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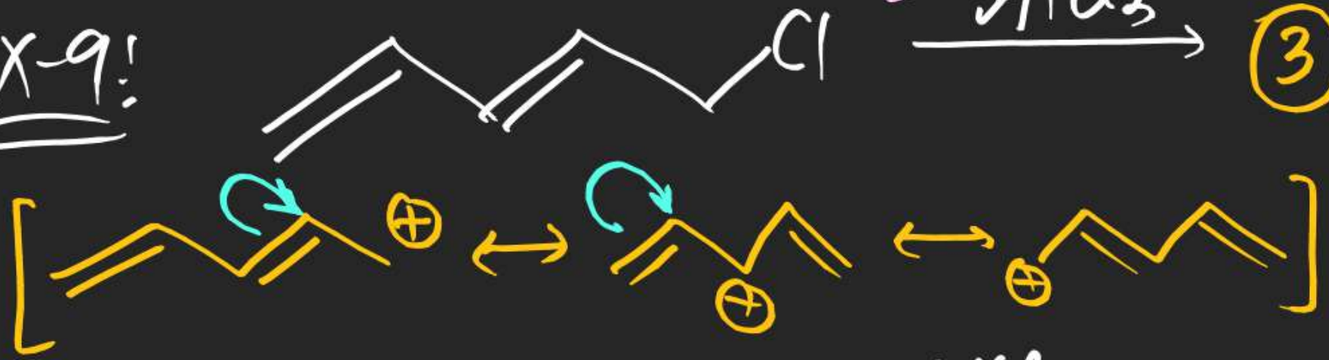
Ex-8: $CH_2=CH-CH_2-Cl \xrightarrow{SbCl_5}$

Soln: $CH_2=CH-CH_2-Cl \xrightarrow{SbCl_5} \left[CH_1H_2=\overset{\oplus}{C}H_2-CH_3 \leftrightarrow CH_1H_2-\overset{\oplus}{C}H_2-CH_3\right]$

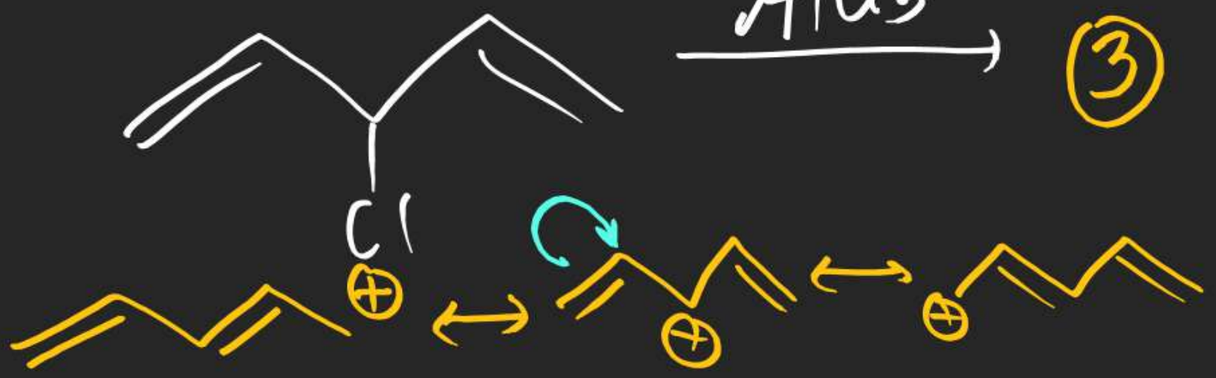
$\left(CH_2 \cdots CH \cdots CH_2 \;\; +\frac{1}{2}, +\frac{1}{2}\right) \xrightarrow{AlCl_3}$ (3)

Ex-9:



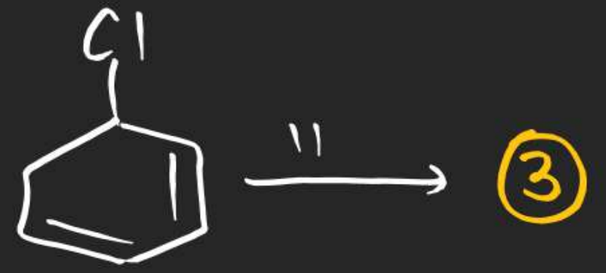
$\xrightarrow{AlCl_3}$ (3)

Ex-10:



$\xrightarrow{AlCl_3}$ (3)

Ex-11:



$\xrightarrow{\parallel}$ (3)

Ex-12

$\xrightarrow{\parallel}$ (3)

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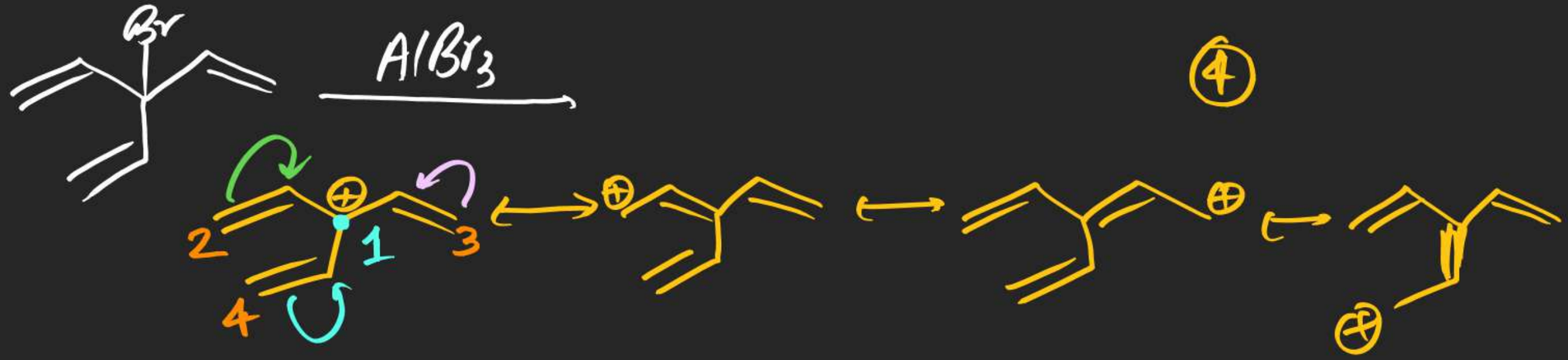
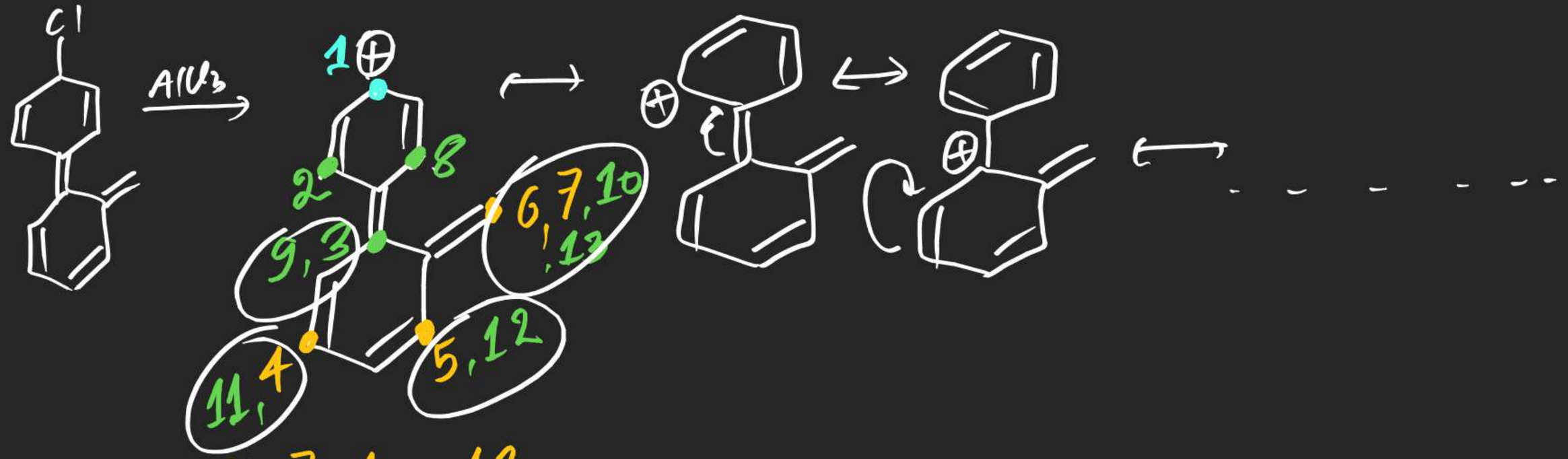
EX-13:



④

EX-14:



$= 7+7-1 = 13$

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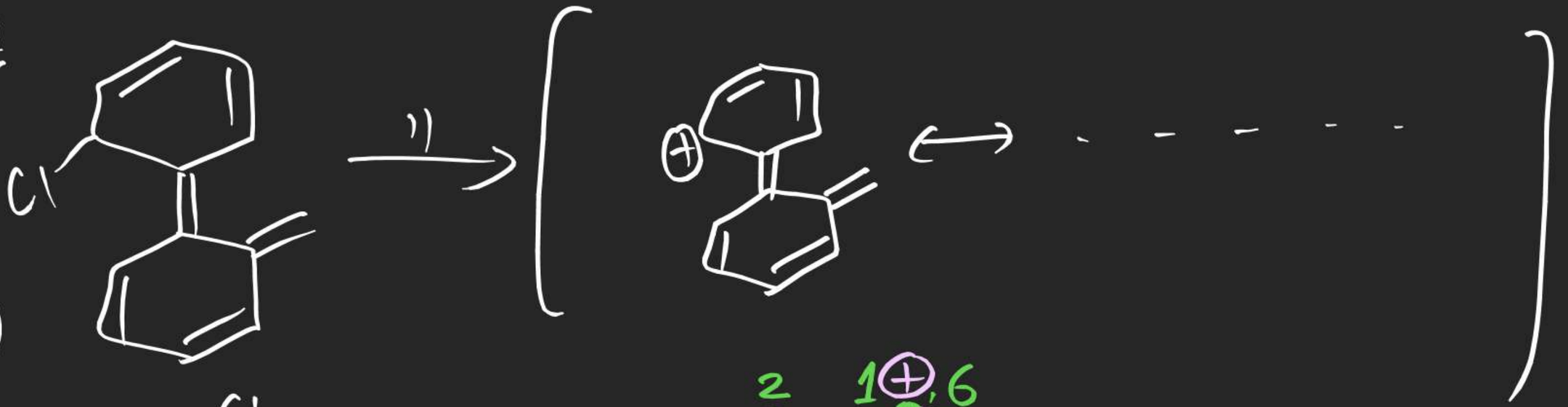
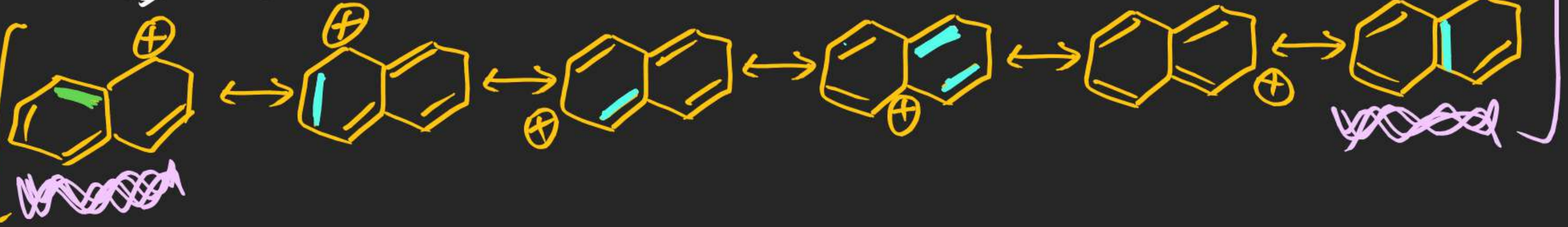
Ex-5:



13

Ex-6

Soln:



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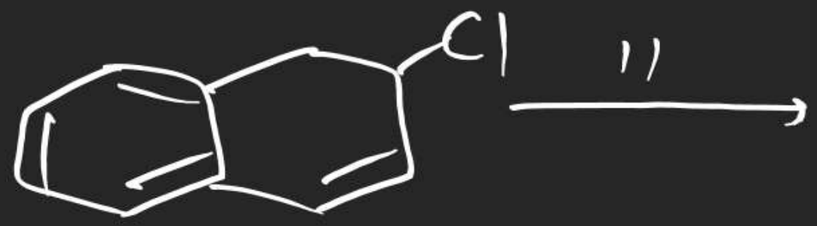
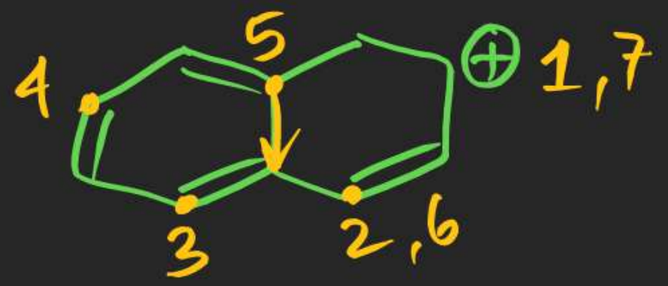
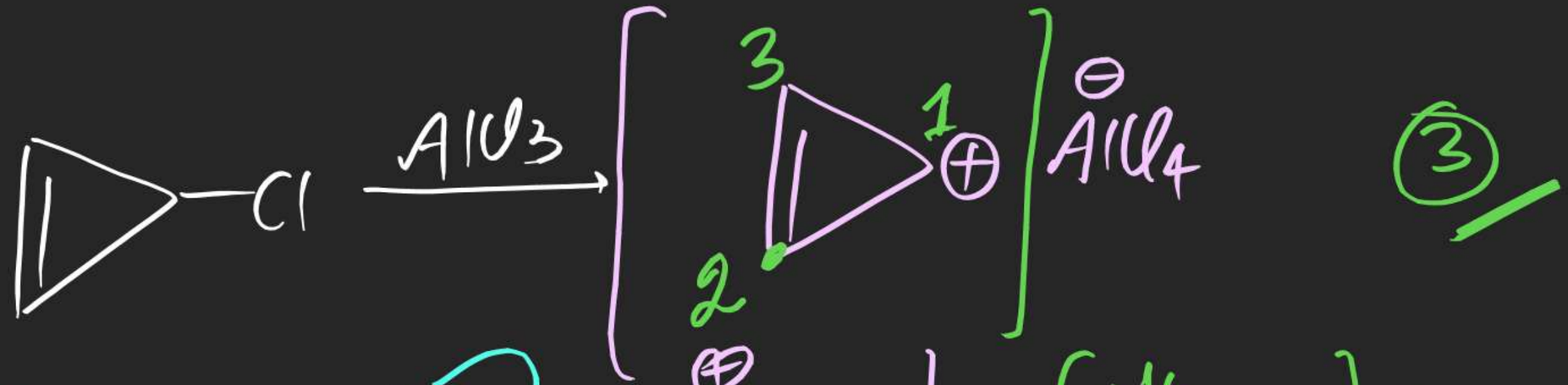
Ex-17

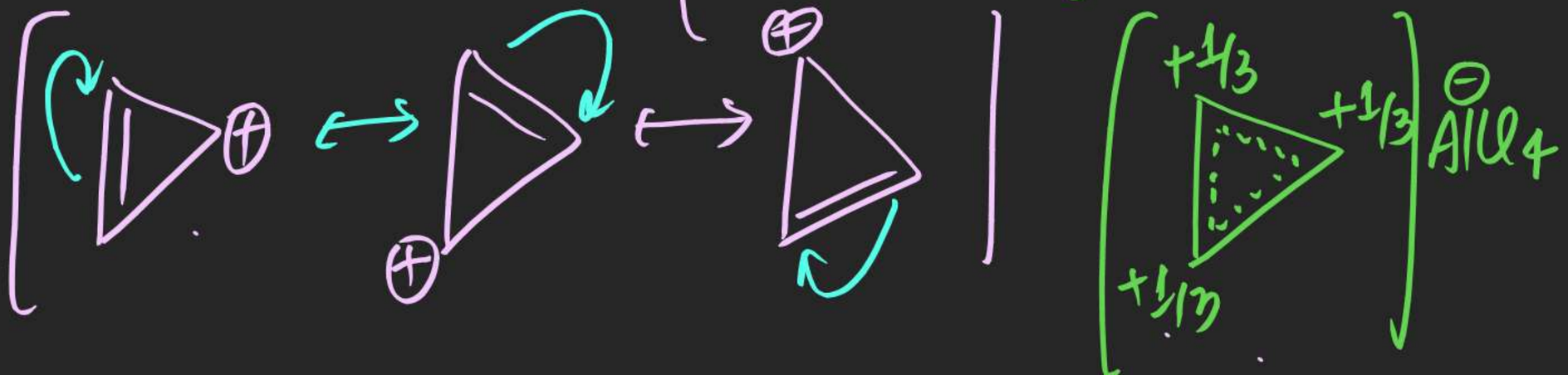




Ex-18:



(3)



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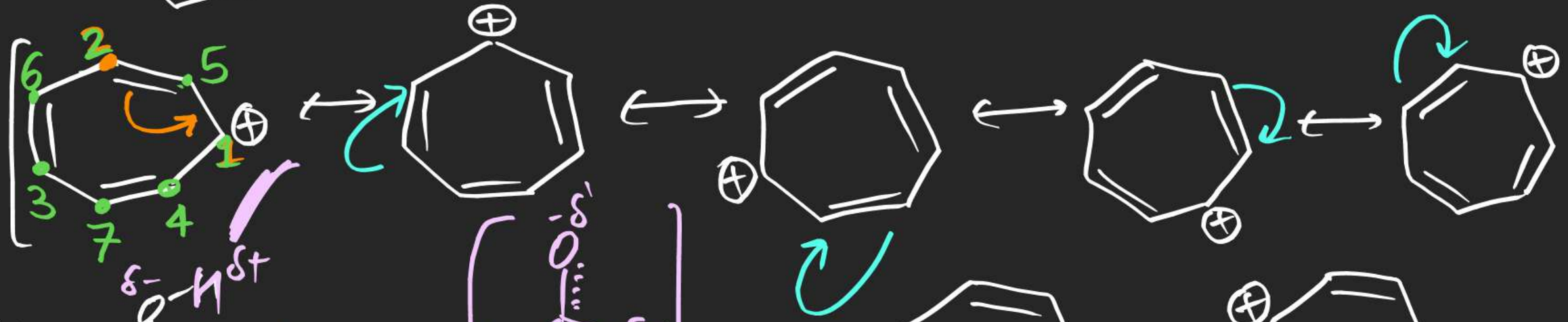
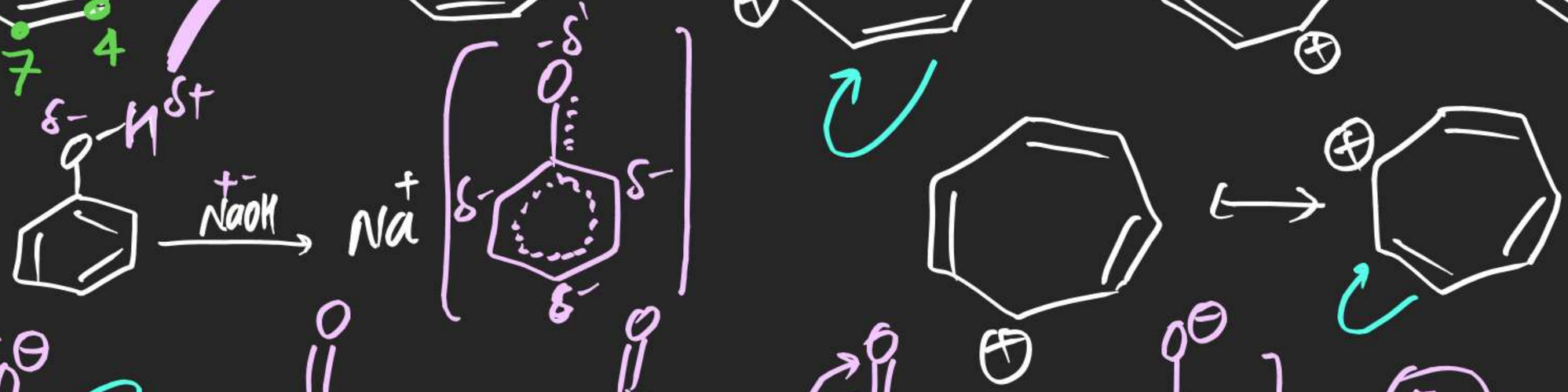
Ex-19

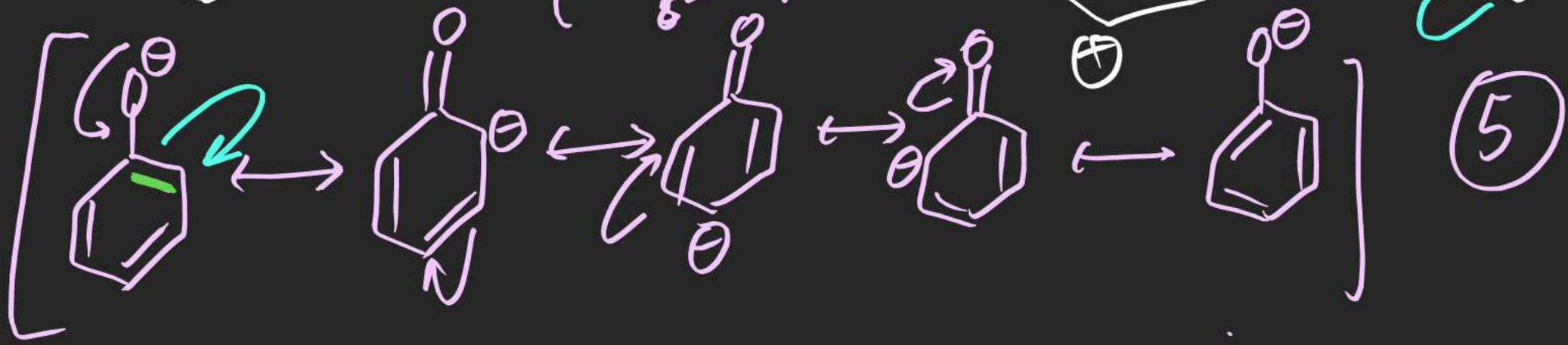
(7)



Ex-20:



Sol^n:



5

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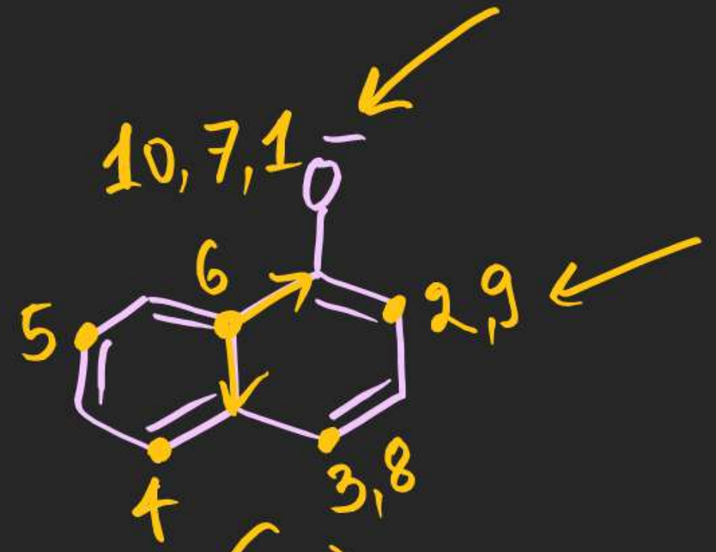
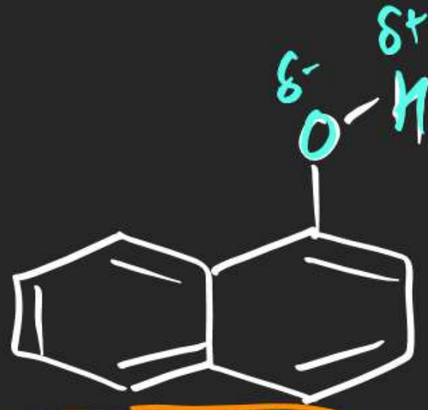
(21)

NaH



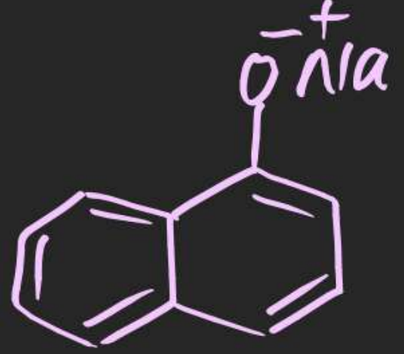
(10)

(22)

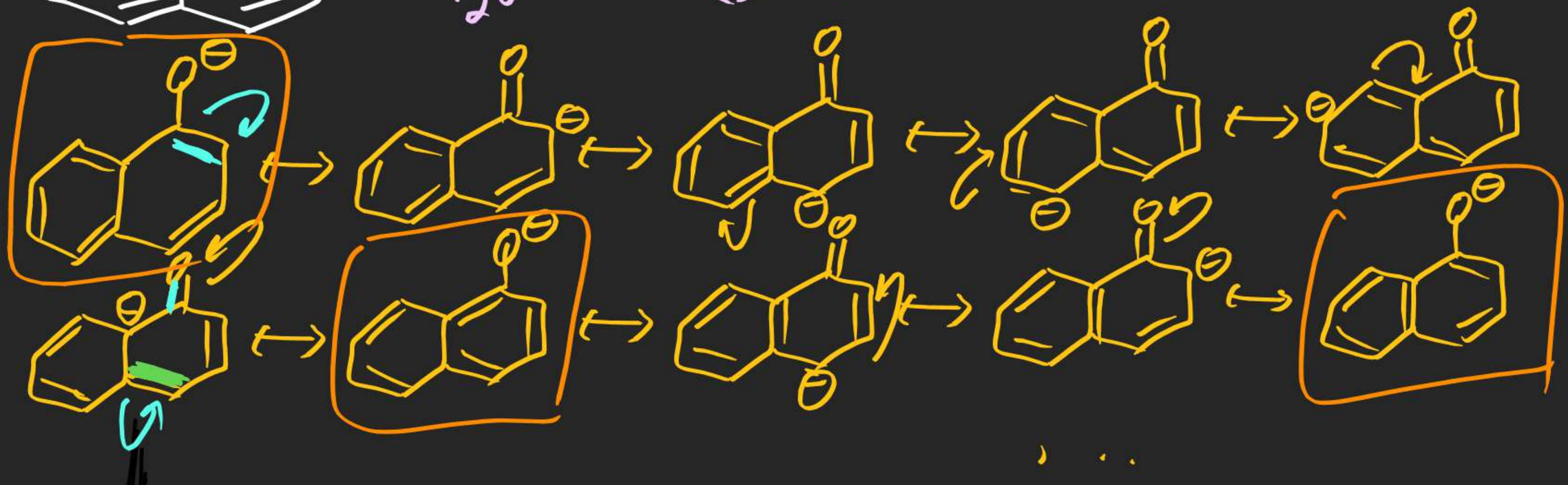


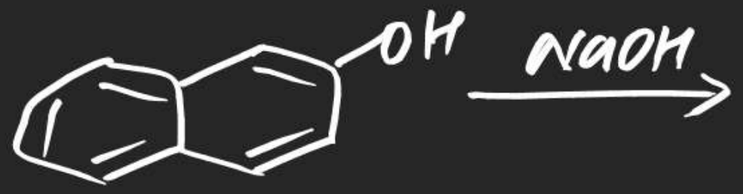
$\overset{+}{Na}\overset{-}{O}H$

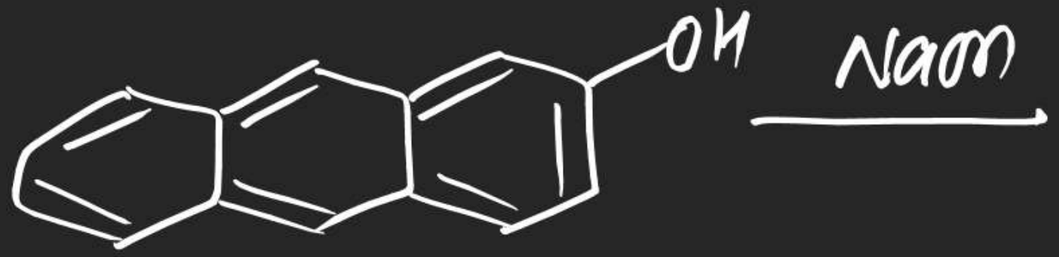
$-H_2O$

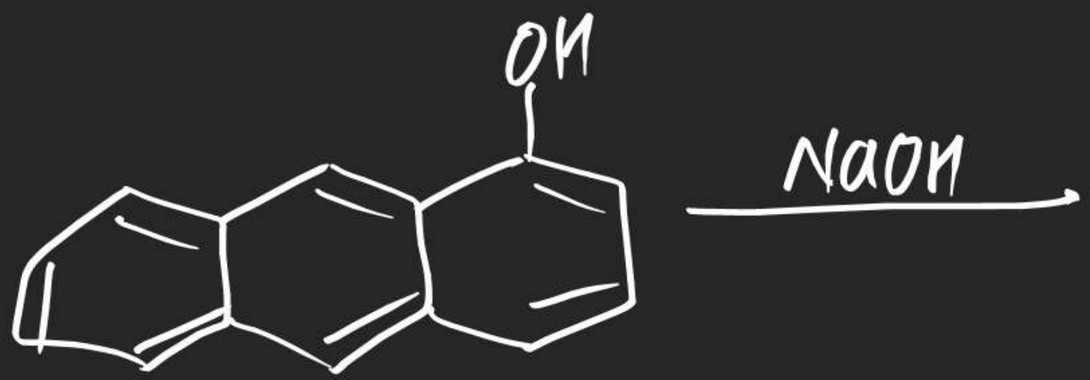


Soln:



(23) 

(24) 

(25) 

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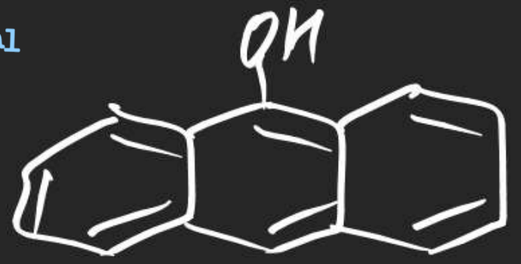
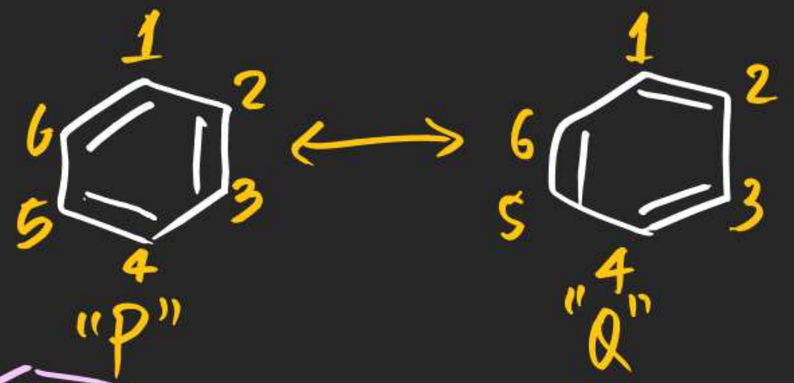
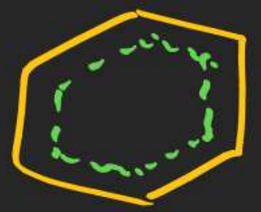
(26) 

$\xrightarrow{NaOH}$

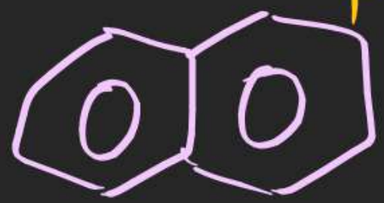
(#) Find total no. of Neutral Benzenoid R.S of following.

(27) Benzene 





2

(28) Naphthlene 

P Q

Q

"P"

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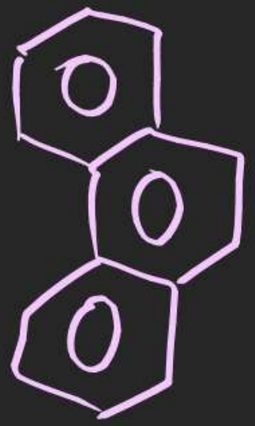
(29) Anthracene 

(30) Phenthrene 

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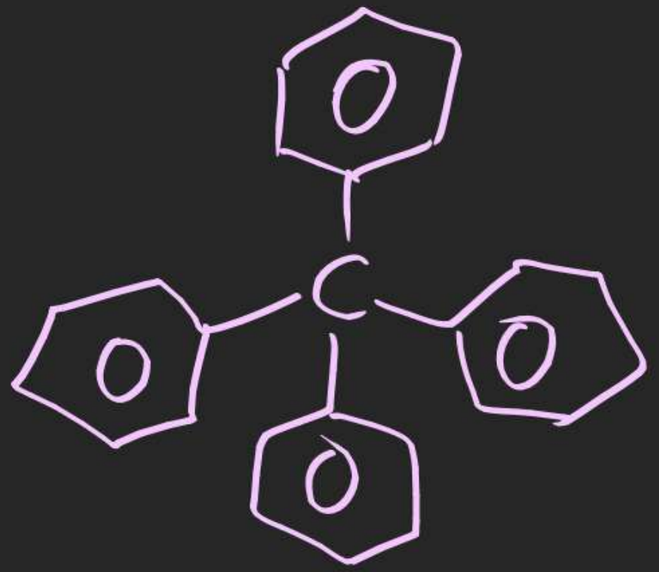
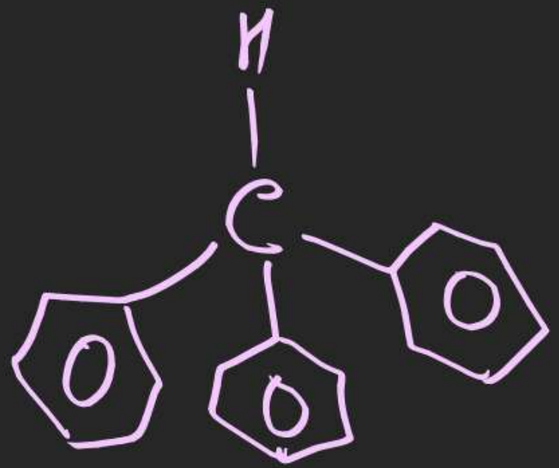
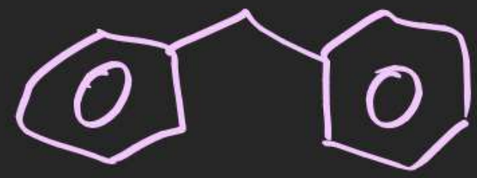
(31) 

(32) 

(33) 

(34) 

(35) 

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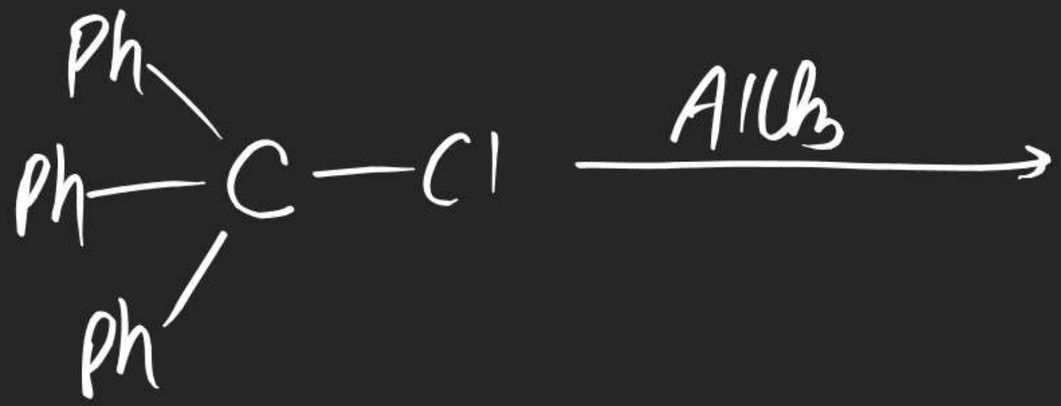
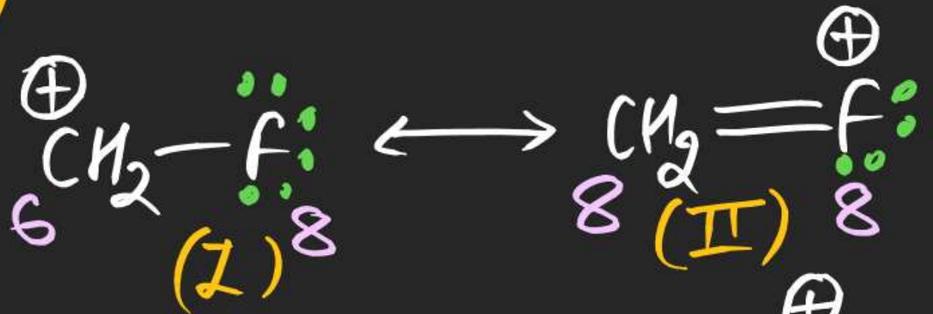
(36) Total no. of RS of Product of following Reaction.



(#) Rules for Stability of RS :

(1) RS having Complete octet is more stable than having incomplete octet.

(1) 

II > I

(2) 

II > I

(3) 

II > I

(2) RS having higher no. of Covalent Bond or less charge is more stable.

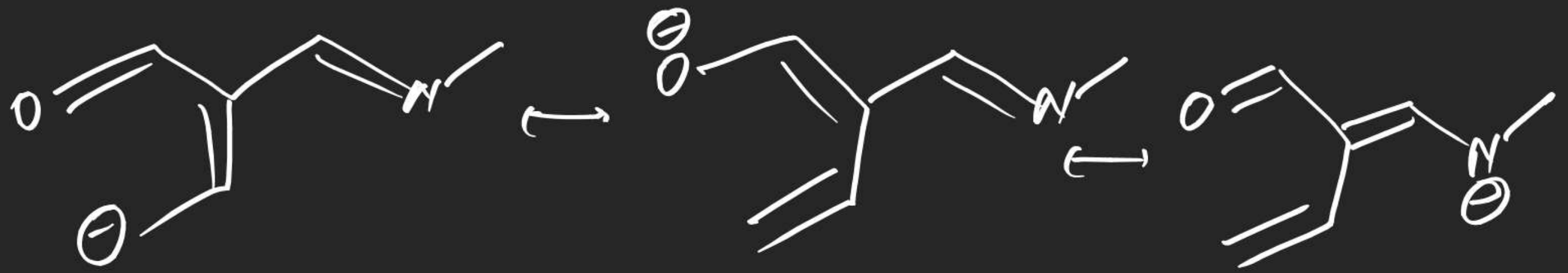
(4)  (I > II)

(5)  (I > II)

(3) RS having (−)ve charge on Electronegative atom & (+)ve charge on electropositive atom are relatively more stable.

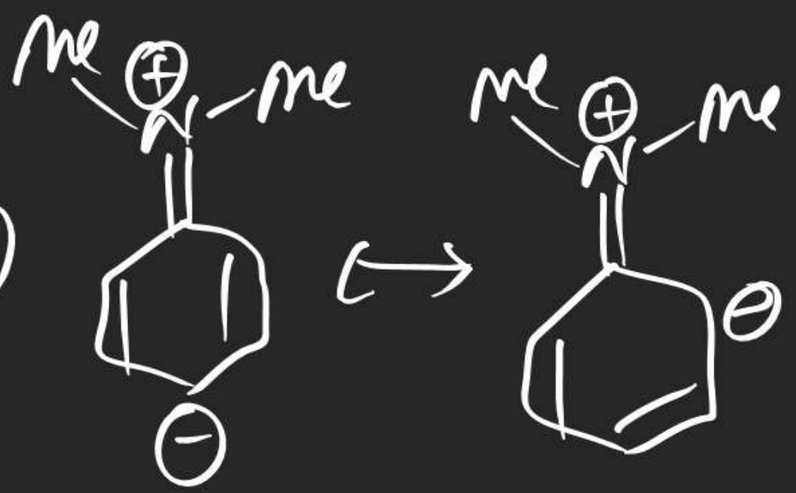
(6)  (II > I)

(7)



(4) RS having opp. charges closer & like charges away are more stable.

(8)



II > I

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5

(9) 

(10)