

Chemistry Revision Test

Time: 60 mins

Max Marks: 30

Q1.

(a) Name the structure for the following compound.

2-(2-chlorophenyl)-1-iodooctane, p-Bromochlorobenzene

(b) Arrange the following compounds in ascending order of dipole moments.

CH_2Cl_2 , CHCl_3 , CCl_4

(c) How you will convert but-1-ene to 1-Iodobutane?

(d) Explain Ambient nucleophiles. Give one example

4 marks

Q2. A) Write the structures of main products in reaction below:

(i). 2 Chloro -2 Methyl butane with Sodium ethoxide in ethanol.

(ii). 2,2,3-Trimethyl-3-bromopentane with sodium ethoxide in ethanol.

B) Complete the following reactions:

(i). $\text{C}_2\text{H}_5\text{Cl} + \text{C}_2\text{HNa} \rightarrow$?

(ii) $\text{CH}_2=\text{CH}_2-\text{CH}_3 + \text{HBr} \xrightarrow{\text{Peroxide}}$?

4 marks

Q3.

Explain why:

(a). Alkyl halides, though polar are immiscible with water.

(b). p-Dibromobenzene has higher melting point than those of o and m isomers?

(c). Chloro Diphenylmethane is hydrolysed faster than Benzyl chloride?

3 marks

B) What happens when?

(a). Toluene is treated with Chlorine in UV light

(b). Benzene with Bromine water in presence of FeBr_3 ?

. 3 marks

C) How you will convert:

(a). Propene into Propane-1-ol

(b). Ethanol to Propanenitrile

(c). Aniline to Chlorobenzene.

3 marks

Q4 Give reasons:

(i). Alkyl halides when treated with aqueous KOH forms alcohols but with alcoholic KOH forms alkene.

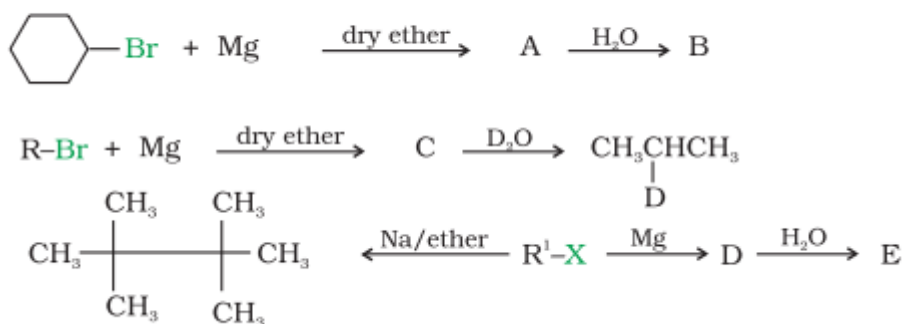
(ii). Sulphuric acids not used in the reaction of alcohols with KI.

(iii). Freon-12 is banned in many countries.

3 marks

Q5

Identify A, B, C, D, E, R and R¹ in the following:



5 marks

Q6. Give reasons:

(i). Tert-Butyl bromide undergoes Wurtz reaction to give 2,2,3,3-tetramethylbutane.

(ii). Presence of nitro group and ortho and para position increases the reactivity of haloarenes towards nucleophilic substitution.

(iii). Chlorine in chlorobenzene is difficult to replace than in chloroethane by OH group.

(iv). Some alkyl halides undergo substitution whereas some undergoes elimination on treatment with bases.

(v). What are the IUPAC names of the insecticide DDT and benzenehexachloride?

5 marks