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BPHARMA
(SEM IV) THEORY EXAMINATION 2023-24
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.	Define diastereoisomers with example.
b.	Why propionic acid is not optically active?
c.	Illustrate newmann projection for ethane.
d.	What are the conditions for biphenyl compounds to show optical isomerism?
e.	Define heterocyclic compounds with proper example.
f.	Give the main reaction involved in dakin's reaction.
g.	Write Pall-Knorr synthesis of pyrrole.
h.	Illustrate the reaction based on birch reduction.
i.	Discuss medicinal uses of furan.
j.	What is chirality?

SECTION B

2. Attempt any *two* parts of the following:

2 x 10 = 20

a.	Explain reaction, mechanism and medicinal uses of wolf kischner reaction or beckmann's rearrangement.
b.	Discuss nomenclature of heterocyclic compounds with proper examples.
c.	How imidazole is amphoteric? Discuss its synthesis, reactions and medicinal uses.

SECTION C

3. Attempt any *five* parts of the following:

7 x 5 = 35

a.	Classify heterocyclic compounds with suitable examples.
b.	Write synthesis, reactions and uses of thiophene.
c.	Discuss reaction and mechanism involved in clemmensen reduction.
d.	Give various naming systems used for naming geometrical isomers.
e.	Chair form of cyclohexane is more stable than boat form. Explain in detail.
f.	Discuss various methods used in determination of configuration of Geometrical isomers.
g.	Comment on any two: a) basicity of pyridine, b) optical activity and c) mesomer