



Pimpri Chinchwad Education Trust's
S.B. PATIL COLLEGE OF SCIENCE & COMMERCE, RAVET
 Sr. no. 110, Gate No 1, Ravet, Pune- 412101
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UDISE NO: 27252001412

College Index No: J.11.16.066

ACA/DI/37	Teaching Plan (A. Y. 2023-24)	Academic Year: 2023-24
Rev : 00	Subject : CHEMISTRY	Subject code : 55
Date: 11/04/2023		Class : XII Science

Sr. No.	Ch.No	Name Of The Topic	Sub-topic	Planned date of commencing	Planned date of completion	Teaching Aid	Remarks
1	3	Ionic Equilibria	Types of electrolytes	4/24/2023		White board & marker	
			Arrhenius theory of acids and bases	4/25/2023			
			Ionisation of acids and bases : Ostwald's dilution law	4/26/2023			
			Autonization of water & pH scale	4/27/2023			
			Hydrolysis of salts ; Buffer solutions	4/27/2023			
			Solubility Product	4/29/2023			
			Common Ion Effect ; Numericals	4/29/2023			
2	2	Solutions	Types of solutions	5/2/2023		White board & marker	
			Effect of solubility on diff.factors	5/3/2023			
			Vapour pressure of solutions of liquids in liquids, Raoult's law	5/4/2023			
			Colligative properties of nonelectrolyte solutions : Vapour pressure lowering	5/8/2023			
			Elevation in boiling point, Depression in freezing point	5/9/2023			
			Numericals	5/10/2023			
			Osmotic pressure	5/11/2023			
			Colligative properties of electrolytes, van't Hoff factor	5/11/2023			
			Numericals	5/12/2023			

4	1	Solid state	Crystalline & Amorphous solids	5/15/2023		PPT, White board & marker	
			Classification of crystalline solids	5/16/2023			
			Lattice point, unit cell & crystal lattice; Cubic system	5/16/2023			
			Packing of particles in crystal lattice	5/17/2023			
			Coordination number	5/18/2023			
			Packing efficiency	6/1/2023			
			Numericals based on density & molar mass	6/5/2023			
			Crystalline defects	6/6/2023			
			Electric properties of solids; Magnetic properties of solids	6/7/2023			
			Semiconductors	6/8/2023			
3	10	Halogen derivatives	Classification of halogen derivatives	6/12/2023		PPT, White board & marker	
			Nomenclature	6/13/2023			
			Methods of Preparation of Alkyl Halides	6/14/2023			
			Physical properties of alkyl halides, Optical isomerism in halogen derivatives	6/15/2023			
			SN1 Mechanism	6/19/2023			
			SN2 Mechanism	6/20/2023			
			Reactions of alkyl halides	6/21/2023			
			Reactions of haloarenes-1	6/22/2023			
			Reactions of haloarenes- 2	6/23/2023			
			Uses & environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT	6/26/2023			
7	4	Chemical Thermodynamics	Types & properties of system	6/27/2023		White board & marker	
			Nature of heat & work	6/28/2023			
			Concept of maximum work	6/30/2023			
			Numericals	7/12/2023			
			First law of thermodynamics : Internal energy & enthalpy, Relationship between ΔH & ΔU	7/13/2023			
			Enthalpies of physical transformations	7/14/2023			
			Thermochemistry, standard enthalpies	7/17/2023			
			Bond enthalpy, Hess's law of constant heat summation	7/18/2023			
			Numericals	7/19/2023			
			Spontaneous process, Introduction to entropy, Second law thermodynamics,	7/20/2023			
			Gibbs energy change for spontaneous & nonspontaneous process, criteria for equilibrium & spontaneity	7/21/2023			

			Numericals	7/24/2023		
5	7	Elements of Groups 16,17 and 18	Introduction, Occurrence , Electronic configuration,	7/25/2023	PPT, White board & marker	
			Atomic & Physical properties of elements of group 16, 17 & 18	7/26/2023		
			Allotroy, oxoacids of sulphur & chlorine	7/27/2023		
			Oxygen & compounds of oxygen	7/28/2023		
			Sulphur &Compounds of sulphur	7/31/2023		
			Chlorine & compounds of chlorine	8/1/2023		
			Interhalogen compounds	8/2/2023		
			Compounds of Xenon	8/3/2023		
10	11	Alcohols , Phenols & Ethers	Introduction, Classification of alcohols , phenols & ethers	8/4/2023	PPT, White board & marker	
			IUPAC Nomenclature of alcohols	8/7/2023		
			IUPAC Nomenclature of phenols & ethers	8/8/2023		
			Methods of preparation of alcohols - I	8/9/2023		
			Methods of preparation of alcohols - II	8/10/2023		
			Methods of preparation of phenols	8/11/2023		
			Physical properties of alcohols	8/14/2023		
			Chemical properties of alcohols	8/16/2023		
			Physical properties of phenols	8/17/2023		
			Chemical properties of phenols	8/18/2023		
			Preparation of ethers	8/21/2023		
			Chemical properties of ethers	8/22/2023		
11	12	Aldehyde, Ketone & Carboxylic acid	Aldehydes & ketones : Nomenclature & classification	8/23/2023	White board & marker	
			Aldehydes & ketones : Methods of preparation-1	8/24/2023		
			Aldehydes & ketones : Methods of preparation-2	8/25/2023		
			Physical and chemical properties	8/28/2023		
			Aldehydes & ketones :Chemical Reactions-1	8/29/2023		
			Aldehydes & ketones :Chemical Reactions-2	8/31/2023		
			Aldehydes & ketones : Oxidation & Reduction reactions	9/1/2023		
			Carboxylic Acids : Nomenclature , Acidic character of carboxylic acids	9/14/2023		
			Carboxylic Acids : Methods of preparation	9/15/2023		
			Carboxylic Acids : Chemical Reactions	9/18/2023		
			General introduction, electronic configuration , oxidation states of transition elements	9/20/2023		
			Trends in properties of transition elements	9/21/2023		

13	8	Transition & Inner transition elements	Preparation & properties of $K_2Cr_2O_7$	9/22/2023		PPT, White board & marker	
			Preparation & properties of $KMnO_4$	9/22/2023			
			Metallurgy : Extraction of iron from hematite ore	9/25/2023			
			Inner transition elements : Lanthanoids- electronic configuration, oxidation states, lanthanoid contraction, Applications	9/26/2023			
			Actinoids : Electronic configuration, properties, applications, comparison with lanthanoids	9/27/2023			
12	13	Amines	Amines : Nomenclature & Classification	9/29/2023		White board & marker	
			Methods of preparation of amines	10/3/2023			
			Physical properties of amines	10/4/2023			
			Chemical properties of amines	10/5/2023			
			Reactions of aryl diazonium salts	10/5/2023			
9	6	Chemical Kinetics	Rate of reactions	10/6/2023		White board & marker	
			Rate laws & rate constant	10/9/2023			
			Order & Molecularity of reaction	10/10/2023			
			Integrated rate law & half life of first order reactions	10/11/2023			
			Zero order reactions : Rate law , half life & examples	10/12/2023			
			Collision theory & Arrhenius equation	10/12/2023			
			Effect of Catalyst on rate of reaction ; Numericals	10/13/2023			
8	5	Electro chemistry	Electric conduction Metallic electrolytic conduction Conductance specific conductance Molar conductivity its significance	10/16/2023		PPT, White board & marker	
			Effect of concentration on conductance , molar conductance	10/17/2023			
			Variation of Λ_m with concentration , Kohlraush law	10/18/2023			
			Molar conductivity & degree of dissociation , measurement of conductivity	10/19/2023			
			Electrochemical cells , Electrolytic cells	10/19/2023			
			Quantitative aspects of electrolysis	10/20/2023			
			Galvanic cells	10/23/2023			
			Electrode potential , S.E.P., Nernst equation	10/25/2023			
			Gibbs energy of cell reaction & cell potential	10/26/2023			
			S.H.E., Dry cell	10/26/2023			
			Lead storage battery, Fuel cells	10/27/2023			
			Electrochemical series, Numerical	10/28/2023			
			Carbohydrates : Classification & Nomenclature	11/20/2023		PPT	
			Glucose : Preparation & chemical properties	11/21/2023			

15	14	Biomolecules	Ring structure of glucose, Haworth projection formula	11/22/2023	PPT, White board & marker	
			Disaccharides : Maltose, Lactose, Sucrose	11/23/2023		
			Polysachharides : Starch,Cellulose, Glycogen	11/23/2023		
			Alpha amino acids	11/24/2023		
			Peptide bond, types of proteins;Structure of proteins	11/27/2023		
			Denaturation of proteins, Enzymes	11/28/2023		
16	15	Introduction to Polymer Chemistry	Introduction, Classification of polymers (based on source & structure)	11/29/2023	PPT, White board & marker	
			Classification of polymers (based on mode of polymerisation)	11/30/2023		
			Classification of polymers (based on intermolecular forces, type of monomers, biodegradability)	11/30/2023		
			Some Important Polymers : Natural Rubber, Polythene, Teflon;Polyacrylonitrile, polyamides, polyesters	12/1/2023		
			Phenol- formaldehyde & related polymers	12/4/2023		
			Biodegradable Polymers	12/5/2023		
14	9	Coordination compounds	Introduction, ligands, Types of ligands, coordination number,coordination sphere	12/6/2023	PPT, White board & marker	
			Werner's theory, classification of complexes, VBT, CFT	12/7/2023		
			IUPAC Nomenclature of coordination compounds	12/7/2023		
			EAN Rule	12/8/2023		
			Isomerism (structural & stereo), bonding	12/11/2023		
			Stabilty of coordination compounds	12/12/2023		
			Valence Bond Theory	12/13/2023		
			Crystal Field Theory	12/14/2023		
			Importance of coordination compounds	12/14/2023		
6	16	Green Chemistry and Nano chemistry	Introduction, principles of green chemistry	12/15/2023	PPT, White board & marker	
			Role of green chemistry	12/18/2023		
			Introduction to nanochemistry	12/19/2023		
			Characteristic features of nanoparticles, synthesis of nanomaterials, Applications of nanomaterials	12/20/2023		

Mrs. Kanchan Patil
Mr.Anita Madhekar
Mrs. Bhagyshree Dhopate

Mrs. Kalyani Bhondve

Mr. S.N.Patil

(Chemistry Faculty)

(Academic Co-ordinator)

(Principal, SBPCSC)

ACA/DI/37	Teaching Plan (A.Y. 2023-24)	Academ 202
Rev : 00	Subject : CHEMISTRY	Subject
Date: 10/04/2023		Class

Exam	Date	Topics
Unit Test 1	4th July 2023 to 11th July 2023	Ionic Equilibria
		Solutions
		Halogen derivatives
		Solid state
Unit Test 2	6 to 13 Sep 2023	Elements of Groups 16,17 and 18, Chemical Thermodynamics, Alcohols , Phenols & Ethers
Term 1 Exam	31st Oct to 8th Nov 2023	Ionic Equilibria, Solutions , Halogen derivatives, solid state, Elements of Groups 16,17 and 18, Chemical Thermodynamics, Chemical Kinetics, Alcohols , Ethers & Ethers, Transition elements, Aldehydes , ketones & carboxylic acids
Prelim 1	2 Jan 24 to 9 Jan 2024	All syllabus
Prelim 2	22 Jan to 29 Jan 2024	All syllabus

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

Mrs. Kalyani Bhondave
(Academic Co-ordinator)

Mr. S.N.Patil
(Principal, SBPCSC)



Academic Year:
2023-24

Roll Number:
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Year Plan 2023-2024

XII SCIENCE

Subject: Chemistry

Month	Chapter No.	Name of the Chapter
Apr-23	3	Ionic Equilibria
May-23	2	Solutions
Jun-23	1	Solid state
	10	Halogen derivatives
Jul-23	4	Chemical Thermodynamics
Aug-23	7	Elements of Groups 16,17 and 18
	11	Alcohols , Phenols & Ethers
Sep-23	12	Aldehyde, Ketone & Carboxylic acid
	8	Transition & Inner transition elements
Oct-23	13	Amines
	6	Chemical Kinetics
	5	Electrochemistry
Nov-23	14	Biomolecules
	15	Introduction to Polymer Chemistry
Dec-23	9	Coordination compounds
	16	Green Chemistry and Nanochemistry

