026		
			Numericals	7/31/2026		
			Spontaneous process, Intoduction to entropy, Second law thermodynamics,	8/3/2026		
			Gibbs energy change for spontaneous & nonspontaneous process, criteria for equilibrium & spontaneity	8/4/2026		
		Numericals	8/5/2026			
8	14	Biomolecules	Carbohydrates : Classification & Nomenclature	8/6/2026	PPT, White board & marker	
			Glucose : Preparation & chemical properties	8/7/2026		
			Ring structure of glucose, Haworth projection formula	8/10/2026		
			Disaccharides : Maltose, Lactose, Sucrose	8/11/2026		
			Polysachharides : Starch,Cellulose, Glycogen	8/12/2026		
			Alpha amino acids	8/13/2026		
			Peptide bond, types of proteins;Structure of proteins	8/14/2026		
			Denaturation of proteins, Enzymes	8/14/2026		
		Electric conduction Metallic electrolytic conduction Conductance specific	8/17/2026			
		Effect of concentration on conductance , molar conductance	8/18/2026			
		Variation of \wedge^m with concentration , Kohlaraush law	8/19/2026			
		Revision for UT 2	8/20/2026			

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9	5	Electro chemistry	Molar conductivity & degree of dissociation , measurement of	8/21/2026	PPT, White board & marker	
			Electrochemical cells , Electrolytic cells	8/22/2026		
			Quantitative aspects of electrolysis	8/24/2026		
			Galvanic cells	8/25/2026		
			Electrode potential , S.E.P., Nernst equation	8/26/2026		
			Gibbs energy of cell reaction & cell potential	8/27/2026		
			S.H.E., Dry cell	8/29/2026		
			Lead storage battery, Fuel cells	9/1/2026		
			Electrochemical series	9/2/2026		
			Numericals	9/3/2026		
10	10	Halogen derivatives	Classification of halogen derivatives	9/4/2026	PPT, White board & marker	
			Nomenclature	9/7/2026		
			Methods of Preparation of Alkyl Halides	9/8/2026		
			Physical properties of alkyl halides, Optical isomerism in halogen	9/9/2026		
			SN1 Mechanism	9/10/2026		
			SN2 Mechanism	9/11/2026		
			Reactions of alkyl halides	9/12/2026		
			Reactions of haloarenes-1	9/15/2026		
			Reactions of haloarenes- 2	9/16/2026		
Uses & environmental effects of - dichloromethane, trichloromethane,	9/17/2026					
11	6	Chemical Kinetics	Rate of reactions	9/18/2026	PPT, White board & marker	
			Rate laws & rate constant	9/21/2026		
			Order & Molecularity of reaction	9/22/2026		
			Integrated rate law & half life of first order reactions	9/23/2026		
			Zero order reactions : Rate law , half life & examples	9/24/2026		
			Collision theory & Arrhenius equation	9/24/2026		
			Effect of Catalyst on rate of reaction ; Numericals	10/1/2026		
			Introduction, Classification of alcohols , phenols & ethers	10/5/2026		
			IUPAC Nomenclature of alcohols	10/6/2026		

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12	11	Alcohols , Phenols & Ethers	IUPAC Nomenclature of phenols & ethers	10/7/2026	PPT, White board & marker	
			Methods of preparation of alcohols - I	10/8/2026		
			Methods of preparation of alcohols - II	10/9/2026		
			Methods of preparation of phenols	10/10/2026		
			Physical properties of alcohols	10/12/2026		
			Chemical properties of alcohols	10/13/2026		
			Physical properties of phenols	10/14/2026		
			Chemical properties of phenols	10/15/2026		
			Preparation of ethers	10/16/2026		
			Chemical properties of ethers	10/19/2026		
13	15	Introduction to Polymer Chemistry	Introduction, Classification of polymers (based on source & structure)	10/21/2026	PPT, White board & marker	
			Classification of polymers (based on mode of polymerisation)	10/22/2026		
			Classification of polymers (based on intermolecular forces, type of	10/23/2026		
			Phenol- formaldehyde & related polymers	10/24/2026		
			Revision for Term 1	10/27/2026		
			Revision for Term 1	10/28/2026		
14	9	Coordination compounds	Introduction, ligands, Types of ligands, coordination	11/23/2026	PPT, White board & marker	
			Werner's theory, classification of complexes, VBT, CFT	11/23/2026		
			IUPAC Nomenclature of coordination compounds	11/25/2026		
			EAN Rule	11/26/2026		
			Isomerism (structural & stereo), bonding	11/26/2026		
			Stability of coordination compounds	11/27/2026		
			Valence Bond Theory	11/27/2026		
			Crystal Field Theory	11/28/2026		
			Importance of coordination compounds	11/30/2026		
			Aldehydes & ketones : Nomenclature & classification	12/1/2026		
			Aldehydes & ketones : Methods of preparation	12/2/2026		

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15	12	Aldehyde, Ketone & Carboxylic acid	Physical and chemical properties	12/3/2026	PPT, White board & marker	
			Aldehydes & ketones :Chemical Reactions	12/4/2026		
			Carboxylic Acids : Nomenclature , Acidic character of carboxylic acids	12/7/2026		
			Carboxylic Acids : Methods of preparation	12/8/2026		
			Carboxylic Acids : Chemical Reactions	12/8/2026		
16	13	Amines	Amines : Nomenclature & Classification	12/9/2026	PPT, White board & marker	
			Methods of preparation of amines	12/9/2026		
			Physical properties of amines	12/10/2026		
			Chemical properties of amines	12/11/2026		
			Reactions of aryl diazonium salts	12/11/2026		

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