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BPHARM
(SEM II) THEORY EXAMINATION 2023-24
PHARMACEUTICAL ORGANIC CHEMISTRY I

TIME: 3HRS**M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A**1. Attempt all questions in brief.****10 x 2 = 20**

a.	Write the IUPAC name for $\text{CH}_3\text{-CH(Br)-CH}_2\text{-CH}_2\text{-COOH}$.
b.	Draw the structure for 3-Methylheptanal.
c.	Define "Saytzeff's rule".
d.	Outline Diel's-Alder reaction of conjugated dienes.
e.	Discuss the hybridization in methane.
f.	Outline any two qualitative tests for alcohol.
g.	Define "Electromeric effect".
h.	Illustrate the structure and uses of acetyl salicylic acid.
i.	Define "Inductive effect".
j.	Discuss the structure and uses of amphetamine.

SECTION B**2. Attempt any two parts of the following:****2 x 10 = 20**

a.	Explain the mechanism of Markovnikov's and Anti-Markovnikov's orientation of alkene with suitable example.
b.	Illustrate the kinetics, mechanism and stereochemistry of SN_1 and SN_2 reactions.
c.	Outline the free radical addition reactions of conjugated dienes.

SECTION C**3. Attempt any five parts of the following:****7 x 5 = 35**

a.	Explain the IUPAC nomenclature rules for naming alcohols.
b.	Summarize structural isomerism with detailed note on chain, positional and functional isomerism.
c.	Illustrate the kinetics, mechanism and factors affecting E_1 and E_2 reactions.
d.	Illustrate the mechanism of Cannizzaro reaction with suitable example.
e.	Outline the method of preparation and reactions of alcohol.
f.	Illustrate the reaction and mechanism of Aldol condensation reaction with suitable example.
g.	Outline the acidity of aliphatic carboxylic acid and the effect of substituents on their acidity.