

SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

LESSON-PLAN

Class: B.Sc IIIrd Semester
 Subject: Chemistry (organic)

Semester: ODD/EVEN
 Session: 2020-21

Lecture Number	Topic
lect. 1.	Monohydric alcohols nomenclature and method of formation.
lect. 2.	Hydrogen Bonding, Acidic nature,
lecture 3.	Reactions of alcohols.
lect. 4	nomenclature, Method of formation,
lect. 5.	Chemical reactions of vicinal glycols,
lect. 6.	Oxidative cleavage [$Pb(OAc)_4$ and HIO_4] and Pinacol - Pinacolone rearrangement.
lect. 7.	Synthesis of epoxide. Acid and base catalysed ring opening of epoxides
lect. 8.	orientation of epoxide ring opening, reaction of Grignard and organolithium reagent with epoxide.
lect. 9.	Nomenclature, structure and bonding
lect. 10	preparation of phenols, physical properties.
lect. 11	Comparative acidic strength of alcohols and phenols.
lect. 12.	Resonance stabilization of phenoxide ion
lect. 13.	Reaction of phenols - Electrophilic aromatic Substitution, Claisen rearrangement.
lect. 14	Mechanism of Fries rearrangement, Reimer-Tiemann reaction.
lect. 15	Kolbe's, Schotten and Baumann reactions.
lect. 16	Absorption laws, molar absorptivity presentation and analysis of UV Spectra.
lect. 17.	Type of electronic transitions, effect of conjugation

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Lecture Number	Topic
Lect-18.	Concept of Chromophore, concept of auxochrome
Lect 19.	Bathochromic, hypsochromic, hyperchromic and hypochromic shifts and hypochromic shift.
Lect. 20.	UV spectra of conjugated enes and enones enones, Woodward - Fieser rules
Lect. 21	Calculation of λ_{max} of simple conjugated dienes and α,β -unsaturated ketones.
Lect. 22.	Application of UV spectroscopy in nature, elucidation of simple compounds.
Lect. 23	Nomenclature of carboxylic acid, structure and bonding
Lect. 24	Physical properties, acidity of carboxylic acid
Lect. 25.	Effects of substituents on acid strength, preparation of carboxylic acid.
Lect. 26.	Reactions of carboxylic acids.
Lect. 27.	Hell-Volhard-Zelinsky reaction, Reduction of carboxylic acids, mechanism of decarboxylation.
Lect. 28.	structure, nomenclature and preparation of acid chloride.
Lect. 29.	preparation of esters, amide and acid anhydrides.
Lect. 30.	Relative stability of acyl derivatives, physical properties.
Lect 31.	Interconversion of acid derivatives by nucleophilic acyl substitution.
Lect. 32.	Mechanism of esterification and hydrolysis.

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