Updated NEET Chemistry Syllabus

NEET Chemistry Syllabus comprises physical, inorganic & organic chemistry. To know the syllabus of an exam is necessary for a student during his preparation. Here you will get the detailed syllabus of chemistry for neet exam. Chemistry Syllabus is divided into 30 chapters. There are 14 chapters in chemistry Class 11 & 16 chapters in class 12 chemistry syllabus. Here is the chapter name of chemistry for class 11 & class 12 respectively: -

Class 11	
S.No	**Chapter Name**
1	Some Basic Concepts of Chemistry (Mole Concept)
2	Structure of Atom (Atomic Structure)
3	Classification of Elements & Periodicity in Properties (Periodic Table)
4	Chemical Bonding and Molecular Structure
5	States of Matter: Gases and Liquids
6	Thermodynamics
7	Equilibrium
8	Redox Reactions
9	Hydrogen
10	s-Block Elements
11	p-Block Elements – Group 13,14
12	Organic Chemistry: Basic Principles & Techniques (IUPAC Nomenclature & Isomerism)
13	Hydrocarbons
14	Environmental Chemistry

Class 12	
S.No	**Chapter Name**
1	Solid State
2	Solutions
3	Electrochemistry
4	Chemical Kinetics

5	Surface Chemistry
6	General Principles and Processes of Isolation of Elements
7	p -Block Elements – Group 15,16,17,18
8	d -and f -Block Elements
9	Coordination Compounds
10	Haloalkanes and Haloarenes
11	Alcohols, Phenols and Ethers
12	Aldehydes, Ketones and Carboxylic Acids
13	Amines
14	Biomolecules
15	Polymers
16	Chemistry in Everyday Life

It would be difficult to study chemistry chapters in the same sequence as mentioned above. Hence, Sunil sir has analysed the NEET chemistry syllabus. He has merged the chapters which can be studied together while preparing for NEET exam. He has also mentioned topics & sub-topics for each chapter so that students can get a detailed analysis of NEET chemistry syllabus. Check detailed Chemistry syllabus for NEET exam here: -

S. No	Chapter Name	Topics
1	**Mole Concept**	Some Basic Concept of Chemistry, Mole Concept, Mole Concept & Calculations, Concept of Atoms & Molecules, Atomic Mass, Gram Atomic Mass (GAM), Molecular Mass, Gram Molecular Mass (GMM), Average Mass, Law of Chemical Combination, Percentage, Composition & Empirical Formula, Concentration Terms – Molarity, Formality & Molality, Mole Fraction, percentage Composition, ppm, Normality, Volume Strength of Hydrogen peroxide(H_2O_2), Test of H_2O_2, Stoichiometry & Calculation Based on Stoichiometry, Concept of Limiting Reagent
2	**Atomic Structure**	Atomic number, isotopes and isobars, Electromagnetic Radiation (EMR), Planck's Quantum Theory, Photoelectric Effect, Bohr's Atomic Model & Its applications, Hydrogen Spectrum, Dual nature of matter and light, De Broglie's relationship, Heisenberg uncertainty principle, Concept of orbital, quantum numbers, Shapes of s,p, and d orbitals, node and nodal planes, rules for filling electrons in orbitals – Aufbau principle, Pauli exclusion principles and Hund's rule, Electronic configuration of atoms, stability of half filled and filled orbitals, Magnetic moment

3	**State of Matter & Redox Reactions**	Ideal Gas Laws & Equation, Dalton's Law, Grahams Law of Diffusion and Effusion, Kinetic Theory of Gases (KTG), Real Gas Equation, deviation from ideal behaviour, liquefaction of gases, critical temperature. Oxidation & Reduction, Oxidation Number & Application, Equivalent Weight, Balancing of Redox Reaction in Acidic & Basic Medium, Oxidation No Method, Law of Chemical Equivalence & Equivalent Weight
4	**Thermodynamics & Thermochemistry**	Basics, State Function & Path Function, Extensive & Intensive Property Internal Energy & First Law of Thermodynamics Enthalpy of Reactions, Heat Capacity, Work Done in different Process Entropy and Change in Entropy for different process, Gibbs Free Energy and Spontaneity of a Reaction Hess Law, Lavoisier & Laplace Law, Heat of Reaction, Heat of Formation, Heat of Combustion, Heat of Solutions, Heat of Neutralization Bond Energy, Heat of Atomization, Resonance Energy
5	**Chemical Equilibrium**	Law of Mass Action, Relation between Kp & Kc Factors Affecting Equilibrium Constant & Van't Hoff Equation, Le Chatelier's Principle & Application of Equilibrium Constant
6	**Ionic Equilibrium**	Basic Logarithms, Concepts of Acids & Bases, Degree of Dissociation, pH scale & Calculation of pH, Application of Ostwald Law, Calculation of pH of Weak Acid & Weak Base Explanation of Water, pH of the mixtures, the pH of Strong Acid & Strong Base Mixture, pH of diluted solutions, Salt Hydrolysis, Buffer Solution, pH of Acidic Buffer & Buffer Action, the pH of Basic Buffer & Buffer Action, Acidic & Basic Indicators Solubility & Solubility Product Ksp, Condition for Precipitation
7	**Chemical Kinetics**	Rate of Reaction, Instantaneous & Average Rate of Reaction Rate Law, Molecularity and Order of Reaction, Pseudo Order Reaction, Zero Order & First Order Reaction, Half-Life The half-Life for Zero & First Order Reaction Gaseous First Order Reaction Important Questions Practice on Zero & First Order Kinetics Factors affecting the Rate of Reaction and Activation Energy, Catalyst, Activation Energy and Maxwell Curve, Radioactivity
8	**Electrochemistry**	Conductance, Resistance, Conductivity, Resistivity, Molar Conductance and Equivalent Conductance, Kohlaursc Law, Daniel Cell, Electrode Potential, Standard Hydrogen Electrode

		Electro-Chemical Series NCERT, Oxidation and Reduction, Nernst Equation and its application, emf of cell & Gibbs free energy equilibrium constant Electrolysis, Electroplating, Faraday's Law of Electrolysis, Primary & Secondary Batteries, Fuel Cell, Corrosion
9	**Solutions**	Solubility, Henry's Law, Raoult's Law, Vapour Pressure, Boiling Point, Vapour Pressure of Liquid-Liquid Solutions, Vapour Pressure of Solid-Liquid Solutions, Ideal &Real Solutions, Solutions with positive & negative Deviation, Azeotropic Mixture, Minimum Boiling Azeotrope and Maximum Boiling Azeotropes Colligative Properties – Relative Lowering in Vapour Pressure (RLVP), Elevation in BP, Depression in Freezing point, Osmotic Pressure Van 't Hoff factor & Colligative Properties
10	**Solid State**	Type of Solids, Crystalline & Amorphous Solids Types of Unit Cells, Crystal Lattice, Coordination Number & Packing Efficiency of SC, BCC, FCC, calculation of density of unit cell Close Packing in Solids, CCP, HCP, Tetrahedral & Octahedral Voids, Type of Crystals, Defects in Solids, Frenkel & Schottky Defect
11	**Surface Chemistry**	Adsorption – physisorption and chemisorptions, factors affecting adsorption of gases on solids, catalysis homogenous and heterogeneous, activity and selectivity, enzyme catalysis, colloidal state: the distinction between true solutions, colloids and suspensions, lyophilic, lyophobic multimolecular and macromolecular colloids, properties of colloids, Tyndall effect, Brownian movement, electrophoresis, coagulation, emulsions – types of emulsions
12	**Periodic Table**	Modern Periodic Table, electronic configuration of s, p, d & f block elements Prediction of the period, group and block, Atomic and ionic radii, Factors affecting atomic radii, Hydrated radii Ionisation energy and factors affecting Ionisation energy, Applications of Ionisation energy Electron Gain enthalpy, Electronegativity, Applications of Electronegativity, Valency
13	**Chemical Bonding**	Lewis Dot Structure, Formal Charge, Covalent and Coordinate Bond Valence Bond Theory (VBT) Valence Shell Electron Pair Repulsion (VSEPR) Theory Hybridisation – sp, sp^2, sp^3, dsp^2, Hybridisation – sp^3d, sp^3d^2, sp^3d^3, hybridisation in solid-state

		Existence and non-existence of molecules,, condition for hydrolysis Molecular Orbital Theory (MOT) Resonance, Bond Parameters – Bond Length, Bond Energy, Bond Angle Back Bonding, Dipole Moment, Hydrogen Bonding
14	**S-Block Elements & Hydrogen**	Group 1 and group 2 elements: Physical and Chemical Properties, anomalous properties of the first element of each group, diagonal relationship, Preparation and properties of Sodium carbonate, sodium chloride, sodium hydroxide and sodium hydrogen carbonate, Industrial use of lime and limestone, biological importance of Na and K, Mg and Ca. Occurrence, isotopes, preparation, properties and uses of hydrogen, hydrides- ionic, covalent and interstitial; physical and chemical properties of water, heavy water
15	**P Block Elements – Borona & Carbon family**	Physical Properties of group 13 elements, Inert Pair Effect, Diborane, Borax Boric Acid, Alums, Physical Properties of group 14 elements, allotropes of carbon and tin Chemical Properties of group 14 Elements, Silicones, Silicates and zeolites
16	**P-Block Elements Group 15, 16, 17,18**	Physical Properties of group 15 elements, Allotropes of phosphorus Oxides of Nitrogen and Phosphorus (Structure Only), Preparation and properties of Ammonia and Nitric Acid, Brown Ring Test, Oxyacids of Phosphorus (structure only), Holme Signal, Physical and Chemical Properties of group 16 Elements, Oxoacids of Sulphur (structure only), Ozone, H_2SO_4, Bleaching ACtion Physical and Chemical Properties of group 17 Elements, Hydrides and Oxides of Halogens, preparation, oxoacids of halogens (structure only), properties and uses of chlorine and hydrochloric acid, Interhalogen Compounds, Polyhalides, Pseudohalides, Inert Gas Uses and compounds of Xenon
17	**D & F Block Elements**	Physical properties of d block elements, 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 properties, interstitial compounds, alloy formation, Chromyl

		Chloride Test, Preparation and properties of potassium dichromate, Preparation and properties of Potassium Permanganate, Lanthanides and Actinides
18	**Coordination Compounds**	Types of Ligands like EDTA, DMG, Glycination, coordination number Werner's theory, Sidgwick Rule, IUPAC nomenclature of mononuclear coordination compounds Isomerism in Coordination Compounds, Structural and Geometrical Isomerism, Optical Isomerism and Trans Effect (not important) Valence Bond Theory (VBT), Crystal Field Theory (CFT), colour, magnetic properties and shapes, Organo Metallic Compounds, Synergic Bonding, Jahn Teller Effect (not important) Color, Stability and importance of coordination compounds(in qualitative analysis, biological systems)
19	**Metallurgy**	Principles and methods of extraction – concentration, roasting, calcination Principles and methods of extraction – oxidation, reduction electrolytic methods and refining occurrence and principles of extraction of aluminium, copper, zinc and iron.
20	**IUPAC Nomenclature**	Basics of Organic Chemistry, Hydrocarbon Radicals and Homologues Series Common Name and Derived Names of Organic Compounds Rules of IUPAC, Selection and numbering of Principal Carbon Chain, IUPAC Naming of Organic Compounds IUPAC Naming of Cyclic and Aromatic Compounds
21	**Isomerism**	Structural Isomerism – Chain Isomerism, Position Isomerism, Ring Chain, Functional Isomerism and Metamerism Geometrical Isomerism in Alkenes, Cyclo Alkanes, Allene, Biphenyl and Spiro Compounds, Nomenclature in Geometrical Isomerism Cis- Trans, Syn-Anti, E-Z System, Calculation of No of Geometrical Isomers Optical Isomerism and Optically Active Compounds, Representation of Optical Isomers – Wedge Dash and Fischer Projection, Configuration of Optical Isomers – R/S and D/L Configuration Relationship between Stereomers – Enantiomers, Diastereomers, Epimers, Erythereo and Thereo, Calculation of Numbers of Stereomer Conformers of Alkanes and Cyclo Hexane
22	**General organic Chemistry – 1 (GOC – I)**	Reaction Intermediate, Inductive Effect – Stability of Carbocation and Carbanion, Acidic Strength and Basic Strength

		Resonance, Localised and Delocalised Electrons, Stability of Resonating Structure, Type of Resonance - +M and –M Series, Stability of Carbocation and Carbanion Acidic Strength and Basic Strength, Ortho Effect, SIR Effect, SIP Effect Aromaticity and Dancing Resonance, Effect of Resonance on Bond Length and Bond Strength Hyper Conjugation, Stability of Alkene and Heat of Hydrogenation, Electromeric Effect and Tautomerism
23	**General organic Chemistry – 2 (GOC – II)**	Solvent and its type, Electrophile and Nucleophile, Leaving Group, Carbene and Nitrene, Type of Reactions in Organic Chemistry Electrophilic Addition Reaction (EAR), Markovnikov's Rule and Carbocation Rearrangement, EAR of Alkene with HX in Non-Polar and Polar Protic Solvent (PPS), Stereochemistry in Chemical Reactions, Stereospecific, Stereoselective and Regioselective Reactions Anti Addition of HOX and Hydration of Alkenes Oxymercuration Demercuration (OMDM) and, Hydro Boration Oxidation (HBO), Hydroxylation and Free Radical Addition Reaction (FRAR), Nucleophilic Addition Reaction (NAR), Electrophillic Substitution Reaction (ESR), Types of ESR – Halogenation, Nitration, Sulphonation, Freidal Craft Reaction, Gattermann Koach Synthesis, Gattermann Aldehyde Synthesis Free Radical Substitution Reaction (FRSR) Nucleophilic Substitution Reaction (NSR), SN^1 & SN^2 Williamson Ether Synthesis, Darzen's Reaction, Luca's Test, NSR in Alcohol and Ether NSR in Aromatic Compounds (SN^{Ar}) and NSR in Acid Derivatives (SN^{AE} Elimination Reaction E^1 & E^2, Syatzeff and Hoffmann Rule Dehydrohalogenation, Dehydration, Comparision between E^1, E^2, SN^1 and SN^2
24	**Hydrocarbons**	Wurtz Reaction, Corey House Synthesis, Frankland Rxn, Reduction of Alkyl Halides Kolbe Electrolysis, Decarboxylation, Birch Reduction, Lindlaar & P2 Catalyst Preparation & Properties of Alkene & Alkynes Ozonolysis Test of Alkynes, Preparation & Properties of Benzene & Toulene
25	**Alkyl Halide**	Preparation & Properties of Alkyl Halides, Iodoform & Chloroform Reaction, Hunsdiecker Reaction Hoffmann Carbylamine Isocyanide Test & Reimer

		Tiemann Reaction, Aryl Halides
26	**Alcohol, Phenol and Ether**	Preparation of Alcohol, Reactions of Grignard Reagent, Physical and Chemical properties of Alcohol, Victor Mayer & Lucas test, Dichromate Test, Esterification Reactions of Phenol, Kolbe's Reaction, Gattarmann Aldehyde Synthesis
27	**Carbonyl Compounds & Carboxylic Acids**	Methods of Preparation of Aldehyde & Ketone, Aldol Condensation, Cannizzaro & Tishchenko Reaction, Test of Aldehydes Benzaldehyde, Perkin Reaction & Claisen Condensation, HVZ Reaction, Preparation of Carboxylic Acid & Benzoic Acid
28	**Nitrogen-Containing Compounds**	Hoffmann Bromamide Reaction, Gabriel Phthalimide Reaction, Hinsberg Reagent, Hoffmann Mustard Oil Test, Basic Strength of Amines, Solubility and Boiling Points of Amines Reactions of Aniline, Reactions of Nitrobenzene and Millikan Barker Test
29	**Biomolecules**	Carbohydrates – Classification (aldoses and ketoses), monosaccharide(glucose and fructose), D.L. configuration Carbohydrates – oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen), the importance of Carbohydrates Proteins – the elementary idea of – amino acids, peptide bond, polypeptides, proteins, primary structure, secondary structure, tertiary structure and quaternary structure (qualitative idea only), denaturation of proteins Enzymes Hormones – Elementary idea (excluding structure) Vitamins – classification and function. Nucleic acids – DNA and RNA
30	**Polymers**	Classification of Polymers based on NCERT Methods of polymerization (addition and condensation), copolymerization. Some important polymers: natural and synthetic like polyesters, bakelite; rubber, biodegradable and non-biodegradable polymers
31	**Chemistry in Everyday Life & Environmental Chemistry**	Chemicals in medicines – analgesics, tranquilizers, antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines. Chemicals in food – preservatives, artificial sweetening agents, elementary idea of antioxidants. Cleansing agents – soaps and detergents, cleansing

		action Environmental pollution – Air, water and soil pollution, chemical reactions in atmosphere, smogs, major atmospheric pollutants; acid rain ozone and its reactions, effects of depletion of ozone layer, green house effect and global warming- pollution due to industrial wastes; green chemistry as an alternative tool for reducing pollution, strategy for control of environmental pollution

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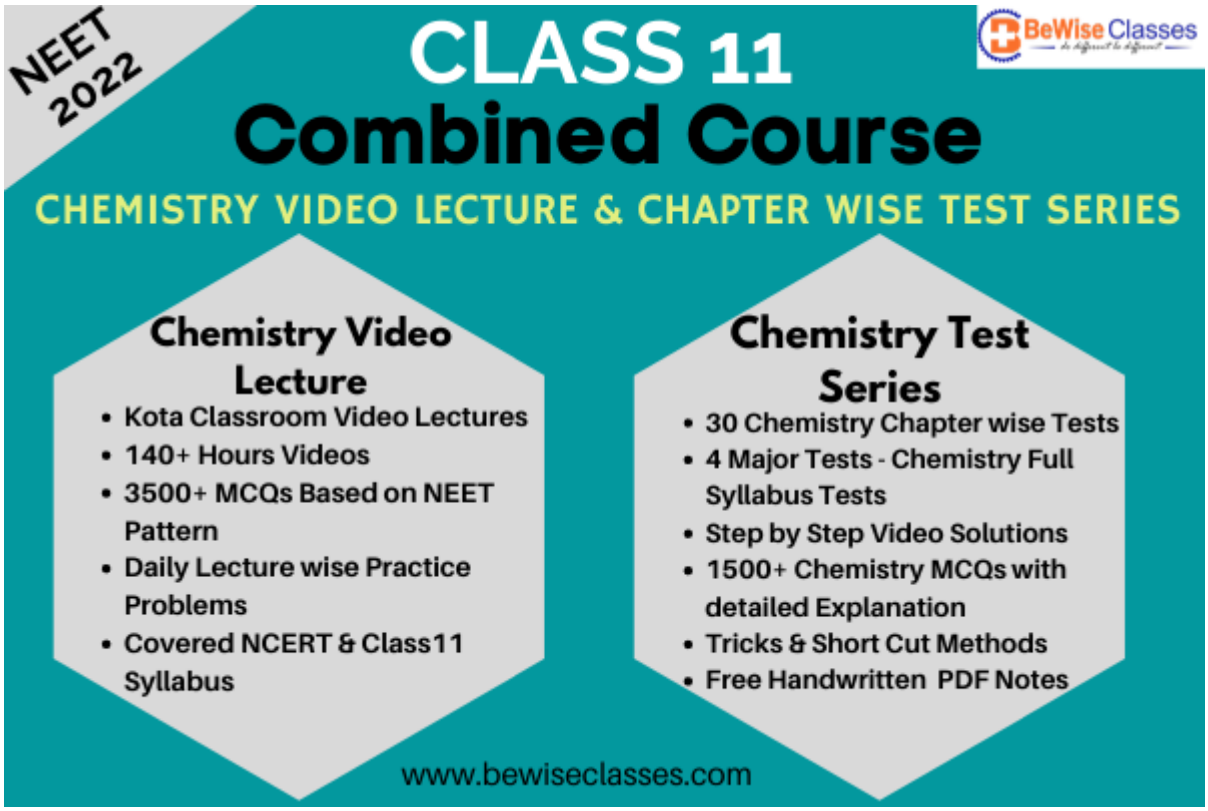

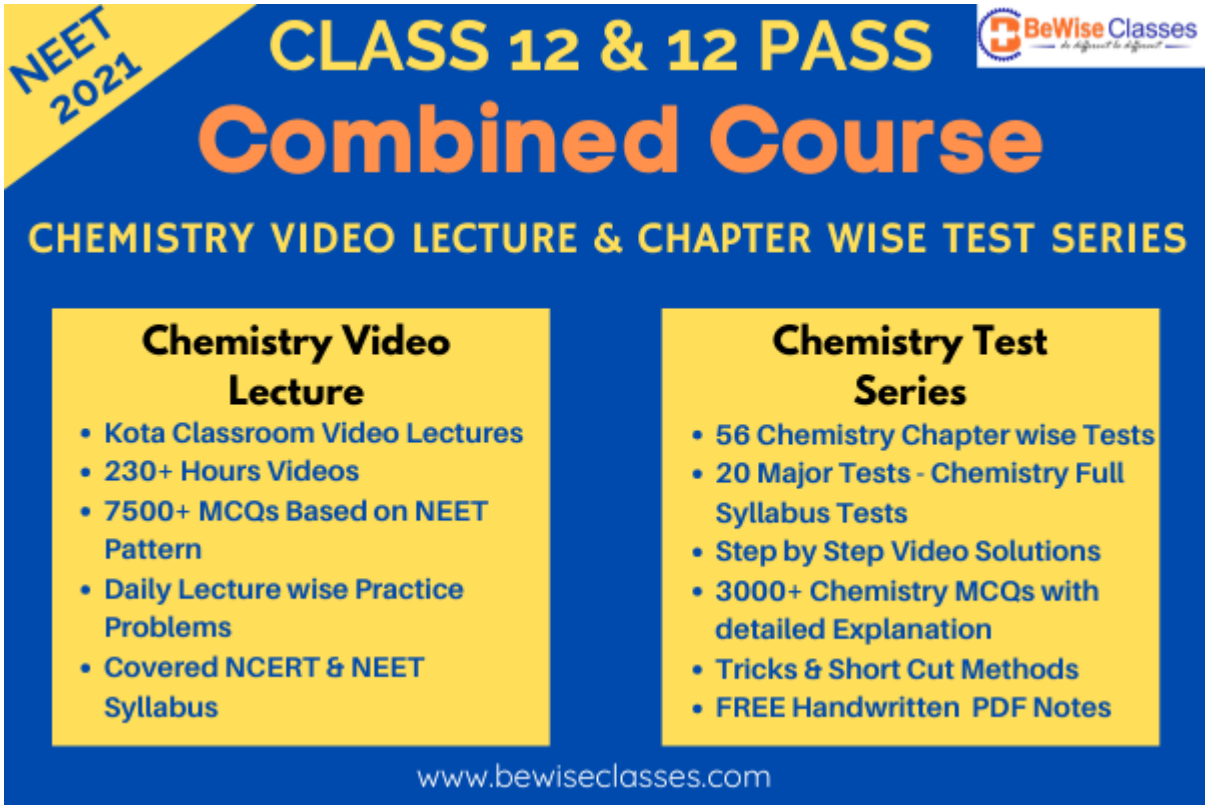
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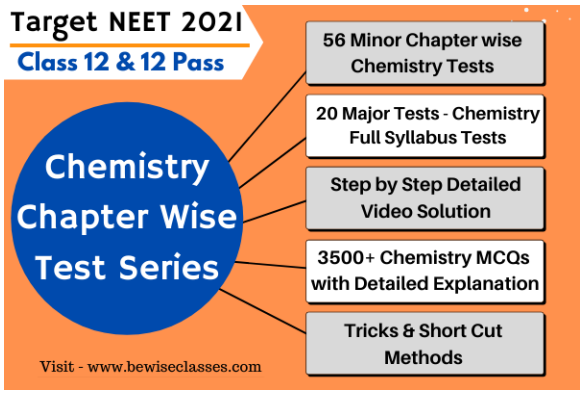
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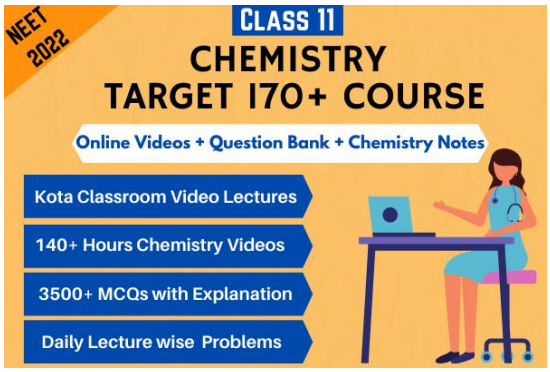
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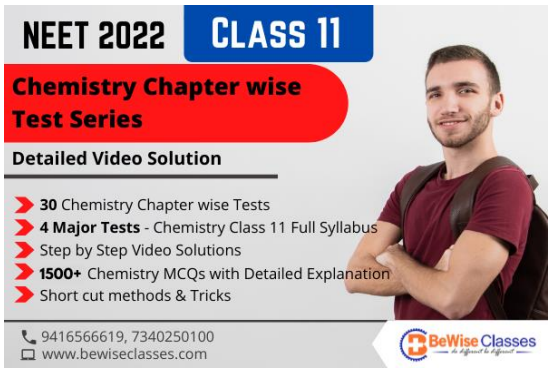
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