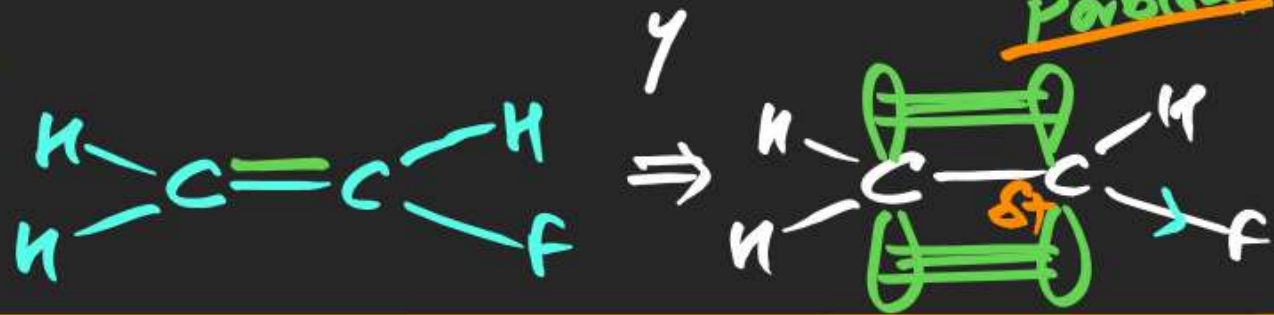
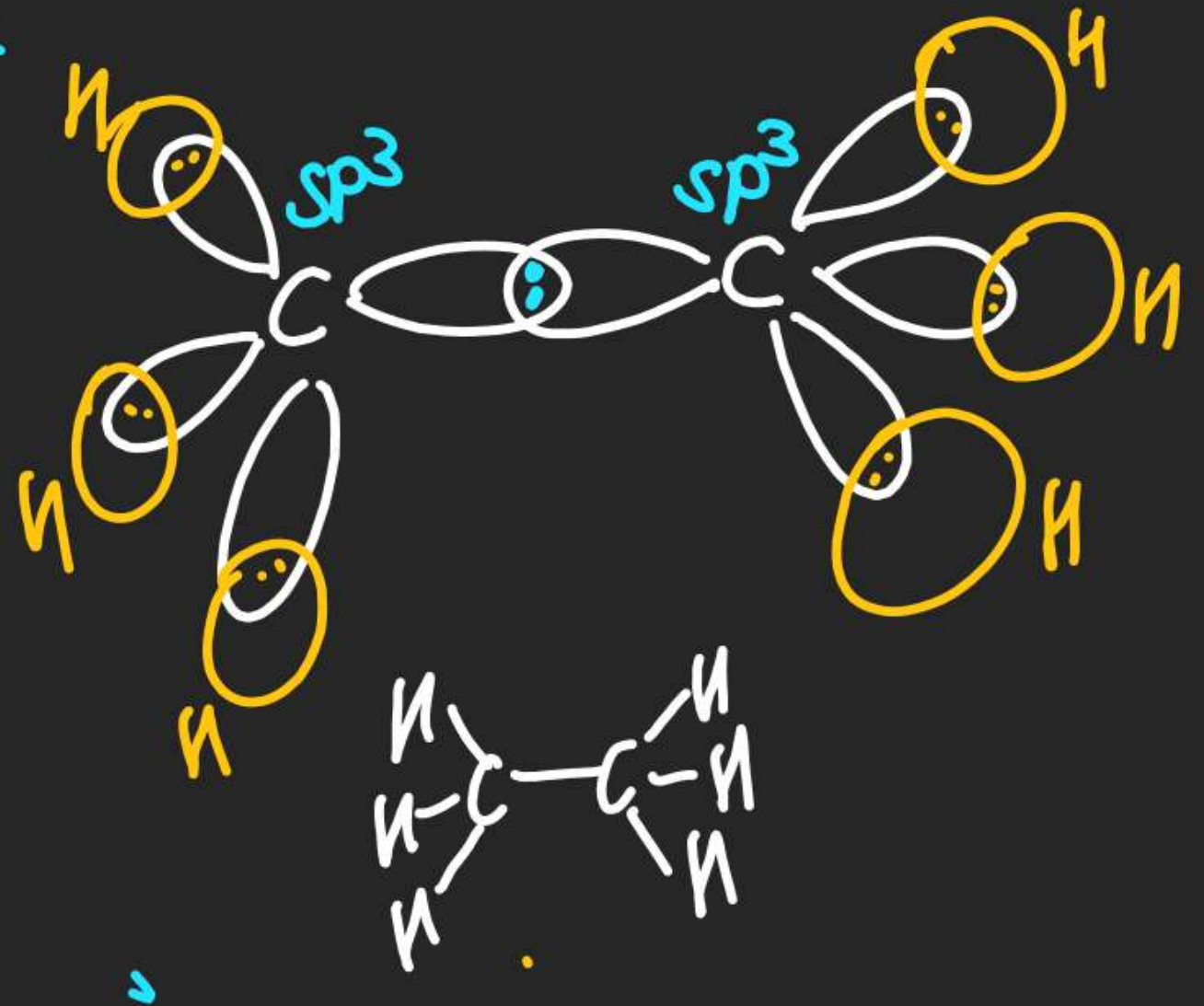
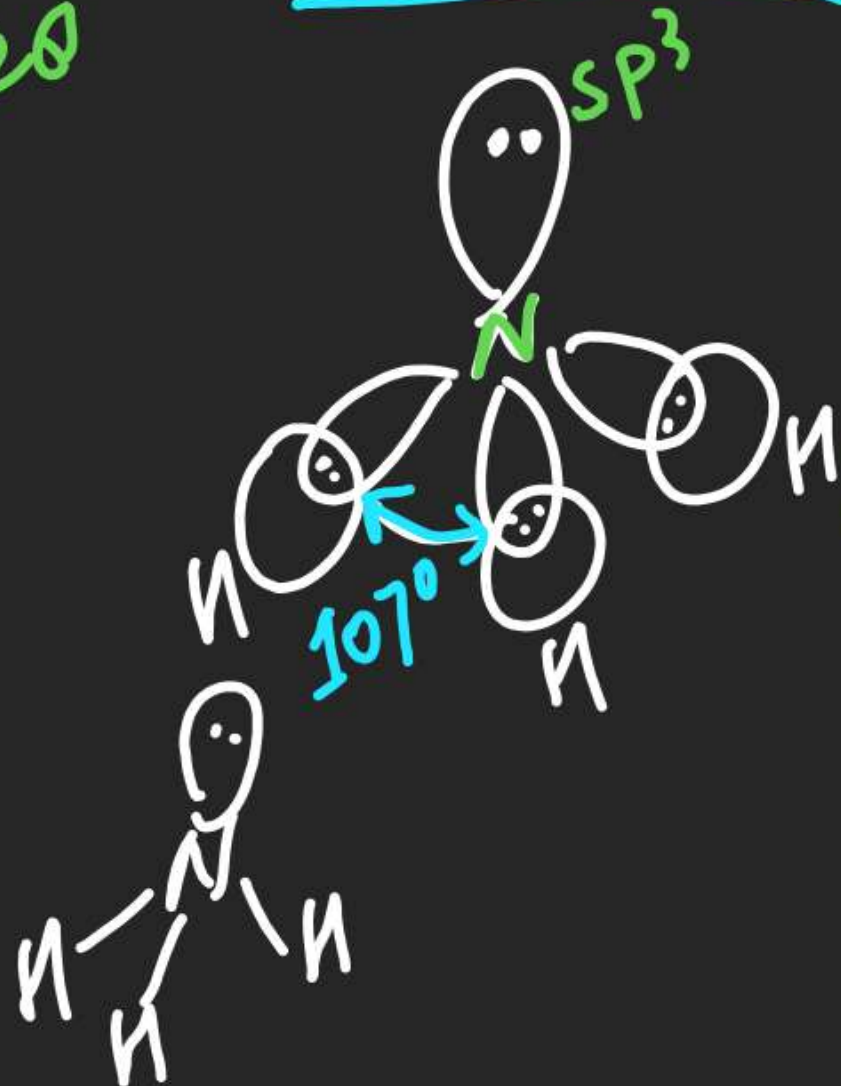
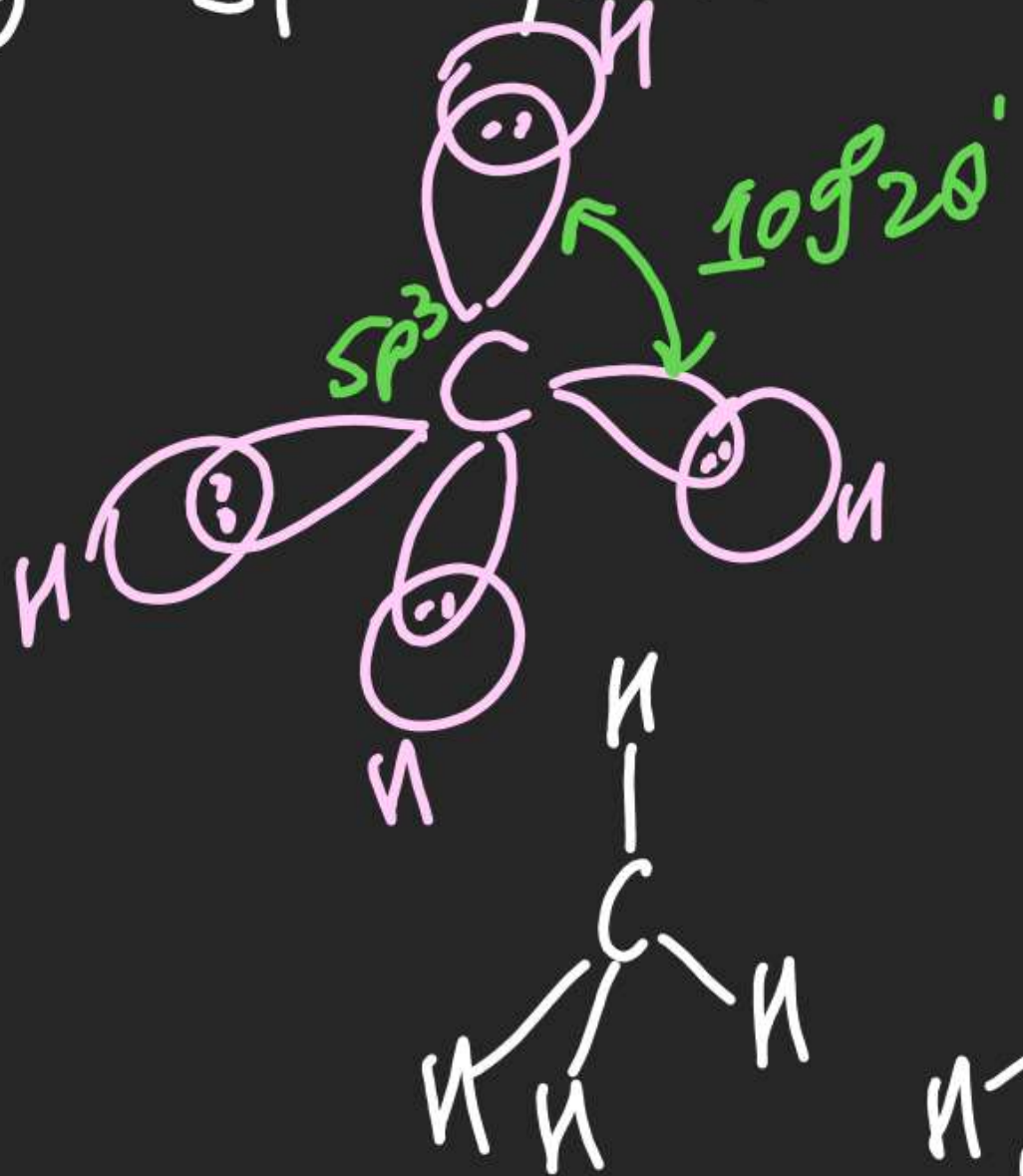
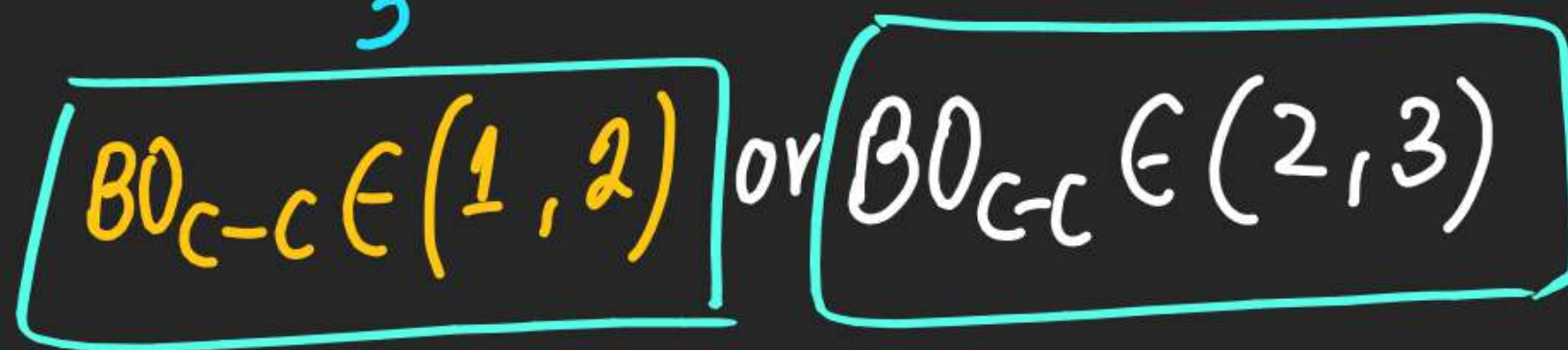
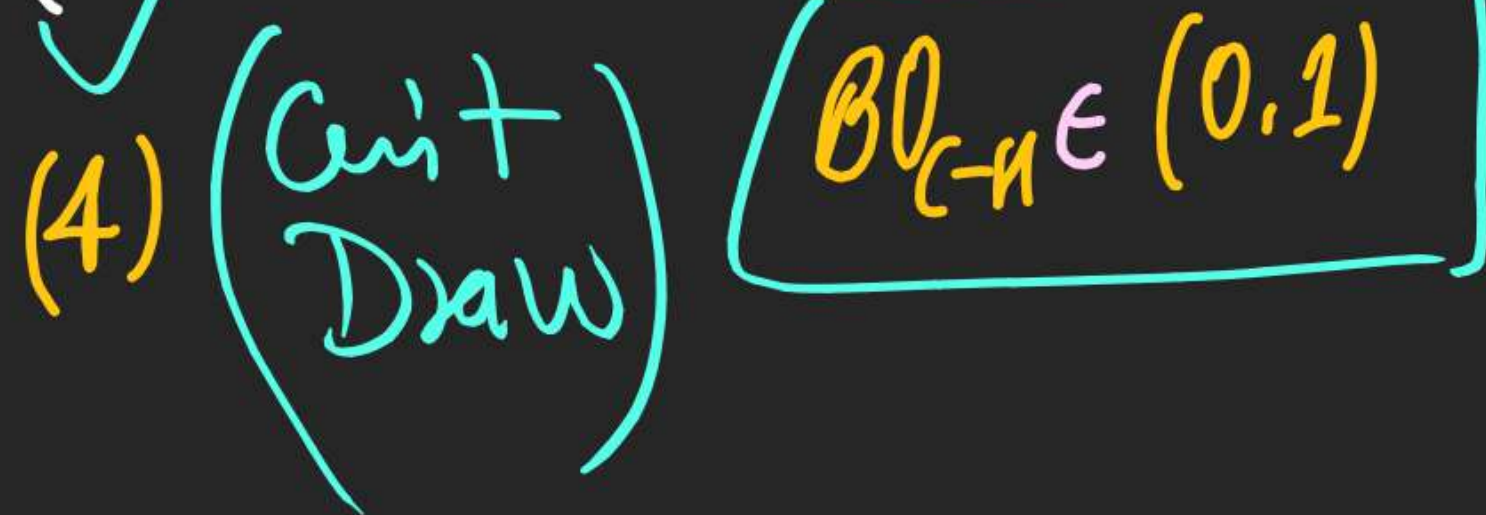
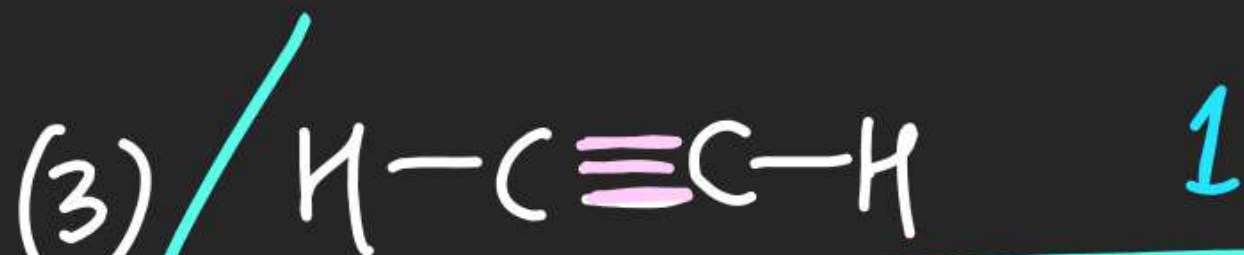
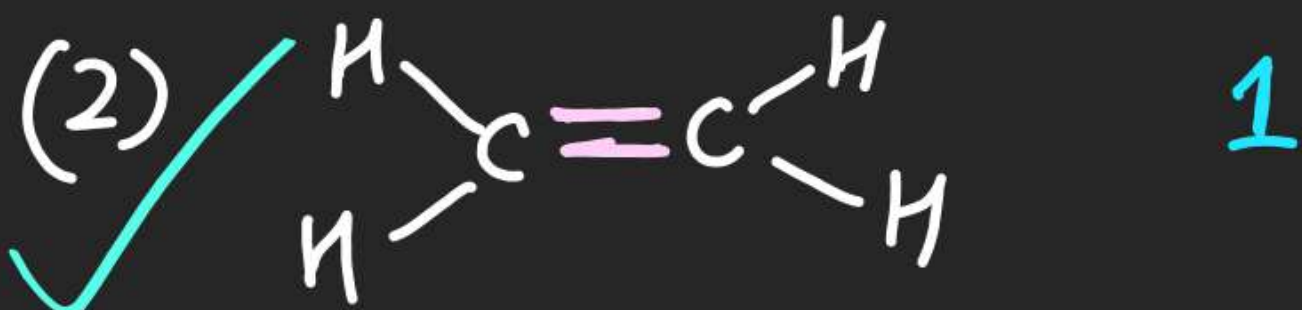
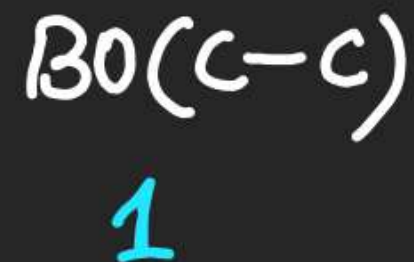
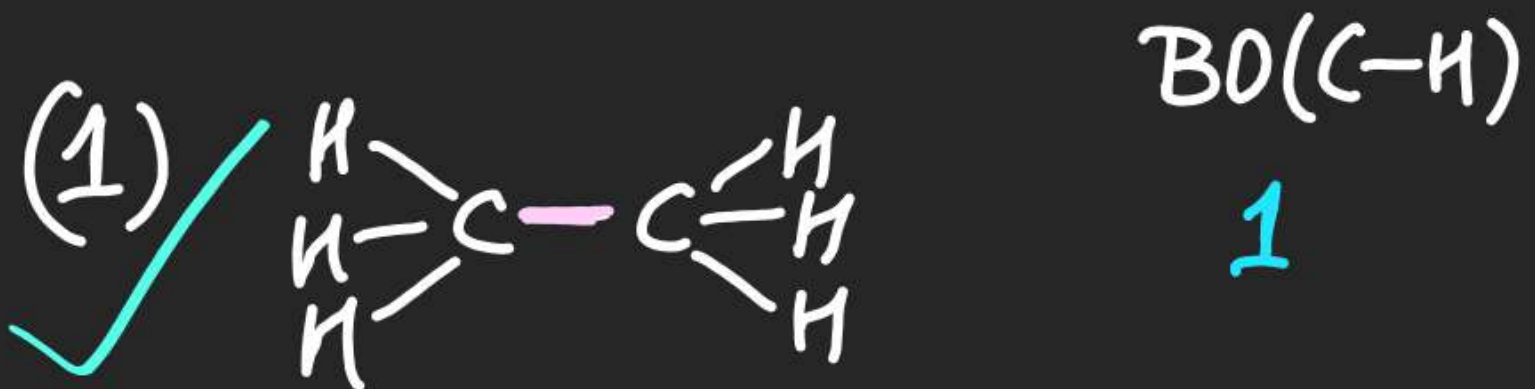


Ex:- Explain why I effect is applicable only on σ eq.
 $+ \uparrow \Rightarrow E_n \uparrow \Rightarrow \%$ s orbital \uparrow

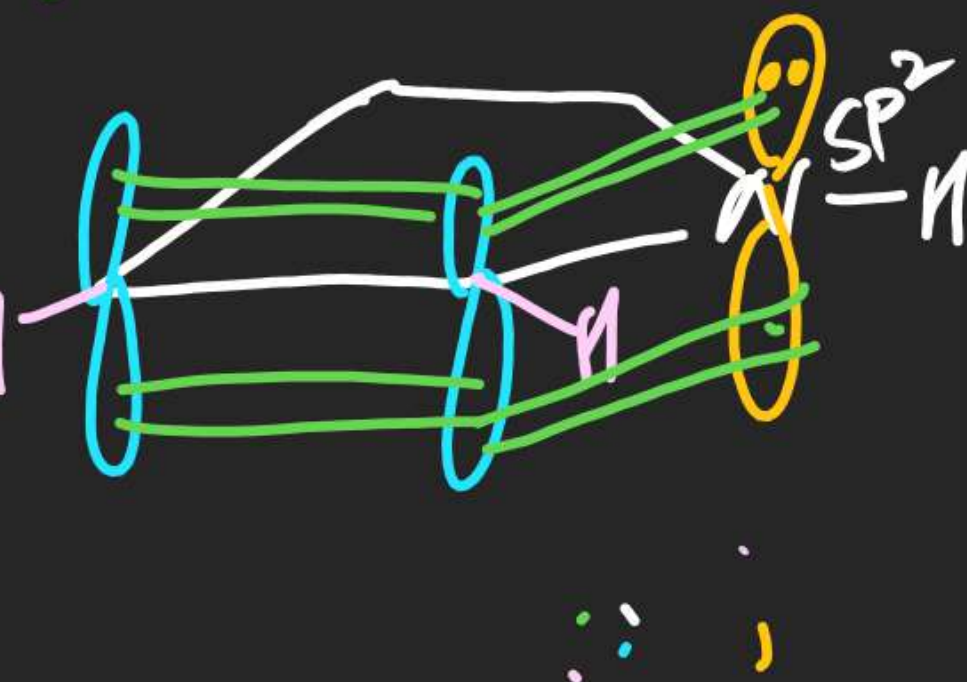
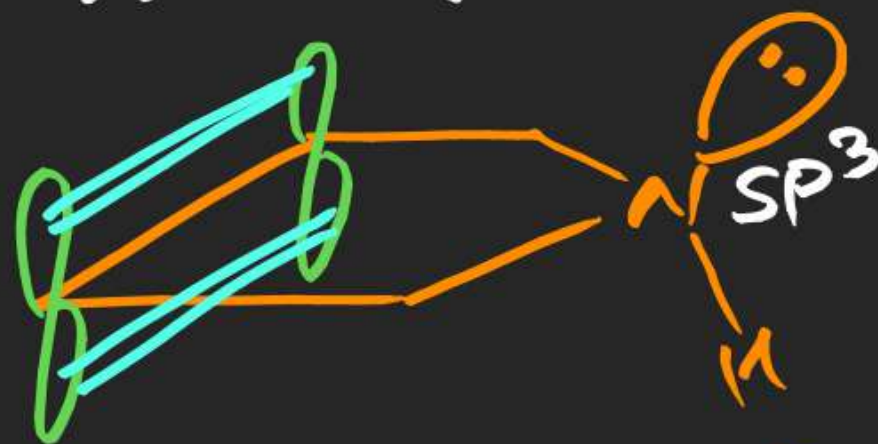


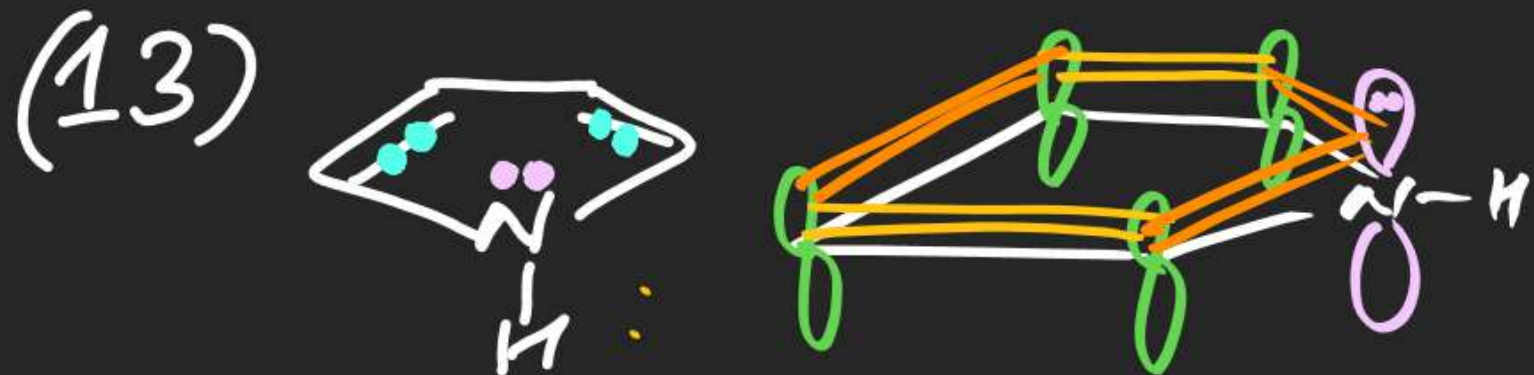
(#) sp^3 hybridisation \Rightarrow Atom must have 4 hybridised orbital
 \Rightarrow 4 σ Bond





Note: If Simply Bonded lone pair atom contains "p" orbital on adjacent atom then that lone pair atom is " sp^2 " hybridised & its lone pair must be present in "p" orbital.





Delocalised lone pair of N

Total $\pi \bar{e} \beta$ = Total "p" $\bar{e} \beta$ = 6



localised lone pair

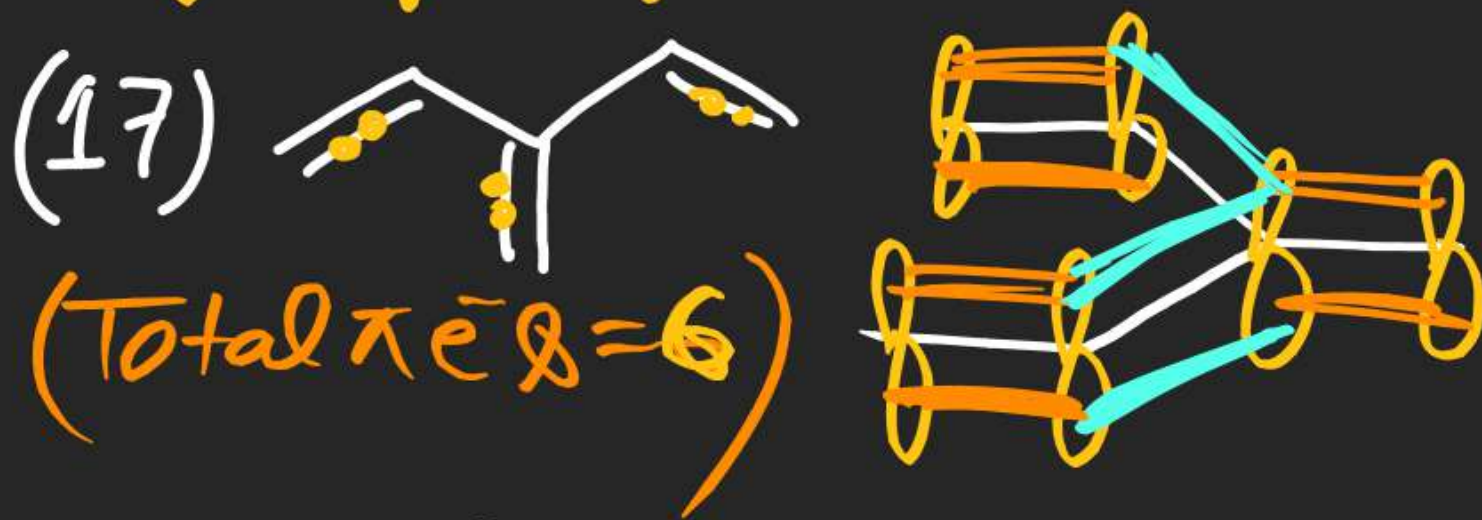
Total $\pi \bar{e} \beta$ = Total "p" $\bar{e} \beta$ = 4



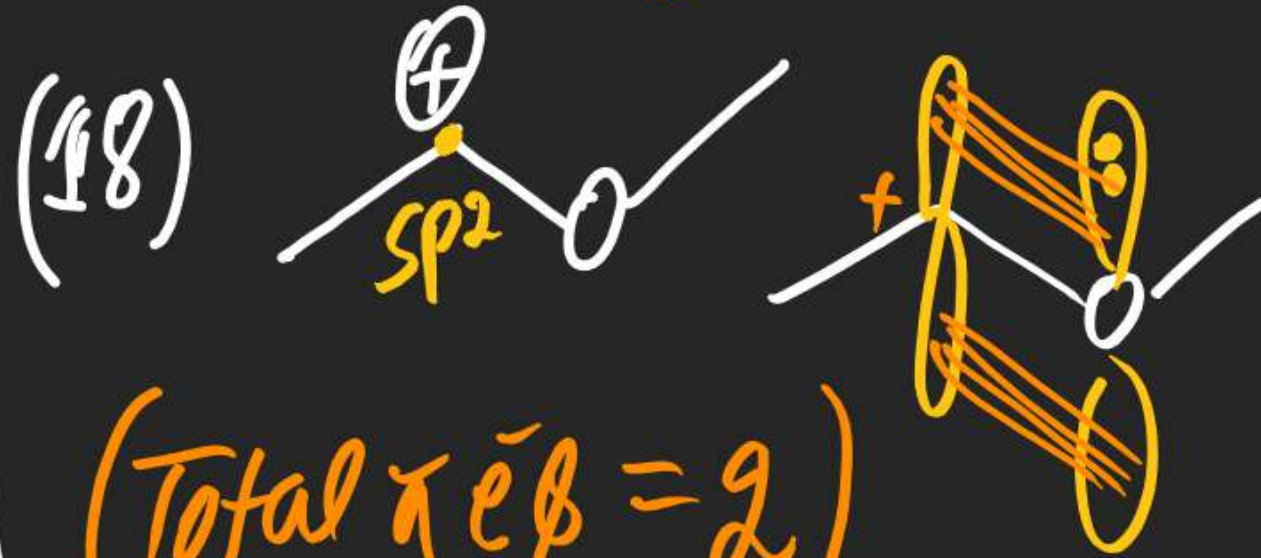
Total $\pi \bar{e} \beta$ = 4



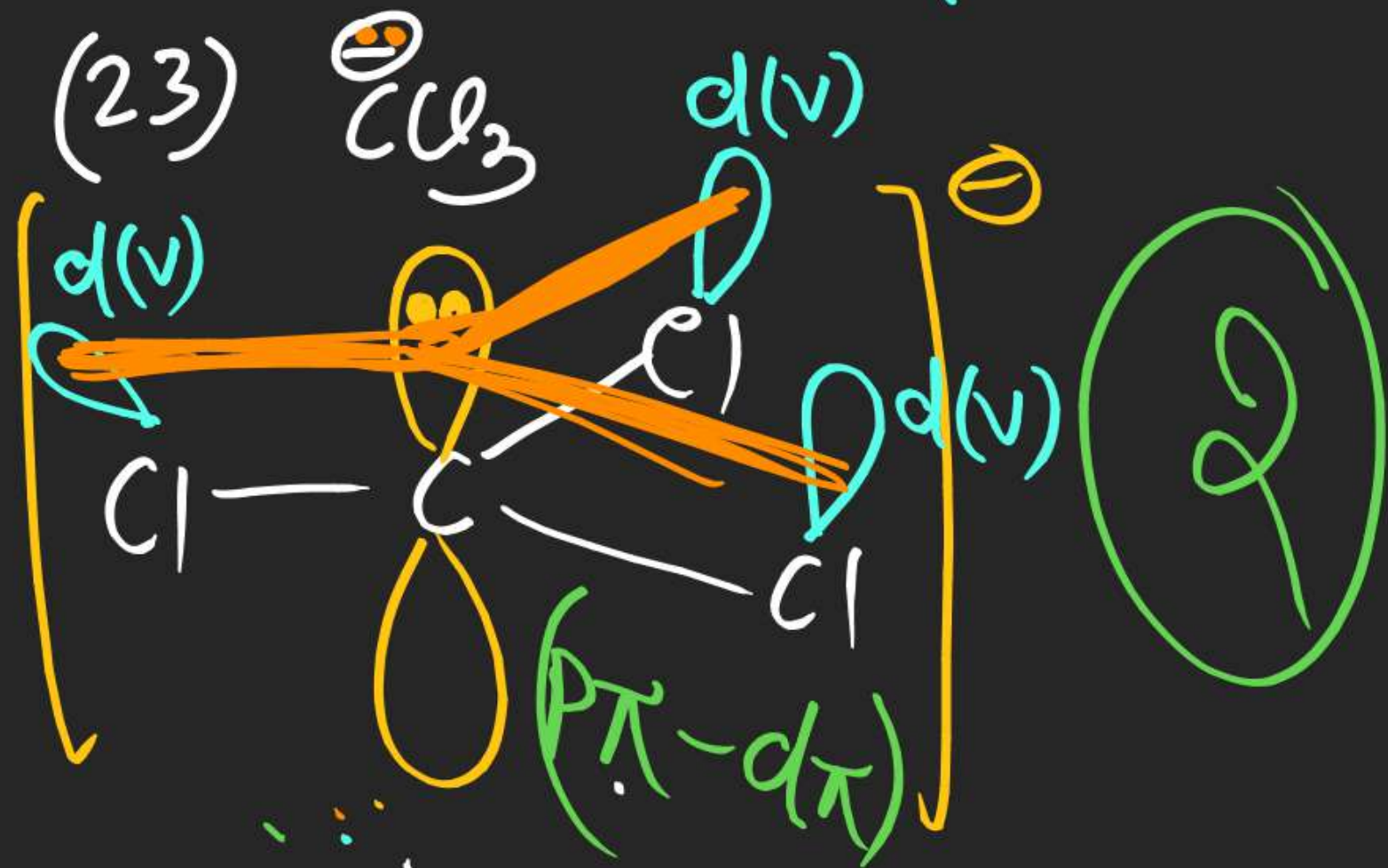
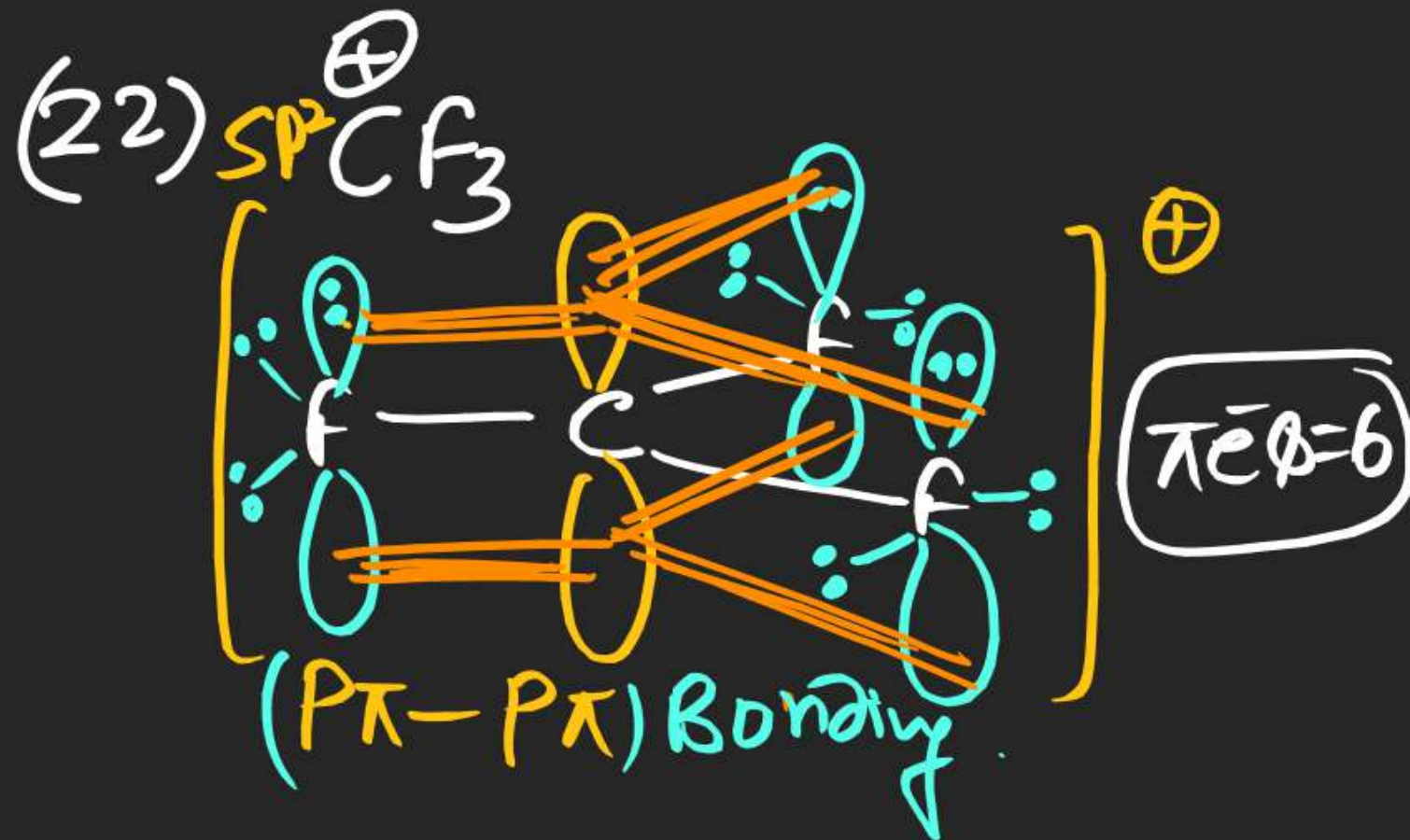
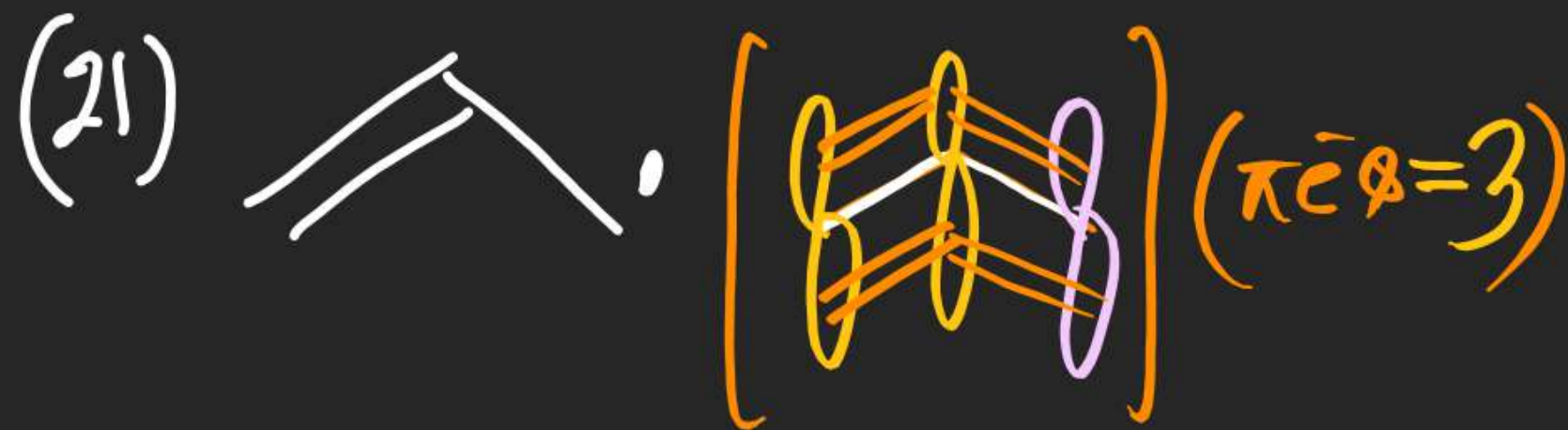
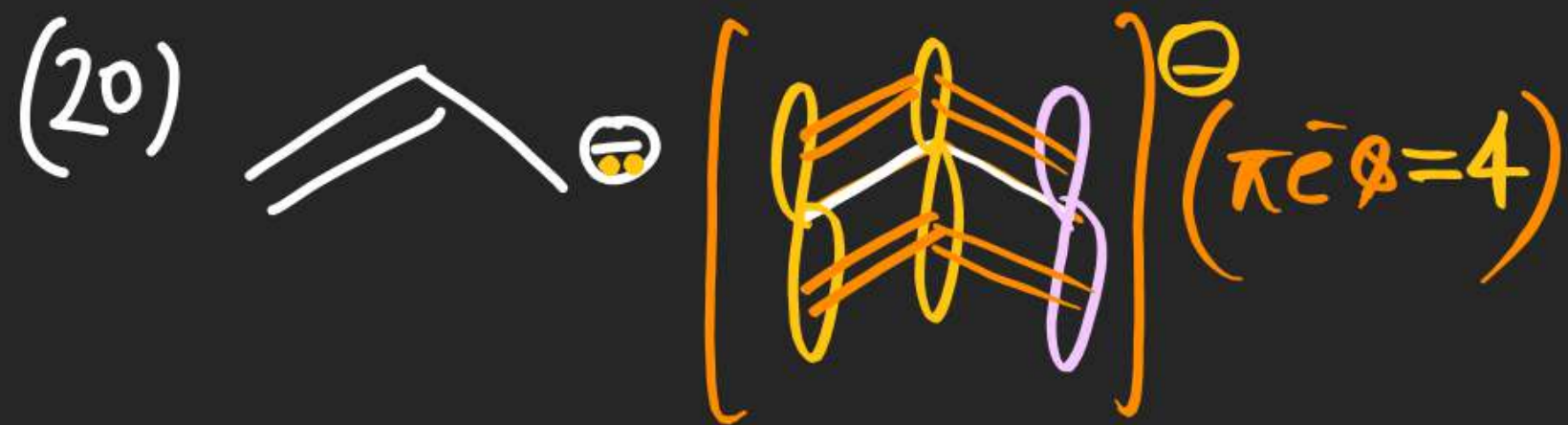
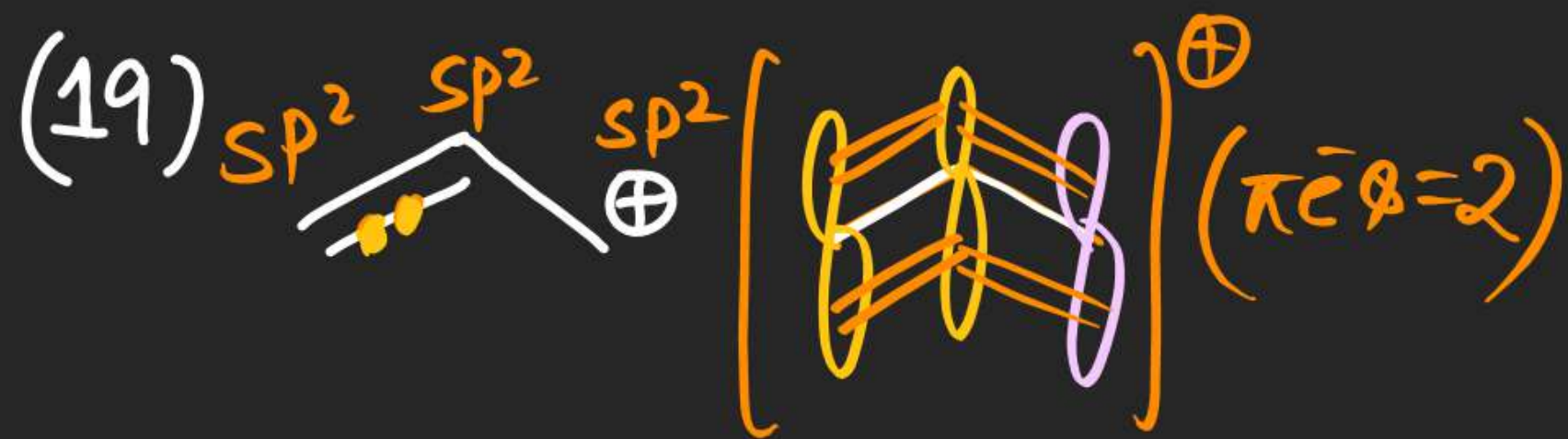
Total $\pi \bar{e} \beta$ = 6



(Total $\pi \bar{e} \beta$ = 6)



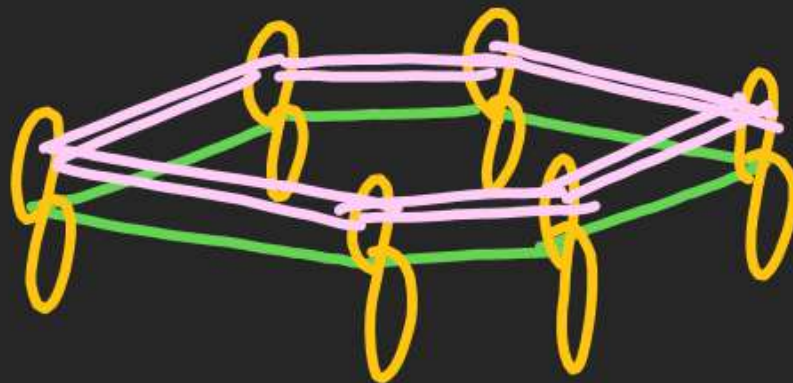
(Total $\pi \bar{e} \beta$ = 2)



(24)

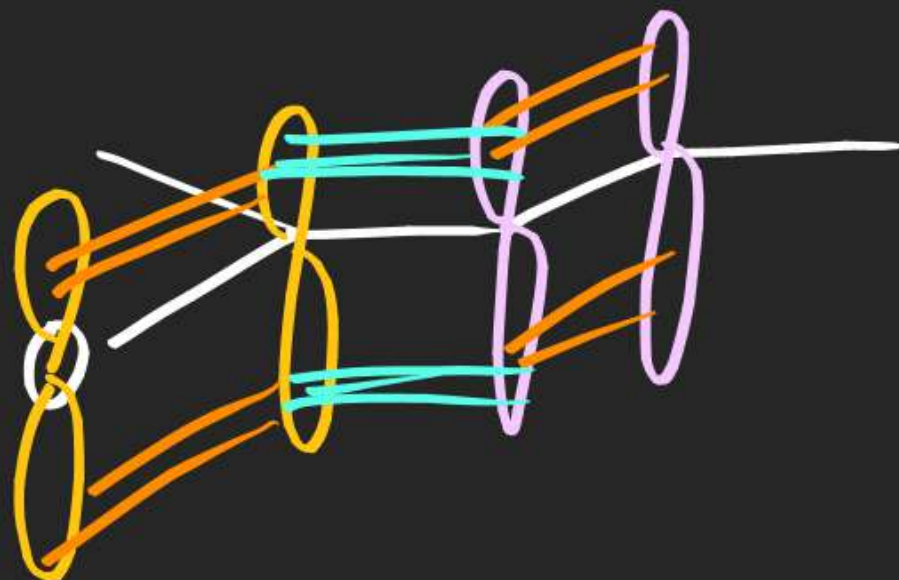
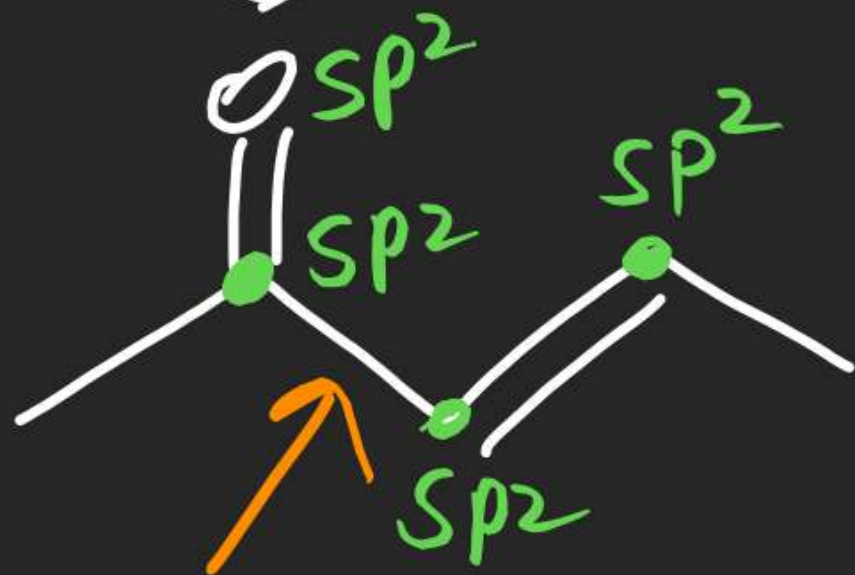


$$BO = 1.5$$



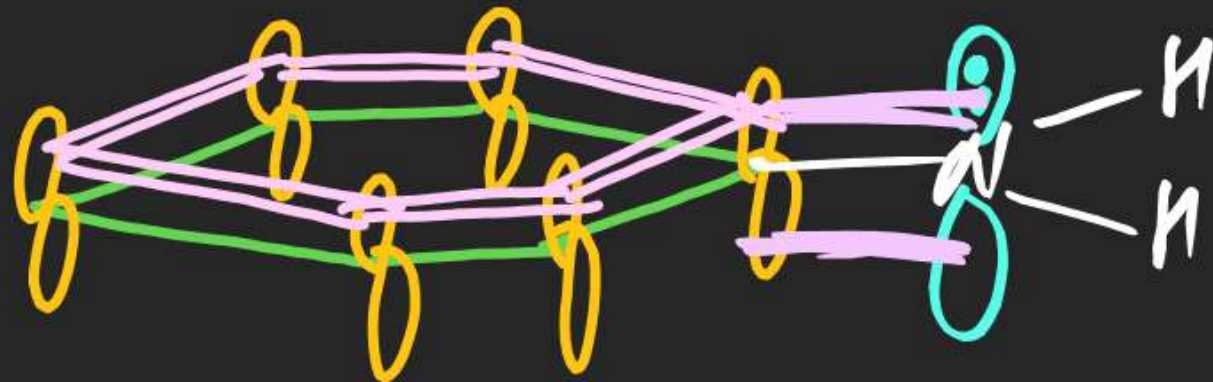
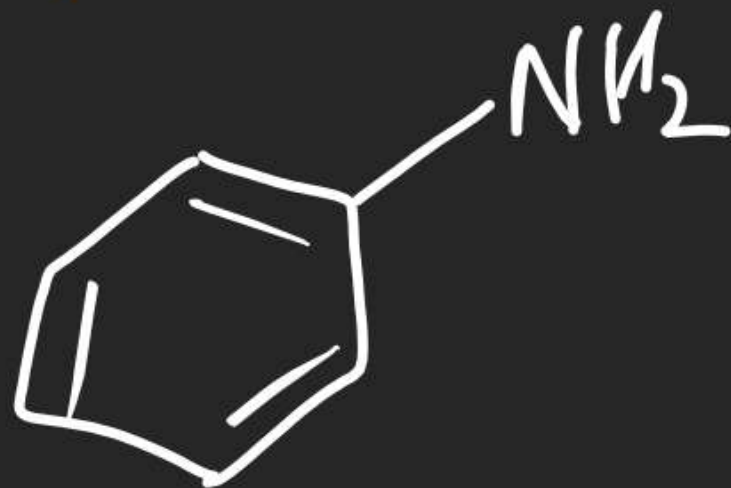
$$(\pi e^- = 6)$$

(25)

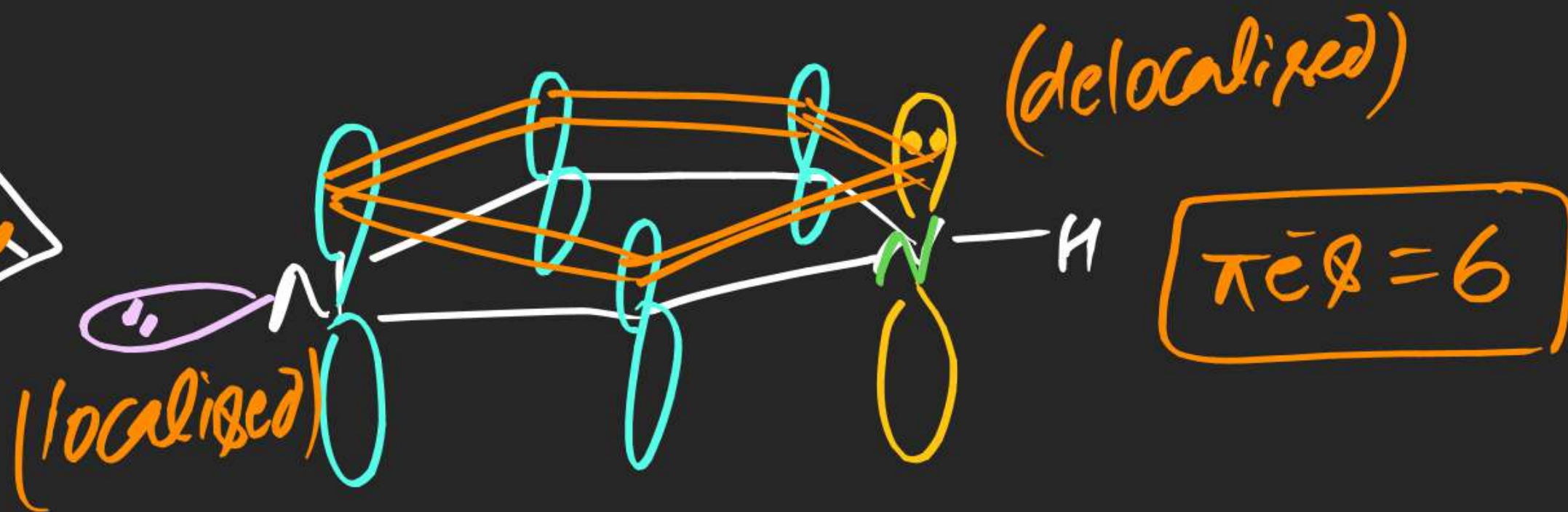
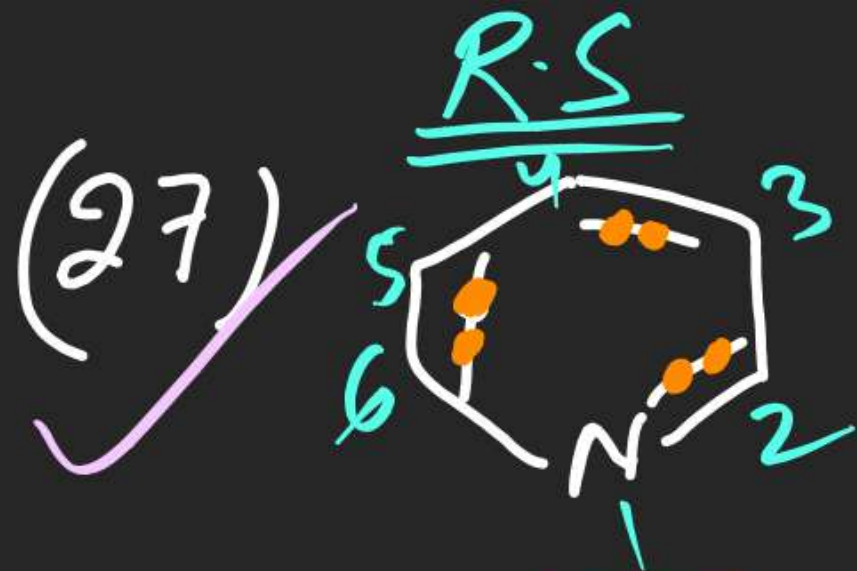


$$(\pi e^- = 4)$$

(26)

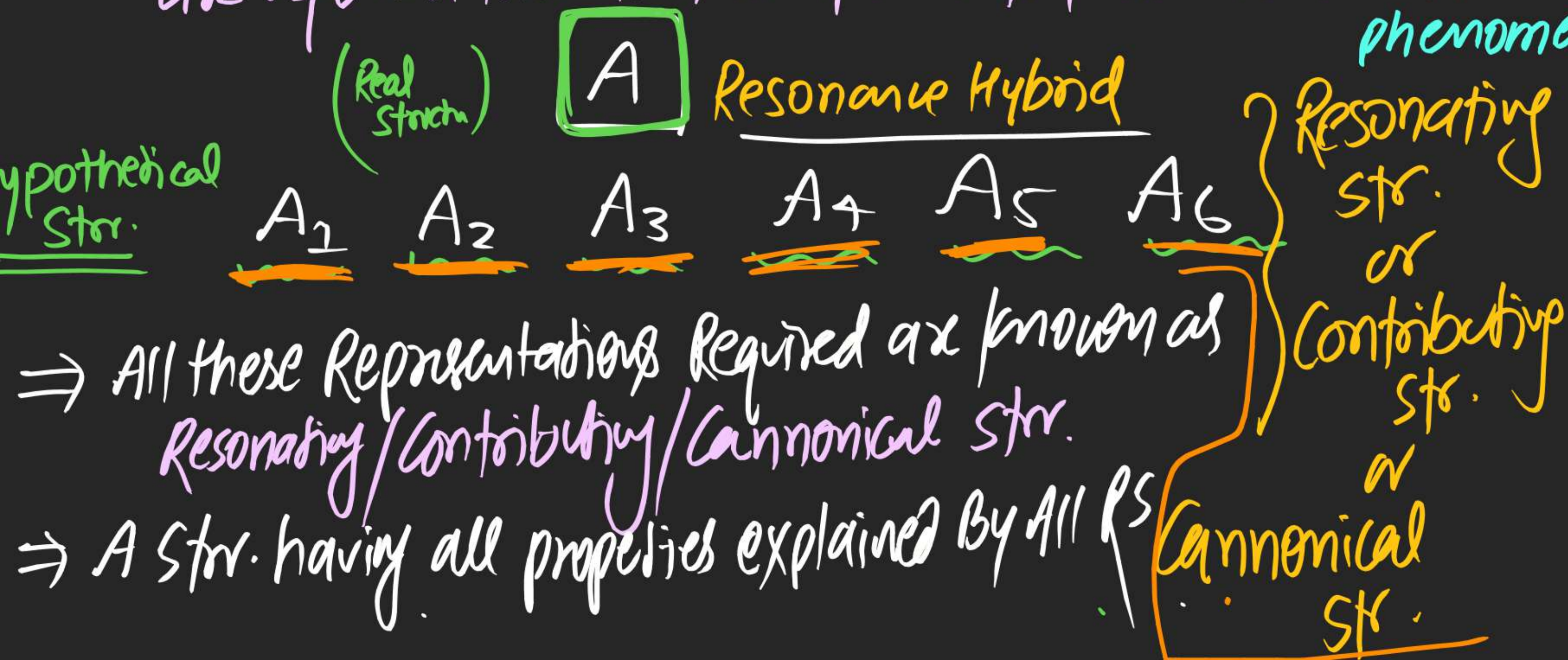


$$\pi e^- = 8$$



Resonance:-

⇒ when all properties of a compound can not be shown by single representation, two or more than two representations are required then that compound is known to have **Resonance phenomenon**



is known as Resonance Hybrid.

⇒ Resonating str. are Hypothetical

⇒ Resonance Hybrid is Real

⇒ Resonating str. Contributes in Resonance Hybrid in Proportion of their stability

Higher the stability of RS ⇒ Higher the contribution

⇒ RS which contribute most in Resonance Hybrid is known as most contributing R-Str.

(#) Condition of Resonance:

(*) Compounds having at least 3 // p orbital on adjacent atom.

Note 2 // p or p-d orbitals in case of ions & multiple Bond.

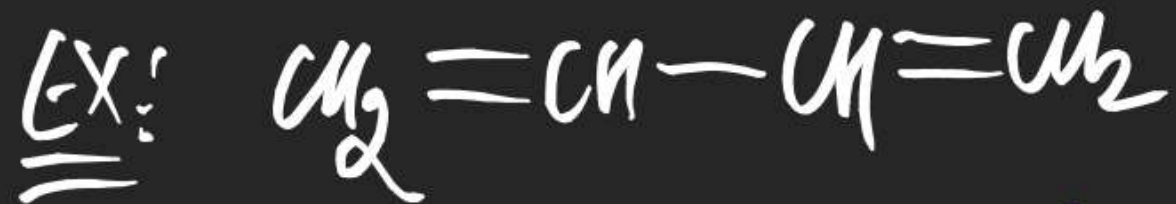
Compound must be

(*) Planar (sp/sp^2)

(*) Conjugated

⇒ Compound may have following Type of Conjugation

(i) π -Bond — π -Bond



(ii) π -Bond — lone pair

