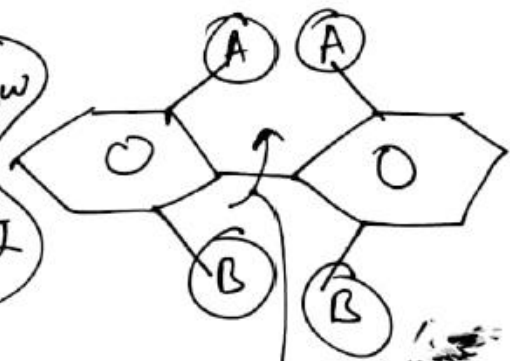


Stereochemistry of Biphenyl

Organic
Inorganic
Biology

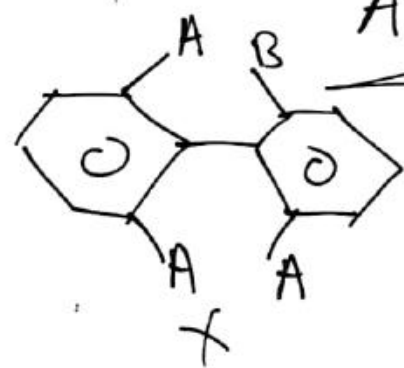
It can show
D.I
but
not
W.I



- A & B
- NO₂
 - SO₃H
 - CH₃
 - Cl
 - R₃B
 - I
 - CO₂H
 - R (—C—, etc)

rotation is restricted

Atropisomerism

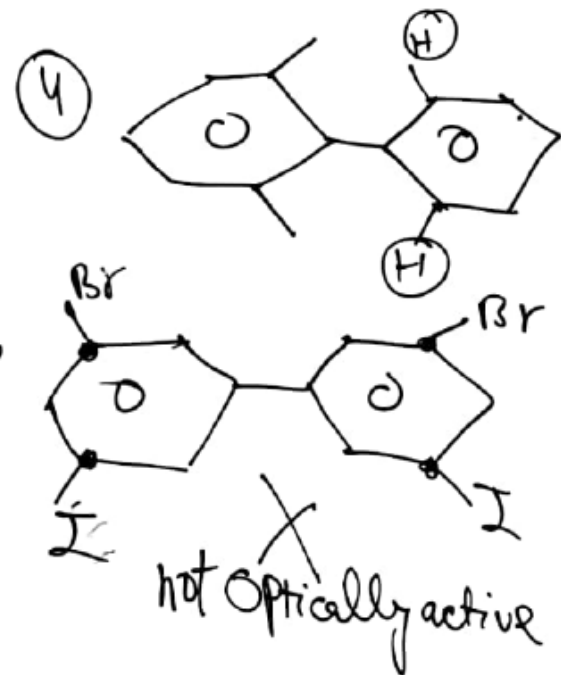
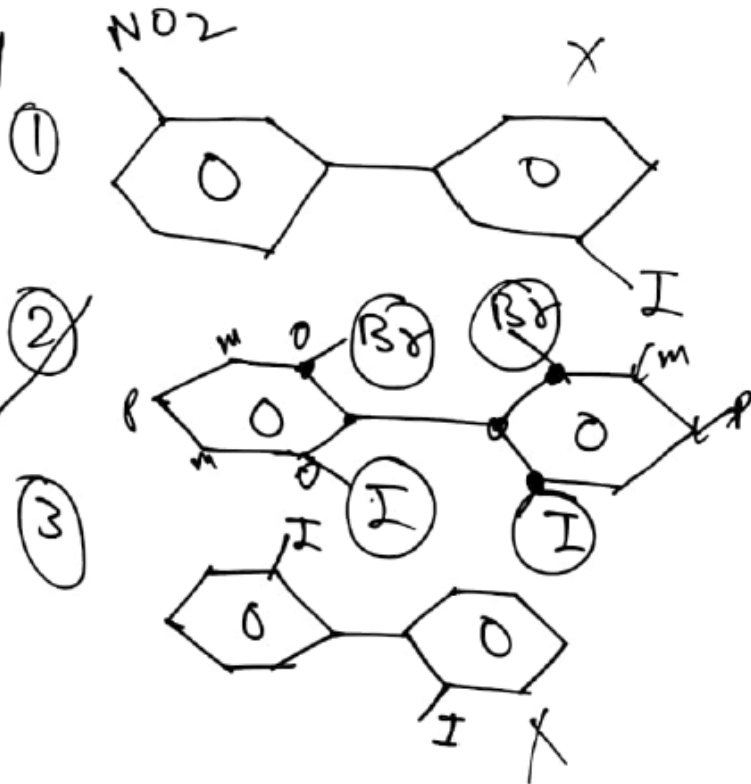


Stereoisomerism arising due to hindered rotation about a σ bond. (due to steric crowding/hindrance)

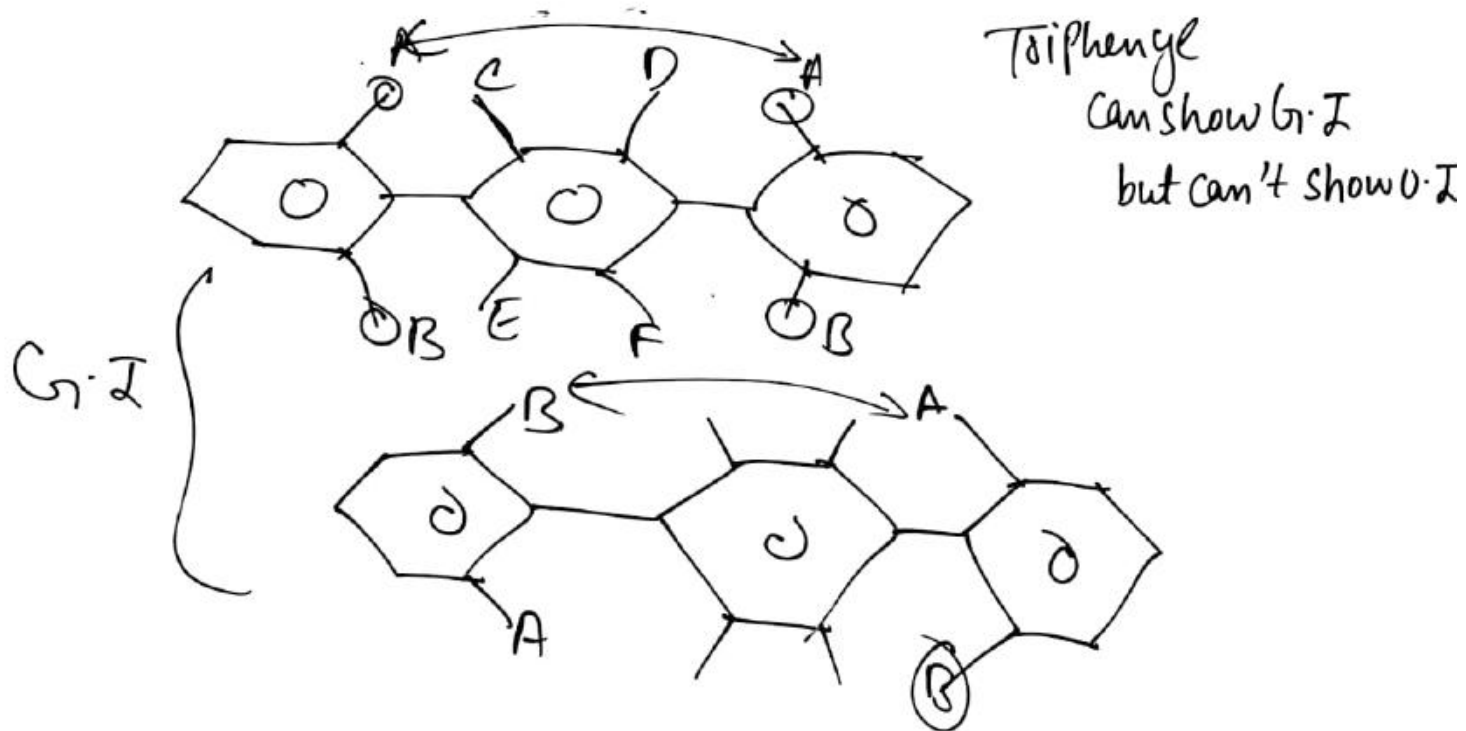
NEET 2016

Stereochemistry of Biphenyl

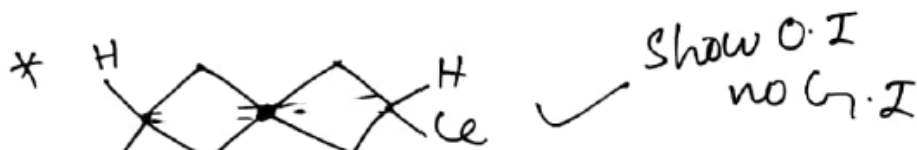
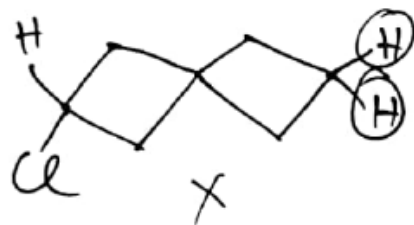
Q Which of the following Biphenyl is optically active?



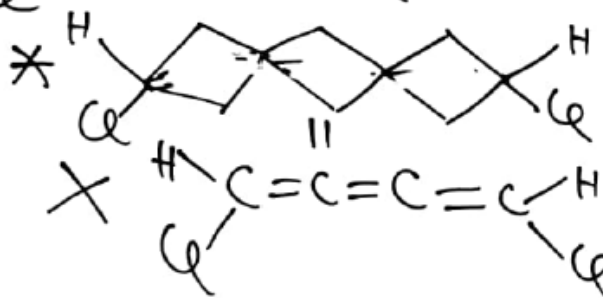
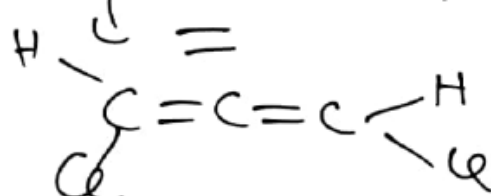
Stereochemistry of Biphenyl



Stereochemistry of Spiro compounds

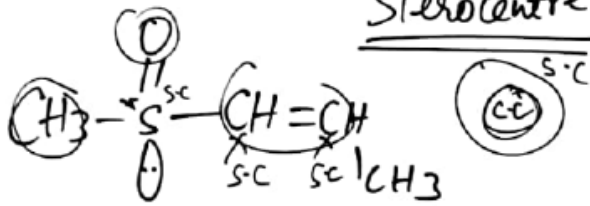


Spiro compounds → Two rings joined by a single atom

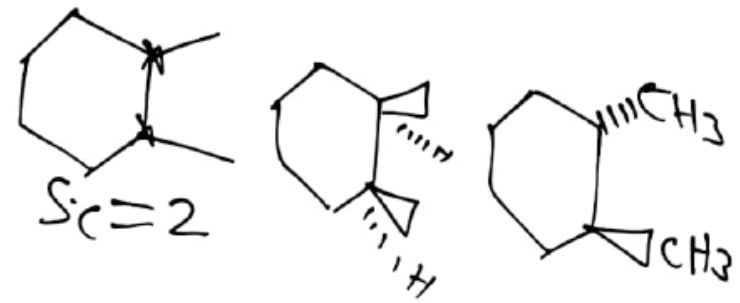
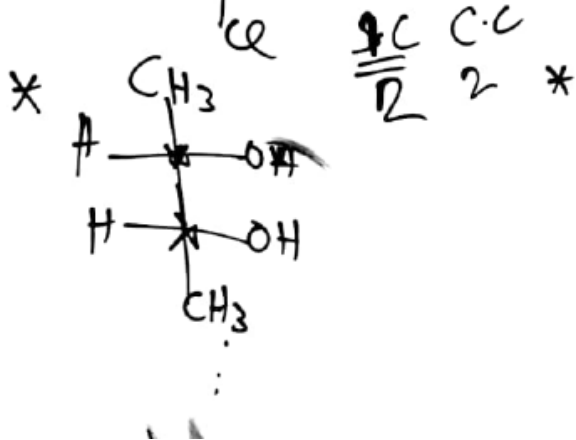
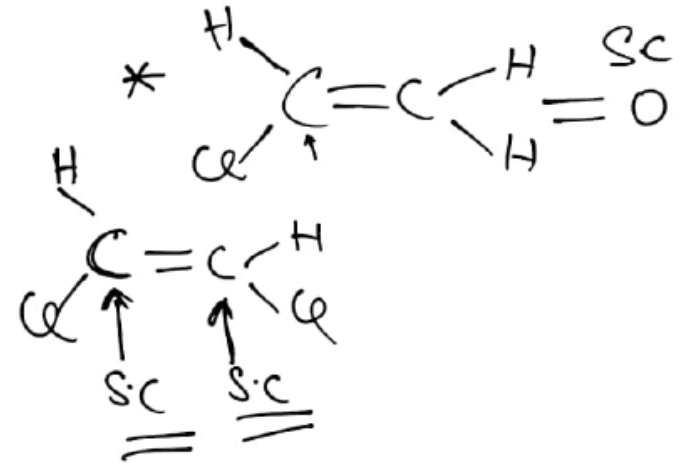
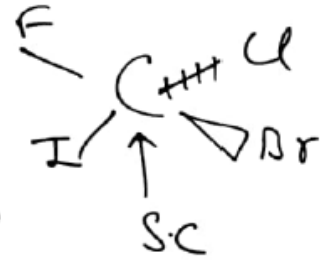
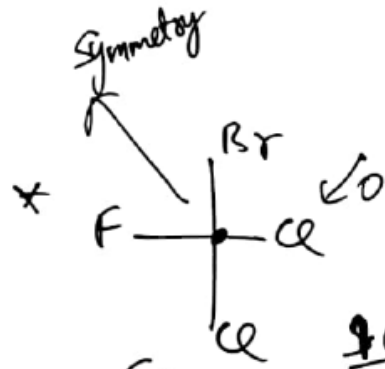


Stereocentre

Any atom across which by changing ^{any} two valencies we get different stereoisomer.

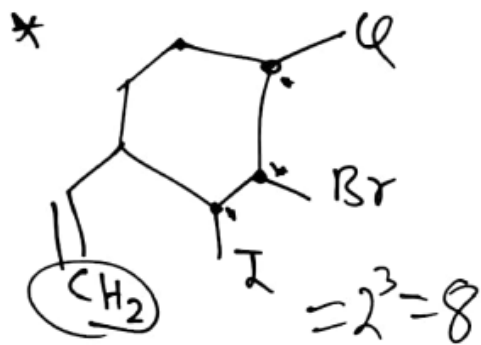


S-C (3) (C-C 1)
(C-C 2 alkene)



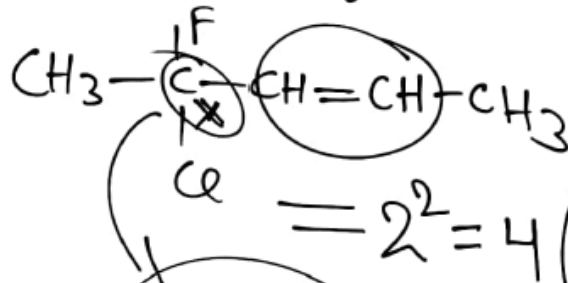
Calculation of Total no. of Stereoisomers

Case I When compound is unsymmetrical



Total no. of S.I = 2^n

n = no. of systems that can show S.I



- R Cis
- R Trans
- S Cis
- S Trans

