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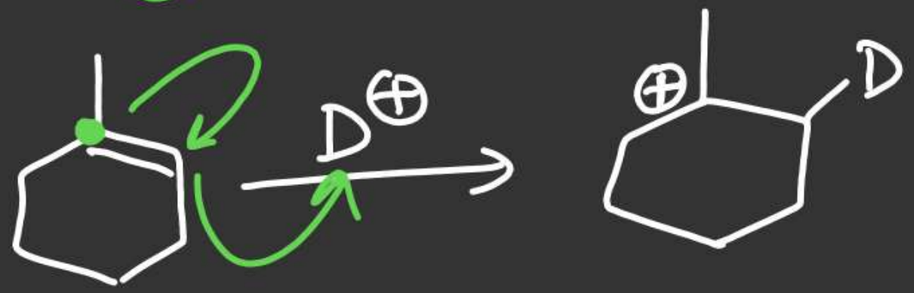
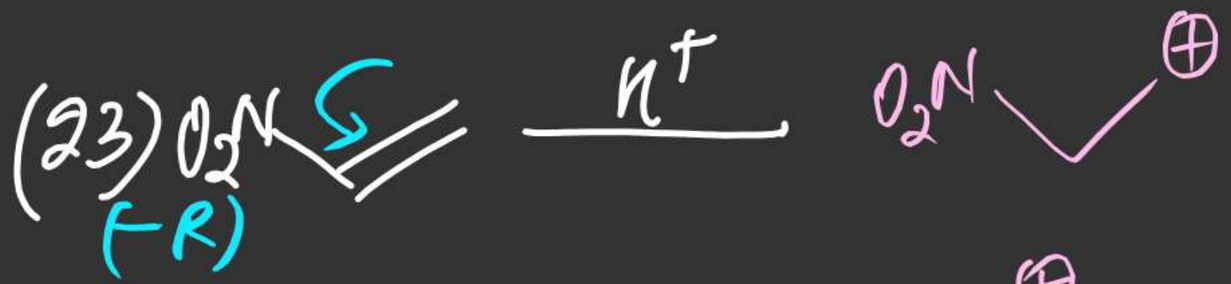
(22) 

(23) 

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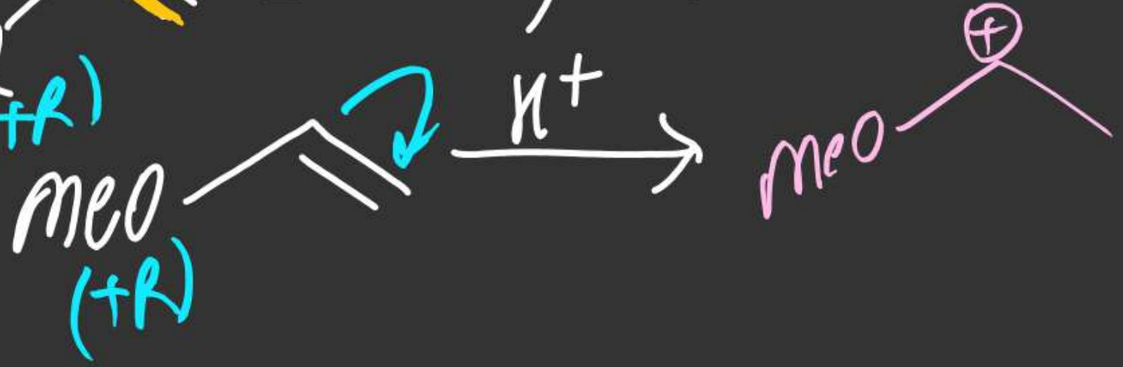
(25) 

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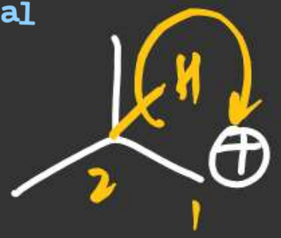
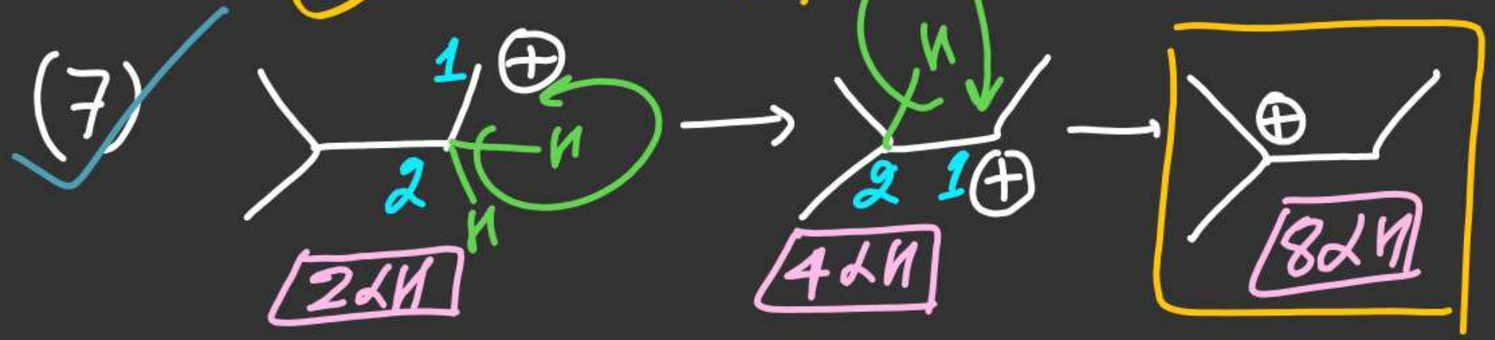
(5) 

1(H) 

(6) 

1(H) 

2(H/H)

(7) 

(8) 

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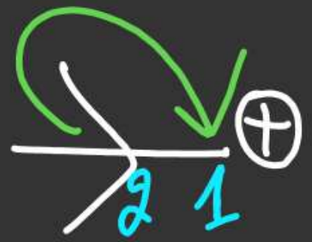
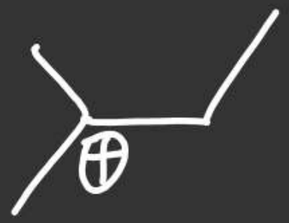
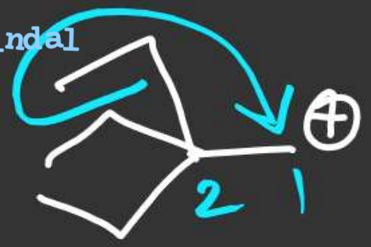
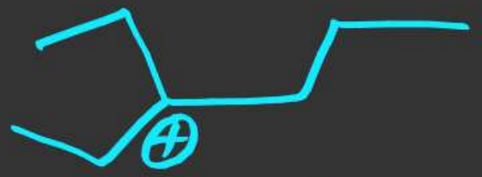
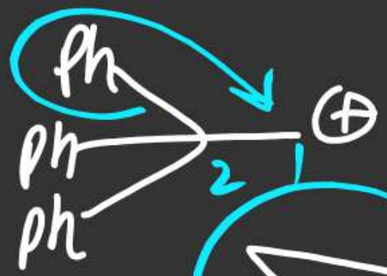
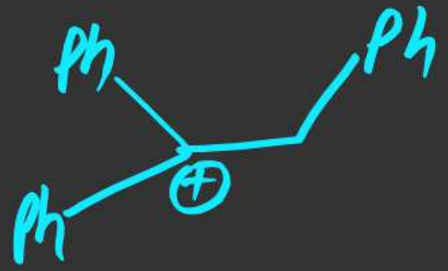
(9) 

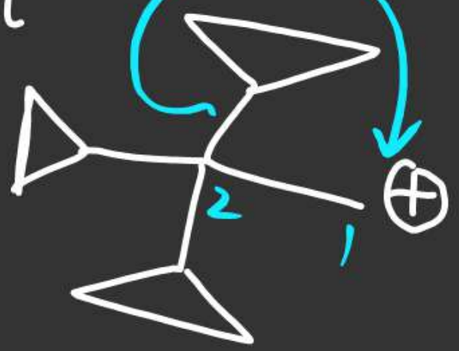
1(me) 

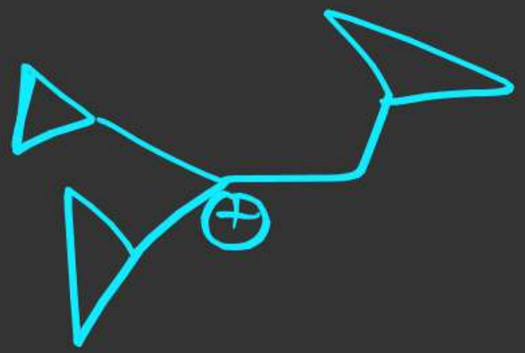
(10) 

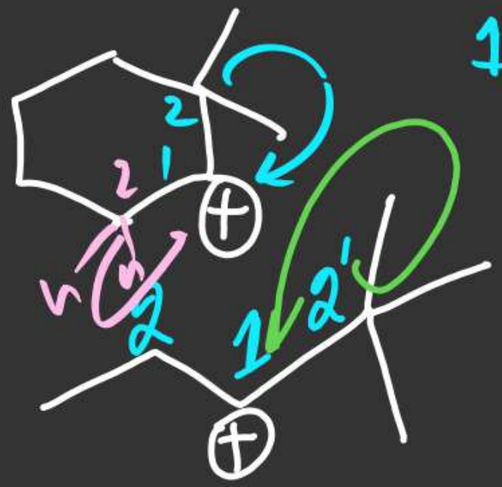
1 (Et) 

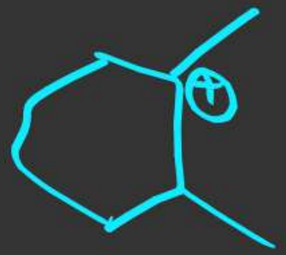
(11) 

1 (Ph) 

(12) 

1 (▷) 

(13) 

1 (me) 

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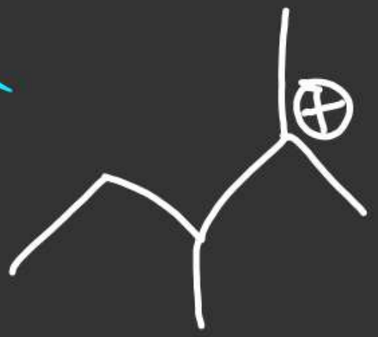
1 (me shift) 

(15)

1(H)

(16)

O

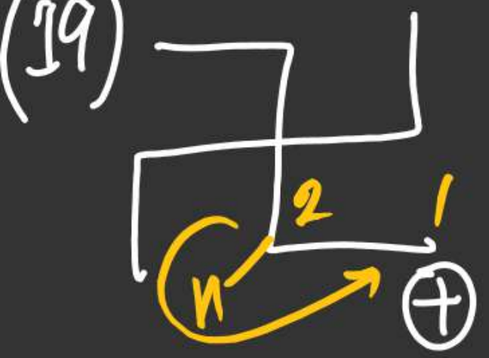
(17)

O

(18)

1(H)

(19)



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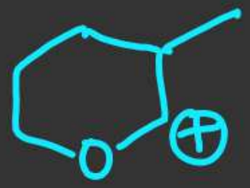

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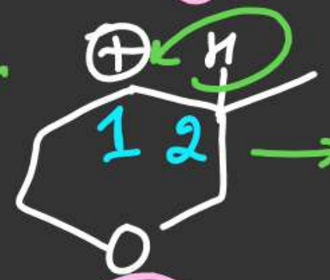
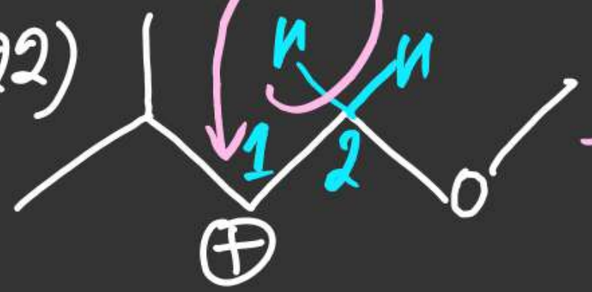
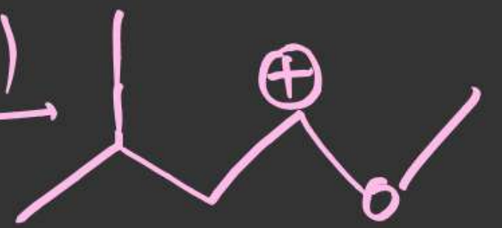


2(H/H)

(22)



1(H)



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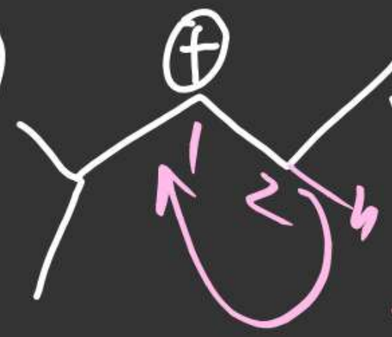

1(H)

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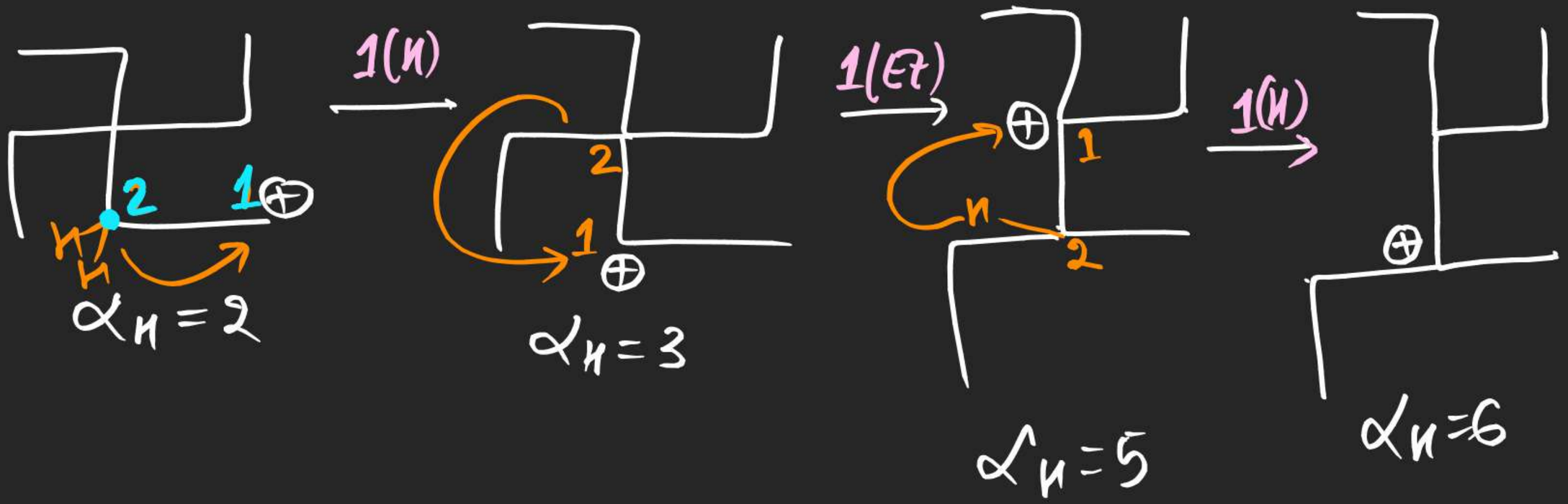


$\alpha_H = 2$

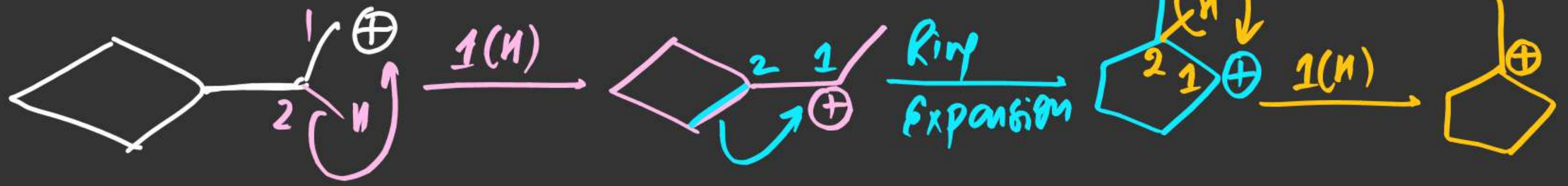
$\alpha_H = 3$

$\alpha_H = 5$

$\alpha_H = 6$

(25)

(26)



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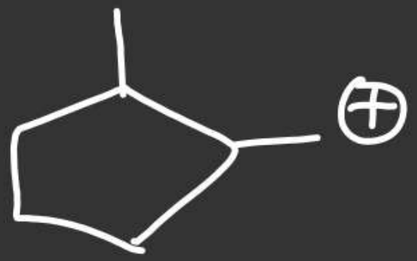

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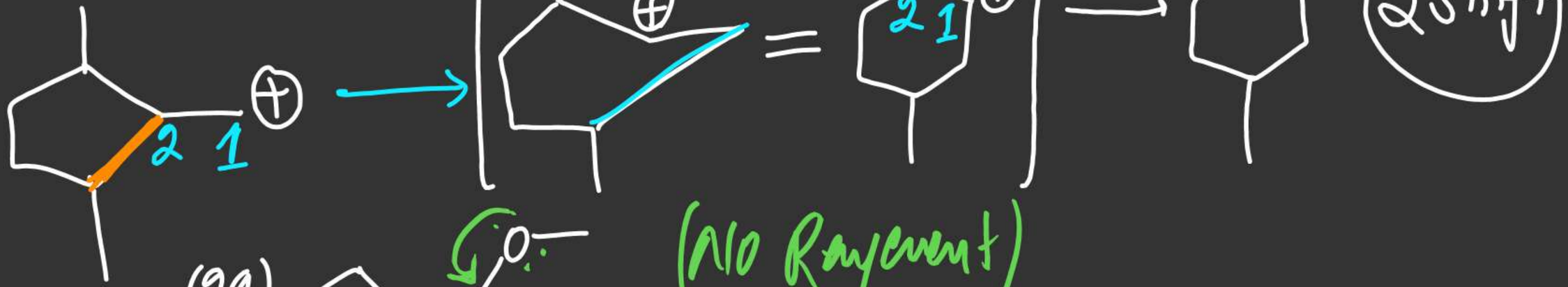

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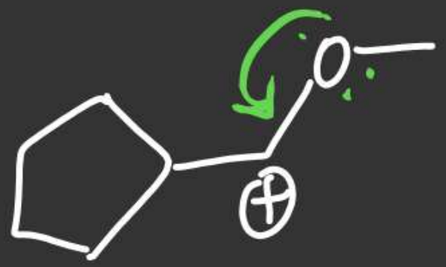

(No Rearrangement)

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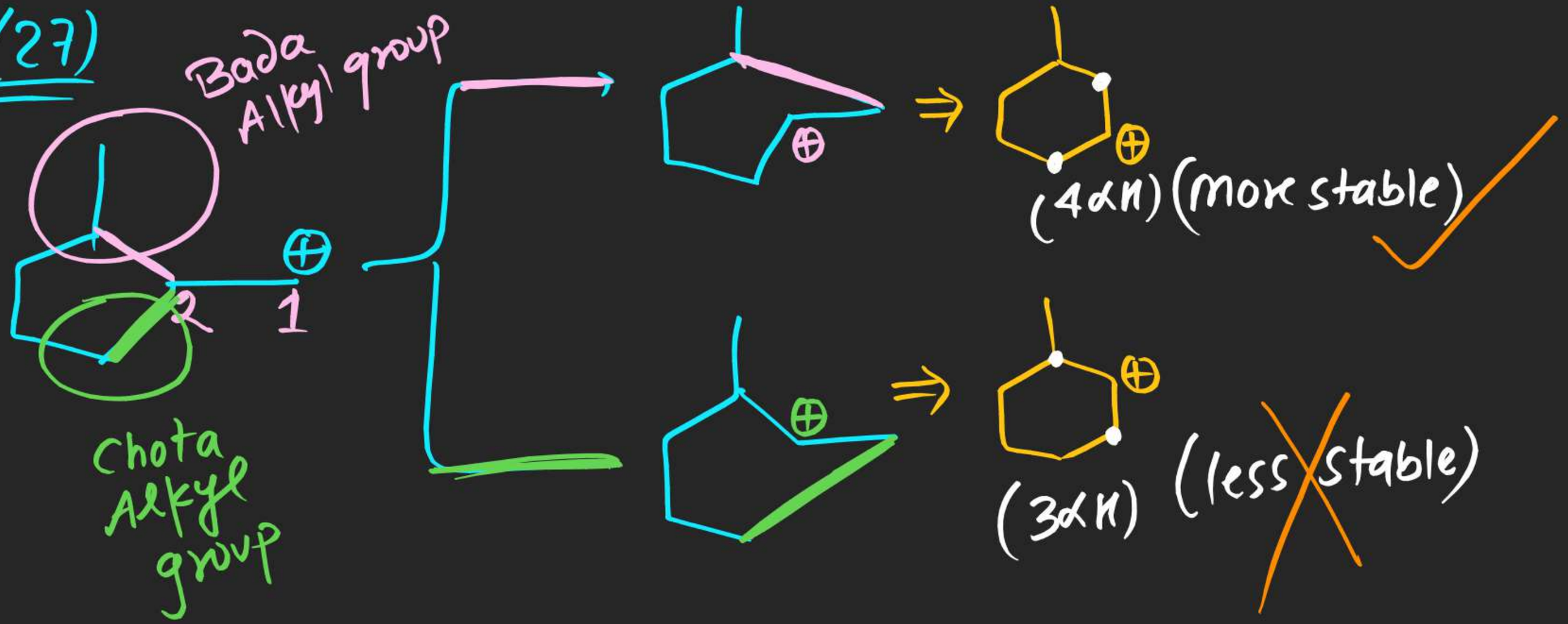
Soln (27)



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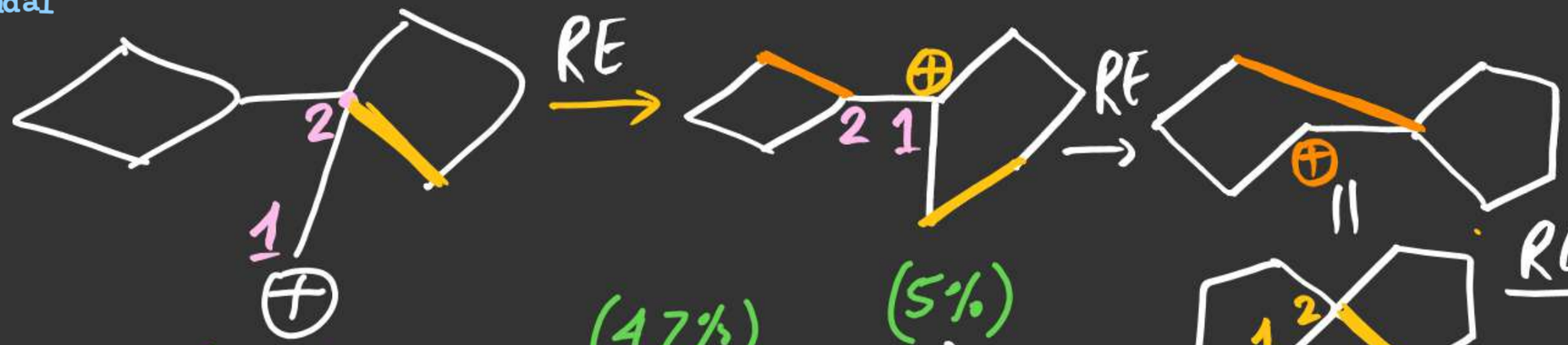
(30)



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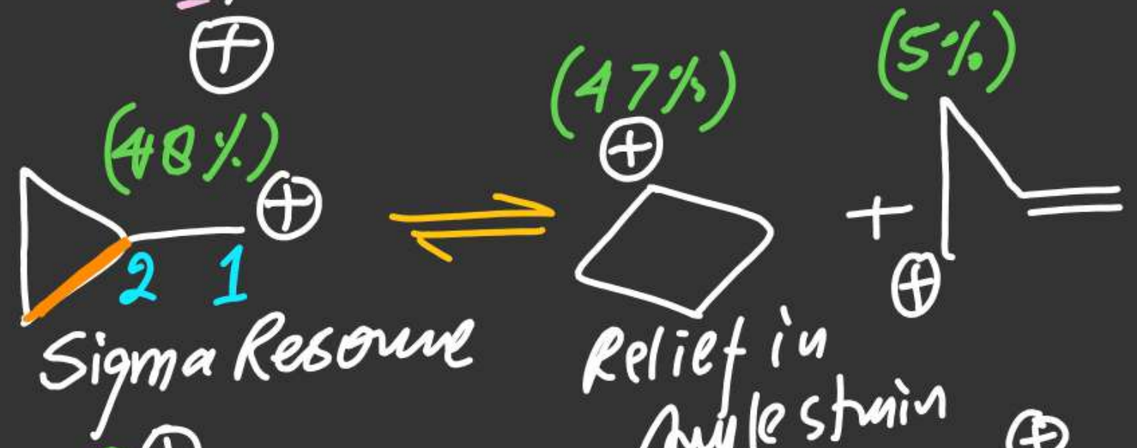

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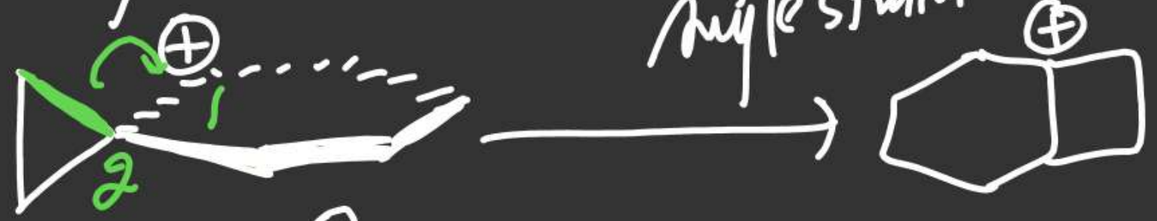

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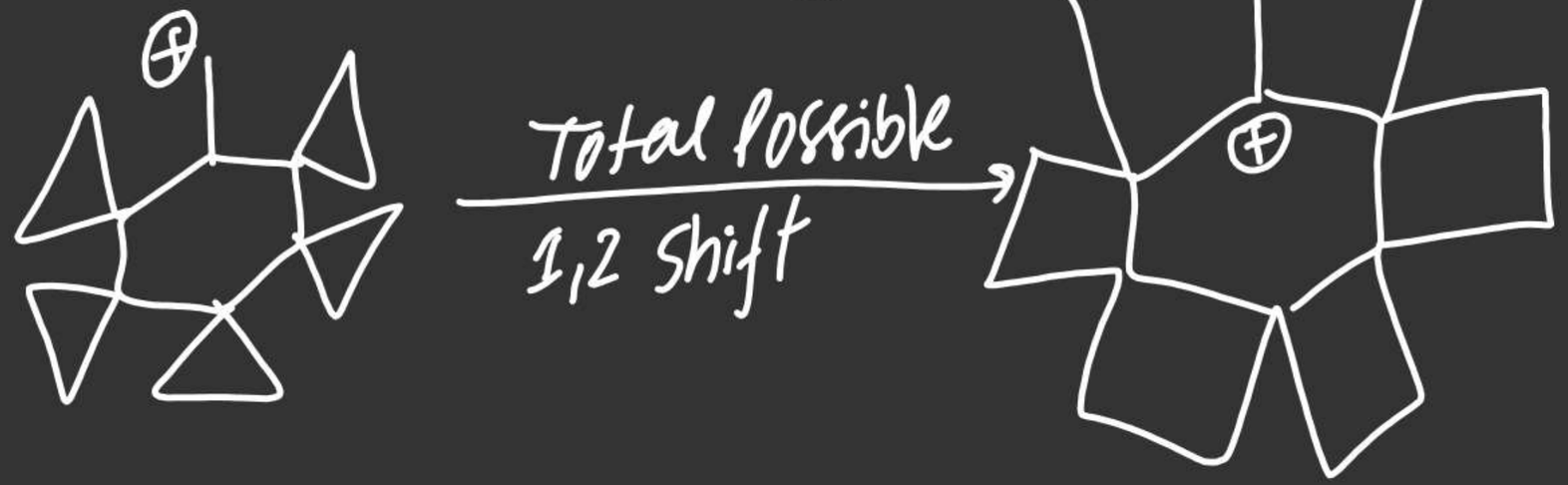

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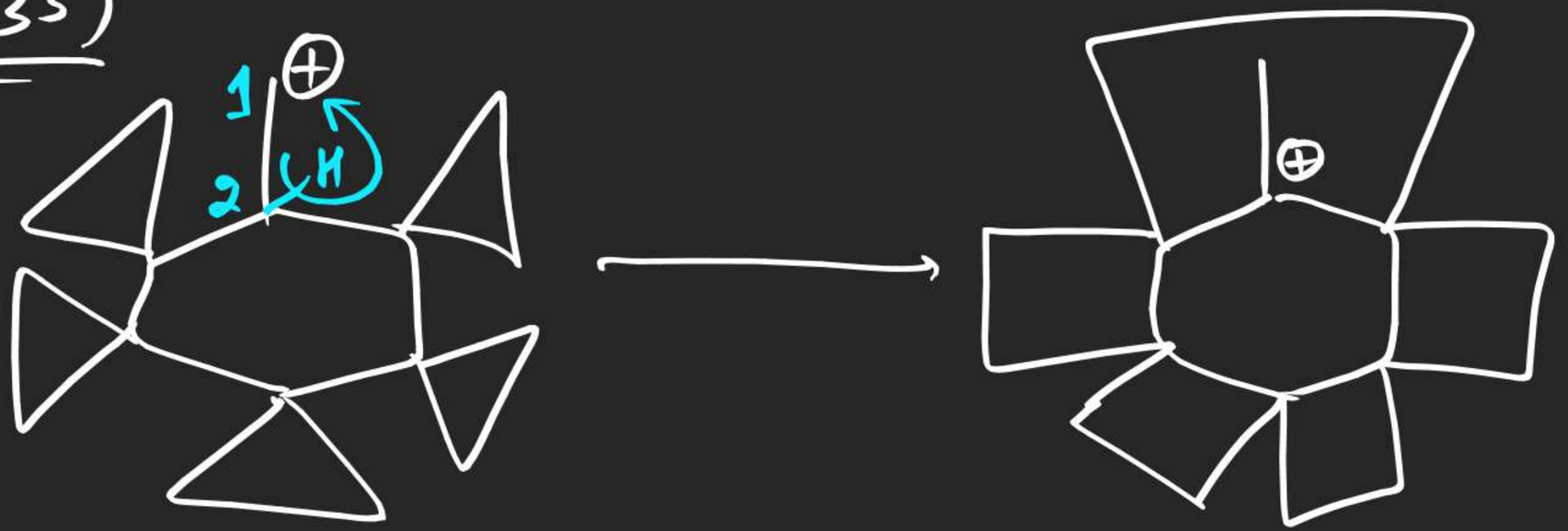
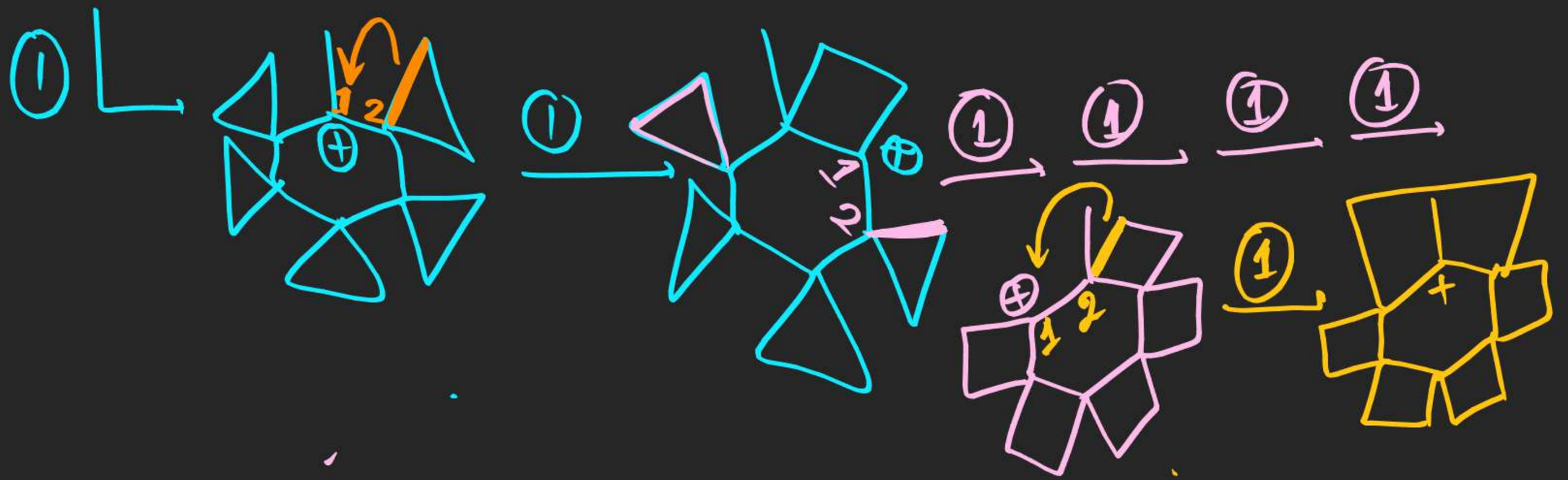
Sol^{n} (33)





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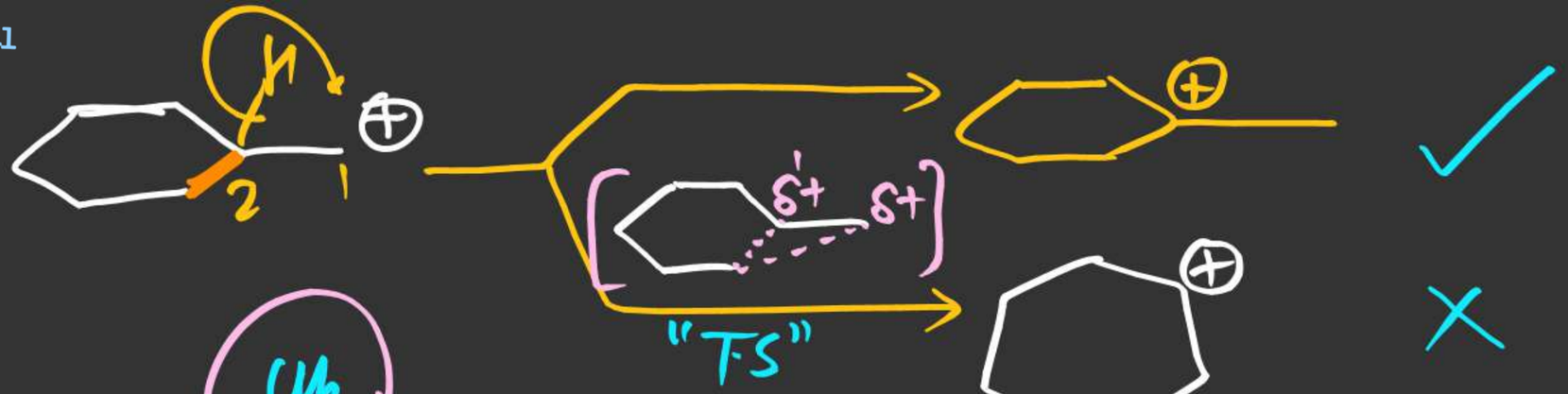

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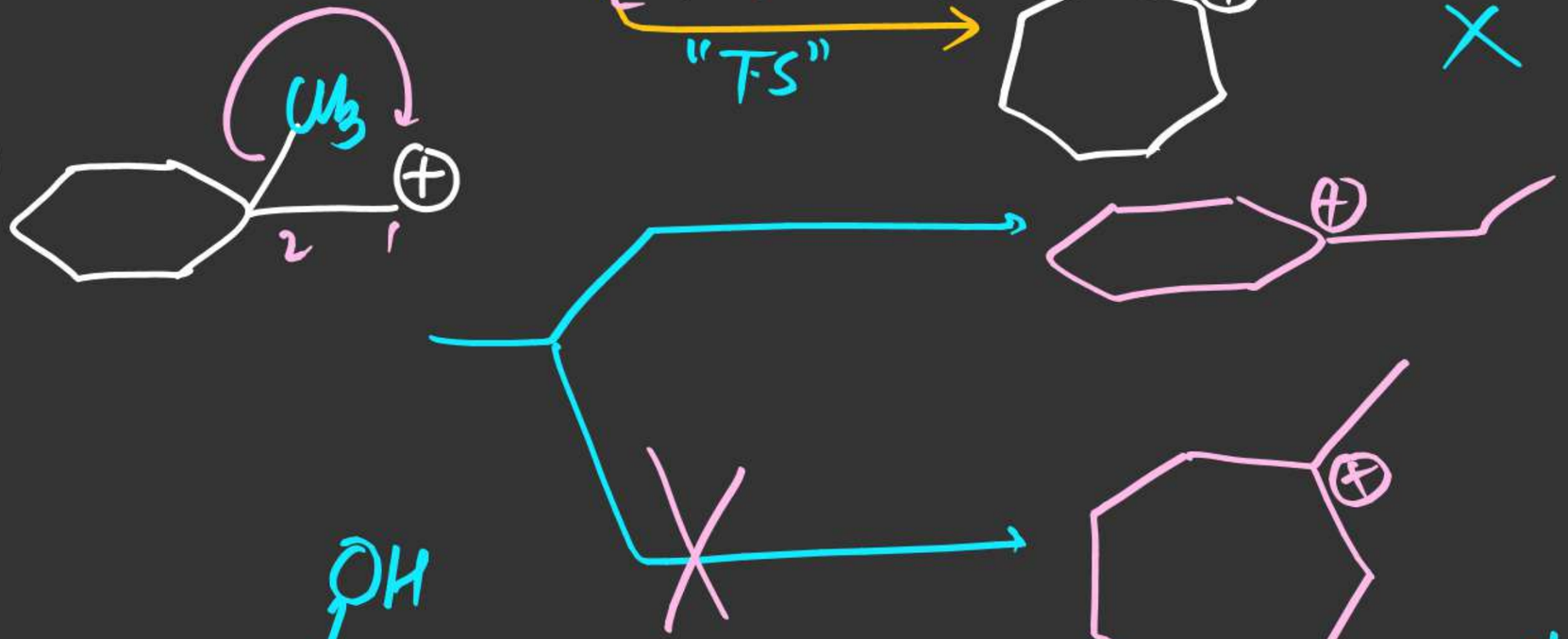

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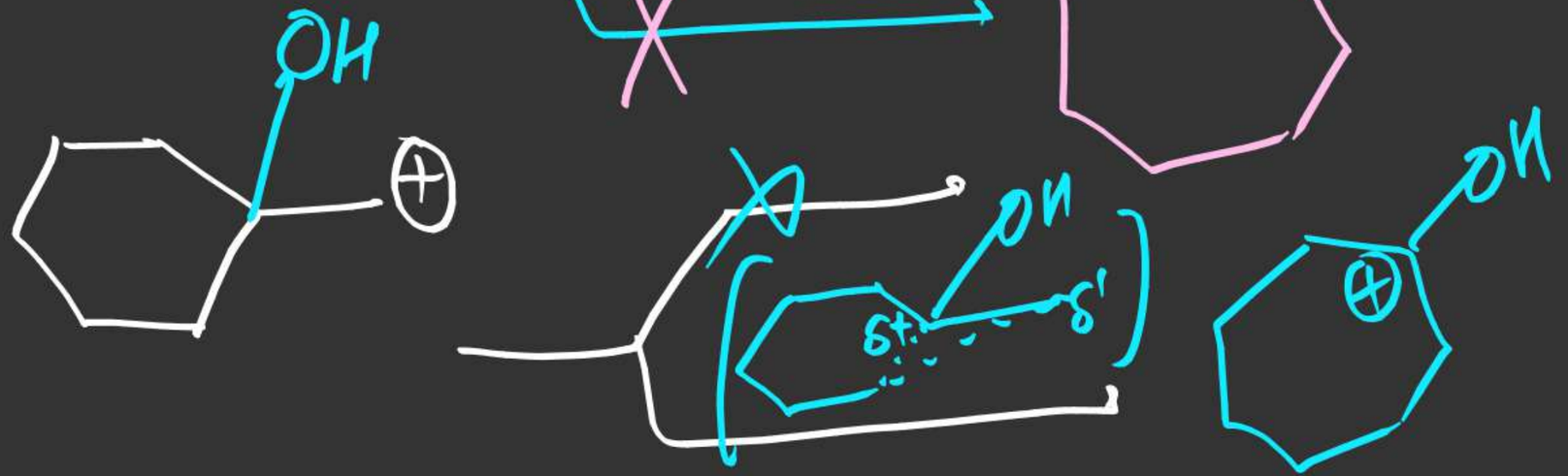

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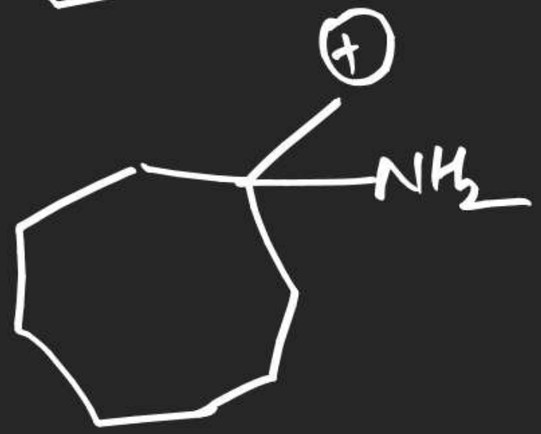
Ring Contraction (1,2 shift)

(37)

(38)



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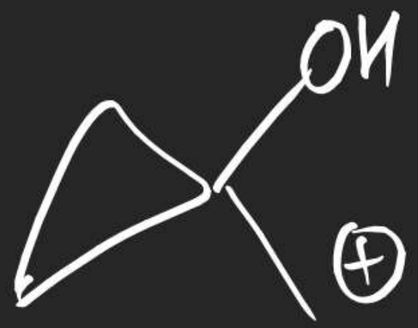

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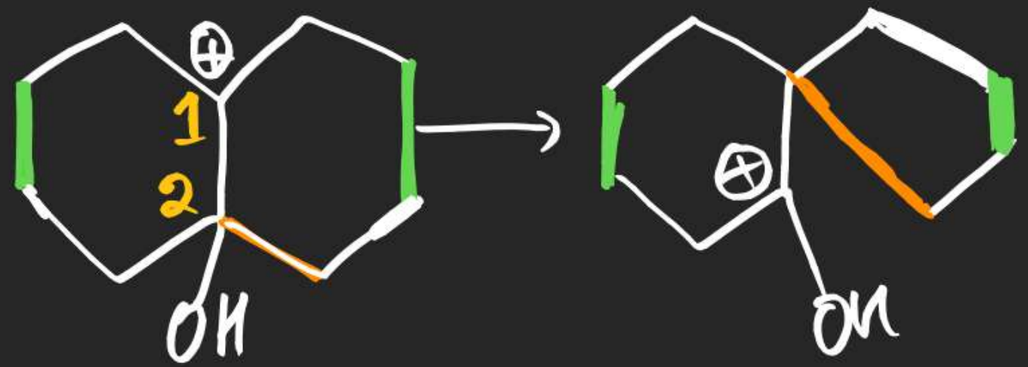

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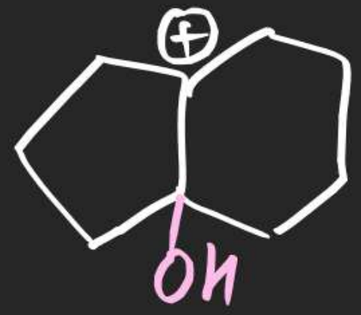

(42)

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(43)

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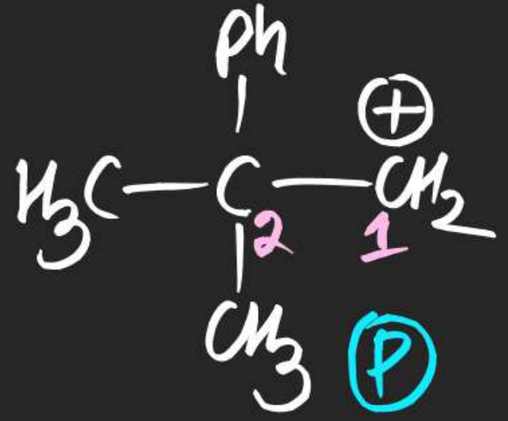
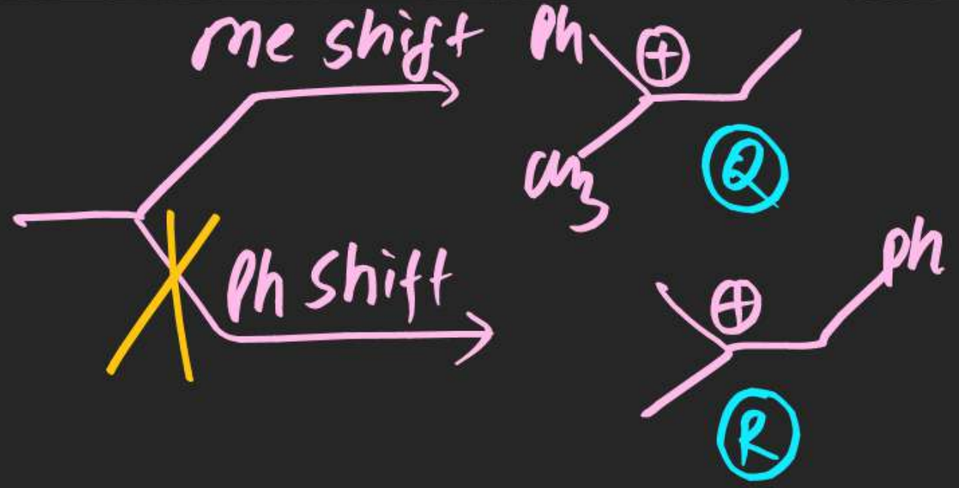
(44)



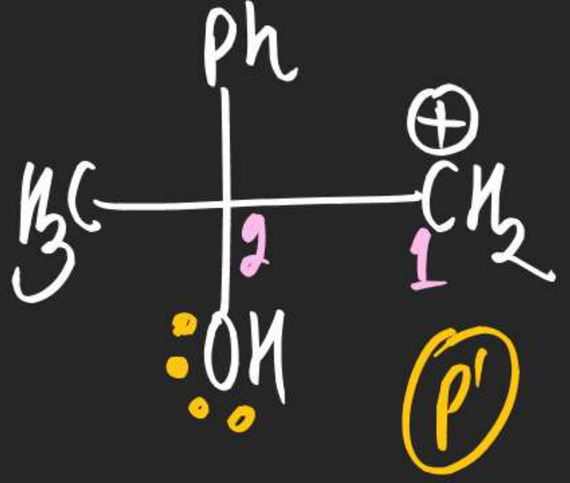


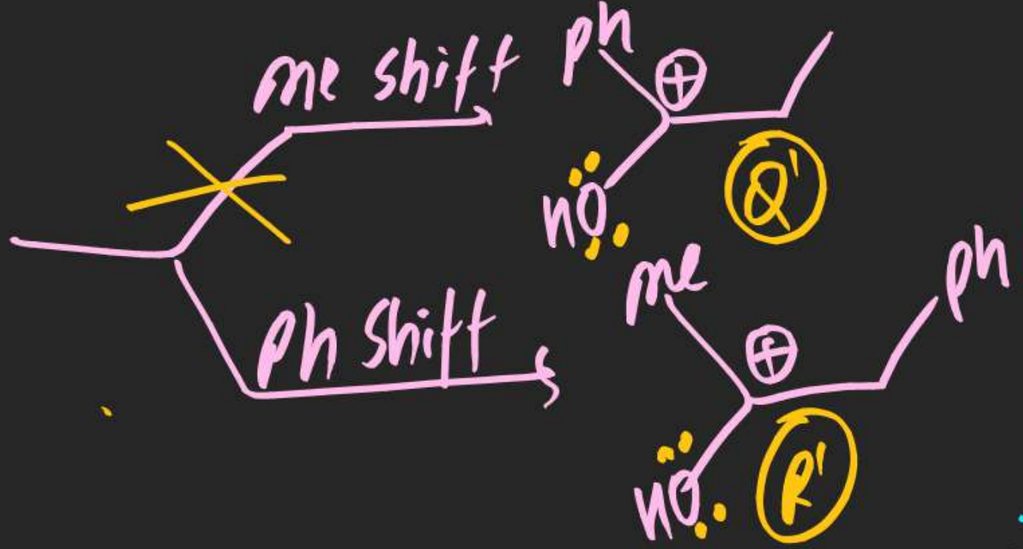
Stability order

$Q \gg R > P$

Try to obtain most stable Cation

(45)



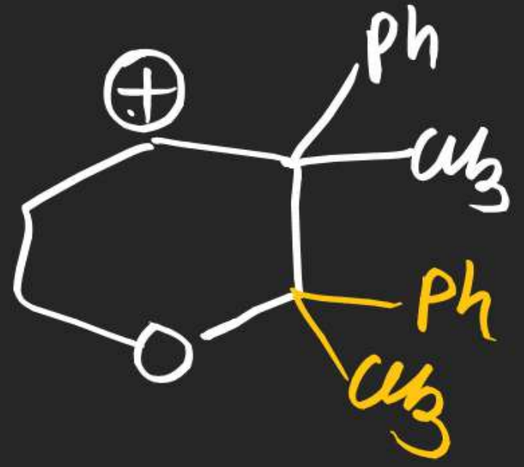


$Q' \simeq R' > P'$

follow migratory order

Note : when Cation is Back Bonding stablised just after Rearrangement follow migratory order otherwise Try to obtain most stable Cation

(46)



(47)

(48)

(49)

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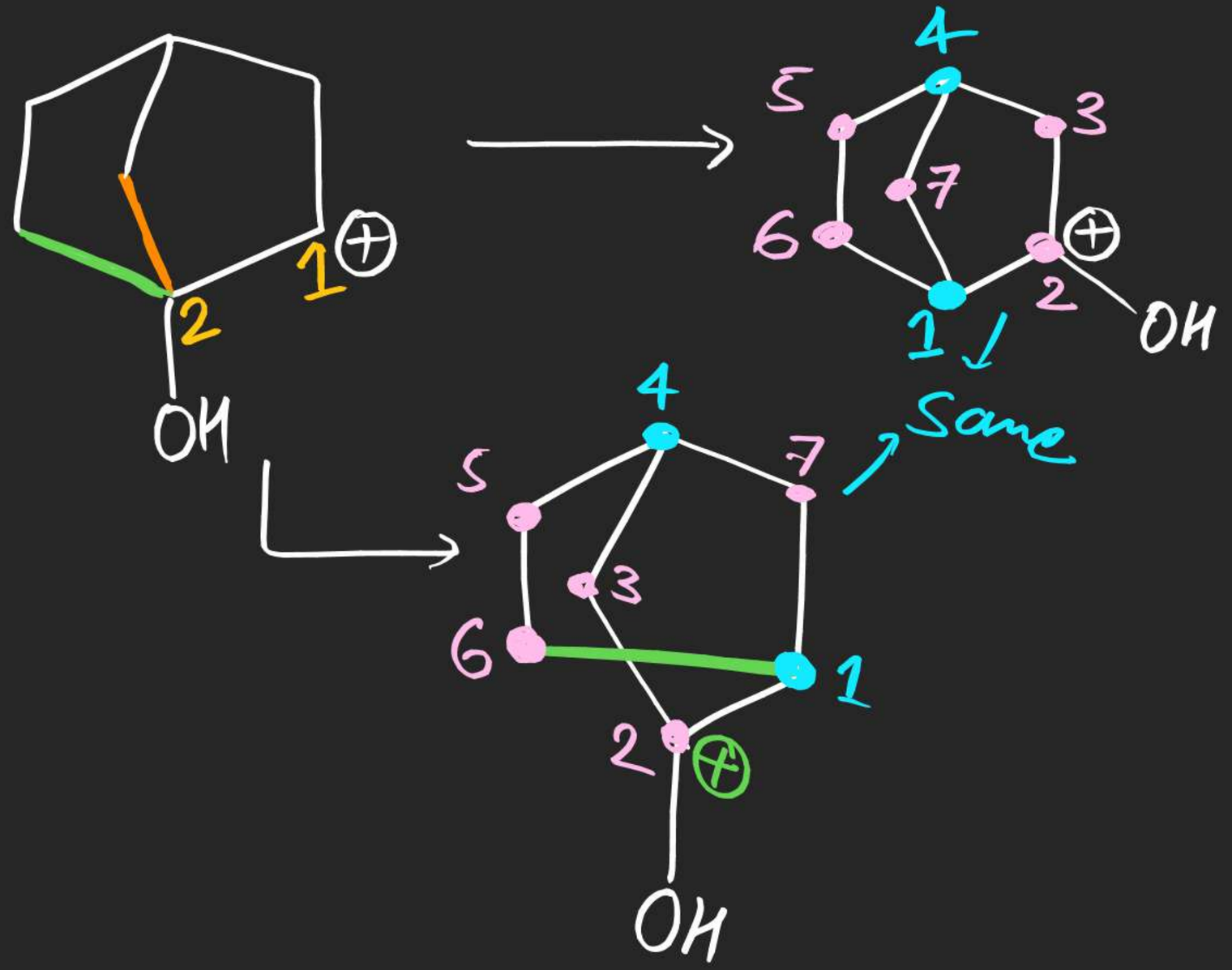
(50)



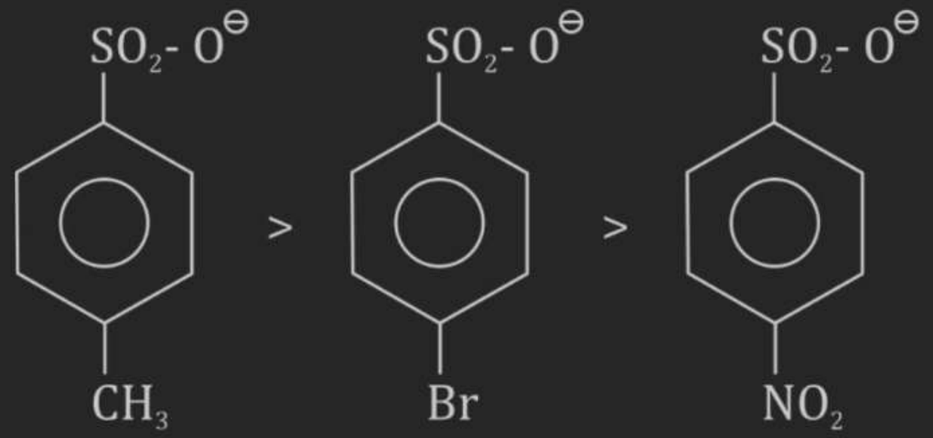
Test paper

Q.63 Select correct order of leaving tendency of following groups

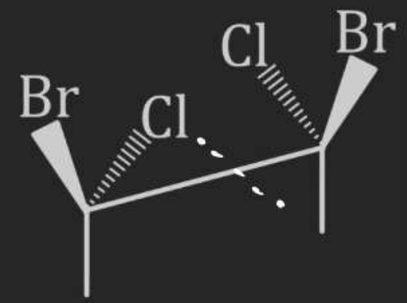
(A) $I^{\ominus} > Br^{\ominus} > Cl^{\ominus} > F^{\ominus}$

(B) $OH^{\ominus} > Et - O^{\ominus} >$ Me - C(=O)- $O^{\ominus}$

(C) $NH_2^{\ominus} > NMe_3 > NH_3$

(D) 

Q.66 Correct statement Regarding the following compound is



3 → 1 $\mu = 0$
3 → 2 $\mu \neq 0$

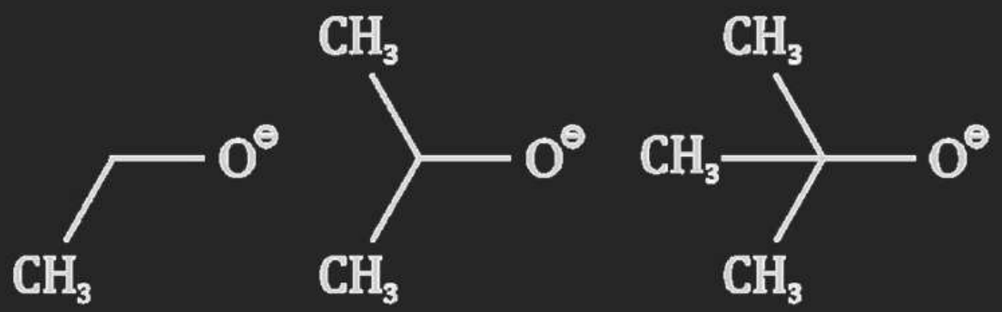
(A) Total stable conformer of this compound $= 4$ (3)

(B) One of the stable conformer of this compound has zero dipole moment. ✓

(C) Total stable conformer with Non-zero dipole moment $= 3$

(D) The compound is $(2R, 3S)$ 2,3 Dibromo 2,3 dichloro Butane.

Q.69 Arrange the following in decreasing order of Nucleophilicity $\propto \frac{1}{\text{Size}}$



(I) (II) (III)

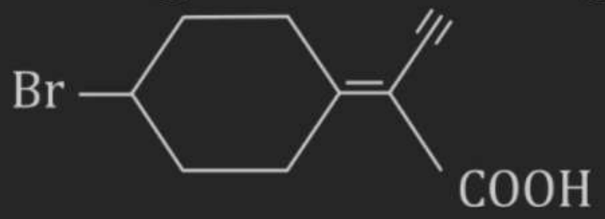
(A) I > II > III (B) III > II > I (C) I > III > II (D) III > I > II

Q.72 Which of the following cannot act as nucleophile?

(A) H_2O (B) $R-OH$ (C) BH_3 (D) But-2-ene

Nu Nu Electrophile Nu

Q.75 The correct designations for the given structure is:-



(A) Z, E (B) E, E (C) E, Z (D) None of these

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Q.78 Which of the following conformer of cyclohexane is least stable.

(A) 

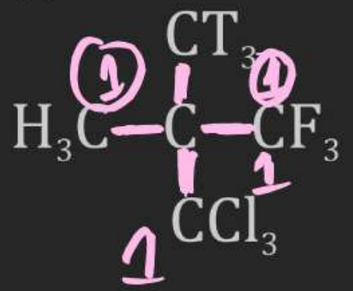
(B) 

(C) 

(D) 

D > C > A > B

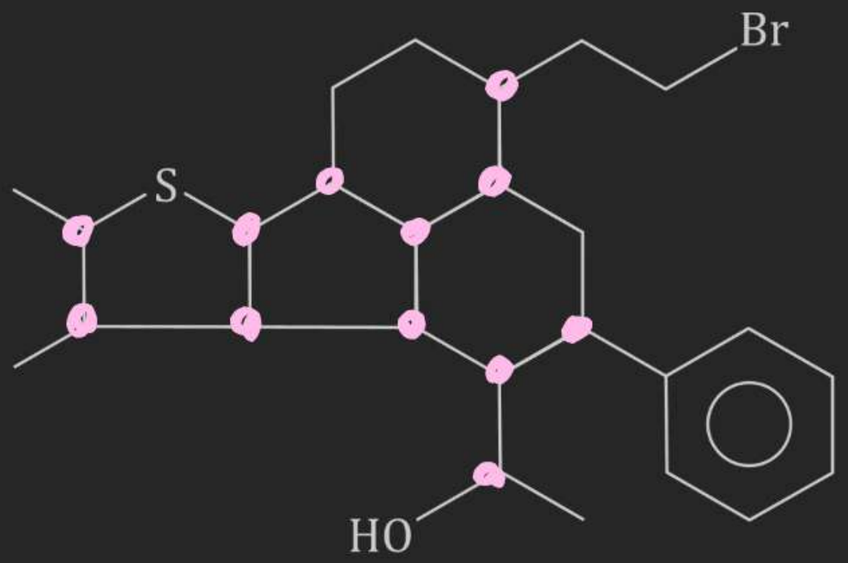
Q.83 Consider all type $C - C$ bond rotation in following molecule



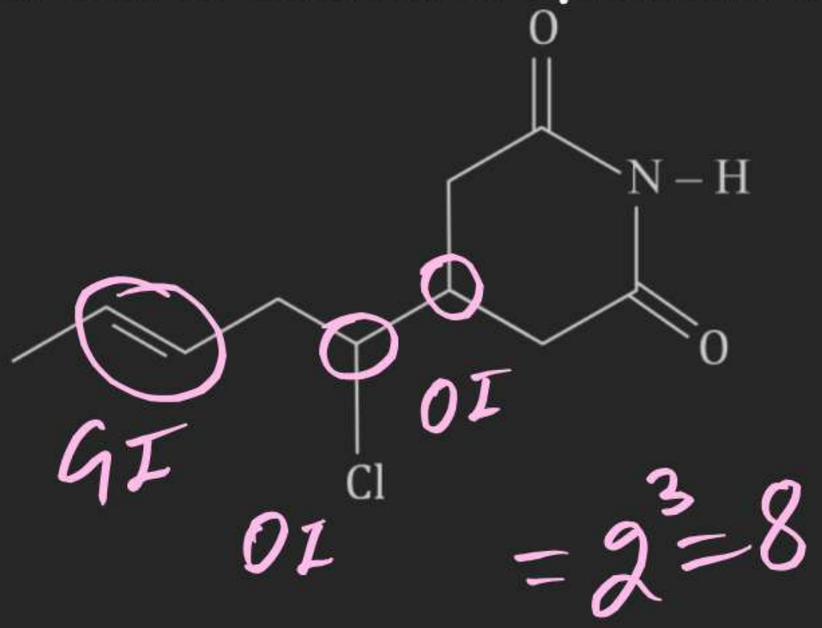
4

How many number of different type of eclipsed conformations are possible?

Q.86 Number of chiral atoms in the given organic compound is _____.

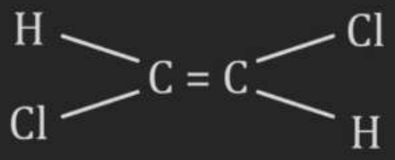


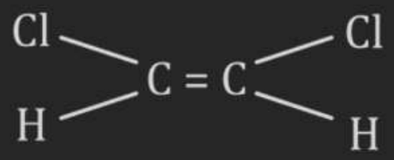
Q.88 Total number of stereoisomers are possible for the given compound is:

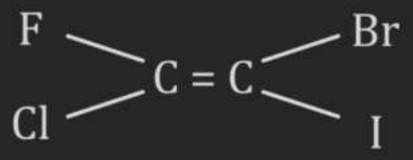


Q.90 Total number of compounds which can show both plane of symmetry and centre of symmetry are.

POS✓ COS✗

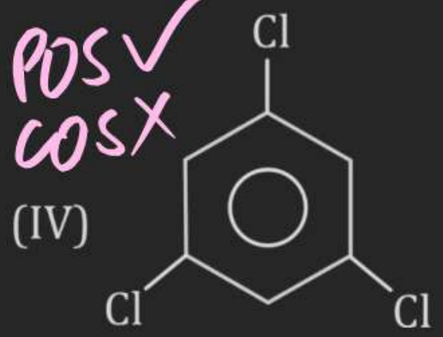
(I) 

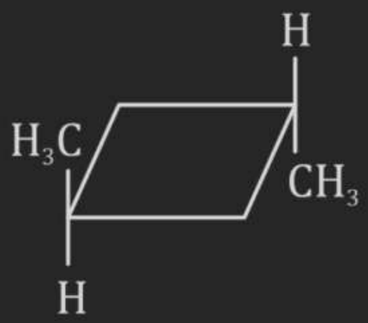
(II) 

(III) 

POS✓
COS✗

POS✓
COS✗

(IV) 

(V) 

POS✓
COS✓

2