

## XI Chemistry (55)

### Deleted and Non-Evaluative portion for Year 2020-21.

Sr.No	Chapter No. and Name	Deleted and Non-Evaluative portion
1	1.Some basic concepts of chemistry	1.1Introduction 1.2 Nature of chemistry ,1.2.1 Matter, 1.2.2 Pure substances verses mixtures,1.2.3 States of matter, 1.4.1 Law of conservation of mass, 1.4.2 Law of definite proportion,1.4.3 Law of multiple proportion, 1.5 Daltons atomic theory,
2	2.Introduction to Analytical chemistry	2.1 Introduction, 2.3 Mathematical operation and error analysis, 2.3.2 Scientific notation, 2.3.3 Significant figures, 2.3.4 Rules of deciding significant figures, 2.3.5 Calculations with significant figures.
3	3.Some Analytical techniques	3.1 Introduction,3.5 Chromatography
4	4. Structure of Atom	4.1 Subatomic particles, 4.5.1Wave particle duality of electromagnetic radiation (including problems 4.4 & 4.5).
5	5. Chemical Bonding	5.1 Introduction, 5.2 Kossel and Lewis approach to chemical bonding, 5.2.1 Ionic bond, 5.1.2 Ionic solids and lattice enthalpy ,5.2.2 Covalent bond, 5.4.1 Formal charge, 5.5.6.2, 5.5.6.3, 5.5.6.4,5.5.6.5 (Except H <sub>2</sub> molecule)
6	6. Redox reactions	6.1 Introduction, 6.1.1 Classical ideas of redox reactions, 6.3.2 Ion electron method (Half reaction method)
7	7.Modern Periodic Table	7.1 Introduction, 7.5.3.c. Periodic trends in Chemical Reactivity.
8	8.Elements of group 1 and 2	8.1Hydrogen (Entire ),8.2.7 Biological importance of elements of group 1 and 2 ,8.3.1 Sodium Carbonate, 8.3.3 Calcium Carbonate, 8.3.4 Hydrogen peroxide.
9	9. Elements of group 13, 14 and 15	9.1 Introduction , 9.6.1 Allotropes of Carbon , 9.8 Chemistry of notable compounds of elements of group 13 , 14 and 15
10	10. States of Matter: Gaseous and Liquid State	10.1 Introduction, 10.8.3 Liquefaction of gases and critical constants, 10.9 Liquid state (Vapour pressure, Surface Tension and Viscosity only understanding of concepts) Factors affecting vapour pressure, Application of surface tension.
11	11. Adsorption and Colloids	11.1 Introduction ,11.5 Adsorption Isotherm,11.7.1 Homogeneous Catalysis, 11.7.2 Heterogeneous catalysis, 11.7.3 Inhibitors,11.8 Adsorption Theory of Heterogeneous Catalysis,11.9.3 Preparation of colloids, 11.9.4 Purification of colloidal solutions, 11.9.5 e. Electrical Properties, f. Coagulation,11.9.6 Methods of coagulation.
12	12.Chemical Equilibrium	12.7 Application of equilibrium constant,
13	13.Nuclear Chemistry and Radioactivity	13.2 Classification of nuclides,13.3.4 Nuclear potential,13.3.5 Nuclear Binding energy and mass defect
14	14. Basic principle of organic chemistry	14.1 Introduction ,14.6 Theoretical basis of organic reactions,
15	15.Hydrocarbon	15.1.3 Industrial preparation of alkanes, Free radical mechanism of halogenation of alkanes, 2. Combustion ,3 Pyrolysis , 4 Reforming a) Industrial source of alkenes , 15.4.2 Structure of Benzene,
16	16.Chemistry in everyday life	Introduction, Traditional knowledge in medicine, Table 16.2 Active ingredients of some medicinal plants.

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Sr.No.	Chapter No. and Name	Deleted and Non evaluative portion
1.	1.Solid State	1.2.1 Crystalline solid, 1.2.2.Amorphorus solid, 1.7.3 Packing efficiency of metal crystal in fcc lattice, Table 1.3 Edge length and particle parameters in cubic system, Table 1.4 Point no.3 fcc/hcp only, 1.9 Electrical properties of solids, 1.10 Magnetic properties of solid
2	2.Solutions	Demonstration and Exceptions to Henry's Law, 2.11.1 Van't Hoff factor (i), 2.11.2 Modification of expressions of colligative property, 2.11.3 Van't Hoff factor and degree of dissociation, Problem 2.10,2.11,2.12,2.14
3	3.Ionic Equilibria	3.1 Introduction, 3.6.2 Acidity, basicity and neutrality of aqueous solution, 3.8.3 Properties of Buffer 3.10.1 Common ion effect and solubility
4	4.Chemical Thermodynamics	4.1 Introduction, 4.2.6 Thermodynamic Equilibrium, key points for spontaneous process, 4.11.3 Entropy and spontaneity, 4.11.4 Second law of thermodynamics, 4.11.5 Gibbs energy,4.11.6 Gibbs energy and spontaneity, 4.11.7 Spontaneity and $\Delta H$ or $\Delta S$ , 4.11.8 Temperature of equilibrium, 4.11.9 Gibbs function and equilibrium constant, Problem 4.16,4.17,4.18, Problem 4.19 and 4.20
5	5.Electrochemistry	5.1 Introduction, 5.2.2 Ionic conduction,5.2.3 Measurement of conductivity of solution, Significance of molar conductivity, 5.4.1 Electrochemical reactions ,5.4.2 Electrodes, 5.10.1 Dry cell, 5.10.2 Lead accumulator, 5.11 Fuel cells
6	6.Chemical Kinetics	6.1 Introduction, 6.6 collision theory of bimolecular reactions, 6.7 Temperature dependence of reaction rate, Problem 6.12 and 6.13, Problem 6.14
7	7.Elements of Groups 16,17 and 18	Introduction, Table 7.2 Atomic and physical properties of group 16 elements, Table 7.3,7.4 Atomic and physical properties of group 17 and 18 elements, Table 7.5,7.6 Properties of hydrides of Group 16 and 17 elements, 7.9 Oxygen and compounds of oxygen, Fig.7.1 Flow diagram for manufacture of sulphuric acid, 7.11.2 Hydrogen chloride, 7.13 Compounds of Xenon (Excluding Table no.7.14)
8	8.Transition and inner transition elements	8.1.1 General Introduction , Table 8.5 Atomic Properties of First Transition series, Table 8.6 Ionisation enthalpy of first transition series Remember, 8.3 Compounds of Mn and Cr, 8.6.1 Metallurgy 8.6.2 Extraction of iron form hematite ore using blast furnace, Table 8.12 I.E of Lanthanoids, Problem, Table 8.13 Effective Magnetic moments of Lanthanoids
9.	9.Co-ordination Compounds	9.9.6 CFT, 9.9.7 Factors affecting Crystal Field splitting parameters, 9.9.8 Colour of the octahedral complexes, 9.9.9 Tetrahedral complexes
10	10.Halogen Derivatives	10.3.5 Sandmeyer's reaction, 10.5.5 Representation of configuration of molecule, 10.6.1 Laboratory test of haloalkane, 10.7 Uses and Environmental effect of some polyhalogen compound
11	11.Alcohols , Phenols and Ethers	Preparation of alcohols a) From alkyl halide b) By acid catalyzed hydration of alkenes, a)Laboratory test of alcohols and phenol i) Litmus test , ii) Reaction with base

		ii)Reaction with Phosphorus Halide, iii) Dehydration of alcohols to alkenes, a)Laboratory test of ether
12	12.Aldehydes, Ketones and carboxylic acids	12.1 Introduction, a)By oxidation of alcohol b) from hydrocarbons, ii) Preparation of aromatic ketones from acyl chloride, b) Laboratory test for ketonic group, 12.9.2 Laboratory tests for carboxyl group.
13	13.Amines	13.6.1 Laboratory test for amines, Reaction with fluroboric acid b) Reactions involving retention of diazonium group.
14	14. Biomolecules	14.1 Introduction , 14.2.10 Polysaccharides(Statch,cellulose and glycogen ), b) Secondary structure of protein, c) Tertiary structure of protein, d) Quaternary structure of protein, Fig.14.26 Formation of nucleoside, Fig.14.27 Structure of nucleotide, Fig. 14.28 Formation of dinucleotide, 14.4.3 DNA double helix
15	15. Introduction to Polymer chemistry	Fig.15.2 Classification of polymers, 15.3.6 Phenol-formaldehyde and related polymers, Fig.15.3 Preparation of Bakelite, Fig. 15.4 Formation of crosslinked malemine formaldehyde resin, 15.3.9 Viscose rayon, Fig 15.7 Formation of viscose rayon, 15.4 Molecular mass and degree of polymerization of polymers
16	16.Green Chemistry and Nanochemistry	Fig.16.1 Macro-materials to atoms, Fig.16.2 Scale of Nanomaterials, 16.6.4 Thermal properties,16.6.5 Mechanical Property,16.6.6 Electrical conductivity,16.7 Synthesis of Nanomaterial, 16.7.4 Photographs of Instruments

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