Subject Code: BP202T

PAPER ID-310061

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM II) THEORY EXAMINATION 2023-24
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.	Explain sp^3hybridisation in alkanes.
b.	What are tautomers and metamers. Give examples.
c.	Define nucleophile and electrophile with examples.
d.	Discuss any two methods of preparation of alkanes
e.	Outline Diels-Alder reaction of conjugated dienes.
f.	Write down the structure and uses of Aspirin.
g.	What is ozonolysis of alkenes?
h.	Define inductive effect.
i.	Outline any one qualitative test of carbonyl compounds.
j.	Among aliphatic and aromatic amines which is more basic and why?

SECTION B

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

a.	Give qualitative tests for carboxylic acid, amides and esters.
b.	Explain kinetics, mechanism, stereochemistry and reactivity of SN1 and SN2 reactions. Also add a note on factors affecting both reactions.
c.	What are elimination reactions? Discuss the kinetics, mechanism, orientation and reactivity of E1 and E2 reactions

SECTION C

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

a.	Illustrate mechanism of Markownikoff's and anti-markownikoff's addition reactions of alkenes.
b.	Explain the reaction and mechanism of Aldol condensation and Cannizaro Condensation
c.	Discuss any three methods of preparation of amines.
d.	Write the general rules for IUPAC nomenclature of alkanes.
e.	Summarize 1,2 and 1,4 addition reaction mechanism in conjugated dienes with examples.
f.	Explain the basicity of aliphatic amines. Describe the effect of substituents on Basicity
g.	Define structural isomerism. Write a note on chain and functional isomerism