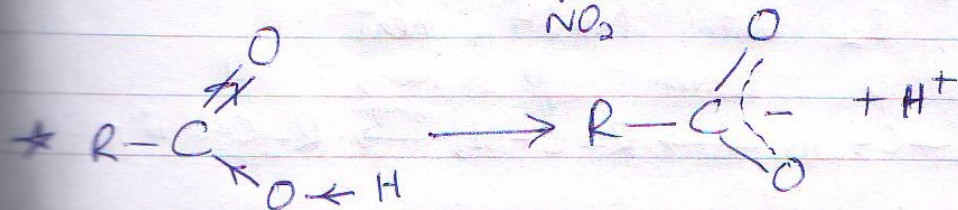
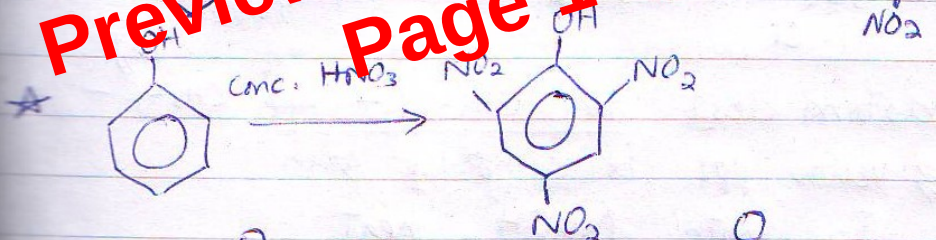
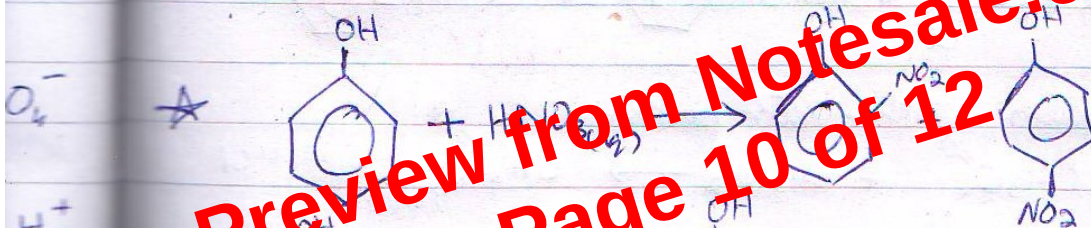
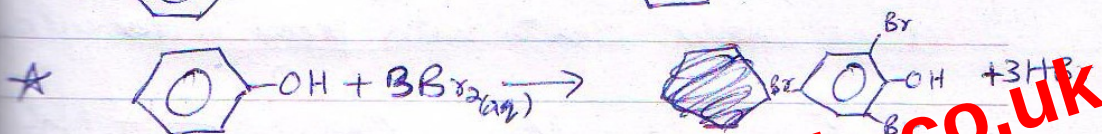
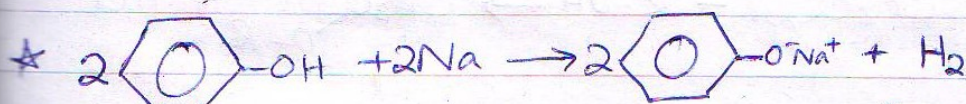
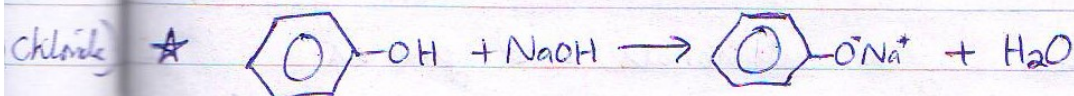
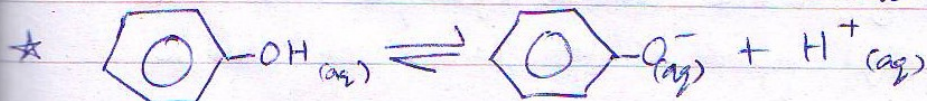
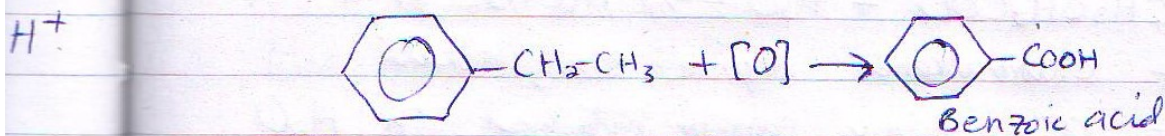
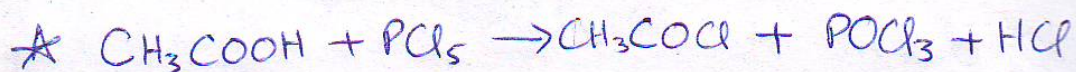


★ Oxidation of side chain in arenes
 + heat and reflux with alkaline KMnO_4 or acidified
 $\text{K}_2\text{Cr}_2\text{O}_7$



★ adding Cl to R makes stronger acid

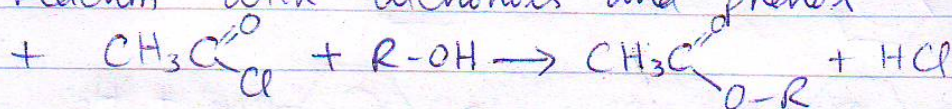


+ chloroalkanes require strong alkali

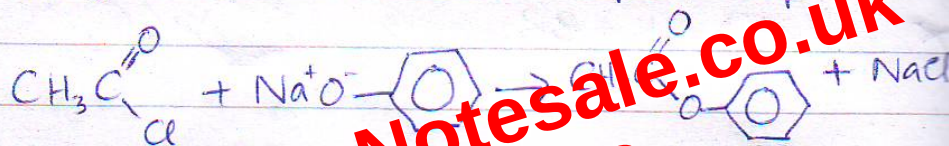
+ acyl chloride can be hydrolysed with H_2O

acyl chloride > chloroalkane > acyl chloride

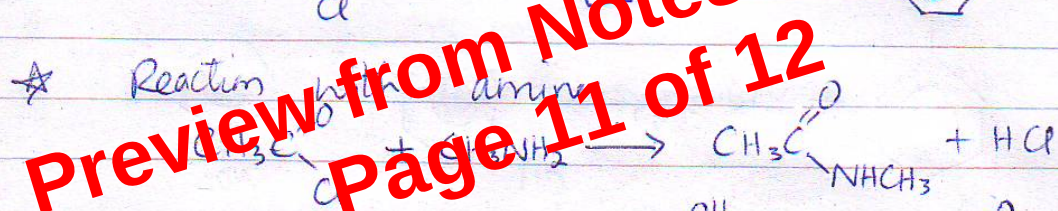
★ Reaction with alcohols and phenol



+ acyl chlorides react with phenol in presence of base



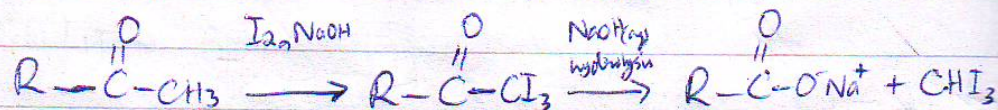
★ Reaction with amines



★ Iodoform test for $\text{CH}_3\text{-CH(OH)-}$ and $\text{CH}_3\text{-C(=O)-}$

+ yellow ppt. is a positive sign

+ I_2 with NaOH , heat



★ Preparing phenylamine

+ $\text{Sn} + \text{conc. HCl}$, heat



+ steam distillation to separate phenylamine