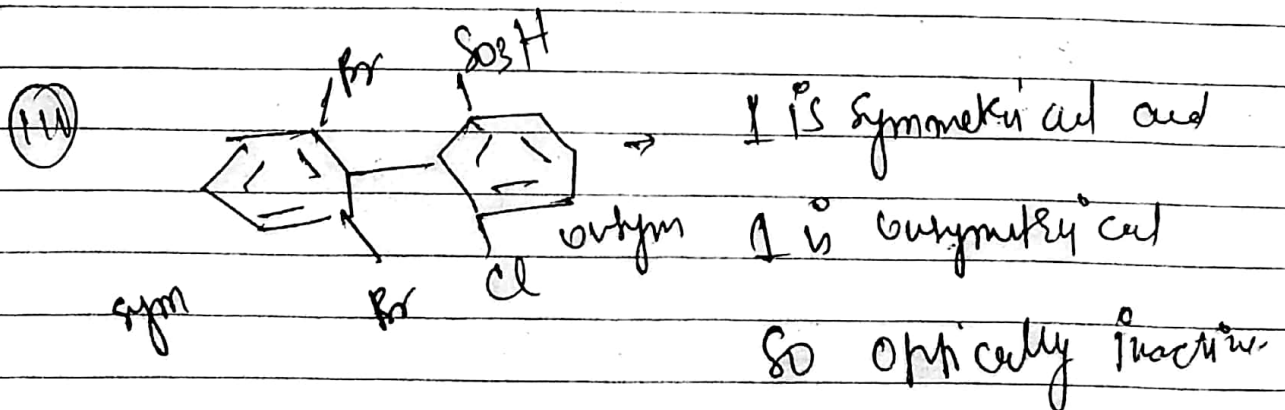
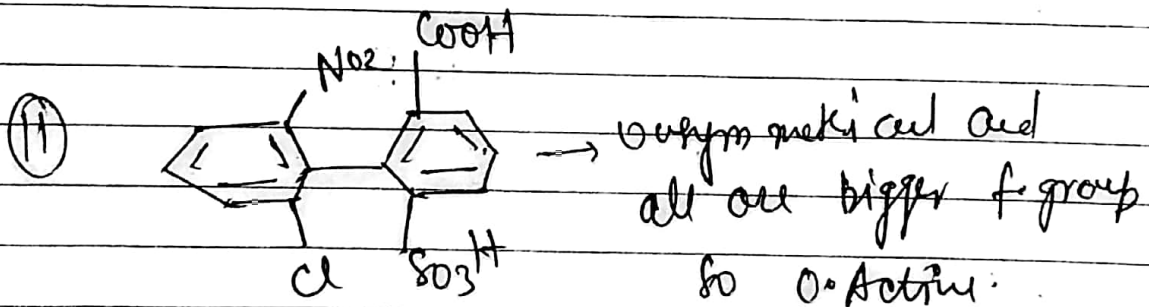
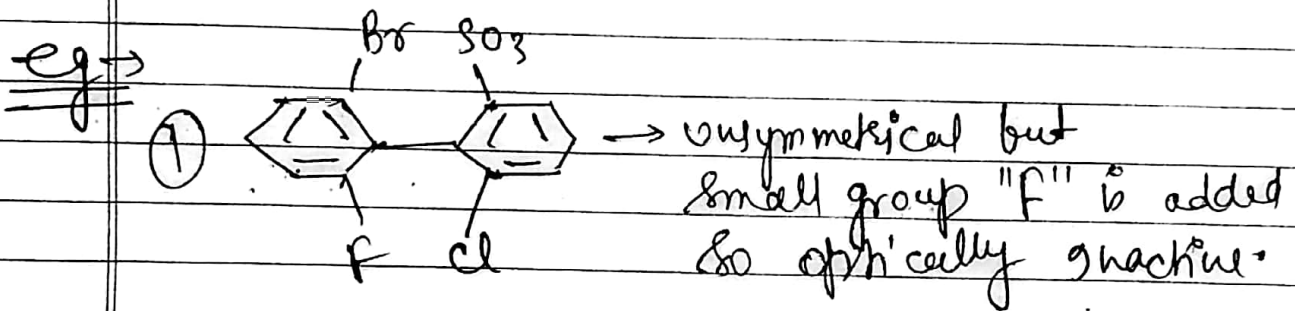


(f) Biphenyl System: → When 2 phenyl group is unsymmetrical horizontally due to different bigger f. group (I, Br, Cl, NO₂, SO₃H, SH, etc) then called optically active.

→ If any one phenyl group symmetrical horizontally and small group (OH, NH₂, F, etc) present then optically inactive.

→ It is a/k as Ortho isomer.



★ यदि जिस बigger group attach है जो symmetrical है It optically inactive है।

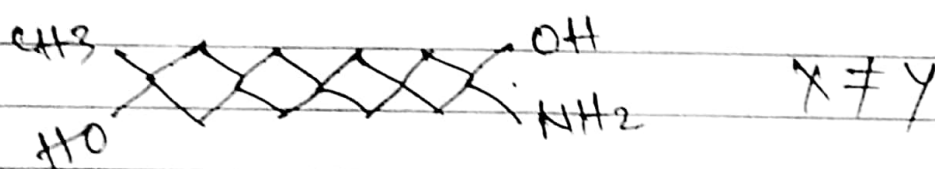
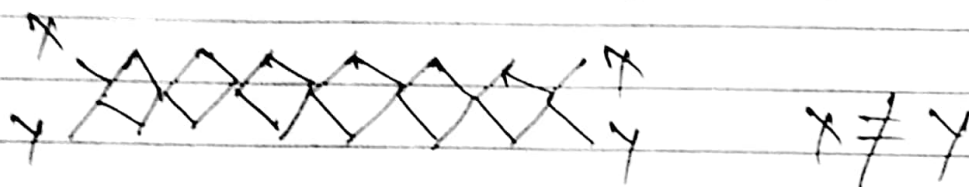
M. H. Ichan D(H) 25-4-20 (Saturday) Assmate
Date
Page
 Time 11:40 - 12:30, Iqbal Memorial College

(y) Spiroane System: → When rings just continue

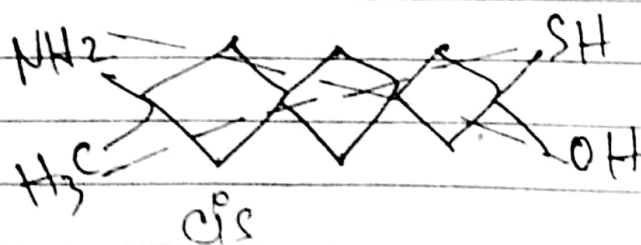
And $x \neq y$, as well as No. of ring is even then show optically active isomer or optical isomer.

→ If No. of ring is odd and $x \neq y$ then show geometrical isomerism.

→ The x and y may be any atom or group.



even no. of ring so optically active or optical isomer.



$x \neq y$

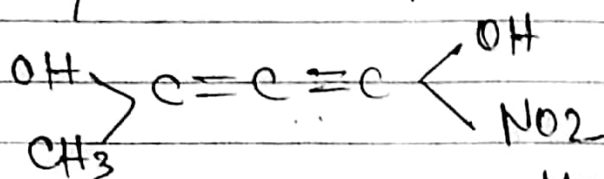
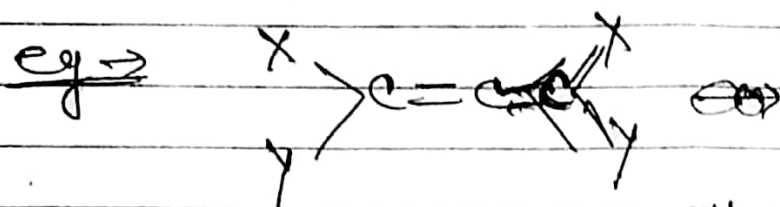
odd no. of ring
 so ~~optically~~ geometrical isomerism

so optically inactive

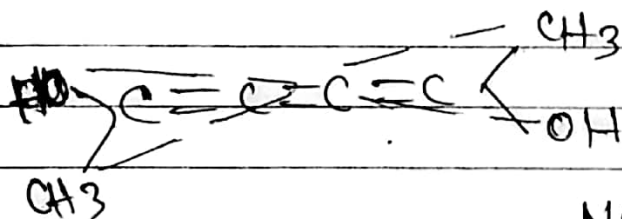
M.H.I. (Cham DICH) 25-4-20 (Saturday) Date
Page
11:40-12:30, Fohment, marwan's coffee

(h) Allen system $\rightarrow$ When no. of double bond is Continue and $x \neq y$ as well as no. of double bond is even then show optically isomer.

$\rightarrow$ If No. of double bond odd and $x \neq y$ then show geometrical isomerism.



No. of double bond is even $\therefore$ optical isomer.



No. of = bond is odd

$x \neq y$ and diagonal

same Hence Trans

geometrical isomer.

(i) Umbrella Inversion $\rightarrow$ When second period

element having lone pair $\bar{e}$ then show inversion like umbrella in strong wind.

due to less energy. and show optical activity. If 3rd period and

of period elements having lone pair