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BPHARM
(SEM II) THEORY EXAMINATION 2021-22
PHARMACEUTICAL ORGANIC CHEMISTRY I

Time: 3 Hours**Total 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 $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CH}_2\text{-CH}_2\text{-COOH}$.
b.	Draw the structure for 3-Chloro-2-heptanol.
c.	Outline Diel-Alder reaction of conjugated dienes.
d.	Discuss any 2 preparation method of alkyl halides.
e.	Discuss the order of reactivity of alkyl halide for SN_1 and SN_2 reaction.
f.	Discuss the structure and uses of benzyl alcohol.
g.	Discuss any two qualitative tests for carbonyl compounds.
h.	Define "Electromeric effect".
i.	Distinguish between primary, secondary and tertiary amine with example.
j.	Discuss the structure and uses of acetyl salicylic acid.

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

a.	Summarize 1,2 and 1,4 addition reaction mechanism in conjugated dienes with example.
b.	Outline the mechanism of Markovnikov's and Anti-Markovnikov's orientation of alkene with suitable example.
c.	Illustrate the acidity of aliphatic carboxylic acid and the effect of substituents on their acidity. Discuss some qualitative test for carboxylic acids.

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

a.	Describe structural isomerism. Write a note on tautomerism, chain and functional isomerism.
b.	Explain the reaction and mechanism of halogenation of alkane with suitable example.
c.	Outline SN_1 versus SN_2 reaction with examples.
d.	Define aliphatic alcohols. Outline some chemical tests for alcohols. Give the structure and uses of ethyl alcohol.
e.	Discuss the reaction and mechanism of Aldol condensation with suitable example.
f.	Illustrate the mechanism of Benzoin condensation with suitable example.
g.	Outline the basicity of aliphatic amines and effect of substituents on their basicity.