F.Y.J.C CHEMISTRY WEEKLY LECTURE PLAN 2017-18

	3rd Aug – 9th Aug [L-1]	**10th Aug – 16th Aug[L-2]**	**18th Aug – 24 th Aug [L-3]**	**30th Aug – 5th Sep [L-4]**	**9th Sep – 15th Sep [L-5]**	**16th Sep – 22nd Sep [L-6]**	**23rd Sep – 4th Oct [L-7]**	**1st Nov – 3rd Nov [L-8]**
SECTION I UNIT I	**Some Basic Cncpt in Chem** Intro to Nature of matter, elements, Mols, Compds ,Mixs ; Phys. qnty & SI unit	Laws of Chemical combinations (all 5 laws)	Laws of Chem.combinations (with Numericals)	Mole Concept with Numericals	Mole Concept	Atomic Mass with Numericals Molar mass with Numerical	**States of matter** Intermolecular interactions	Intermolecular interactions
SECTION I UNIT II	**Structure of Atom** Electrical nature of matterDisc.of elec, e/m ratio, charge on elec, Disc.of pro& neu	Concpt of Atmic no. Isotopes and Isobars, Atomic models, Rutherford's model and its drawbacks	Electromag radns r Quantum theory of radiation, Atmc spectra ofH_2,Bohr's modelforHydrogen	Drwbck of Bohr's model, features of Bohr's model&the & Atmic spctraofH_2 Rydbergconstant	Dual nature of matter & light, Wave theory, wave motion Planks Qun theory	Photoelec. eff. De-Broglie eqn wavelength of elec.Heisenberg's principle	Quantam Num Aufbau prin,Hunds rule,pauli exclu principle	**Redox Rcn :** Concept of oxidation &reduction , oxd.number,
SECTION II UNIT I	**Basic principles & tchnqes:** Intrdctn & Classifn acc to structure.	Classification according to Functional Group	Nomenclature of Organic Compounds	Electronic Displacement in covalent bond	Hyperconjugtn	Homolytic fission, Bond formation	Heterolytic Bond Fission,	Types of reagents, reactions
SECTION II UNIT II	**Alkanes:** Intro,Strc formula,Classification, Types of Carbon atom.	Isomerism,Confrmatn, Nomenclature	Nomenclature Preparatn-1mthd	Preparation-2 mthds,Halogenatn Rcn.	Reactions and uses	**Alkynes:** Intro,Elec. Struc. of ethyne, Nomenclature	Preparation of alkynes Acidic nature of alkynes	Reactions of Alkynes

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	14th Nov – 20th Nov[L -9]	**21st Nov – 27th Nov [L-10]**	**28th Nov – 4th Dec [L-11]**	**5th Dec – 11th Dec** [L-12]	**12th Dec – 20th Dec [L-13]**	**1st Jan- 3rd Jan[L-14]**	**19th Jan – 25th Jan [L-15]**	**27th Jan to 2nd Feb [L-16]**
SECTION I UNIT I	Intermolecular interactions	Gas laws	Ideal gas equation & deviation from ideal behavior	Liquefaction of gases	Liquid state	**Periodic table** Introduction	**Periodic table** Modern periodic table	**Periodic table** properties
SECTION I UNIT II	Oxidation number numericals	Redox rcn, balancing MethodI	Balancing redox rea Method I	redox reaction balancing of equations MethodII	Balancing of redox reacII	Application of redox reaction	**Surface chem.** Adsorption	Factors affecting adsorp
SECTION II UNIT I	**Alkenes :** Introduction,	Alkenes: Electro Structure/ isomerism	Alkenes Nomenclature	Reactions of alkenes	Uses and imp of alkenes	**Aromatic Cmpds** Character, S.F. Elec S.F.	**Aromatic Cmpds** Reso, Nomencl.	Benzene – Introduction
SECTION II UNIT II	**Basic Prnciple& techniques** Det of Emp. &Mol.Form	Numericals	Determinatn of Meltngpoint	Determination of B.P.,Fract.crystalisation	**Hydrogen**:Intro Posn in P.Table	Occurance Isotopes	Hydrides: Ionic,Covalent,Metal,	Water Structure Amphoteric nature

	3rd Feb – 9th Feb [L-17]	**10th Feb to 16th Feb [L-18]**	**17th Feb to 21st Feb [L-19]**	**Extra Lecturer [L-20]**	**Extra Lecturer [L-21]**	**Extra Lecturer [L-22]**
SECTION I UNIT I	Periodic properties	**Chem. Equl.** Equl. In phy.&chem.. process	**K_P & K_c** Lechaterliers prin	Ionic equl. Acids, bases,	PH, POH numerrriiicalsss	Sait hydrolysis numericals
SECTION I UNIT II	Catalysis	colloids	**Nature of chemical bond** Type of bonding, lewis str., formal charge	Bond paramet.,	**VBT**	Molecular orbital theory , H-bonding
SECTION II UNIT I	Benzene prooerties &reactions	Mechanism of Electr.Substnrcns	Activating & Deactivating grps	Periodic trends	Atomic radii, ionic radii, IE, EGE	Eiectronegativity, Vaiency,oxidationstate
SECTION II UNIT II	H_2O_2:Lab mthd,Strngth, Struc,Hydrogn As Fuel	Hybridisation SP^3	Hybridisation SP^2	Hybridisation SP	Geometry of compounds	Geometry of compounds