

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**

**End Semester Examination – Summer 2023**

**Date: 10/07/2023**

**Course: B. Pharmacy**

**Subject Name: Pharmaceutical Organic Chemistry-III**

**Sem: IV**

**Subject Code: BP401T**

**Max Marks: 75**

**Duration:**

**3 Hr.**

**Instructions:**

- 1. All questions are compulsory**
- 2. Draw diagrams / figures wherever necessary**
- 3. Figures to right indicate full marks**

**Q. 1. Objective Type Questions (Answer all the questions) (10 x 2) = 20**

- Give the structure and medicinal uses of Pyridine.
- What is Dakin reaction?
- Write the medicinal uses of Thiazole and Imidazole.
- Give the structure of Thiophene and Oxazole.
- What are chiral and achiral molecules?
- Write a note on Metal hydride reduction.
- Define atropisomerism with example.
- What is optical activity?
- Give the structure and medicinal uses of Acridine.
- Define and explain Mesocompound.

**Q. 2. Long Answers (Answer 2 out of 3) (2 x 10) = 20**

- Write the EAS reactions, synthesis and medicinal uses of Pyrrole and Furan.
- Explain in detail about confirmations of n-Butane and Cyclohexane.
- Define racemic modification. Describe the methods of resolution of racemic mixture.

**Q. 3. Short Answers (Answer 7 out of 9) (7 x 5) = 35**

- Explain the terms with suitable example
  - Diastereoisomerism
  - Enantiomerism
- Outline the methods of synthesis of Indole.
- Give the reaction and mechanism involved in Beckmann's rearrangement.
- Write a note on basicity of pyridine.
- Describe the Birch reduction reaction.
- Write a note on R and S system of configuration.
- Give the reaction and mechanism of Oppenauer oxidation reaction.
- Explain in detail asymmetric synthesis.
- Give a brief account of stereospecific and stereoselective reactions.

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