

Class – XII

Sub: CHEMISTRY

Weekly Syllabus (Tentative)

Academic Session 2024-25

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
Mar 24	Block Teaching					Chapter- 1 (Solutions)	Numericals on molarity and molality	
Apr-24	I	01-06	06-Working Saturday (Staff)	05	Chapter- 1 (Solutions)	Chapter- 1 (Solutions)	Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, Ideal and non-ideal solution, Azeotropes and types. Colligative properties - relative lowering of vapour pressure. Elevation of boiling point, depression of freezing point.	
	II	08-12	11 – Id-ul-Fitr	04		Chapter- 1 (Solutions)	Osmosis, diffusion, osmotic pressure hypertonic and hypotonic solutions, determination of molecular masses using colligative properties,	

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						Practical- 1	To determine the strength of the given KMnO_4 solution quantitatively by titrating it against a standard solution of Mohr's salt solution.	
	III	15-19	14 - Ambedakar Jayanti 17 - Ram Navami 21 - Mahavir Jayanti	04		Chapter- 2 Electrochemistry Practical- 2	abnormal molecular mass, Van't Hoff factor. Redox reactions, EMF of a cell, standard electrode potential, To determine the strength of the given KMnO_4 solution quantitatively by titrating it against a standard solution of Mohr's salt solution.	
	IV	22-27	27-Working Saturday (Student)	06		Chapter- 2 Electrochemistry Practical- 3	Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell. Chromatography	
	V	29-30		02		Chapter- 2 Electrochemistry Practical- 4	conductance in electrolytic solutions, specific and molar conductivity. Food Tests- Proteins, fats and carbohydrates	

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May-24	I	01-03	01-03 : ES-1 (XII)/ CT-1 (X)	03		Chapter- 2 Electrochemistry Practical- 5	variations of conductivity with concentration, Kohlrausch's Law, To study the Effect of concentration on the Rate of Reaction	ES-1 (XII)/ CT-1 (X) Date: 01-07 May Chapter – 1 Solutions Chapter -2 Electrochemistry (upto Nernst Equation)
	II	06-10	06-07 : ES-1 (XII)/ CT-1 (X) 09,10 – The Quest	05		Chapter- 2 Electrochemistry Practical- 6	Electrolysis and law of electrolysis, To study the Effect of temperature on the Rate of Reaction	
	III	13-18	18- Working Saturday (Open House X & XII)	06		Chapter- 2 Electrochemistry Practical- 7	commercial cells and batteries, corrosion. To study the Effect of temperature on the Rate of Reaction Practicals of Chemical Kinetics continue-----	
***** SUMMER BREAK 20 MAY -30 JUN 2024 *****								
Jul-24	I	01-06	01- School reopens for staff 06-Working Saturday (Student)	05		Chapter – 3 Chemical Kinetics Practical- 8	rate law, Instantaneous reaction rate , Law of mass action and specific rate constant, To analyse the given inorganic salt for the acid and the basic radicals	PT-I Class VI-X Date: 05 Jul – 12Jul ES-2 (XII): 05 Jul – 12Jul Chapter – 1 Solutions Chapter -2 Electrochemistry
	II	08-12		05		Chapter – 3	Concept of order and	

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						Chemical Kinetics Practical- 9	Molecularity of a reaction. Units of Rate constant for reactions of different order. To analyse the given inorganic salt for the acid and the basic radicals	
	III	15-19	17-Muharram	04		Chapter – 3 Chemical Kinetics	Integrated rate equations and half -life (only for zero and first order reactions)	
	IV	22-27	27 – Working Saturday (Students)	06		Chapter – 3 Chemical Kinetics	Numericals, Concept of collision theory (elementary idea, no mathematical treatment),	
	V	29-31		03		Chapter – 3 Chemical Kinetics Chapter- 6 Haloalkanes and Haloarenes Practical- 10	activation energy, Arrhenius equation, catalyst. Haloalkanes: IUPAC nomenclature, Classification Nomenclature,	
Aug-24	I	01-03	03 – Working Saturday (Open House (VI-X), XII)	03		Chapter- 6 Haloalkanes and Haloarenes	nature of C–X bond, physical properties of Haloalkanes and Haloarenes.	

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							To analyse the given inorganic salt for the acid and the basic radicals	
	II	05-09		05		Chapter- 6 Haloalkanes and Haloarenes	Methods of preparation of haloalkanes and haloarenes. Physical properties, Chemical properties of haloalkanes, optical rotation, To analyse the given inorganic salt for the acid and the basic radicals	
						Practical- 11		
	III	12-16	15 – Independence Day	04		Chapter- 6 Haloalkanes and Haloarenes	mechanism of substitution reactions S_N1 , S_N2 . Elimination reactions. Elimination Vs substitution.	
	IV	19-23	19-Raksha Bandhan	04		Chapter- 6 Haloalkanes and Haloarenes	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. To analyse the given inorganic salt for the acid and the basic radicals	ES-1 (XI):

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						Phenols and Ethers Practical- 14	physical and chemical properties. Acidic nature of phenol, Electrophilic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, To analyse the given inorganic salt for the acid and the basic radicals	
	V	30		01		(Chapter-7) Alcohols , Phenols and Ethers Practical- 15	Physical and chemical properties, uses OF ETHERS. Tests of Functional Groups- - OH, Keto gp, Aldehydic gp, - COOH gp	
Oct-24	II	01-05	02-Mahatma Gandhi's Birthday 05-Annual Prize Distribution	04		Chapter- 8 Aldehydes, Ketones and Carboxylic acid Practical- 16	Aldehydes and Ketones: IUPAC Nomenclature, nature of carbonyl group, methods of preparation. physical and chemical properties, nucleophilic addition reactions Tests of Functional Groups- - Phenolic gp, Iodoform test, Azodye test.	
	III	07-12	09-13-- Autumn Break 12- Dussehra	02		Chapter- 8 Aldehydes,	mechanism of nucleophilic addition reactions, addition of	

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						Ketones and Carboxylic acid	Ammonia and its derivatives	
	IV	14-19	17-Maharishi Valmiki's Birthday 19 – Working Saturday (Open House VI-XII)	05		Chapter- 8 Aldehydes, Ketones and Carboxylic acid	. Oxidation reactions, reactivity of alpha hydrogen – ALDOL CONDENSATION, CANNIZARO'S REACTION and reduction Reactions of aldehydes and Ketones and their uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses of carboxylic acids.	
	V	21-25	20– Karwa Chouth	05		Chapter- 9 (Amines) Practical- 17	Types of amines, nomenclature, methods of preparation of amines, Basicity of amines in the gaseous phase and aqueous medium. chemical properties – Diazotisation Carbylamine test, Hinsberg's test Diazonium salt. Preparation Of Lyophilic Sol Of starch and its purification by Dialysis	
	VI	28-31	30-03 Nov – Diwali Break	02		Ch- 10	Carbohydrates - Classification	

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						Biomolecules	(aldoses and ketoses), monosaccharides (glucose and fructose), D and 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), Nucleic acids.	
*** Autumn Break 09-13 Oct 2024 ***								
Nov-24	I	04-09	09 – Working Saturday (Students)	06		Ch – 10 Biomolecules Chapter- 4 d and f- Block Elements	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), Nucleic acids. Ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation,	

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						Practical- 18	preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. Lanthanoids - Electronic configuration, oxidation states, chemical reactivity. Preparation of double salt crystals of Potash Alum	
	II	11-15	12 – Annual Day 15 – Guru Nank's Birthday	04		Chapter- 4 d and f- Block Elements Chapter- 5 Co-ordination Compounds	lanthanoid contraction and its consequences. Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids. Werner's Theory , Coordination compounds - Introduction, ligands, coordination number, IUPAC nomenclature of mononuclear coordination compounds. VBT, magnetic properties and shapes Bonding, Stability of complexes. Crystal field theory , applications of co ordination compounds	

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
	III	18-22		05			Mock Preboard Examination	PT-II (VI-VIII): 19 Nov-10 Dec PT-III (IX): 19 Nov-10 Dec PT-III (X): 14 Nov-25 Nov MPB (XII): 14 Nov-25 Nov
	IV	25-30	29,30 – Annual Athletic Meet	06			Mock Preboard Examination	
Dec-24	I	02-07	07 – Sports Day	06			Revision	
	II	09-13		05			Revision	
	III	16-21	21-Working Saturday, Open House (X & XII)	06				
	IV	23	24,25 – Christmas Holidays	01				
*** Winter Break from 26 Dec to 04 Jan 2025 ***								
Jan-25	I	06-10		05				
	II	13-18	18-Working Saturday, Open House (VI-IX, XI)	06				
	III	20-25	25-Citation Ceremony 25-Open House XII 26-Republic Day	06				
	IV	27-31		05				

Month	Week	Dates		Days	No of Periods	Chapter	Contents	Syllabus
Feb-25	I	01	01 – Farewell XII 01- Open House X	01				Annual Exam Class IX & XI – 05 Feb-19 Feb 2025
	II	03-07		05				
	III	10-14		05				
	IV	17-22	22-Working Saturday (students)	06				
	V	24-28	26-Maha Shivratri	04				
Mar-25	Annual Exam Classes VI-VIII – 25 Feb-10 Mar 2025							

Note: The examination syllabus as mentioned above is to be considered Tentative. The final syllabus for each exam will be uploaded on the website along with the Date Sheet at the time of the examination.

Name & Signature of the Teacher

Signature of HOD

Class VI-IX

- Syllabus for all PTs (Pre Mid Term & Post Mid Term) is to be completed atleast one week before the commencement of exam.
- Mid Term syllabus for all the classes is to be completed by **31 Aug** and CW & HW Notebooks to be corrected & returned by **02 Sept**
- Mid Term Revision Worksheets for all the classes will be uploaded by **29 Aug**.
- Final Term syllabus
 - For classes VI-VIII is to be completed by **10 Feb** and CW & HW Notebooks to be corrected & returned by **14 Feb**.
 - For class IX is to be completed by **31 Jan** and HW Notebooks to be corrected & returned by **03 Feb**.
- Final Term Revision Worksheets
 - For classes VI-VIII will be uploaded by **12 Feb**.
 - For class IX will be uploaded by **24 Jan**.
- No chapter shall be deleted from the syllabus.
- Keep the photocopy of the syllabus for your own record.

- In subjects which includes practicals the breakup for practicals also need to be mentioned in the given format.
- Syllabus for
 - Post Mid Term exam for classes VI-VIII will include syllabus covered after Mid Term
 - Post Mid Term exam for class IX will include complete syllabus till Post Mid Term.
 - Final Term Syllabus
 - Class VI-IX – Complete syllabus

Class X

- Syllabus for Class Test & Pre Mid Term is to be completed atleast one week before the commencement of exam.
- Mid Term syllabus for all the classes is to be completed by **31 Aug** and CW & HW Notebooks to be corrected & returned by **02 Sep**
- Mid Term Revision Worksheets will be uploaded by **29 Aug.**
- The last date to complete the syllabus for Post Mid Term examination is **09 Nov**
- Post Mid Term Revision Worksheets will be uploaded by **09 Nov**
- No chapter shall be deleted from the syllabus.
- Keep the photocopy of the syllabus for your own record.
- In subjects which includes practicals the breakup for practicals also need to be mentioned in the given format.
- Please note that the entire syllabus will be included for the Post Mid Term examinations and Pre-Board examinations.
- Please note that Post Mid Term exam will be held in the month of November and Pre Board exam in the month of January 2023.(Tentative)

Class XII

- Please note that Exam dates are tentative.
- The syllabus for Exam Series -1 is to be completed by **one week before the exam.**
- The syllabus for Exam Series -2 is to be completed by **one week before the exam.**
- The last date to complete the syllabus for Term1 is **31 Aug**
- The last date to complete the syllabus for Mock Pre-Board examination is **09 Nov**
- Please note that Mock Pre Board exam, Pre Board Practical exam & Enrichment Programme will be held in the month of November/December and Pre Board exam in the month of January 2024.(Tentative)
- Please note that the entire syllabus will be included for the Pre-Board examinations.
- Refer www.cbse.nic.in on regular basis for any change in the syllabus for class XII.
- Also mention the breakup for Practicals in the subject which include practical examinations.