



**Topic-Resonance
Lecture-01
Himanshu Sir**



Zinedu hai to...possible hai!



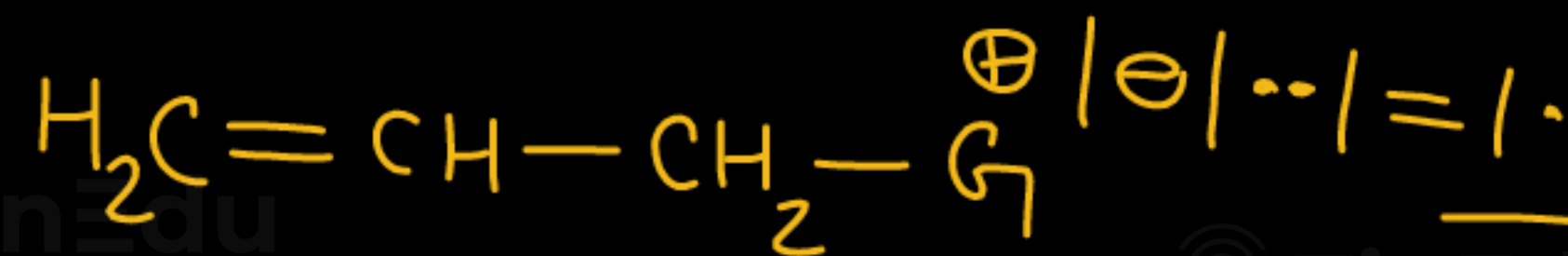
Process which involve complete transfer of e^- in a system k/a resonance.

For any compound to show resonance compound should be conjugated.

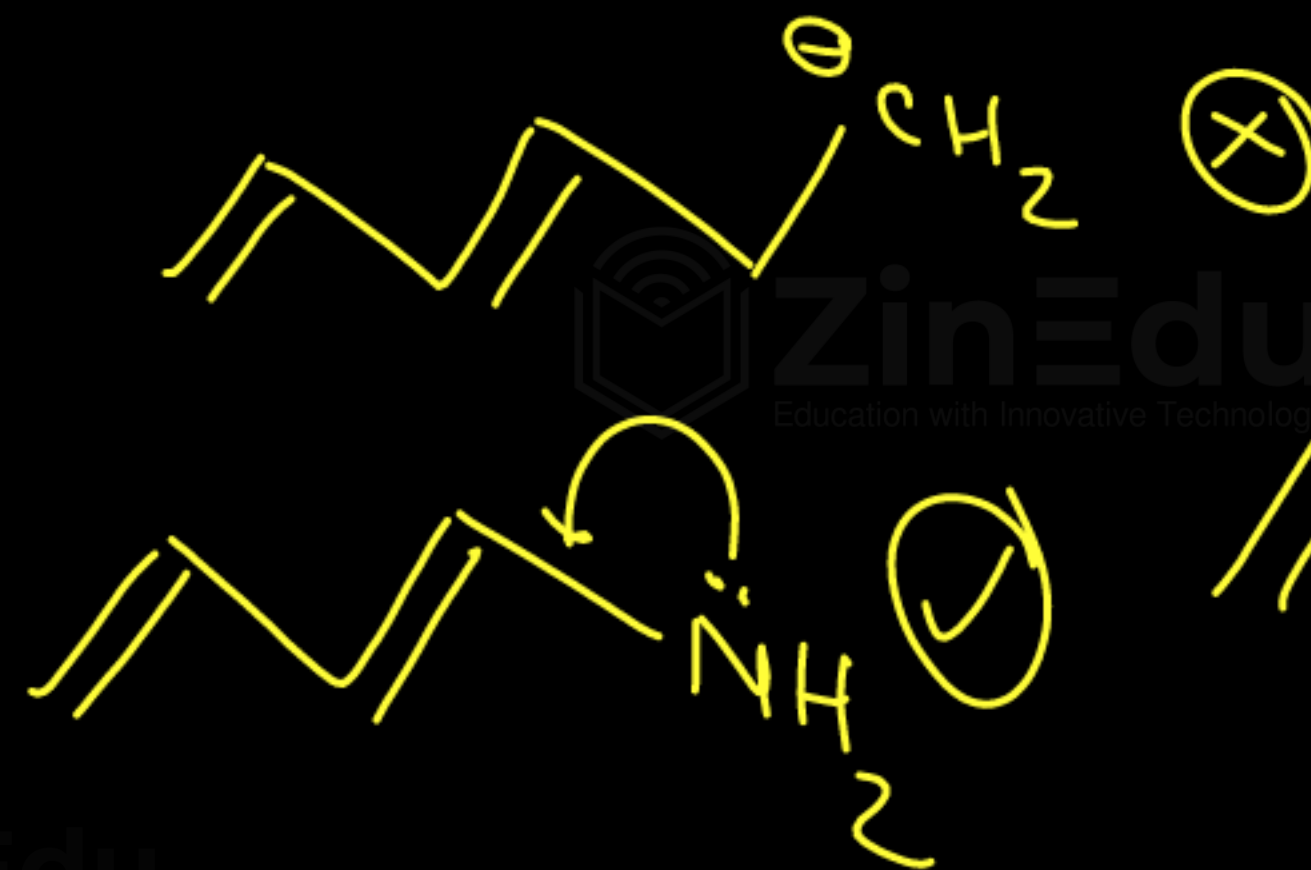
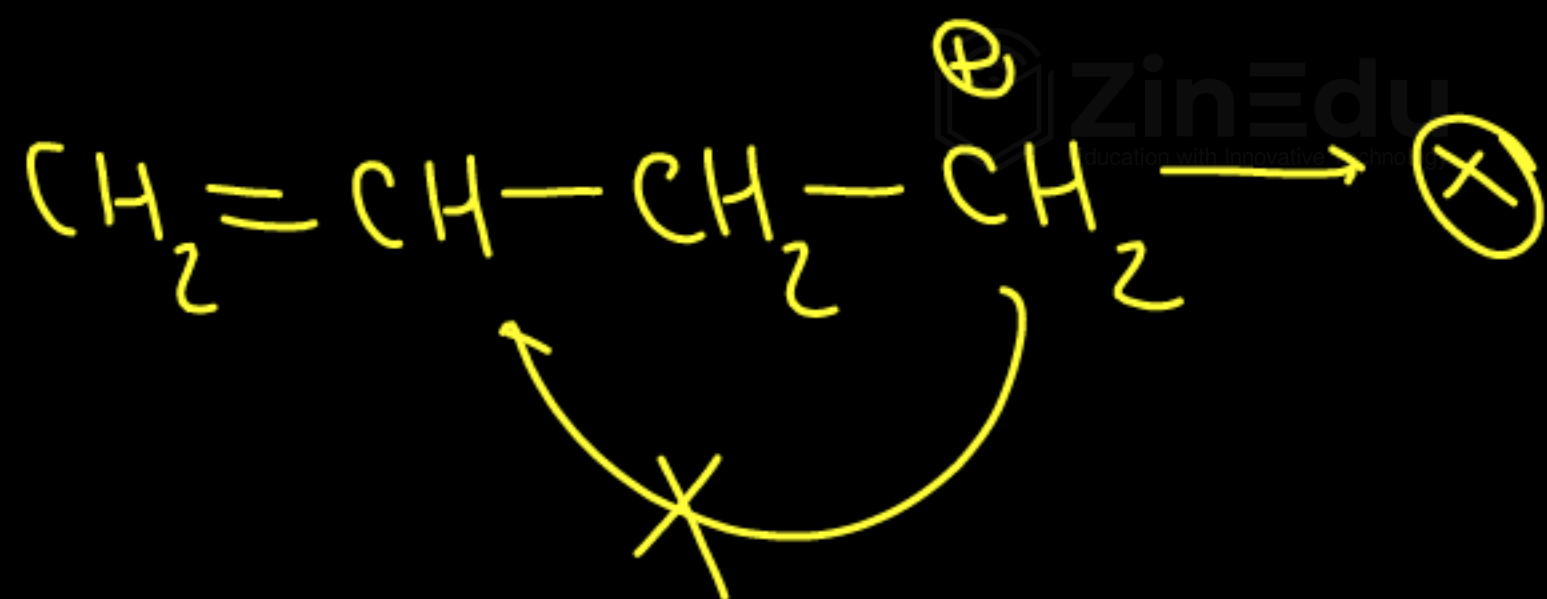
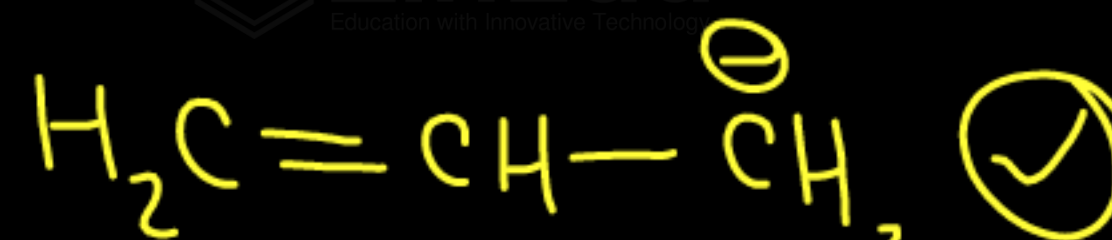
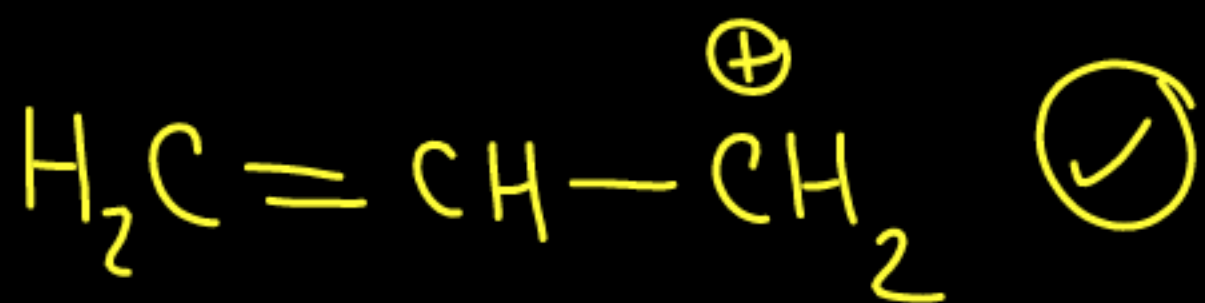
Conjugated System →



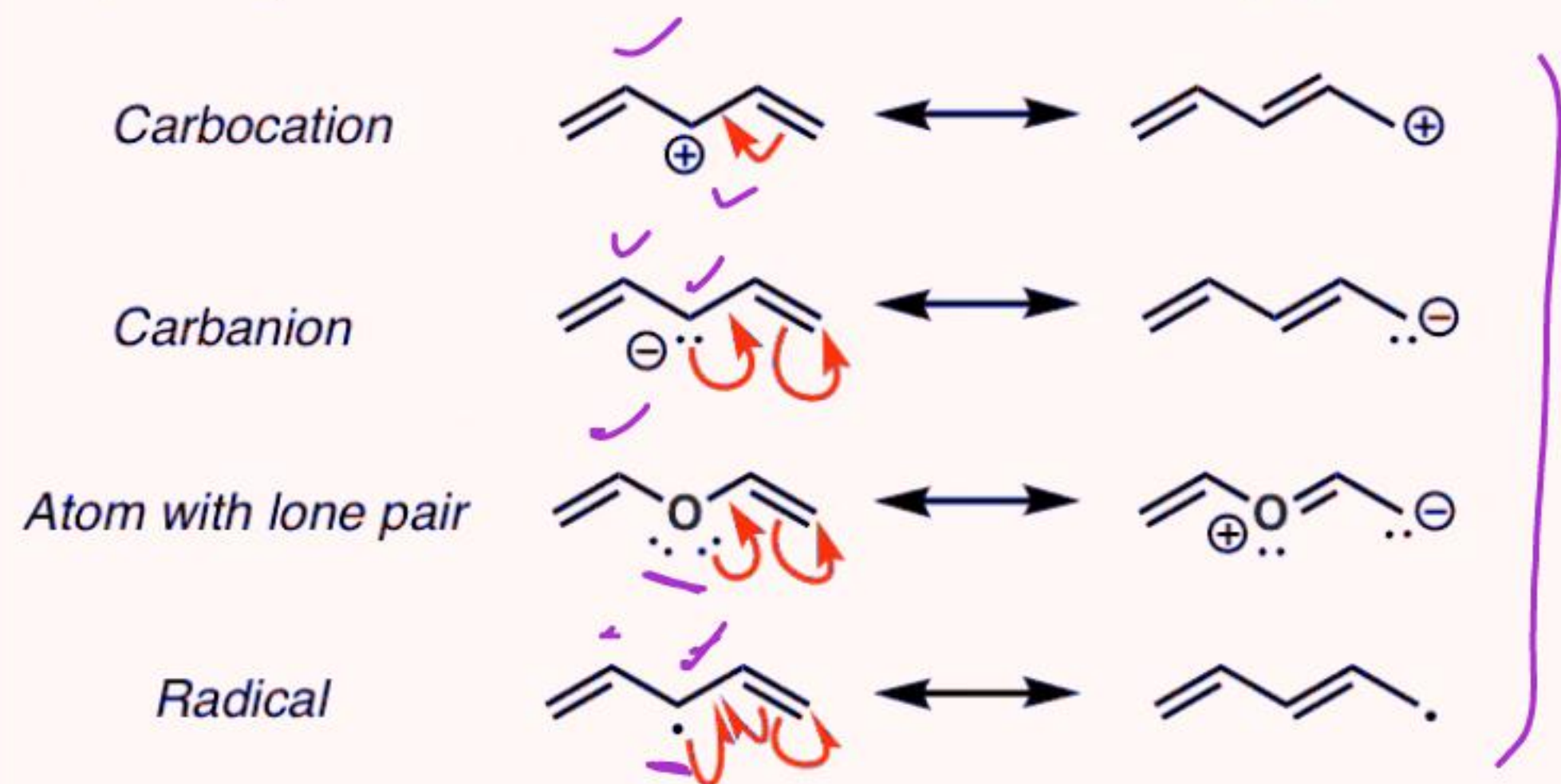
→ Conjugated ✓



→ Non conjugated ✗

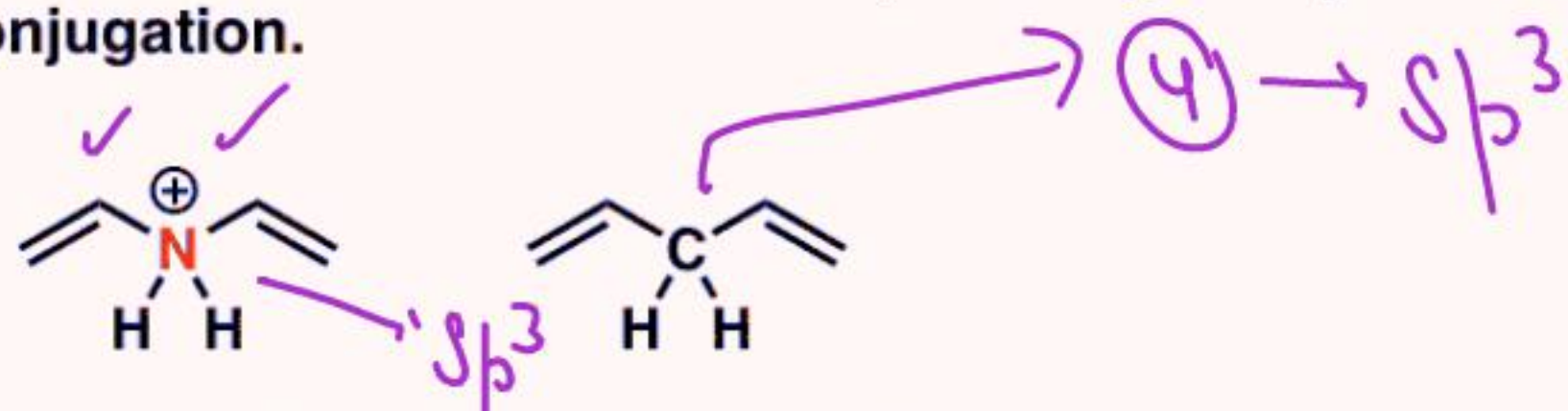


Why? They all have *resonance forms* that are conjugated.

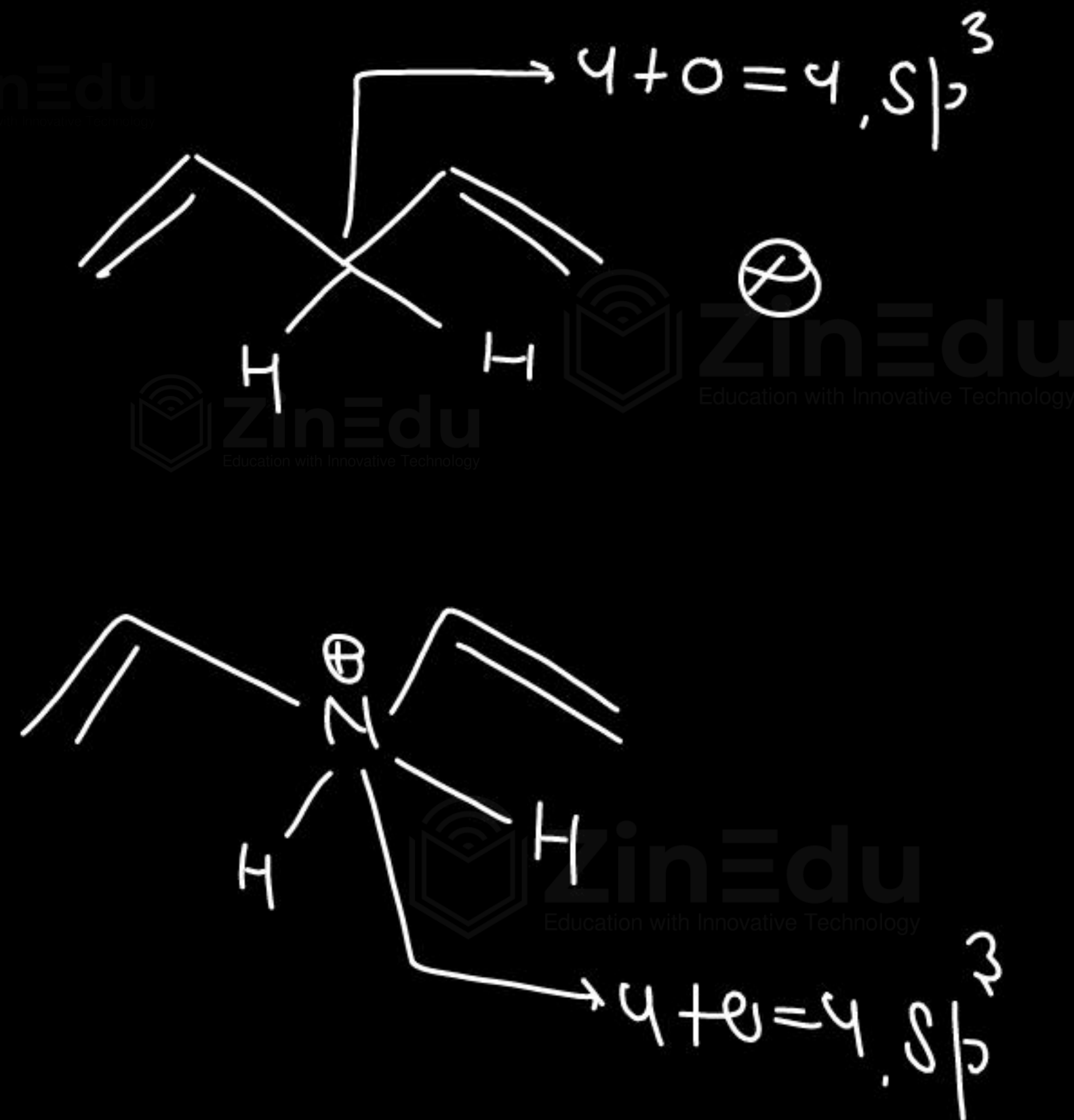


Bottom line: If the atom between two π bonds has a lone pair, empty p orbital, or radical, it can still participate in conjugation.

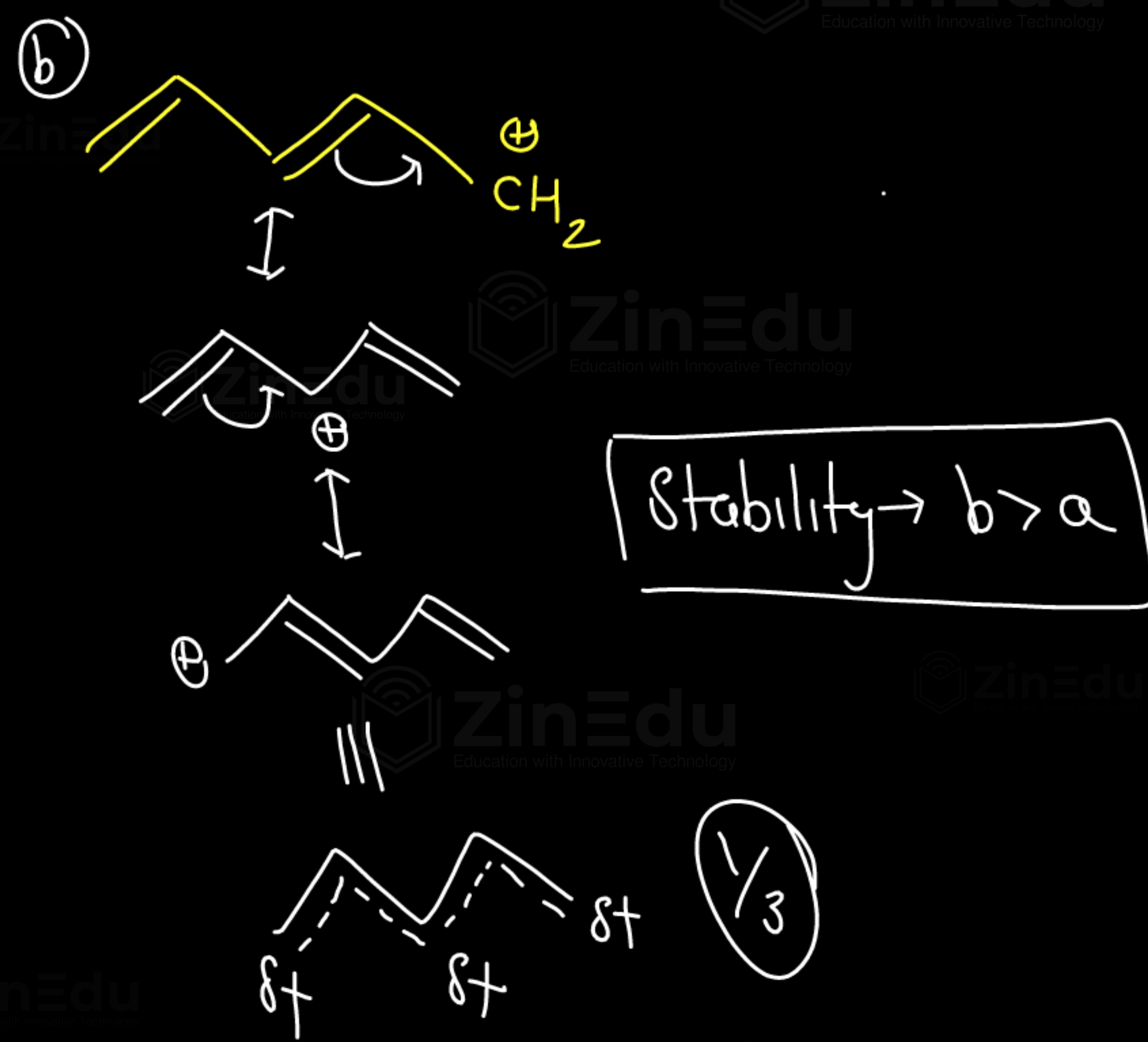
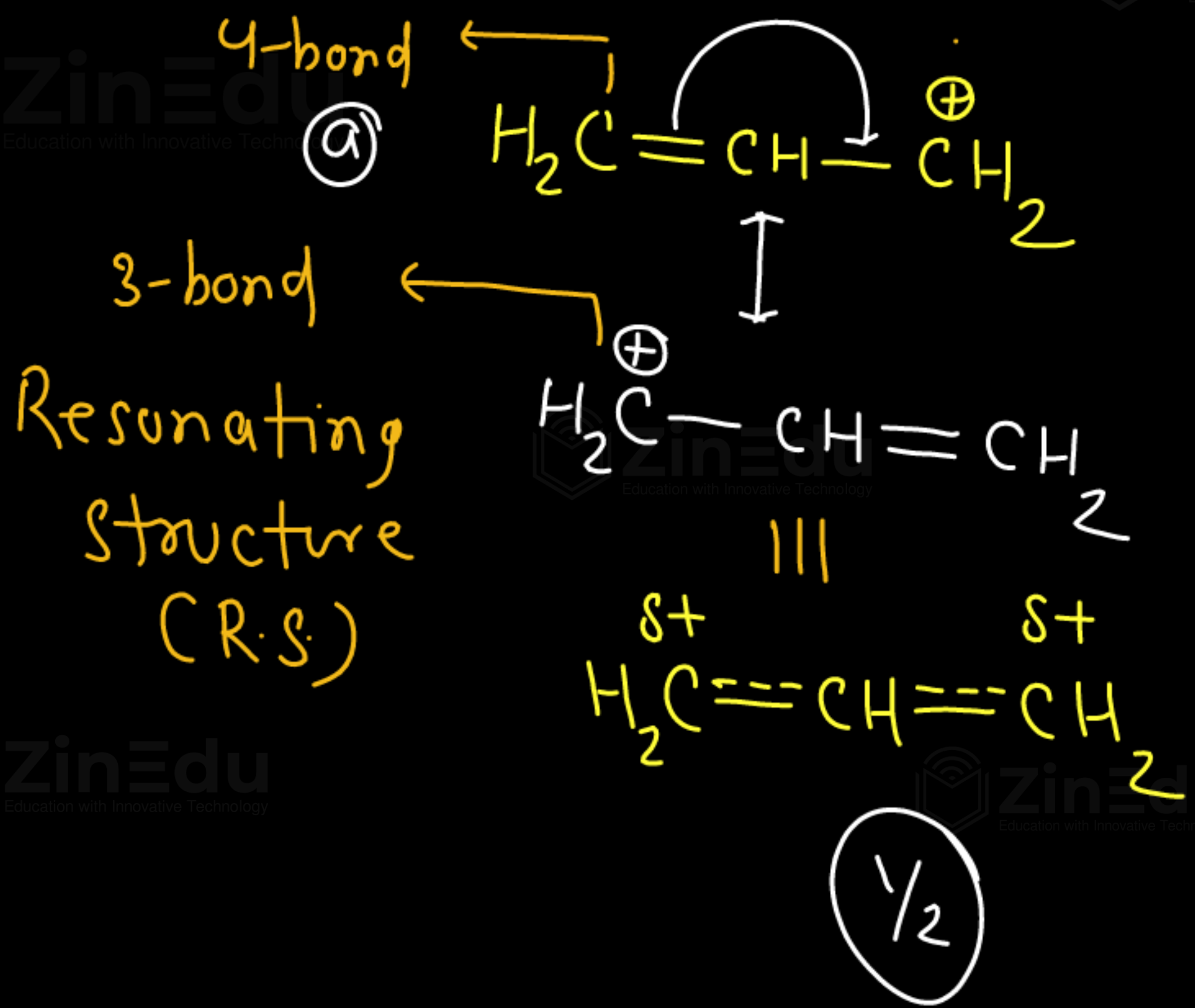
BUT: if it's bound to four atoms, it can't participate in conjugation.

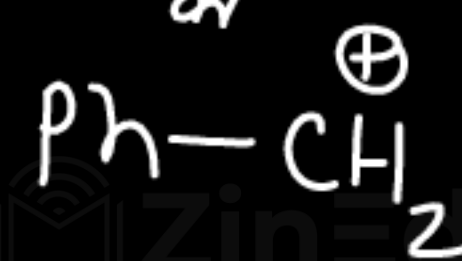
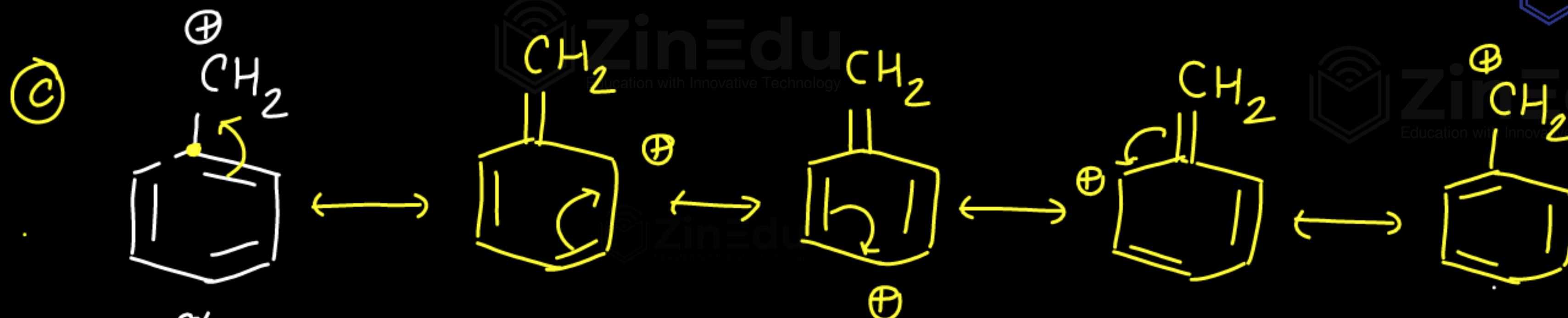


Neither of these alkenes are conjugated



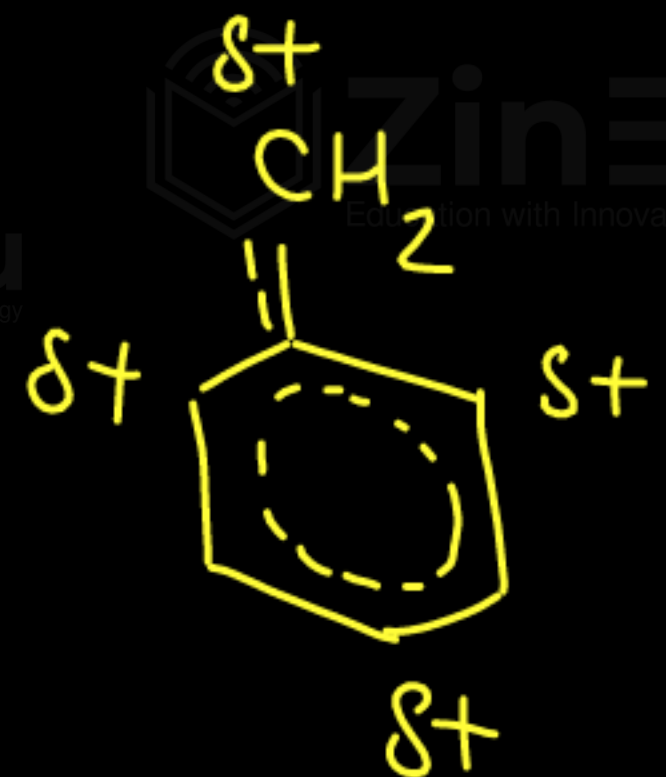
π -bond, +ive charge Resonance \rightarrow



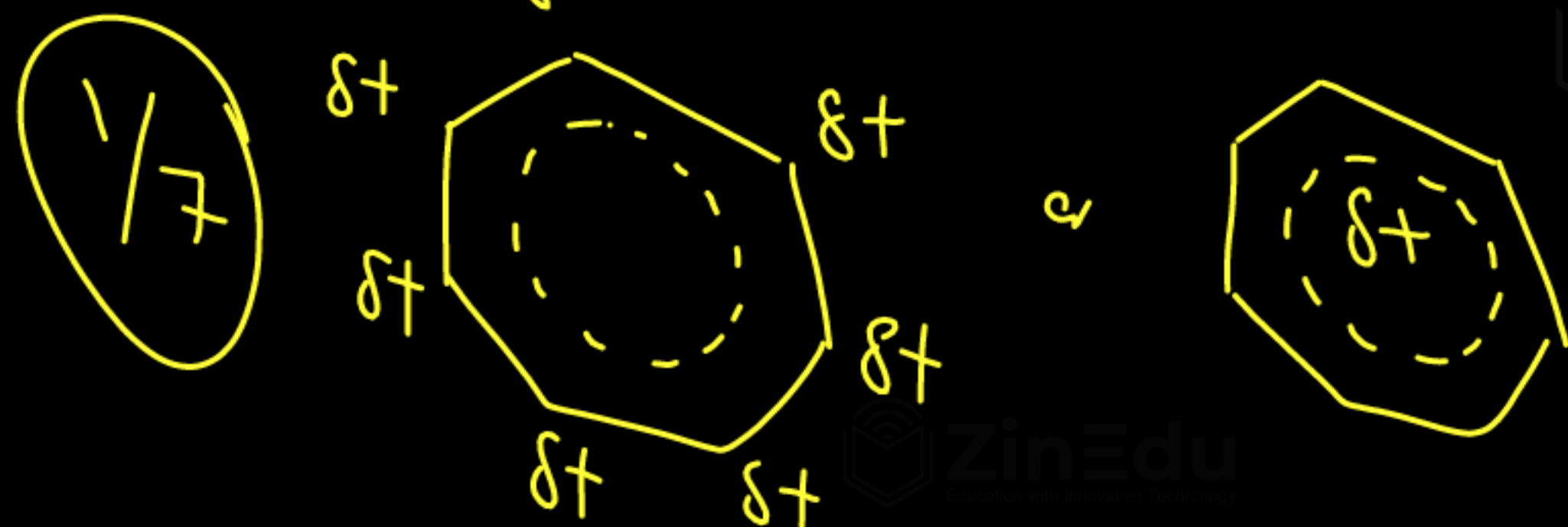
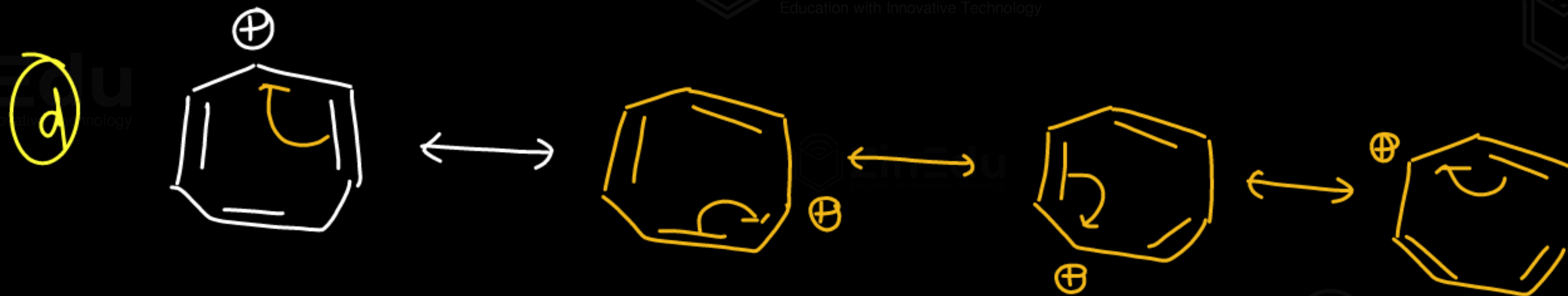


(Benzyl carbocation)

Stability → a < b < c



1/4



Stability $\rightarrow c < d$