CLASS XII CHEMISTRY –ETHERS ASSIGNMENT NO.7

Q1. Give reasons for the following;-

(a) The c-o-c bond angle in ethers is larger than the tetrahedral value.

(b) Ethers are miscible in water just as alcohol's are

(c) Boiling pts. Of ethers are comparable to those of ethers of comparable molecular mass.

(d) Ethers have a net dipole moment even if they are symmetrical in structure.

(e) For the preparation of t-butyl methyl ethers, methyl bromide and sodium t-butoxide is used. Reaction of sodium methoxide and t-butyl bromide can't be used.

(f) Acid catalysed formation of ethers from alcohols is not appropriate for preparation of unsymmetrical ethers.

(g) Anisole is prepared by reacting sodium phenoxide with methyl bromide and not bromobenzene and sodium methoxide.

(h) When alkyl aryl ethers are cleaved with halogen acid, the yield is phenol and a molecule of alkyl halide and not phenyl halide and alcohol.

(i) When ethers with 1^0 and 2^0 alkyl groups are cleaved with excess of HI under drastic conditions, alkyl iodide is formed with lower alkyl group.

(j) When tert-butyl methyl ether is hydrolysed with HI under drastic conditions, the products are methanol and t-butyl iodide and not butyl alcohol and methyl iodide.

(k) Anisole undergoes bromination in absence of halogen carrier also.

(l) Reactivity of HX towards ethers follows the Order $\longrightarrow$ HI > HBr > HCl

(k) Ethers are chemically inert.

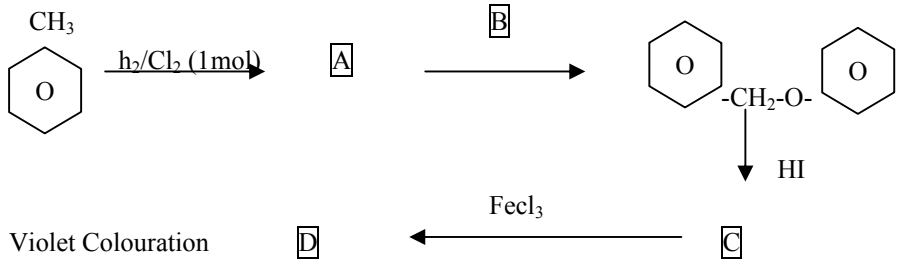
(l) Preparation of ethers by acid dehydration of 2^0 and 3^0 alcohols is not a suitable method.

(m) Di-isopropyl ether and di-tert butyl ether cannot prepared in good yield by Williamson's synthesis

(n) Ethers can only be cleaved by acid not bases. :-

Q. **Identify A, B, C, D**

(a)



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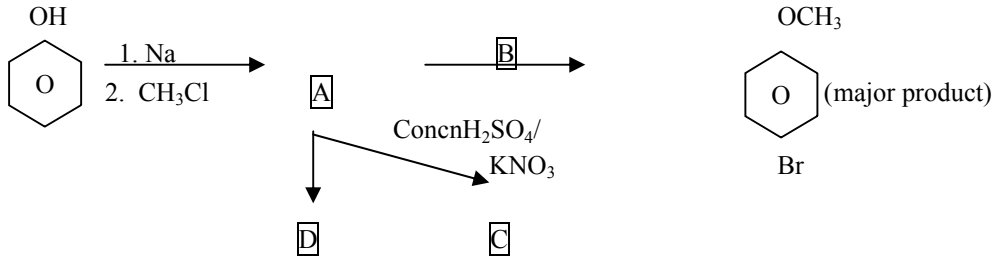
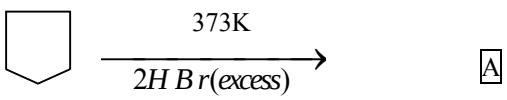


(c)



(d)