Paper id: 252572

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

BPHARM

(SEM IV) THEORY EXAMINATION 2024-25

PHARMACEUTICAL ORGANIC CHEMISTRY III – THEORY

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 isomerism? Give its classification.
b.	Define the term d, l, D and L.
c.	Give the importance of stereochemistry in organic chemistry.
d.	What is atropisomerism?
e.	Why pyrrole is acidic in nature?
f.	Write the Gattermann Koch synthesis of furan.
g.	Why pyridine does not show Friedal Craft reaction?
h.	Write the pharmaceutical uses of quinoline and oxazole.
i.	Give definition and reaction of Oppenauer oxidation.
j.	Define metal hydrides with example.

SECTION B

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

a.	What is optical isomerism? Explain the types of optical isomerism in detail.
b.	Write the synthesis, reactions and medicinal uses of furan, pyrrole and thiophene.
c.	Give the reaction, mechanism and synthetic importance of Birch and Dakin reaction.

SECTION C

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

a.	What is Chiral and Achiral molecules with suitable example.
b.	What is geometrical isomerism. Give the types of geometrical isomerism in detail.
c.	What are the heterocyclic compounds? Give their classification.
d.	Why pyridine is more basic than pyrrole and less basic than aliphatic amines in nature?
E	Explain reaction, mechanism and medicinal uses of Beckmann's rearrangement.
f.	Describe in detail about stereospecific and stereoselective reactions with example.
g	Write down the structure and medicinal uses of pyrimidines and purine