# FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS-UG)

Chemistry

### CHE 5B 07—ORGANIC CHEMISTRY—II

(2019 Admissions)

Time: Two Hours

Maximum: 60 Marks

## Section A (Short Answers)

Answer at least **eight** questions. Each question carries 3 marks. All questions can be attended. Overall Ceiling 24.

- 1. Which is more acidic, propanol or isopropanol? Why?
- 2. An alkoxide is a stronger base than hydroxide ion. Justify.
- 3. How will you convert phenol to salicylaldehyde?
- 4. What is PTC? Give examples.
- 5. Complete the reaction:



- 6. Suggest reactions for the conversion of ethyl magnesium chloride to 1-propanol.
- 7. What products are formed when CH<sub>3</sub>MgI is treated with ethanol?
- 8. What is urotropine? How it is prepared?
- 9. What is Etard's reaction?
- 10. Which is more acidic, acetic acid or chloroacetic acid? Why?
- 11. What is Hofmann's Bromamide degradation? Explain with examples.
- 12. Pyridine undergoes nucleophilic substitution reaction easily. Why?

 $(8 \times 3 = 24 \text{ marks})$ 

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## Section B (Short Answers)

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Answer at least **five** questions. Each question carries 5 marks. All questions can be attended. Overall Ceiling 25.

- 13. How will you prepare phenolphthalein? Explain its colour change with pH.
- 14. Explain oximercuration-demercuration reaction for the preparation of alcohols.
- 15. What is Claisen rearrangement? Explain its mechanism.
- 16. What is Tollen's reagent? How it is used to test the presence of aldehydes?
- 17. How will you convert acetic acid to acetaldehyde and acetic acid to acetone?
- 18. What is Hofmann's elimination? Explain with suitable examples.
- 19. Write notes on Fischer Indole synthesis.

 $(5 \times 5 = 25 \text{ marks})$ 

### Section C (Essays)

Answer any **one** question. The question carries 11 marks.

- 20. How will you separate a mixture of 1°, 2°, and 3° amines?
- 21. Write notes on: Kolbe's electrolysis; HVZ reaction; Reformatsky reaction; and Chichibabin reaction.

 $(1 \times 11 = 11 \text{ marks})$