QP Code: D153278	Total Pages: 2	Name:
		Register No.

FIFTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, NOVEMBER 2026

CHEMISTRY

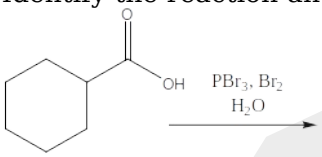
CHE5CJ303 ORGANIC CHEMISTRY III

2024 Admission onwards

Maximum Time :2 Hours **Maximum Marks :70**

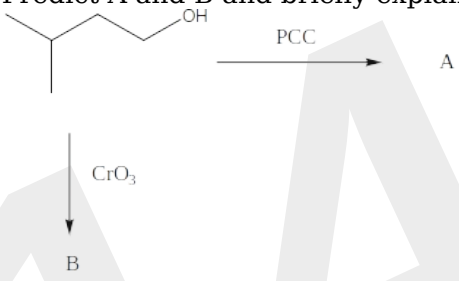
Section A

All Questions can be answered. Each Question carries 3 marks (Ceiling : 24 Marks)

1	What happens when acetone is treated with Grignard Reagent?
2	What kind of tautomerism does ethyl acetoacetate exhibit? Explain.
3	What is Nef reaction used for?
4	Identify the reaction and predict the product 
5	If you are given acetone and acetaldehyde, how can you distinguish them?
6	Give the reaction of aniline with bromine water. What sort of reaction is it?
7	Depict the structure of Penicillin G and mark the β lactam ring in it
8	Suggest a suitable reagent for the reaction 
9	Illustrate a method for the synthesis of ethyl acetoacetate
10	Which reaction can be used for the synthesis of cinnamic acid? Illustrate

Section B

All Questions can be answered. Each Question carries 6 marks (Ceiling : 36 Marks)

11	Predict A and B and briefly explain how you arrive at it 
12	How can benzoic acid be converted into a) benzamide b) benzoyl chloride c) Ethyl benzoate
13	Discuss Michael addition and differentiate it from 1, 2 -addition of α, β-unsaturated carbonyl compounds
14	What happens when nitrobenzene is reduced under acidic, neutral and basic conditions? Describe
15	Illustrate Cannizaro reaction using Benzaldehyde as the substrate
16	Mechanistically explain Kolbe electrolysis

17	Identify a reagent that can be used in converting carboxylic acid to primary alcohols. Explain its action
18	Discuss Hoffmann's exhaustive methylation
Section C	
Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)	
19	Explain the method of separating a mixture of primary, secondary, and tertiary amines.
20	Discuss Oppenauer Oxidation and MPV Reduction using suitable examples

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