

Gurudas College
Department of Chemistry
Internal Assessment Examination-2021
SEM-II
Paper: CEMA-CC-2-3

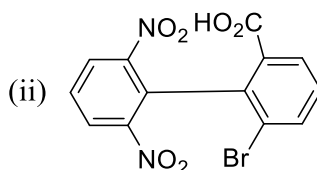
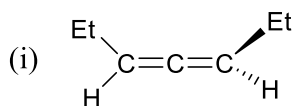
Time: 30 Minutes

Full Marks: 10

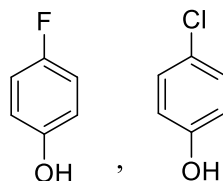
Answer any five questions:

5×2=10

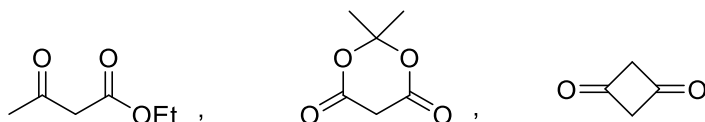
- The pro-R hydrogen of chloroacetic acid is substituted by bromine with inversion of configuration. Predict the configuration of final product showing the pro-R hydrogen of the original substrate.
- Are the compounds shown below chiral or achiral? Justify your answer.



- Draw the anti, gauche and eclipsed conformation of 1,2-dichloro-ethane in Newman projections.
- Compare acidity between the following two compounds.



- Which of the following compounds has higher enol content? Explain.



- Draw an energy profile diagram of a slow and endothermic reaction with proper explanation.
- Solvolysis of (+) $C_6H_5CH(CH_3)Cl$ leads to 98% racemisation whereas solvolysis of (+) $C_6H_{13}CH(CH_3)Cl$ leads to only 34% racemisation. Explain why.
- Draw the major E2 elimination products from each of the following alkyl halides.

