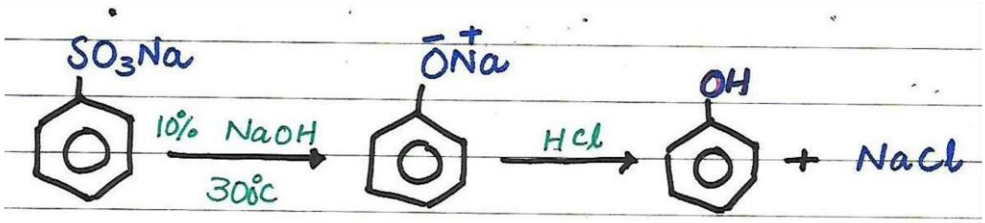
PREPARATION OF PHENOL

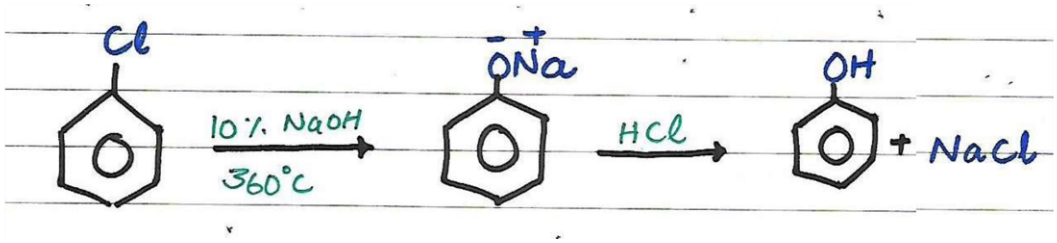
REACTION OF SODIUM SALT OF BENZENE SULFONIC ACID WITH NaOH:

- Sodium benzene sulfonate on fusion with strong alkali like NaOH at 300°C give sodium phenoxide which on treatment with HCl gives phenol



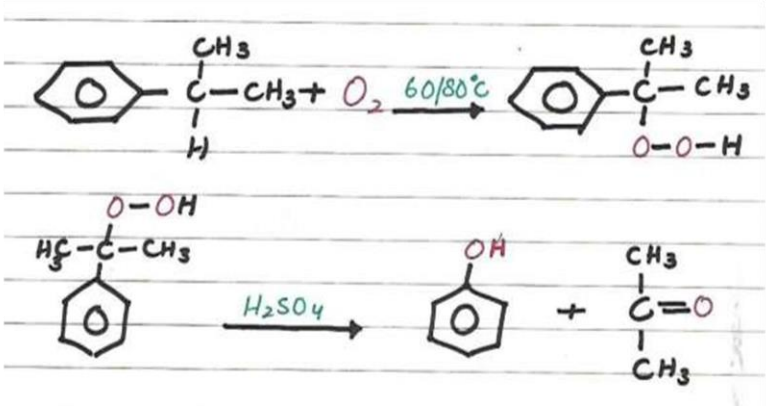
BASE HYDROLYSIS OF CHLOROBENZEN (DOW'S METHOD)

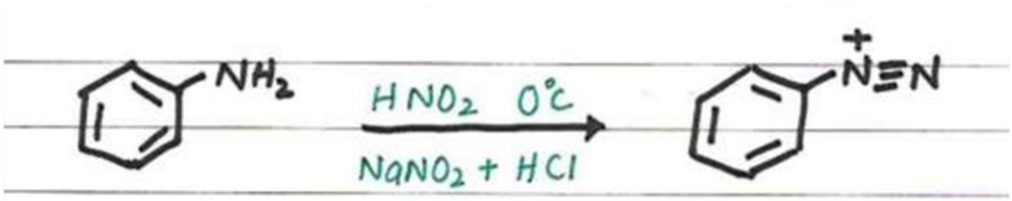
- Chlorobenzene is hydrolysed by heating with 10% NaOH at 360°C under high pressure to form sodium phenoxide which on treating with HCl gives phenol



ACIDIC OXIDATION OF CUMENE

- It is recently developed commercial method for preparation of phenol. Cumene is oxidized by atmospheric oxygen is presence of metal catalyst into Cumene Hydroperoxide.
- The hydroperoxide is converted into phenol through acid catalyzed arrangement





- Aryl diazonium salts can be converted into phenols using H_2O/H_2SO_4/ heat