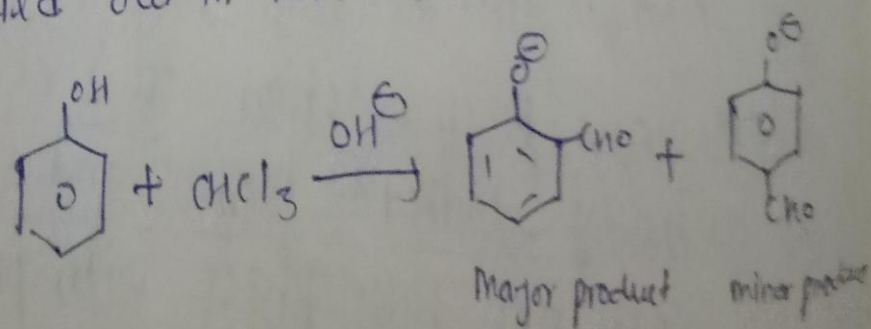
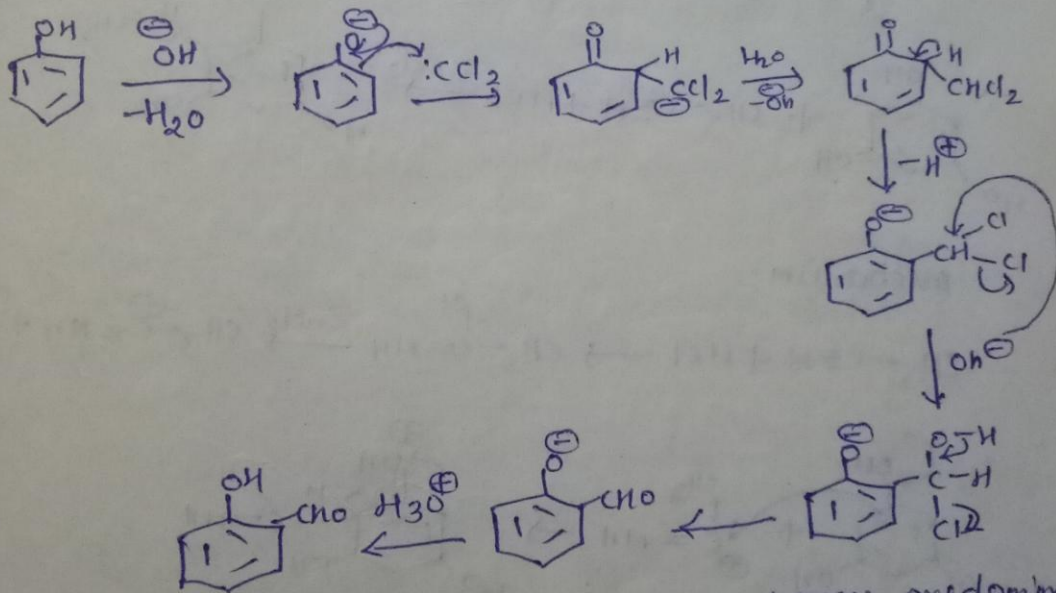
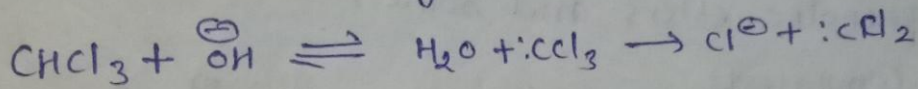


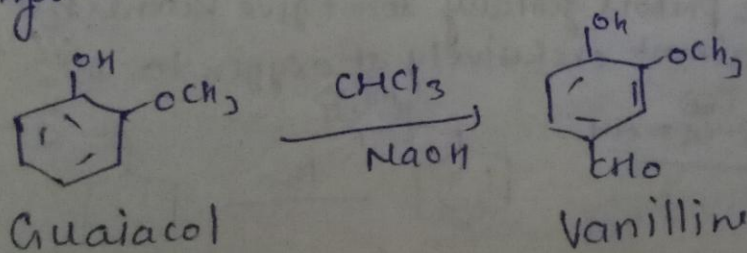
Reimer-Tiemann Reaction:- The formylation of a phenol with chloroform and aqueous hydroxide is known as Reimer-Tiemann reaction. Among formylation method it is only method carried out in basic medium.



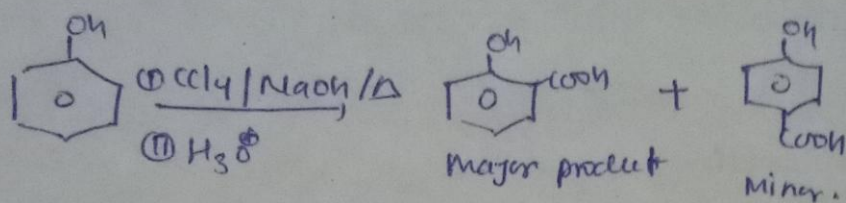
Mechanism:- The Reimer-Tiemann reaction involves dichlorocarbene ($:CCl_2$) as an electrophile which is generated from chloroform by the action of base. It should be noted that dichlorocarbene is not enough electrophilic to react with benzene but it does attack the electron rich aromatic ring of phenol to give an aldehyde but not a cyclopropane derivative in which case the aromaticity will be lost.



In Reimer-Tiemann reaction the o-position predominates but if one of the o-positions is occupied the formylation tends to occur at the p-position.



In this reaction salicylic acid is obtained if CCl_4 is used in the place of CHCl_3 . In this case the reaction is known as Reimer-Tiemann carboxylation.



Mechanism:-

