### Fourth Semester B.Pharm Degree Regular/Supplementary Examinations February 2024 Pharmaceutical Organic Chemistry III

# (2017 Scheme)

#### Time: 3 Hours

- Answer all questions to the point neatly and legibly
  Do not leave any blank pages between answers
   Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together Leave sufficient space between answers
- Draw diagrams wherever necessary

#### Essays

- 1. Explain racemic modification and the methods for the resolution of racemic mixtures with examples.
- 2. Elaborate on geometrical isomers and the methods of determining the configuration of geometrical isomers.

#### **Short Notes**

- 3. Explain chiral and achiral molecules with examples.
- 4. Explain syn and anti-system of nomenclature of geometrical isomers.
- 5. Give the methods of synthesis, reactions and uses of thiophene.
- 6. What are heterocyclic compounds. Classify them with examples.
- 7. Explain Skraup synthesis of quinoline with the mechanism.
- 8. Explain the synthesis and chemical reactions of indole.
- 9. Explain the mechanism of Schmidt rearrangement.

#### **Answer Briefly**

- 10. What are the different conformational isomers of cyclohexane.
- 11. Partial asymmetric synthesis.
- 12. Atropisomerism.
- 13. Cis-trans system of geometrical isomers.
- 14. Explain any one method of synthesis of furan.
- 15.Explain Chichibabin reaction.
- 16. Give the synthesis and uses of acridine.
- 17. Basicity of pyridine.
- 18. Metal hydride reduction.
- 19. Wolff-Kishner reaction.

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#### Max. Marks: 75

#### (7x5=35)

## (10x2=20)

# (2x10=20)