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## INDIAN SCHOOL MUSCAT FIRST PERIODIC ASSESSMENT

### CHEMISTRY

CLASS: 12

Sub.Code: 043

TimeAllotted:50mts.

14 .04.2019

Max .Marks: 20

#### GENERAL INSTRUCTIONS:

- All questions are compulsory.*
- Mark for each question is indicated against it*

- Which one of the following is more reactive towards nucleophilic substitution by  $S_N1$  reaction?  
1-Bromopropene or 3-Bromopropene 1
- Draw the structure of 4-sec-Butyl-1-chloro-2-methylbenzene 1
- Give a chemical test to distinguish between ethyl chloride and vinyl chloride. 1
- Write the IUPAC name of the following 2
  - $(CH_3)_3CCH=C(Br)C_6H_4Cl-p$
  - tert-Pentyl chloride.
- Convert 2
  - Aniline to Iodobenzene
  - Ethene to Butane
- Give equations for the following 2
  - Methyl chloride is treated with  $KNO_2$
  - Ethyl chloride is treated with magnesium in dry ether followed by hydrolysis.
- Illustrate the following with an example 2
  - Fittig reaction
  - Friedel-Crafts alkylation of Chlorobenzene

8. An optically active compound having molecular formula  $C_4H_9Br$  reacts with aqueous KOH 3  
to give a racemic mixture of products. Write the mechanism involved for the reaction.
9. Define the following 3  
a) Ambident nucleophile  
b) Zaitsev rule  
c) Enantiomers
10. Account for the following 3  
a) Halogens are deactivating but ortho, para directive.  
b) 1-Chloropentane has more boiling point than 2-Chloro -2-methylbutane  
c) Thionyl chloride is the preferred reagent for converting ethanol to chloroethane