

# VASHIST PUBLIC SCHOOL

Affiliated to C.B.S.E., Delhi, Vide Affiliation No. 630119

## **CBSE Class 12: Term 2 Chemistry**

### **Important topics of Chemistry to be revised before the exams:**

- **Chapter: Electrochemistry (IMPORTANT)**

Redox reactions (prepare definition with examples, corrosion is an example of a redox reaction) Conductance in electrolytic solutions (One marks questions are expected) Specific and molar conductivity (Numerical problems are expected, theoretical questions related to SI units are also expected)

Variations of conductivity with concentration (Theoretical question can be asked)

Kohlrausch's Law (Numerical problems are expected)

Electrolysis and law of electrolysis (Faradays' laws are also important)

Dry cell-electrolytic cells and Galvanic cells (Theoretical question can be asked)

Lead accumulator (Theoretical question can be asked) – NOT IN SYLLABUS

EMF of a cell (Numerical problems are expected)

Standard electrode potential (Very important)

Nernst equation and its application to chemical cells

Relation between Gibbs energy change and emf of a cell

Fuel cells (Theoretical questions are expected)

Corrosion (One should remember chemical equations)- not in syllabus

- **Chapter: Chemical Kinetics (IMPORTANT)**

Rate of a reaction (Average and instantaneous)

Factors affecting rate of reaction: concentration, temperature, catalyst Conceptual questions are expected, Order and molecularity of a reaction (Very important)

Rate law and specific rate constant (Very important)

Integrated rate equations and half-life (only for zero and first-order reactions)

Concept of collision theory (elementary idea, no mathematical treatment)

The activation energy (Very important, effect of temperature), Arrhenius equation (Very important) – NOT IN SYLLABUS

- **Chapter: Surface Chemistry**

Adsorption - physisorption and chemisorption (Very important)

Factors affecting adsorption of gases on solids Conceptual questions are expected

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**Catalysis-NOT IN SYLLABUS**

**Homogenous and heterogeneous activity and selectivity, Enzyme catalysis – NOT IN SYLLABUS**

Colloidal state distinction between true solutions

Colloids and suspension, Lyophilic, Lyophobic multi-molecular and macromolecular colloids (Very important)

Properties of colloids, Tyndall effect (Very important), Brownian movement (Very important), Electrophoresis, Coagulation, Emulsion - types of emulsions

• **Chapter: d and f Block Elements**

**(VERY IMPORTANT CHAPTER)**

Electronic configuration, occurrence and characteristics of transition metals General trends in properties of the first-row transition metals – metallic character ionization enthalpy (very important) oxidation states (very important) ionic radii colour catalytic property magnetic properties interstitial compounds (very important) alloy formation **Preparation and properties of  $K_2Cr_2O_7$  and  $KMnO_4$  – NOT IN SYLLABUS**

Lanthanoids - Electronic configuration Oxidation states Chemical reactivity and lanthanoid contraction and its consequences

**Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids – NOT IN SYLLABUS**

• **Chapter: Coordination Compounds**

Ligands, Coordination number, colour, magnetic properties and shapes (very important), IUPAC nomenclature of mononuclear coordination compounds

Bonding, Werner's theory VBT (very important) CFT (very important)

**Structure and stereoisomerism (very important) – NOT IN SYLLABUS**

• **Chapter: Aldehydes, Ketones and Carboxylic Acids**

**(VERY IMPORTANT CHAPTER)**

**Aldehydes and Ketones:** Nomenclature Nature of carbonyl group Methods of preparation Physical and chemical properties Mechanism of Nucleophilic addition (very important) Reactivity of alpha hydrogen in Aldehydes: Uses

**Carboxylic Acids**

Nomenclature Acidic nature, Methods of preparation (very important)

Physical and chemical properties (very important), Uses

• **Chapter: Organic compounds containing Nitrogen**

Amines: Nomenclature Classification Structure Methods of preparation (most important) Physical and chemical properties Uses Identification of primary, secondary and tertiary amines (very important)

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