SARASWATI MAHILA MAHAVIDHYALAYA, PALWAL

LESSON-PLAN

Class: B.sc 1st (Non-medical & Medical)   Semester: 2nd

Subject: Organic Chemistry   Session: 2021-22

Lectures	Topic
1	Nomenclature of alkenes, mechanisms of dehydrations of alcohols and dehydrohalogenation of alkyl halides.
2	The saytzeff rule, Hoffmann elimination, physical properties and relative stabilities of alkenes.
3	Chemical reactions of alkenes – mechanisms involved in hydrogenation, electrophilic and free radicals additions, markownikoff's rule.
4	Hydroboration- oxidation, oxymercuration – reduction, ozonolysis, hydration, hydroxylation & oxidation with Kmno4.
5	Nomenclature of benzene derivatives, aromatic nucleus, and side chain.
6	Revision test
7	Aromaticity – Huckle Rule, Aromatic -ions annulenes up to 10 C atoms -aromatic, anti and non – aromatic.
8	Aromatic electrophilic substitution – general pattern of mechanism, mechanism of nitration and halogenation.
9	Sulfonation and friedal craft reaction, energy profile diagrams, activation, deactivating subitituents and orientations.
10	Revision test
11	Nomenclature & classification of dienes, isolated, conjugated and cumulated dienes, structure of butadiene.
12	Chemical reactions -1,2 and 1,4 additions (electrophilic and free radical mechanism) Diels-Alder reaction.
13	Nomenclature, structure and bonding in alkynes, method of formation, chemical reactions of alkynes.
14	Acidity of alkynes, mechanism of electrophilic and nucleophilic additions reactions, Hydroboration- Oxidation of alkynes.
15	Revision test
16	Nomenclature and classes of Alkyl Halides, Method of formation, chemical reactions.

17	Mechanisms and stereochemistry of nucleophilic substitution reactions of Alkyl-Halides.
18	SN1 and SN2 reactions with energy profile diagrams.
19	Revision Test
20	Method of formation and reactions of Aryl Halides.
21	The addition – elimination and the elimination – addition mechanisms of nucleophilic substitution reactions.
22	Relative reactivities of Alkyl Halides vs. Allyl, Vinyl and Aryl Halides.
23	Revision Test