SY.J.C LECTURE PLAN FOR THE YEAR 2017-18 IN CHEMISTRY

	16th June – 22ND June [L-1]	23RD June – 29TH JUNE [L-2]	30TH JUNE – 6th July [L-3]	7th July – 13th July [L-4]	14th July – 20TH July [L-5]	21ST July – 27th July[L-6]	28th July – 3RD Aug [L-7]
SECTION-1 UNIT-1	**Chemical thermodynamics:** Introduction to cocepts	Types of prop of Sys, state fcns, Types of process	Work & Heat, Numericals on Work	1stLaw of T.D, 2ndLaw of T.D Enthalpy, relatn Betn H & V	Enthalpies of phy. Changes,Thermo Chemistry, numericals	Bond enthalpy & numerical Hess law of summation	Irreversible pro Entropy,spontnty Gibbs enrgy, Numerical 3rdLaw of T.D
SECTION-1 UNIT-2	**Solution & Colligative properties :** Types of soln,ways to express concns.	Numericals on cncentrations	Solubility & factors affctng solubility,	Colligative prop lowering of v.p Raoults law, numericals	Boiling Point elevation,Freeezng pt. depression, numericals	Osmotic press laws of osm prs det of mol mass frm o.p,numercl	Abnormal mol masses,Vant Hoff factor, numericals
SECTION-2 UNIT-1	**Halogen der. of alkanes & arenes:** Introduction,Classiication MonoHalogen Compds.	Nomenclature Of R-X, nature of C-X,Preparation Of R-X	Preparations, SN1 reaction mechanism	SN2 rcn mech. Introdution of Halo arenes	Preparation of Halo arenes	Chemical reactions	Reaction Mechanisms, Uses.
SECTION-2 UNIT-2	**Alcohols,Phenol &Ether** Introduction,Classificatn & Nomenclature	Preparation & Physical propertites	Reactions of alcohols	Phenols	Ethers :Introdctn Nomenclature & isomerism	Preparation & Reactions	**Compounds containing Nitrogen :** Amines:-Introdn Classifn,Nomencl
	4th August – 10th August [L-8]	11th Aug – 17th Aug [L-9]	18th Aug – 24th Aug [L-10]	30th Aug – 5TH Sep [L-11]	6TH Sept – 16th Sept [L-12]	18th Sept – 23RD Sep [L13]	25TH Sept – 30TH Sep [L-14]
SECTION-1 UNIT-1	**Electrochemistry :** Intrdn, Redox rcns & conductance in electrolytic solutions	Conductivity	Kohlrausch law, Applications,reln Between conductivity & Degree of disso	Measurement Of conductivity & numericals	Electrochemical and electrolytic Cells, electrolysis Of fused NaOH	Faradays Ist and IInd law and numericals	Galvanic cell, Daniel cell , types of electrodes
SECTION-1 UNIT-2	**Solid state:** Introduction, Classification of solids	Unit cell & 2,3 dimensional lattices	Packing in solids Density of unit cells, numericals	Packing in ionic solids, electrical & magnetic properties	**Chemical Kinetic:** Introduction,Rate Of reactions	Rate law and Rate constant. Numericals	Order of reaction numerical Molecularity

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SECTION-2 UNIT-1	Aldehydes,Ketones, Carboxylic acids Inrodctn, classfn, nomencl,	Preparations 1 - 5	Preparations 6- 10	Reactions 1 - 9	Reactions 10 - 17	Introduction Of acids, Nomenclature Preparation	Reactions of acids
SECTION-2 UNIT-2	Preparation , phy prop, basic nature	Chemical reactions	Nitro compds :- Introduction , Preparation & Reactions	Diazonium compounds	**Coordination Compounds :** Introdn, ligands Coordinatn no.	IUPAC Nomenclature	Bonding in coordination compounds

	3rd Oct – 19TH Oct	1st Nov- 7th Nov	8th Nov- 14th Nov[L-17]	15th Nov- 21st Nov [L-18]	22nd Nov - – 28th Nov [L-19]	29th Nov – 5th Dec [L20]	6th Dec – 12th Dec [L-21]
SECTION-1 UNIT-1	Nernst eqn, SOP, SRP, Emf of cells, series, Numericals	SHE , Calomel Electrode, common types of cell,corrosion	**P –blk elements** Intrdn , physical & chemical properties	Anomalous nature of N prep of N_2 , NH_3 HNO_3 & prop	Oxides of N, P & Its compds, prep, Properties & uses	Group-16 elemts ,physical & chemical properties	O_2 & O_3 : preparation & Properties ,
SECTION-1 UNIT-2	Pseudo 1st order, integrated rate rcn, d & f elements	Zero order rcn Half life of rcn Determination Of order of rcn	Collision theory Activatn enrgy Arrhenius eqn Eff of catalyst	**General principles & processes of isolation of Elements:** Introduction, Terms & prn of metalrgy	Oxidation-redn extraction of Crude metal from conc ore	Refining of crude metals, Extractn of Zn from ZnS	Extraction of Iron fom haematite
SECTION-2 UNIT-1	d & f elements inroductn and elec confign	Characteristics of d & f Block elements	Chemical activity	Lanthanide contract & comparision of Ac & La.	**Biomolecules:** Carbohydrates : Classification , Prep of glucose	Structure of mono and Disaccharides, Proteins	Hormones, Vitamins, lipids & Enzymes
SECTION-2 UNIT-2	Stability and Applications of Coordination compounds	**Polymers :** Introdn , classfn Chain growth polymerisn	Prepn of nylon 6, Nylon 66, Terylene, bakelite	Natural & synthetic rubber	**Chemistry in everyday life**	Classification of drugs	Chemicals in medicines

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	13th Dec- 19th Dec [L-22]	Extra lecture [L-23]	Extra lecture [L-24]				
SECTION-1 UNIT-1	S : types & properties , Compds & oxides of sulphur , Gp-17 elements	Cl & HCl : Prepn Properties & uses	Group 18 elements				
SECTION-1 UNIT-2	Extraction of Aluminium from Bauxite	Extraction of Copper from Copper pyrites					

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