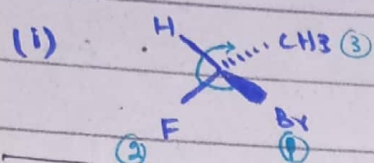
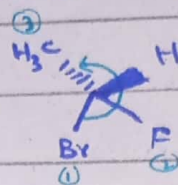


Q: 4:(b) Consider following pairs of structures. Designate each chirality centre as (R) or (S) & identify relationship b/w them by describing them as representing enantiomers, diastereomers, constitutional isomers, or two molecules of same compound.



and



Chirality centre: R isomer

chirality centre: S isomer

because of clockwise priority

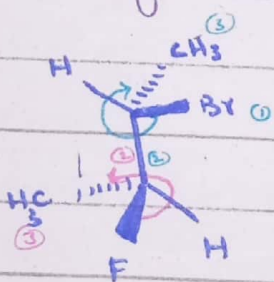
because of priority order

### Relationship

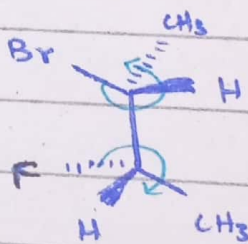
Both are enantiomers to each other because these isomers are non-superimposable mirror image of each other.

2nd possibility: we can also call them constitutional / structural isomers because of change of position of functional group.

(ii)  
mt.  
Question



and



2R 3S

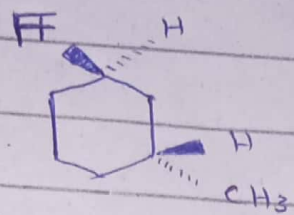
2S 3R

### Relationship

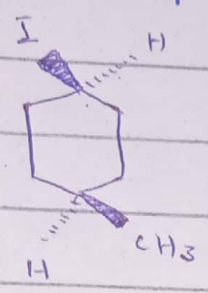
Both compounds are diastereomers as they are not mirror image to each other.

Qno, 3: write structural formula for more stable conformation of each of following:

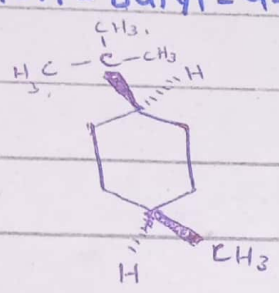
a) trans-1-Fluoro-3-methylcyclohexane



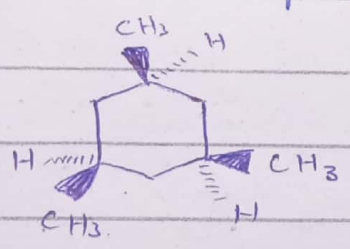
b) cis-1-Iodo-4-methylcyclohexane.



c) cis-1-tert-Butyl-4-methylcyclohexane.

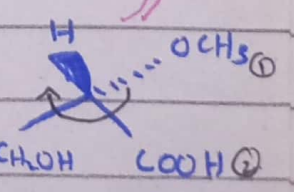


d) cis-1,3,5-Trimethylcyclohexane.



my Question

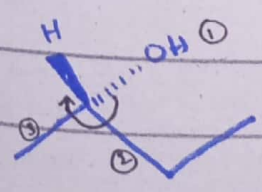
Highest priority group is present on dotted line. So, what to do.



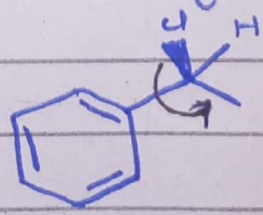
R-configuration clockwise

Q: 5: (b) Mention

R & S conf. :



R-configuration clockwise



S-configuration anticlockwise