

May-2025

BLDE (DEEMED TO BE UNIVERSITY)
Master of Science in Chemistry

[Time: 3 Hours]

[Max. Marks: 80]

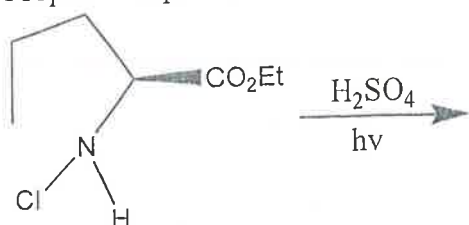
II SEMESTER
PAPER - II (Organic Chemistry II)
QP CODE: 7722

Your answer should be specific to the questions asked.
Write Question No. in left side of margin.

Long Question (Any – 3)

10 X 3 = 30 Marks

1. Discuss briefly the mechanism and synthetic application of Baeyer-Villiger reaction.
2. Propose the product with Suitable mechanism

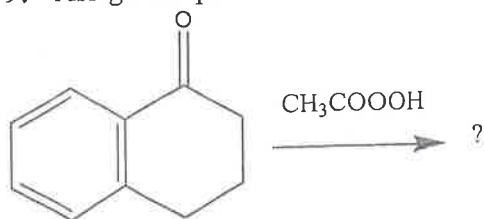


3. Discuss the synthetic utility of the following in organic Synthesis
 - I) Wolf-kishner reduction
 - II) Homogenous catalytic reduction
4. Outline the synthesis and chemical reactions of Azetidine and Oxiranes.

Short Essays: (Any – 7)

5 X 7 = 35 Marks

5. Explain any one method for the synthesis of pyridine. Show the electrophilic and nucleophilic reaction by the help of resonance.
6. Formulate one synthesis and two chemical reactions of Aziridine and Oxetanes.
7. Discuss the intermediates of Hofmann, Lossen and Curtius rearrangement.
8. Discuss the mechanism and synthetic application of Witing reaction.
9. Assign the product with suitable mechanism.

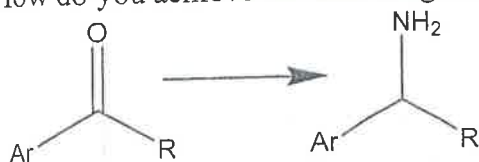


10. Explain the application of Peracids in organic synthesis.
11. Explain the reactions of lead acetate with monohydric alcohols, 1,2 diols and monocarboxylic acids.
12. How do you prove that Favorki rearrangement undergoes via cyclopropanone intermediate.

Short Answers: (Any – 5)

3 X 5 = 15 Marks

13. Give one Synthesis and two chemical reactions of thietanes.
14. What is PCC? Give its Synthetic uses.
15. How do you achieve the following reaction



16. What is Neber rearrangement? Give an example.
17. What is leukart reaction reagent?
18. What is chichibabin reaction? Illustrate with an example.