

	Unit 6: Halo Alkanes & Halo Arenes	Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and Hydrochloric acid.
July	Unit 7: Alcohols, Phenols and Ethers Unit 8: Aldehydes, Ketones & Carboxylic Acids	Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses. Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties uses.	Preparation of double salt of Ferrous Ammonium Sulphate Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.
August	Unit 8: Aldehydes, Ketones & Carboxylic Acids	Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.	Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups. Characteristic tests of carbohydrates, fats and

			proteins in pure samples and their detection in given foodstuffs.
September	Unit 9: Amines	Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.	Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.
	Unit 10: Biomolecules	Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates.	Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R _f values.
October	Unit 10: Biomolecules	Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins - Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure. Vitamins - Classification and functions. Nucleic Acids: DNA and RNA.	Determination of one cation and one anion in a given salt. Cation: Pb ²⁺ , Cu ²⁺ , As ³⁺ , Al ³⁺ , Fe ³⁺ , Mn ²⁺ , Zn ²⁺ , Cu ²⁺ , Ni ²⁺ , Ca ²⁺ , Sr ²⁺ , Ba ²⁺ , Mg ²⁺ , NH ⁴⁺ Anions: (CO ₃) ²⁻ , S ²⁻ , (SO ₃) ²⁻ , (NO ₂) ⁻ , (SO ₄) ²⁻ , Cl ⁻ , Br ⁻ , I ⁻ , PO ₄ ³⁻ , (C ₂ O ₄) ²⁻ , CH ₃ COO ⁻ , NO ₃ ⁻
	Unit 4: d and f block elements	General introduction electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property magnetic interstitial compounds, alloy	

		formation, preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$.	
November	Unit 4: d and f block elements	General introduction electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property magnetic interstitial compounds, alloy formation, preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. Lanthanoids – Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids	Determination of one cation and one anion in a given salt. Cation: Pb^{2+} , Cu^{2+} , As^{3+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Zn^{2+} , Cu^{2+} , Ni^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+ Anions: $(CO_3)^{2-}$, S^{2-} , $(SO_3)^{2-}$, $(NO_2)^-$, $(SO_4)^{2-}$, Cl^- , Br^- , I^- , PO_4^{3-} , $(C_2O_4)^{2-}$, CH_3COO^- , NO_3^-
	Unit 5: Coordination Compounds	Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, the importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).	
December	Revision Pre-Board Exam		
January	Revision		
February	Revision		
March			

ASSESSMENT SYLLABUS

PERIODIC ASSESSMENT -1	Unit 1: Solutions Unit 2: Electrochemistry Unit 3: Chemical Kinetics (Done till date)	
PERIODIC ASSESSMENT -2	Unit 3: Chemical Kinetics Unit 6: Haloalkanes and Haloarenes Unit 7: Alcohols, Phenols and Ethers	
MID-TERM EXAM	Unit 1: Solutions	

	Unit 2: Electrochemistry Unit 3: Chemical Kinetics Unit 6: Haloalkanes and Haloarenes Unit 7: Alcohols, Phenols and Ethers	
PRE-BOARD EXAM	Unit 1: Solutions Unit 2: Electrochemistry Unit 3: Chemical Kinetics Unit 4: d and f block elements Unit 5: Coordination compounds Unit 6: Haloalkanes and Halo Arenes Unit 7: Alcohols, Phenols and Ethers Unit 8: Aldehydes, ketones and Carboxylic acids Unit 9: Amines Unit 10: Biomolecules	
BOARD EXAM	Unit 1: Solutions Unit 2: Electrochemistry Unit 3: Chemical Kinetics Unit 4: d and f block elements Unit 5: Coordination compounds Unit 6: Haloalkanes and Haloarenes Unit 7: Alcohols, Phenols and Ethers Unit 8: Aldehydes, ketones and Carboxylic acids Unit 9: Amines Unit 10: Biomolecules	