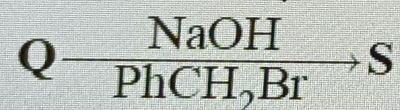
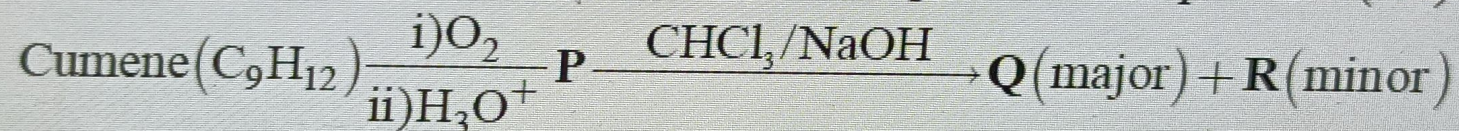
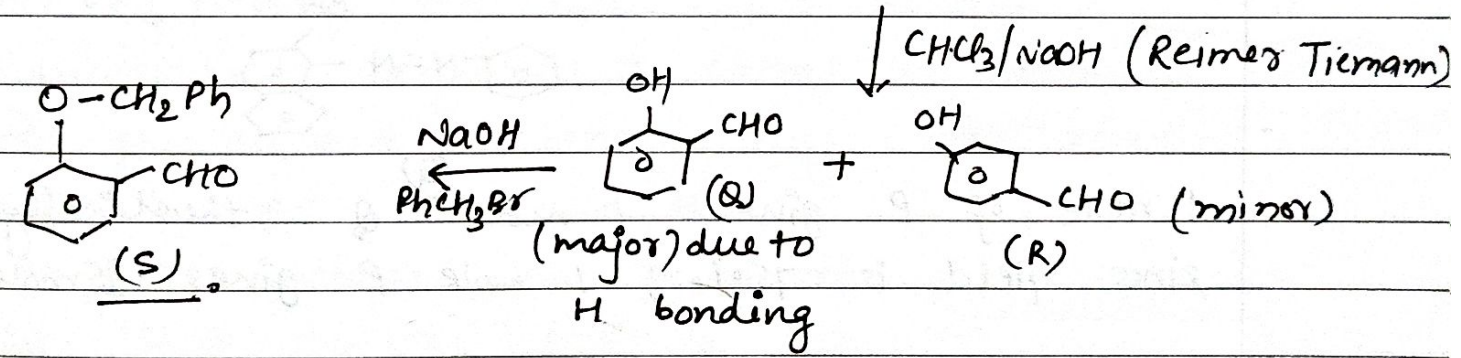
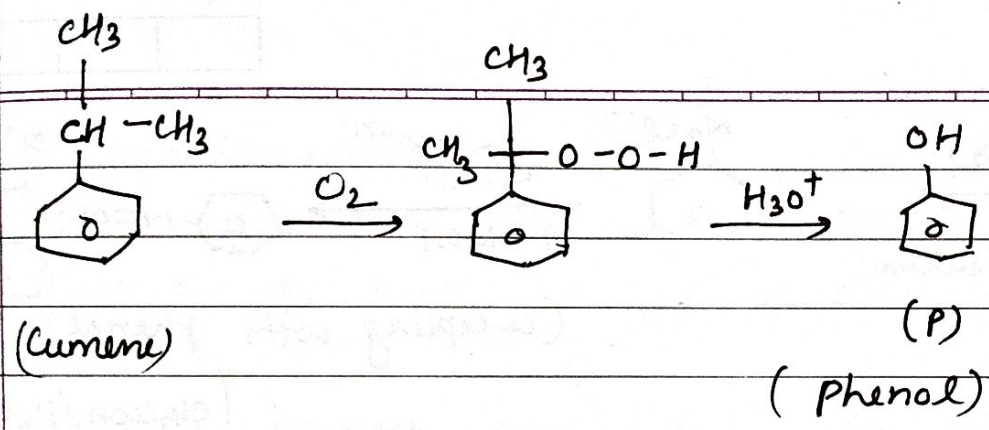


31. The correct statement(s) about the following reaction sequence is(are)



- (A) **R** is steam volatile
- (B) **Q** gives dark violet coloration with 1% aqueous FeCl_3 solution
- (C) **S** gives yellow precipitate with 2, 4-dinitrophenylhydrazine
- (D) **S** gives dark violet coloration with 1% aqueous FeCl_3 solution

Sol. (B, C)



R isn't steam volatile. Instead Q is steam volatile as steam volatility is due to intramolecular H bond.

\Rightarrow (A) is wrong.

Q has phenolic group. so, it gives violet color with neutral $FeCl_3$ solⁿ. \Rightarrow (B) is correct.

S has aldehydic group. so it gives yellow ppt with 2,4 DNP \Rightarrow (C) is correct.

S has no phenolic group \Rightarrow No violet color with 1% aqueous $FeCl_3$ solution \Rightarrow (D) is wrong.