

CHEMISTRY SYLLABUS MICRO SPLIT – UP (CHAPTERWISE)
Session (2026-27)
Class XII

S. No.	Name of Chapter	Sub Topics	Period Required
1.	SOLUTION (Total period required – 12) (6 th April to 25 th April)	* Types of solutions; Expression of concentration of solution of solids in liquids	2
		* Solubility of gases in liquids, solid solutions, Henry's Law	2
		* Raoult's Law and ideal and non-ideal Solution	3
		* Colligative properties and Numericals	4
		* Abnormal molecular masses and Van't Hoff factor and Numericals	2
2.	ELECTROCHEMISTRY (Total period required – 13) (26 th April to 15 th May)	* Redox reactions, EMF of a cell, standard electrode potential	2
		* Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell	3
		* Conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration	2
		* Kohlrausch's Law	1
		* Electrolysis and law of electrolysis (elementary idea)	2
		* Dry cell-electrolytic cells and Galvanic cells, lead accumulator	2
		* Fuel cells; Corrosion	1
I Weekly Test (23rd May 2026)			
Syllabus: Solutions and Electrochemistry			
3.	CHEMICAL KINETICS (Total period required – 12) (16 th May to 10 th July)	* Rate of reaction (average and instantaneous); Factors affecting rates of reaction	2
		* Order and molecularity of a reaction	2
		* Rate law and specific rate constant	2
		* Integrated rate equations and half-life along with Numericals	4
		* Collision theory; Arrhenius equation with Numericals	2
3.	HALOALKANES & HALOARENES (Total period required – 10) (11 th July to 28 th July)	* Nomenclature; Nature of C – X bond	2
		* Physical and Chemical properties; Mechanism of substitution reaction	4
		* Substitution reactions; Directive influence of halogens	2
		* Uses & environmental effects of CH ₂ Cl ₂ , CHCl ₃ , CCl ₄ , CHI ₂ , DDT	2
II Weekly Test (17th Aug 2026)			
Syllabus: Solution, Electrochemistry, Chemical Kinetics, Haloalkanes and Haloarenes			
4.	ALCOHOLS, PHENOLS & ETHERS (Total period required – 10)	* <u>Alcohols</u> Nomenclature; Methods of preparation; Physical and chemical properties; Identification of 1°, 2° and 3° alcohols; Mechanism of dehydration;	4

	(29 th July to 15 th Aug)	Uses of methanol and ethanol	
		* <u>Phenols</u> Nomenclature; Methods of preparation; Physical and chemical properties; Electrophilic substitution reactions; Acidic nature of phenols; Uses of phenol	4
		* <u>Ethers</u> Nomenclature; Methods of preparation; Physical and chemical properties; Uses of ether.	2
5.	ALDEHYDES, KETONES & CARBOXYLIC ACID (Total period required – 13) (16 th Aug to 3 rd Sept)	* <u>Aldehydes & Ketones</u> Nomenclature; Nature of Carbonyl group; Methods of preparation; Physical and chemical properties; Mechanism of nucleophilic addition; Reactivity of alpha hydrogen in Aldehydes; Uses	8
		* <u>Carboxylic Acid</u> Nomenclature; Acidic nature; Methods of preparation; Physical and chemical properties; Uses	5
6.	AMINES (Total period required – 08) (4 th Sept to 16 th Sept)	* <u>Amines</u> Nomenclature; Classification; Structure; Method of preparation; Physical and chemical properties; Identification of 1 ^o , 2 ^o and 3 ^o amines; Uses	5
		* <u>Diazonium Salts</u> Method of preparation; Chemical reactions; Importance in Organic Chemistry	3
7.	BIOMOLECULES (Total period required – 06) (17 th Sept to 25 th Sept)	* Carbohydrates Classification (Aldoses and Ketoses); Monosaccharides – Glucose and Fructose	3
		* Oligosaccharides – Sucrose, Lactose and Maltose; Polysaccharides – Starch, Cellulose, Glycogen; Their importance	
		* Proteins: Elementary idea of α -amino acids; Peptide bond; Poly peptides proteins; Enzymes	1
		* 1 ^o , 2 ^o and 3 ^o structure of proteins; Denaturation of proteins	1
		* Nucleic acids: DNA & RNA; Their structure, Vitamins Classification and their deficiency	1
9.	d – and f – BLOCK ELEMENTS (Total period required – 06)	* General introduction; Electronic Configuration; Occurrence; Characteristics of Transition metals; General trends in properties of first row	1
		* Metallic character; Ionization enthalpy; Oxidation states; Ionic radii; Colour; Catalytic properties; Magnetic properties; Interstitial Compounds	3

	(26 th Sept to 3 rd Oct)	* Preparation and Properties of $K_2Cr_2O_7$ and $KMnO_4$	1
		* Lanthanoids & Actinoids Electronic Configuration; Oxidation States; Chemical Reactivity; Lanthanoids and Actinoid contraction	1
9.	COORDINATION COMPOUNDS	* Introduction; Ligands; Coordination number, IUPAC nomenclature	2
	(Total period required – 07)	* Colour, Magnetic properties & Shapes	1
		* Bonding (Werner's theory, VBT, and CFT) & Isomerism in complex compounds	2
		* Importance of coordination compounds in quantitative analysis	1
	(4 th Oct to 15 th Oct)	* Metal carbonyl and its classification	1
Revision Test (Chapter-wise) in the month of October and November 2026			
*1st Pre-Board (13th Nov 2026 to 30th Nov 2026) and 2nd Pre Board (14th Dec 2026 to 10th Jan 2027)			

CHEMISTRY PRACTICAL SYLLABUS (30 marks)

1. Salt analysis: (08 marks)

To analyze the given salt for acidic and basic radicals

2. Volumetric analysis: (08 marks)

a. Prepare 100 mL solution of Mohr's salt (Ferrous ammonium sulphate) of given molarity. Using this solution find out the molarity, strength and percentage purity of given $KMnO_4$ solution.

b. Prepare 100 mL solution of oxalic acid of given molarity. Using this solution find out the molarity, strength and percentage purity of given $KMnO_4$ solution.

3. Content Based Experiment (06 marks)

Identify the functional group present in the given organic compound.

4. Investigatory project (04 marks)

Practical record & Viva **(04 marks)**