

Gurudas College

B.Sc. Part-II (1+1+1 System) Internal Examination 2020

CHEMISTRY (HONOURS)

Paper-III

Time: 2 Hrs.

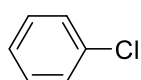
Full Marks: 25

Group-A

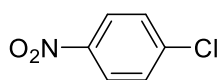
Answer any five questions

5×5 = 25

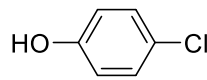
1. Why is peroxide effect observed for the addition of HBr but not for HCl or HI?
2. Alkaline hydrolysis of benzonitrile affords a salt of benzoic acid that of 2,6-dimethyl benzonitrile gives the corresponding amide. Explain.
3. Convert Phenol to Salicylic acid.
4. Arrange the following compounds in increasing order of reactivity towards nucleophilic substitution reaction - explain.



(a)

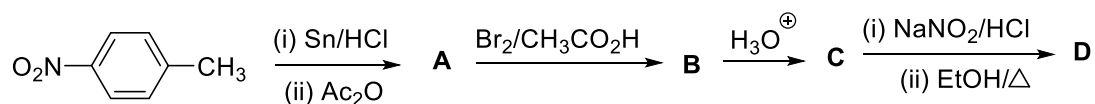


(b)



(c)

5. Identify A, B, C and D in the following scheme.



6. In Arndt-Eistert synthesis two equivalents of diazomethane is used –explain the statement showing the mechanism of the reaction.
7. How will you prepare phenol from benzene via cumene? Give mechanism.
8. Fries rearrangement is both intermolecular and intramolecular. Give supporting evidence in favour of this statement.