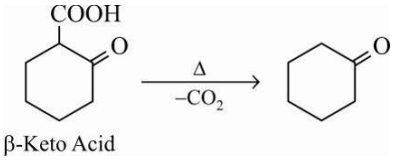
46.(BD) Phenol and carboxylic acid are soluble in aq. NaOH. Only carboxylic acid is soluble in $NaHCO_3$. Alcohols are insoluble in both NaOH and $NaHCO_3$ solution.

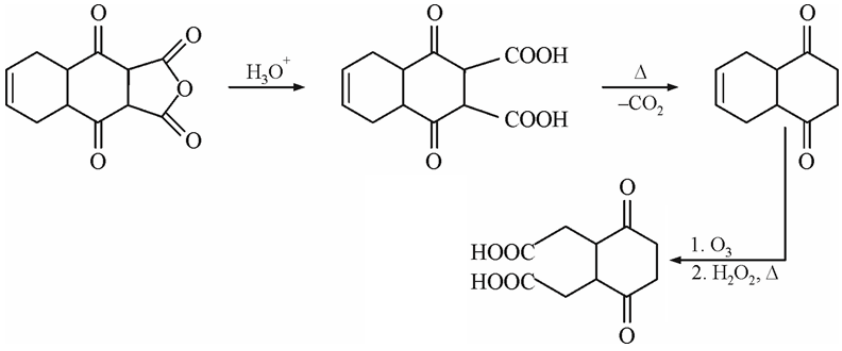
47.(B)



β-Keto Acid

48.(D) Phenol does not liberate CO_2, on treatment with aq. $NaHCO_3$

49.(2)



50.(B) **51.(A)**

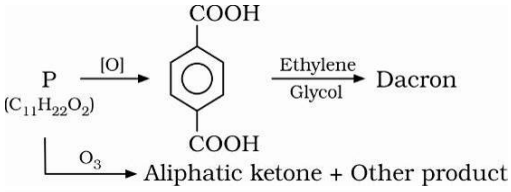
For solution refer to Illustration 11, Page-28 in Oxygen Containing Organic Compounds-III Module-7.

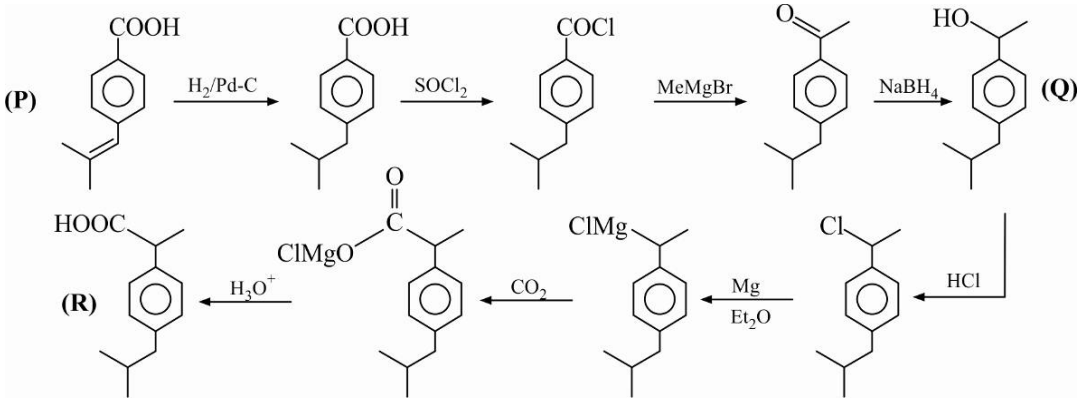
52.(A) For detailed solution refer to Illustration Number 5, Page-14 in **"Organic Concepts".**

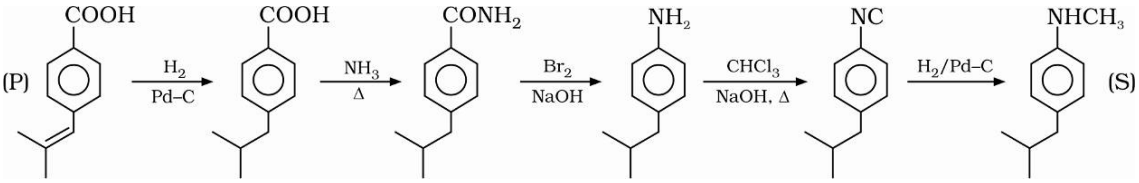
53.(A) Ortho substituted benzoic acid is strongest acid among substituted benzoic acid.

54.(C) $LiAlH_4$ in Et_2O, BH_3 in THF & Raney Ni / H_2 in THF reduces aldehydic group, carboxylic acid and ester groups. $NaBH_4$ in EtOH reduces only aldehyde groups.

55.(A) **56.(B)**







57.(D) $HC \equiv C-$, $CH_2 = CH-$ and $p\text{-}MeO-C_6H_4-$ acts as electron withdrawing group while CH_3CH_2- acts as electron releasing group. Presence of electron withdrawing group increases acidic strength while presence of electron releasing group decreases acidic strength.