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**BPHARM**  
**(SEM II) THEORY EXAMINATION 2024-25**  
**PHARMACEUTICAL ORGANIC CHEMISTRY I**

TIME: 3 HRS

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.	What is ozonolysis of alkenes.
b.	Define inductive effect.
c.	Give structure and uses of cinnamaldehyde.
d.	Explain why formic acid is stronger than acetic acid.
e.	What are protic and aprotic solvents.
f.	Describe esterification reaction.
g.	Outline Diels-Alder reaction of conjugated dienes.
h.	Give structure of 2-methyl-3-pentanone.
i.	What is Saytzeff rule orientation.
j.	Explain sp <sup>2</sup> hybridization in alkenes.

## SECTION B

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

a.	Explain kinetics, order of reactivity of alkyl halides, stereochemistry and rearrangement of carbocations regarding SN1 and SN2 reactions.
b.	Illustrate mechanism of Markownikoff's and anti Markownikoff's addition reactions of alkenes
c.	In E1 and E2 reactions, discuss mechanism, kinetics, factors affecting and differences between both reactions

## SECTION C

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

a.	Explain factors affecting stability of conjugated dienes.
b.	Write reaction and mechanism of Aldol and Perkin condensation.
c.	Explain Structural isomerism in organic compounds.
d.	Discuss the acidity of aliphatic carboxylic acids and effect of substituents on their acidity.
e.	Write a note on methods of preparation and reactions of aliphatic amines.
f.	How to distinguish between primary secondary and tertiary alcohols
g.	Write short note on Structure and Uses of Benzyl alcohol, Acetone and Aspirin.