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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.	Draw the structure for 3-Methoxypentanoyl chloride.
b.	Give IUPAC name for $\text{CH}_3\text{-CH}(\text{CH}_3)\text{-CO-CH}_2\text{-CH}_3$ .
c.	Define "Saytzeff's rule".
d.	Outline the Diels-Alder reaction of conjugated dienes.
e.	Summarize any two reactions of alkyl halide.
f.	Discuss the structure and uses of ethyl alcohol.
g.	Discuss about "Inductive effect".
h.	Describe any two qualitative tests for carbonyl compounds.
i.	Discuss the structure and uses of acetyl salicylic acid.
j.	Show the structure and uses of amphetamine.

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

a.	Illustrate the mechanism of Markovnikov's and Anti-Markovnikov's orientation of alkene with suitable example.
b.	Discuss the reaction and mechanism of aldol condensation and cross aldol condensation with suitable example.
c.	Illustrate $\text{SN}_1$ versus $\text{SN}_2$ reaction.

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

a.	Discuss about structural isomerism. Write a note on chain, positional and functional isomerism.
b.	Explain the reaction and mechanism of chlorination of alkane with suitable example.
c.	Explain 1, 2 and 1,4 addition mechanism in conjugated dienes with suitable examples.
d.	Outline the chemical tests for alcohols. Give the structure and uses of glycerol.
e.	Outline the mechanism of Cannizzaro reaction with suitable example.
f.	Discuss the acidity of aliphatic carboxylic acid and the effect of substituents on their acidity.
g.	Define aliphatic amines. Discuss the basicity of aliphatic amines and the effect of substituents on their basicity.