SANT NANDLAL SMRITI VIDYA MANDIR, GHATSILA

SYLLABUS : STD – XII

SESSION : 2026 – 27

SUBJECT : CHEMISTRY (043)

MONTH	WORKING DAYS	TOPIC TO BE TAUGHT	ACTIVITIES	LEARNING OUTCOMES	VALUES IMPARTED	ASSESMENT
APRIL	21	Topic: Solutions Subtopics: 1. Types of Solutions (Homogeneous, Heterogeneous) 2. Concentration of Solutions (Molarity, Molality, Normality) 3. Colligative Properties (Relative Lowering of Vapour Pressure, Osmotic Pressure)	1. Prepare different types of solutions 2. Calculate concentration of solutions 3. Explain colligative properties	1. Classify solutions into homogeneous and heterogeneous 2. Calculate concentration of solutions 3. Learn about colligative properties	1. Practical skills and experimentation 2. Critical thinking and analysis 3.Critical thinking and analysis	1. Unit Test (20 marks) 2. Practical Exam (30 marks) M.C.Q (10 Marks) • Intext questions • Worksheets • Class Assignments
MAY	9	Topic: Electrochemistry 2. Subtopics: 1. Electrochemical Cells (Galvanic, Electrolytic) 2. Electrode Potentials (Standard Electrode Potential, Electrode Potential)	1. Construct electrochemical cells 2. Calculate electrode potentials	1. Explain the construction and working of electrochemical cells 2. Calculate electrode potentials	Critical thinking and problem-solving . Analytical thinking and experimentatio	M.C.Q (10 Marks) 1. Unit Test (20 marks) 2. Assignment (10 marks) • Intext questions • Worksheets • Class Assignments
JUNE	11	Topic: Chemical Kinetics 2. Subtopics: 1. Rate of Reaction (Definition, Factors Affecting)	1. Measure the rate of reaction 2. Determine the order of reaction	1. Define and explain the rate of reaction 2. Determine the order of reaction	1. Analytical thinking and experimentation 2. Critical thinking and problem-solving	1. Unit Test (20 marks) 2. Practical Exam (30 marks)

		2. Order of Reaction (Zero Order, First Order, Second Order) 3. Mechanism of Reaction (Elementary Reactions, Complex Reactions)	3. Explain the mechanism of reaction	3. Explain the mechanism of reaction		• Intext question • Worksheets • Class Assignments
JULY	26	3. Electrolysis (Faraday's Laws, Electrolytic Conduction)	3. Explain electrolysis	3. Explain Different types of electrolysis	Knowledge of Nernst Equation.,E.M.F , of a cell .	3. Numericals 20 marks . • Intext questions • Worksheets • Class Assignments
		d and *f*-Block Elements 1. Transition Metals: Definition, General Characteristics, and Electronic Configurations 2. Physical Properties: Atomic Radii, Ionization Energies, and Electronegativity's 3. Chemical Properties: Oxidation States, Coordination Compounds, and Catalytic Properties 4. Lanthanides and Actinides:	1. Create a Periodic Table: Have students create a periodic table highlighting the d-block elements. 2. Transition Metal Research: Assign students a specific transition metal to research and present on its properties, uses, and compounds. oxidation states of transition metals.	d-Block Elements 1. Understand the electronic configuration: Explain the electronic configuration of d-block elements and how it affects their properties.	Develop Critical Thinking. Develops Creativity and innovation . Teaches Environmental awareness.	1. Unit Test (20 marks) 2. Practical Exam (30 marks) 1. Multiple Choice Questions: 2. Short Answer Questions: 3.Practical Exam: Assess students' • Intext questions • Worksheets • Class Assignments
AUGUST	24	1. Topic: Coordination Compounds 2. Subtopics:	1. Draw and name coordination compounds 2. Identify and explain isomerism in	1. Define and explain coordination compounds	1. Attention to detail and precision 2. Analytical thinking and problem-solving	1. Unit Test (20 marks) 2. Assignment (10 marks)

		1. Introduction to Coordination Compounds 2. Nomenclature of Coordination Compounds 3. Isomerism in Coordination Compounds 4. Bonding in Coordination Compounds 5. Stability of Coordination Compounds 1. Topic: Haloalkanes and Haloarenes 2. Subtopics: 1. Introduction to Haloalkanes and Haloarenes 2. Nomenclature and Structure of Haloalkanes and Haloarenes 3. Physical and Chemical Properties of Haloalkanes and Haloarenes 4. Reactions of Haloalkanes and Haloarenes	coordination compounds 3. Explain bonding in coordination compounds 1. Draw and name haloalkanes and haloarenes 2. Explain physical and chemical properties of haloalkanes and haloarenes 3. Identify and explain reactions of haloalkanes and haloarenes	2. Identify and name coordination compounds 3. Explain isomerism and bonding in coordination compounds 1. Define and explain haloalkanes and haloarenes 2. Identify and name haloalkanes and haloarenes 3. Explain physical and chemical properties and reactions of haloalkanes and haloarenes	1. Analytical thinking and problem-solving 2. Attention to detail and precision	1. Unit Test (20 marks) 2. Assignment (10 marks) • Intext questions • Worksheets • Class Assignments
SEPTEMBER	21	1. Topic: Alcohols, Phenols, and Ethers 2. Subtopics: 1. Introduction to Alcohols, Phenols, and Ethers 2. Nomenclature and Structure of	1. Draw and name alcohols, phenols, and ethers 2. Explain physical and chemical properties of alcohols, phenols, and ethers	1. Define and explain alcohols, phenols, and ethers 2. Identify and name alcohols, phenols, and ethers 3. Explain physical and chemical	1. Analytical thinking and problem-solving 2. Attention to detail and precision	1. Unit Test (20 marks) 2. Practical Exam (30 marks)

		Alcohols, Phenols, and Ethers 3. Physical and Chemical Properties of Alcohols, Phenols, and Ethers 4. Reactions of Alcohols, Phenols, and Ethers	3. Identify and explain reactions of alcohols, phenols, and ethers	properties and reactions of alcohols, phenols, and ethers		
OCTOBER	18	1. Topic: Aldehydes, Ketones, and Carboxylic Acids 2. Subtopics: 1. Introduction to Aldehydes, Ketones, and Carboxylic Acids 2. Nomenclature and Structure of Aldehydes, Ketones, and Carboxylic Acids 3. Physical and Chemical Properties of Aldehydes, Ketones, and Carboxylic Acids 4. Reactions of Aldehydes, Ketones, and Carboxylic Acids	Activities: 1. Draw and name aldehydes, ketones, and carboxylic acids 2. Explain physical and chemical properties of aldehydes, ketones, and carboxylic acids 3. Identify and explain reactions of aldehydes, ketones, and carboxylic acids	• To expose the students to various emerging new areas of chemistry and apprise them with their relevance in their future studies and their application in various spheres of chemical sciences and technology. • Preparation properties and uses	• Identify the structure of the compounds containing carbonyl & Carboxylic acid	• Intext questions • Worksheets • Class Assignments
NOVEMBER	23	1. Topic: Amines 2. Subtopics: 1. Introduction to Amines 2. Classification of Amines (Primary, Secondary, Tertiary) 3. Nomenclature and Structure of Amines	Activities: 1. Draw and name amines 2. Explain physical and chemical properties of amines 3. Identify and explain reactions of amines	Learning Outcomes: 1. Define and explain amines 2. Identify and name amines 3. Explain physical and chemical properties and reactions of amines	Values Imparted: 1. Analytical thinking and problem-solving 2. Attention to detail and precision	Assessment: 1. Unit Test (20 marks) 2. Practical Exam (30 marks) • Intext questions • Worksheets • Class Assignments

		4. Physical and Chemical Properties of Amines 5. Reactions of Amines (Alkylation, Acylation, Hoffmann Elimination) Biomolecules 1. Topic: Biomolecules 2. Subtopics: 1. Introduction to Biomolecules 2. Carbohydrates (Monosaccharides, Disaccharides, Polysaccharides) 3. Proteins (Amino Acids, Peptide Bond, Primary, Secondary, Tertiary, Quaternary Structure) 4. Lipids (Triglycerides, Phospholipids, Steroids) 5. Nucleic Acids (DNA, RNA, Replication, Transcription, Translation).	Activities: 1. Draw and identify biomolecules 2. Explain structure and function of biomolecules 3. Identify and explain biochemical reactions.	Learning Outcomes: 1. Define and explain biomolecules 2. Identify and explain structure and function of biomolecules 3. Explain biochemical reactions and processes.	Values Imparted: 1. Curiosity and inquiry 2. Analytical thinking and problem-solving.	Assessment: 1. Unit Test (20 marks) 2. Project (20 marks). • Intext questions • Worksheets • Class Assignments
DECEMBER	19	REVISION & 1st PRE-BOARD				
JANUARY	22	**Board Practical Exam**				
FEBRUARY	22	CBSE BOARD EXAM				

Practical: Prescribed Practical and projects according to CBSE/ NCERT syllabus

A) Surface chemistry
B) Chromatography
C) Preparation of inorganic compounds
D) Preparation of organic compounds
E) Test for functional groups present in organic compounds
F) Study of carbohydrates, fats, proteins in pure form and their detection
G) Volumetric analysis
H) Qualitative analysis Projects: Scientific investigations involving laboratory testing and collecting information from other sources

16Q with one mark each =	16 marks
5Q with two mark each =	10 marks
7Q with three mark each =	21 marks
2Q with four mark each =	8 marks
3Q with five mark =	15 marks

Total theory = 70 marks
Terminal Exam practical = 30 marks
TOTAL=100 marks
Evaluation scheme for Practical Exam Time : 3 hours Marks : 30
1. Volumetric analysis = 8marks
2. Salt analysis = 08 marks
3. Content based experiments = 06marks
4. Class record/Project and Viva = 08marks
Total = 30 marks

Subject Teacher : Sumita Bhattacharjee **Principal**