

Name:.....

Reg. No.....

26U4144

B A, BSC, BCOM DEGREE END SEMESTER EXAMINATION – MARCH 2026

UGP (HONS.) SEMESTER – 4: – DISCIPLINE SPECIFIC COURSE

COURSE: 24UCHEDSC205 - ORGANIC CHEMISTRY - II

(For Regular 2024 Admission)

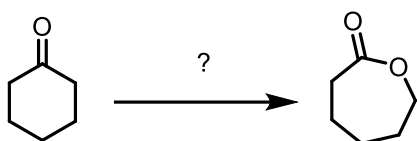
Time: 1.5 Hours

Max. Marks: 50

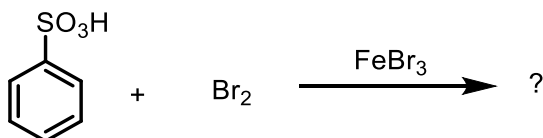
PART A

Answer all questions. Each question carries 1 Marks

1. 2-Methyl-propan-2-ol is classified as a alcohol. [U, CO 1]
2. Which specific functional group is quantitatively estimated using the Zeisel method? [U, CO 1]
3. Give the reagent required for the following reaction [U, CO 2]



4. Name the reagent used in Clemmensen's reduction. [U, CO 2]
5. Name the product formed by the nucleophilic addition of hydroxylamine to a carbonyl compound. [U, CO 2]
6. Arrange the following in decreasing order of acidity: [Ap, CO 3]
Acetic acid, fluoroacetic acid, chloroacetic acid, and formic acid.
7. Benzoic acid does not undergo Friedel Craft reaction. Why? [Ap, CO 3]
8. Identify the product in the following reaction. [Ap, CO 3]



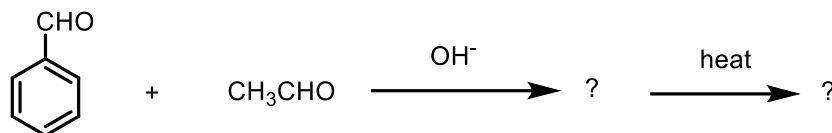
(1 x 8 = 8)

PART B

Answer any five questions. Each question carries 3 Marks

9. An alcohol $C_5H_{12}O$ gives a ketone on oxidation, and when it is dehydrated (using a catalyst), and the resulting alkene is oxidized, a mixture of acetone and acetic acid results. What is the structure of the alcohol? [U, CO 1]

10. How will you prepare anisole by Williamson's synthesis? Can we use chlorobenzene? [U, CO 1]
11. Write a note on Favorskii rearrangement using cyclic α -halo ketones. [U, CO 2]
12. Give a brief description of silylenol ethers. [U, CO 2]
13. Predict the product and explain the reaction: [U, CO 2]



14. Suggest two tests answered by both aldehydes and ketones and one distinction test. [U, CO 2]
15. Benzoic acid has an electron-withdrawing phenyl group, but it is still a weaker acid than formic acid. Explain. [Ap, CO 3]
16. Mention the synthesis and some of the applications of organozinc compounds. [Ap, CO 4]
- (3 x 5 = 15)**

PART C

Answer any two questions. Each question carries 6 Marks

17. Distinguish primary, secondary, and tertiary alcohols using Luca's test. [U, CO 1]
18. Discuss the mechanism of the Knoevenagel reaction. [U, CO 2]
19. Describe the preparation and properties of benzene sulfonyl chloride. [Ap, CO 3]
20. Describe the preparation and synthetic utility of organo-lithium compounds. [Ap, CO 4]
- (6 x 2 = 12)**

PART D

Answer any one question. Each question carries 15 Marks

21. Explain the following reactions of phenols with mechanism: [U, CO 1]
- (a) Reimer-Tiemann reaction
 - (b) Kolbe-Schmitt reaction
 - (c) Gattermann reaction
 - (d) Schotten-Baumann reaction
22. Outline the mechanism of (a) Perkin condensation, (b) Benzoin condensation, (c) Reformatsky reaction, and (d) Blaise reaction. [U, CO 2 Ap, CO3]

(15 x 1 = 15)