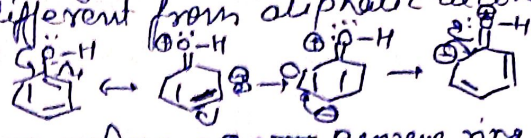
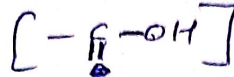


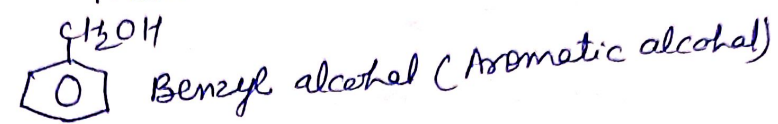
Aromatic Hydroxy Compounds

(1) Phenol $\therefore \rightarrow$ -OH direct benzene ring $\&$ attach होता है।
 Phenol due to acidic it is different from aliphatic alcohol.



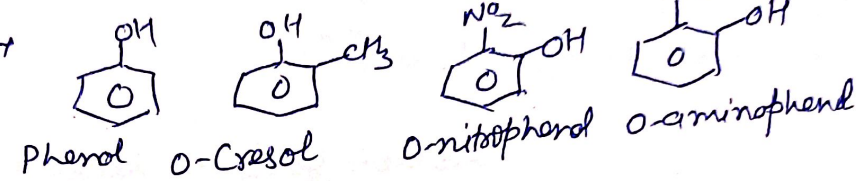
-OH ग्रुपके +M effect के कारण O-atom पर उपस्थित π इलेक्ट्रॉन Benzene ring में O + P पर विद्यमान π इलेक्ट्रॉन के साथ मिलते हैं।

(2) Aromatic alcohol $\therefore \rightarrow$ -OH ग्रुप is present on the side chain.
 These alcohols are like to aliphatic alcohol.

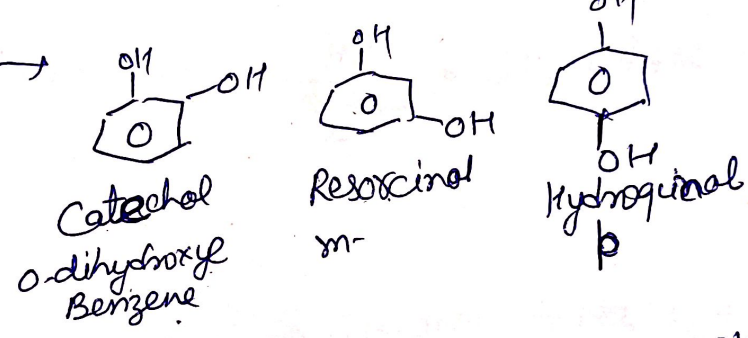


Types of Phenol :-

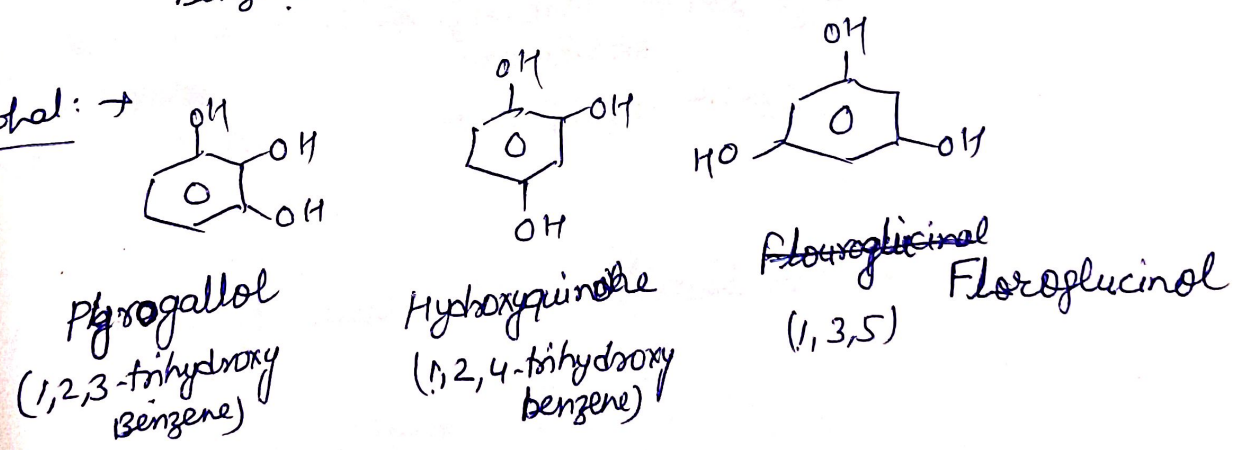
Monohydric alcohol $\therefore \rightarrow$



Dihydric alcohol $\therefore \rightarrow$



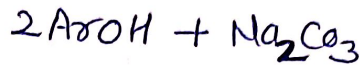
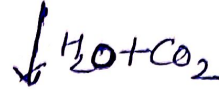
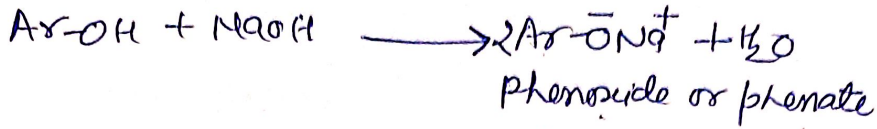
Trihydric alcohol $\therefore \rightarrow$



Phenol

Method of preparation :->

(1) From Coal-tar :-> Coal-tar से Monohydric alcohol phenol प्राप्त होते हैं, मूल रूप में जैसे cresol & phenol \rightarrow NaOH से Rxn.

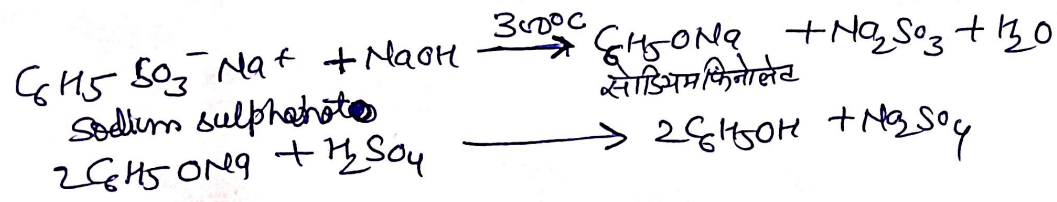


(Water layer में Na_2CO_3 होता है)
 \downarrow इनो Phenol को प्रभावी अवस्था द्वारा अलग कर लिया जाता है।

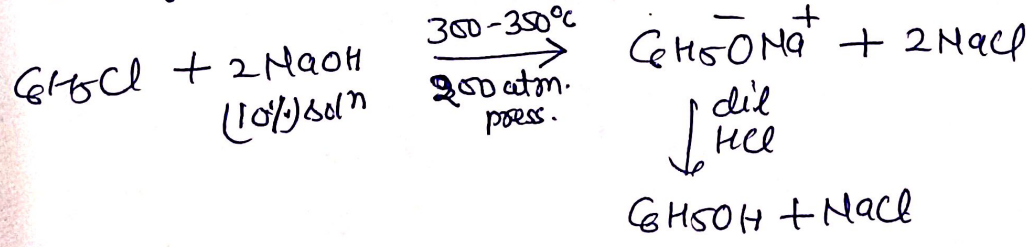
(2) By hydrolysis of diazonium salts :- Easy method



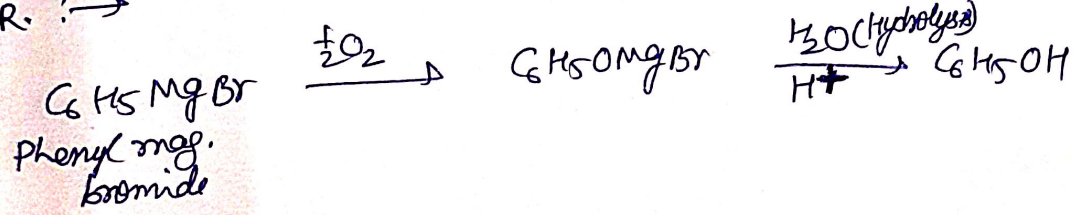
(3)



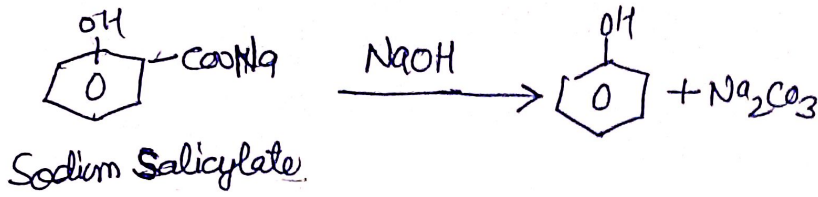
(4) By the hydrolysis of aryl halide :- (Dow's method)



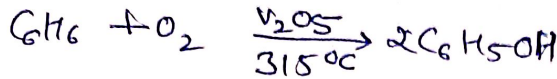
(5) From G.R. :->



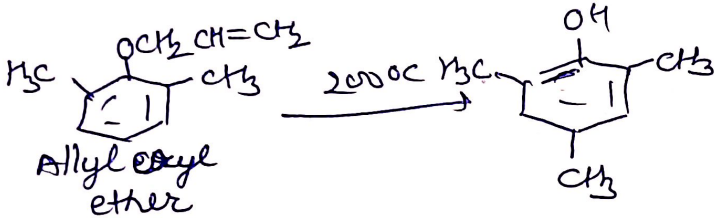
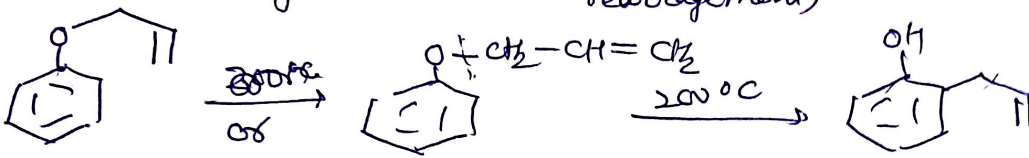
(6) By decarboxylation of phenolic acid: \rightarrow



(7) By the oxidation of benzene \bar{c} V_2O_5 at 300°C



(8) Claisen Rearrangement: \rightarrow (3,3-sigmatropic rearrangement)



Mechanism: \rightarrow

