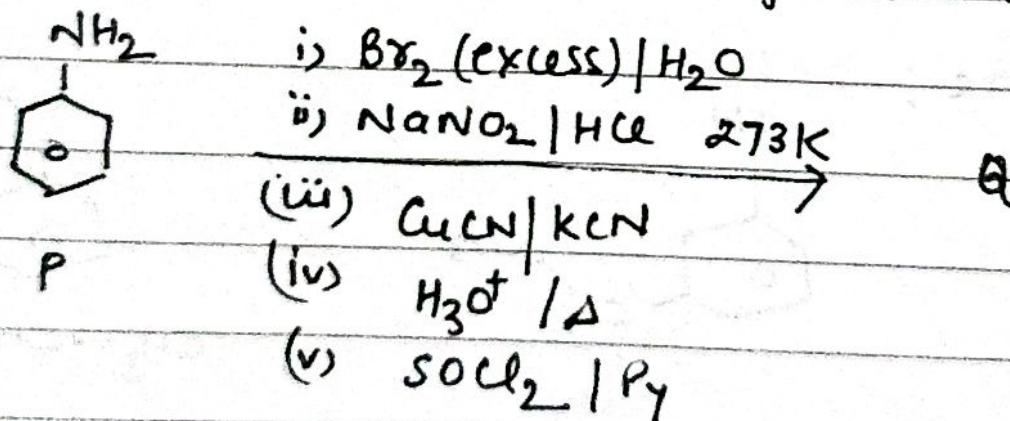
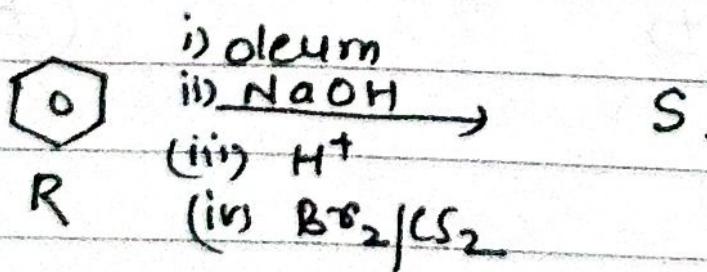


* Scheme 1 and 2 describe the conversion of P to Q and R to S. Scheme 3 describes conversion of Q and S to form T. Total number of Br atoms in 1 molecule T is.

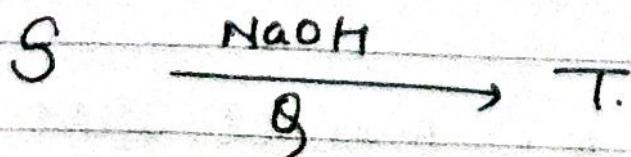
①:



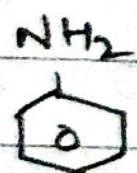
②:



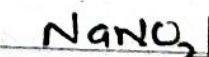
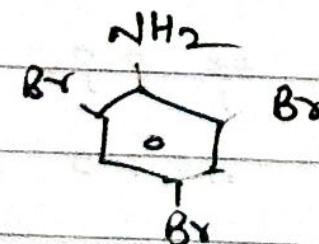
③



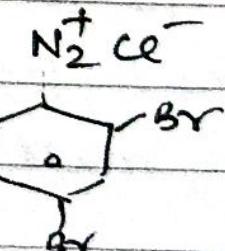
Solⁿ.



$\xrightarrow[\text{(E.S.R.)}]{\text{Br}_2 \text{ excess}}$



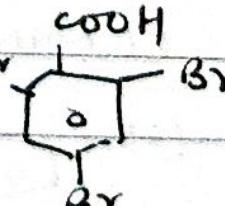
$\xrightarrow[\text{HCl}]{\text{NaNO}_2}$
(diazotisation)



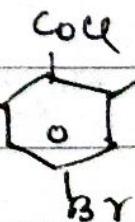
$\xrightarrow{\text{CuCN/KCN}}$



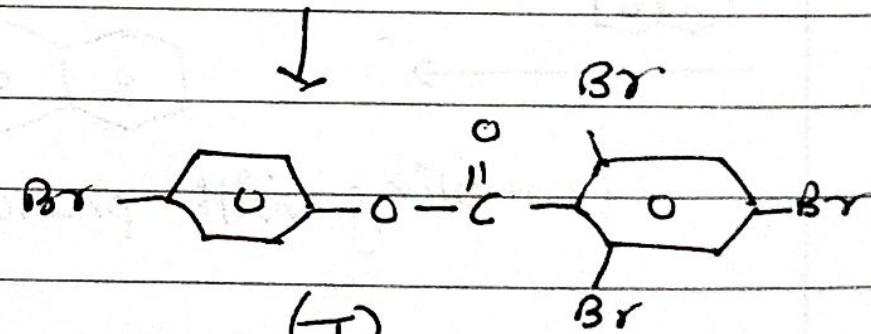
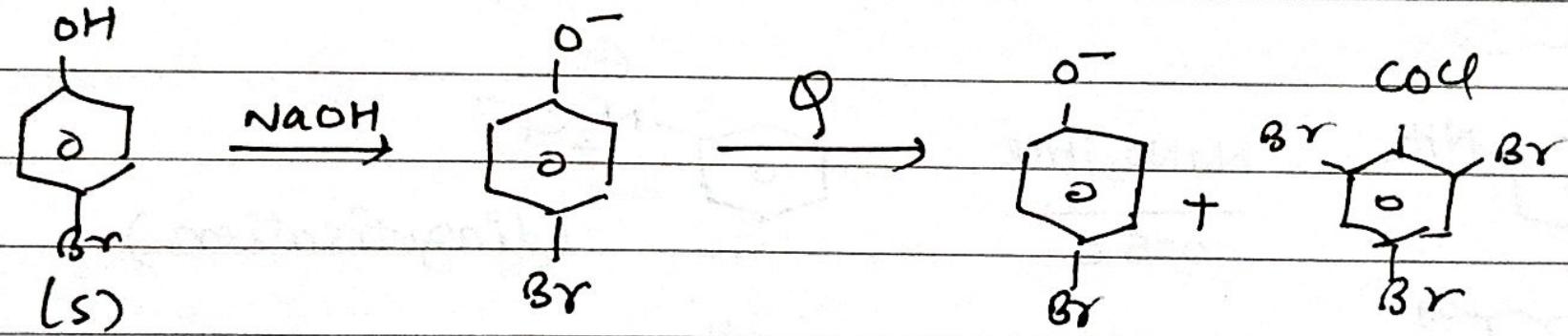
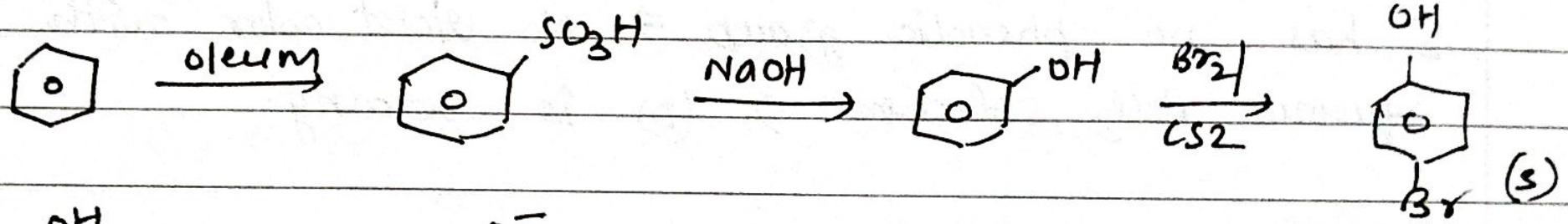
$\xrightarrow[\Delta]{\text{H}_3\text{O}^+}$



$\xrightarrow{\text{SOCl}_2}$



(Q)



4 Br atoms in 1 molecule.

(T)