

D 110116

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Name.....

Reg. No.....

**FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2024**

Chemistry

CHE 5B 07—ORGANIC CHEMISTRY—II

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answers)*Answer questions up to 20 marks.**Each question carries 2 marks.*

1. What is PCC ? How does it react with 2-buten-1-ol ?
2. List out the important synthetic applications of crown ethers.
3. What are Frankland reagents ? How do they react with alkyl halides ?
4. How will you chemically distinguish between acetophenone and benzophenone ?
5. Draw the structure of citric acid. Write any two uses of the acid.
6. Dimethyl amine is a stronger base than trimethylamine. Why ?
7. What are the conversions that happen when primary alcohols react with alkaline KMnO_4 ?
8. Write Wohler's method of preparation of urea.
9. What is MPV reduction ?
10. How will you convert furan to furfural ?
11. Explain HVZ reaction with an example.
12. Outline the reaction of methyl magnesium bromide with propanal.

(Ceiling of marks : 20)

Turn over

Section B (Paragraph)

Answer questions up to 30 marks.

Each question carries 5 marks.

13. How will you convert ethyl acetoacetate in to succinic acid ?
14. Describe :
 - (a) Liebermann's nitroso reaction ; and
 - (b) Hauben-Hoesch reactions of phenol.
15. Give an account of Hofmann's elimination with mechanism.
16. Illustrate the reaction and mechanism of aldol condensation.
17. Compare the acidity of phenol with carboxylic acids.
18. Explain the mechanism of Claisen rearrangement.
19. Discuss the preparation of methyl orange.

(Ceiling of marks : 30)

Section C (Essay)

*Answer any **one** question.*

Each question carries 10 marks.

20.
 - (i) Explain Lucas test to distinguish between primary, secondary and tertiary alcohols.
 - (ii) Write down the preparation methods and reactions of crotonic acid.
21.
 - (i) Explain Cannizzaro reaction with mechanism.
 - (ii) Describe estimation of urea by hypobromite method.

(1 × 10 = 10 marks)