Date Planned : __ / __ / __	Daily Tutorial Sheet-15	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-3	Exact Duration :_____

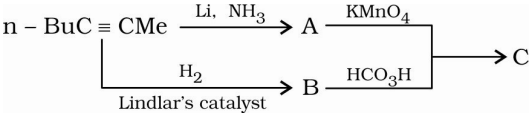
159. An organic compound (A), C_8H_6, on treatment with dilute sulphuric acid containing mercuric sulphate gives a compound (B), which can also be obtained from a reaction of benzene with an acid chloride in the presence of anhydrous aluminium chloride. The compound (B) on reaction with $NH_2 - NH_2$ /base, gives (C). Identify (A), (B) & (C) :

160. One mole of a hydrocarbon (A) reacts with one mole of bromine giving a dibromo compound $C_5H_{10}Br_2$. Substance (A) on treatment with cold, dilute alkaline potassium permanganate solution forms a compound $C_5H_{12}O_2$. On ozonolysis, (A) gives equimolar quantities of propanone and ethanal. Deduce the structural formula of (A).

161. An unsaturated hydrocarbon (A), C_6H_{10} in liquid ammonia, on treatment with $NaNH_2$ gives (B). (B) on treatment with 1-chloropropane gives (C). (C) on partial reduction in presence of Lindlar reagent gives (D), C_9H_{18}. (D) on ozonolysis gives 2,2–dimethylpropanal and 1–butanal. Identify the structures (A), (B), (C) and (D).

162. An unknown compound C_6H_{12} (A) decolourises Br_2 water and is oxidized by hot acidified $KMnO_4$ to a resolvable carboxylic acid C_4H_9COOH (B). Assign structures to A and B and explain reactions.

163.



Identify A, B and C with proper explanation.

164. (a) Give the structures of all possible chiral compounds $C_{10}H_{12}$, that do not decolorize Br_2 and that can be oxidized to phthalic acid.

(b) Identify (A), also chiral with the same formula but which is oxidized to PhCOOH.