

# **ORGANIC CHEMISTRY-III**

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### UNIT - I

- ① Write in detail about RS System or DL System of nomenclature of optical isomers
- ② Discuss Optical isomerism with examples.
- ③ What is Racemic Modification, how can you resolve racemic mixtures.
- ④ Explain partial & absolute asymmetric synthesis
- ⑤ Differentiate b/w Enantiomerism & Diastereomerism

### UNIT - II

- ① What are the various naming systems of Geometrical isomerism  
Explain with example
- ② Describe in detail about stereospecific & stereoselective reactions.
- ③ Outline the various conformations of cyclohexane in detail
- ④ What are conformational isomer, Explain about cyclohexane

### UNIT - III

- ① Write in detail about nomenclature & classification of Heterocyclic compound with examples.
- ② Write down the synthesis, reactions & medicinal uses of Pyrrole, Furan & Thiophene.

### UNIT - IV

Write down the synthesis, reactions & medicinal uses of :

- (i) Imidazole
- (ii) Thiazole
- (iii) Pyridine
- (iv) Pyrimidine
- (v) Azepines
- (vi) Pyrrole
- (vii) Indole
- (viii) Quoline & Isoquinoline

### UNIT V

- ① Give definition & reaction mechanism of Wolf Kishner reduction & Dakin reaction
- ② Give reaction & mechanism for Schmidt rearrangement & Beckmann rearr.
- ③ Give reaction mechanism & synthetic importance for Clemmensen reduction & Oppenauer oxidation
- ④ Discuss the reaction & mechanism of Metal Hydride reduction.
- ⑤ Give importance of  $\text{LiAlH}_4$  in metal hydride reduction.