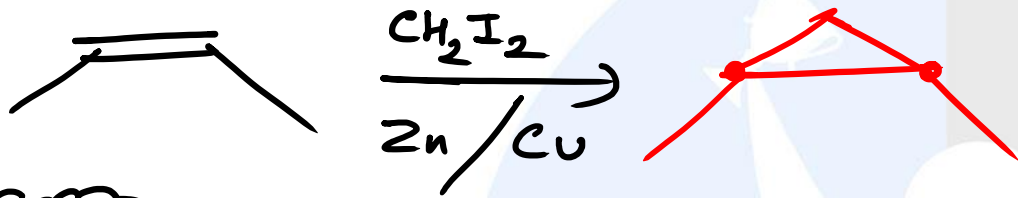
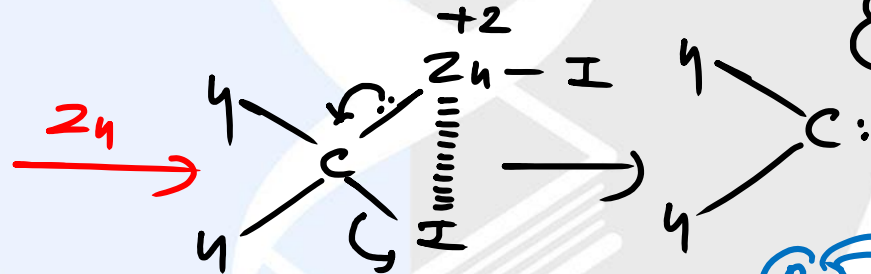
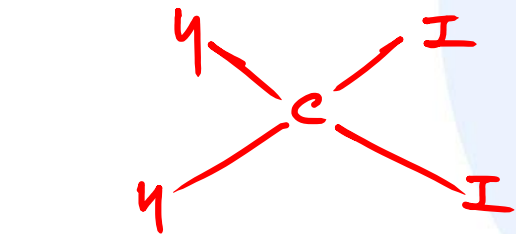


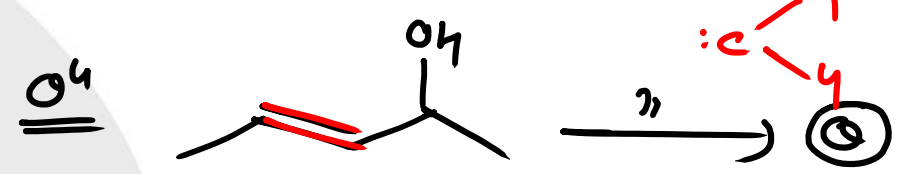
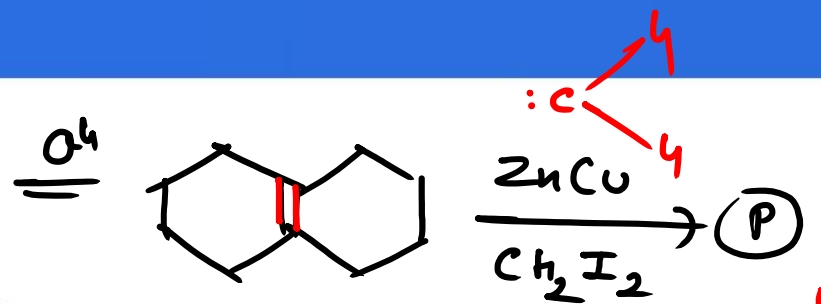
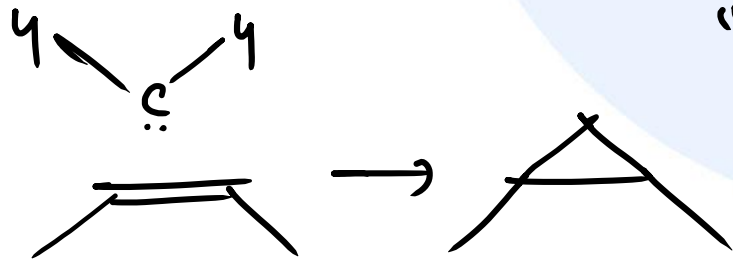
Simmon Smith Reaction



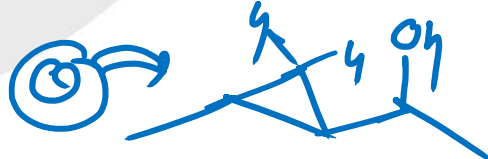
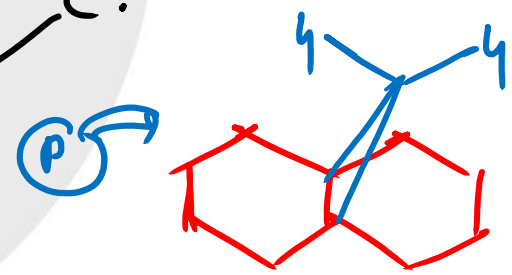
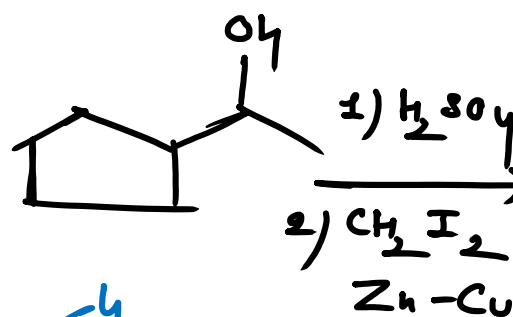
mechⁿ



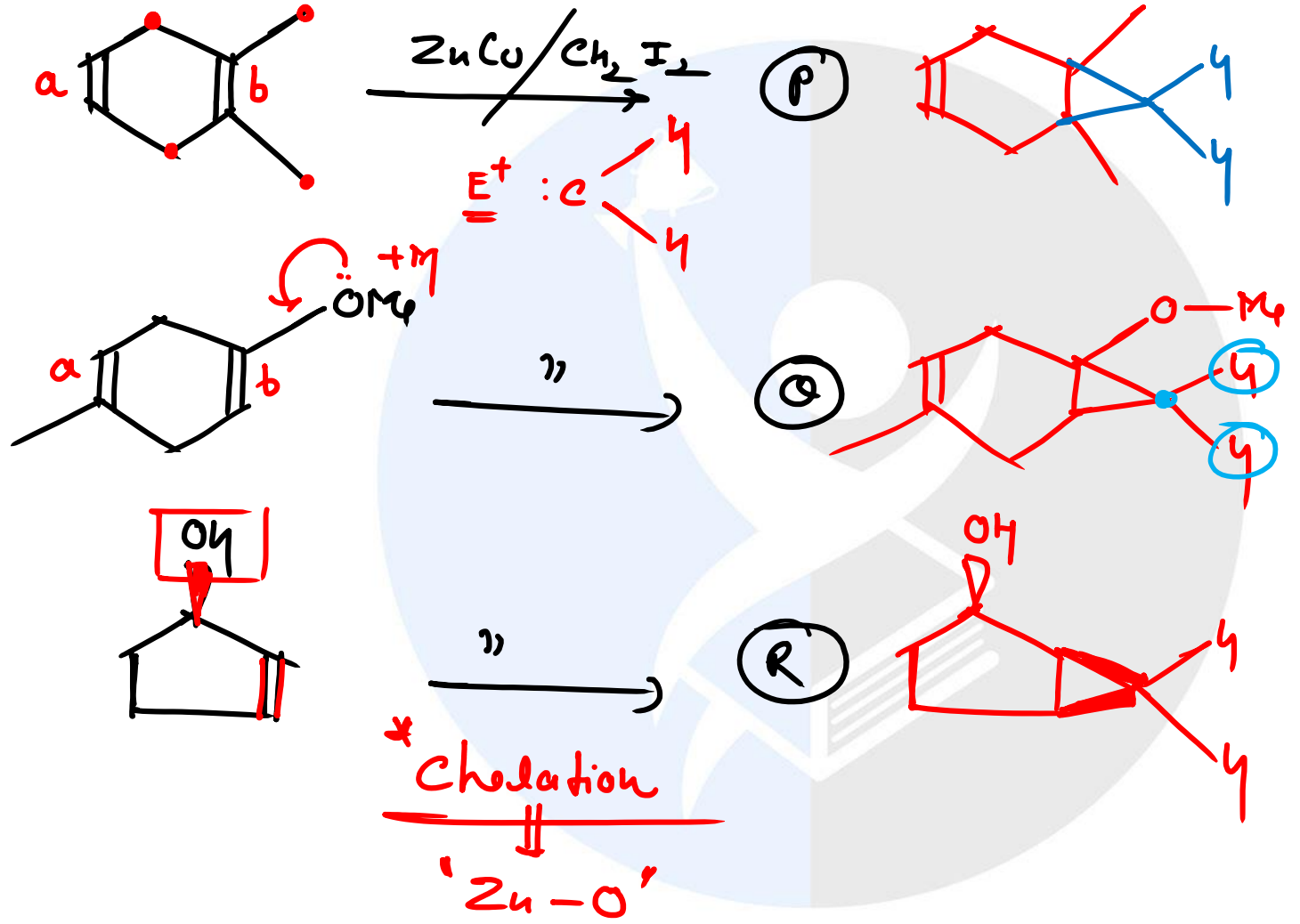
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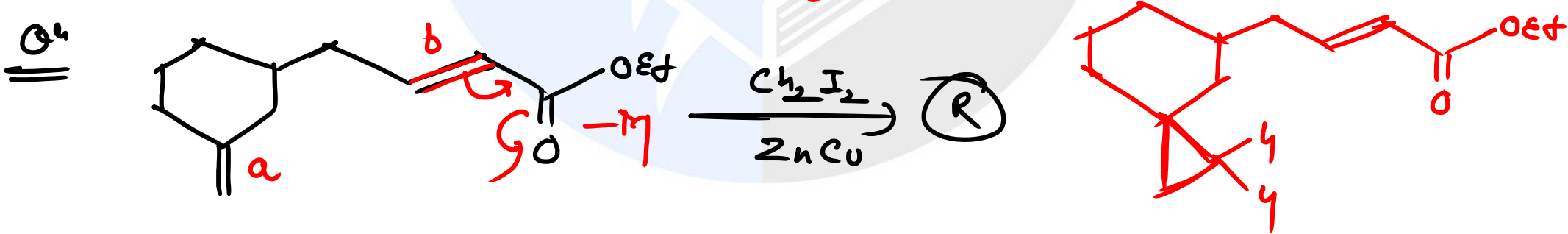
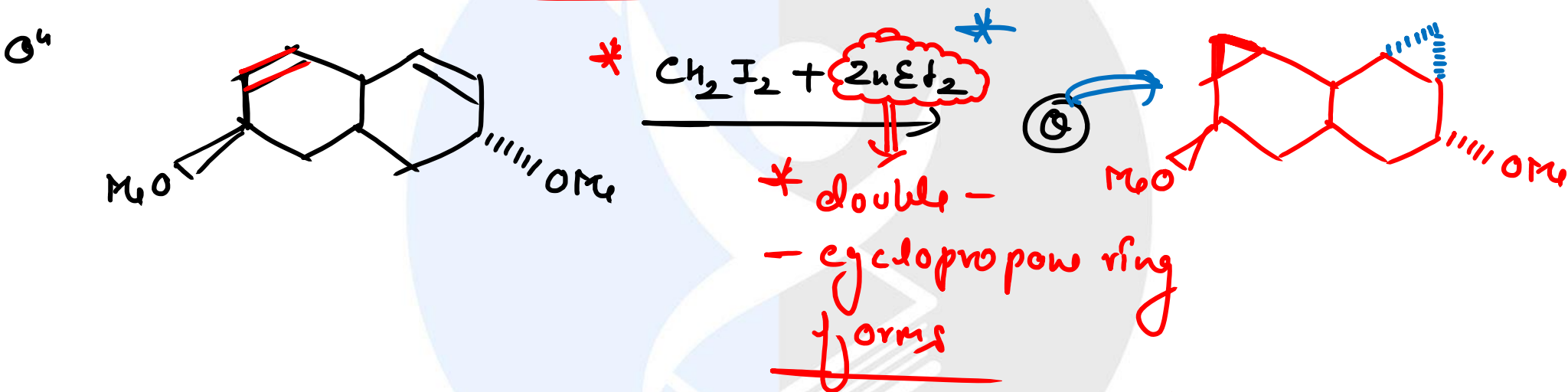
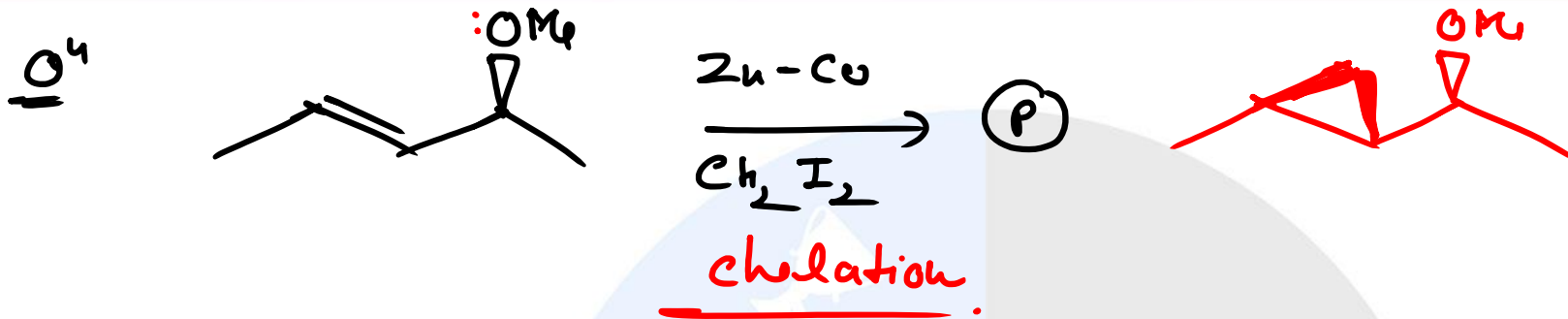


OH
howo*

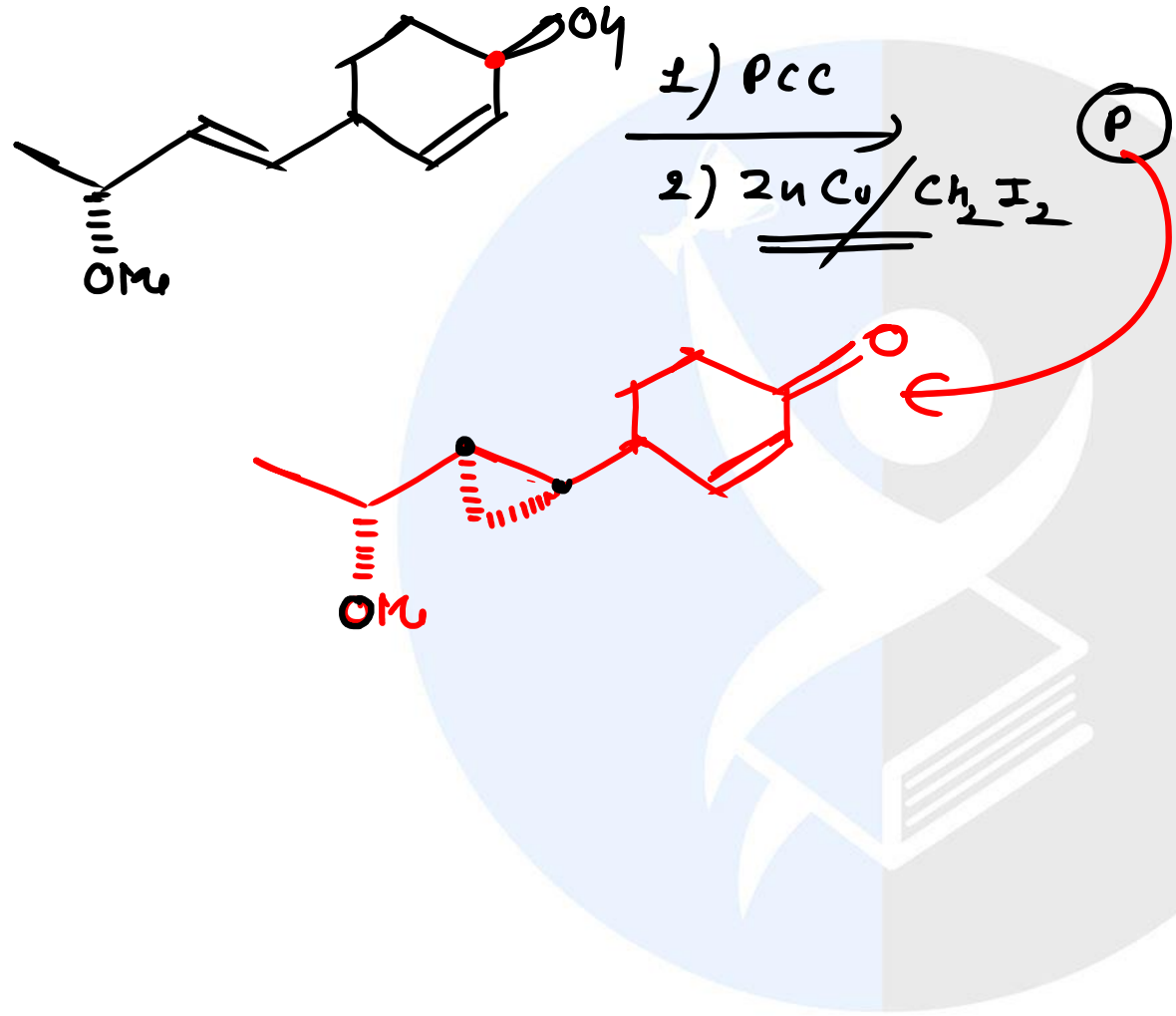


Q4



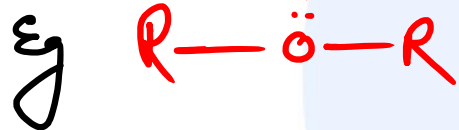
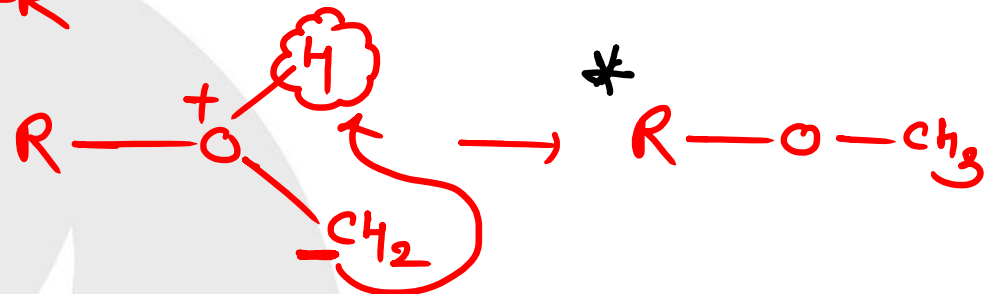
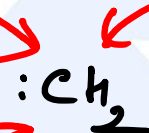
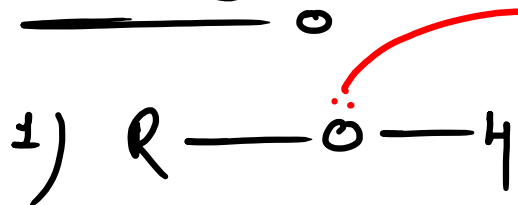


Q4

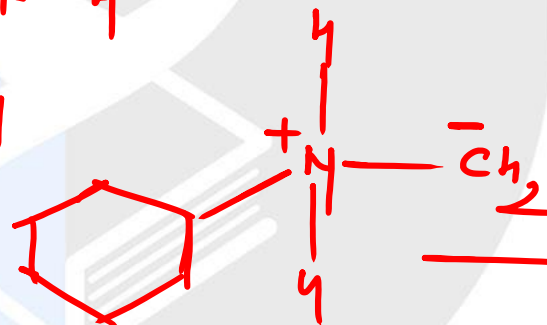
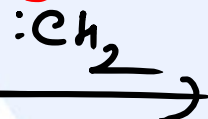
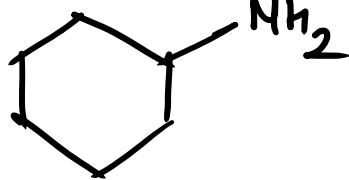


Reaction of carbene with lone pair *

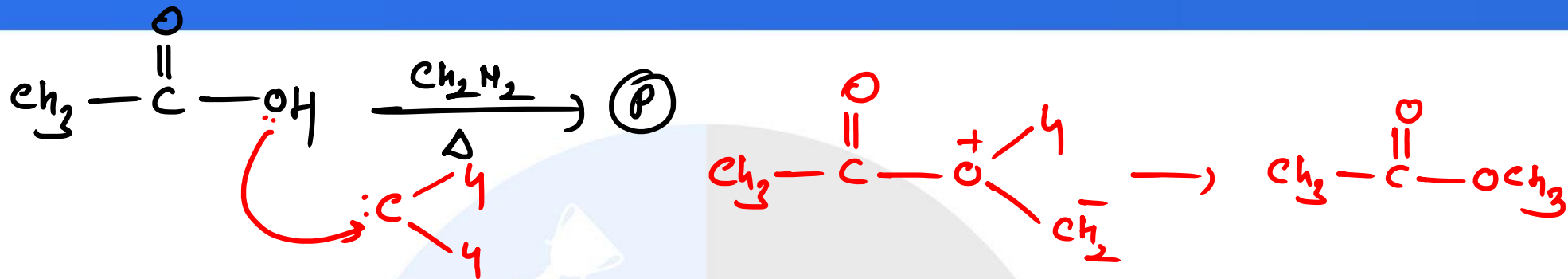
Case ①



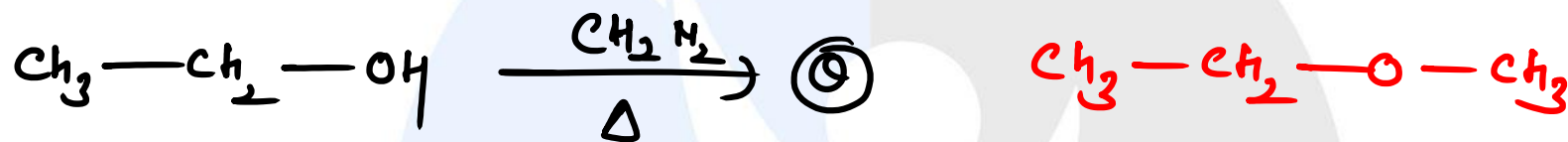
|| 0₄



Q4

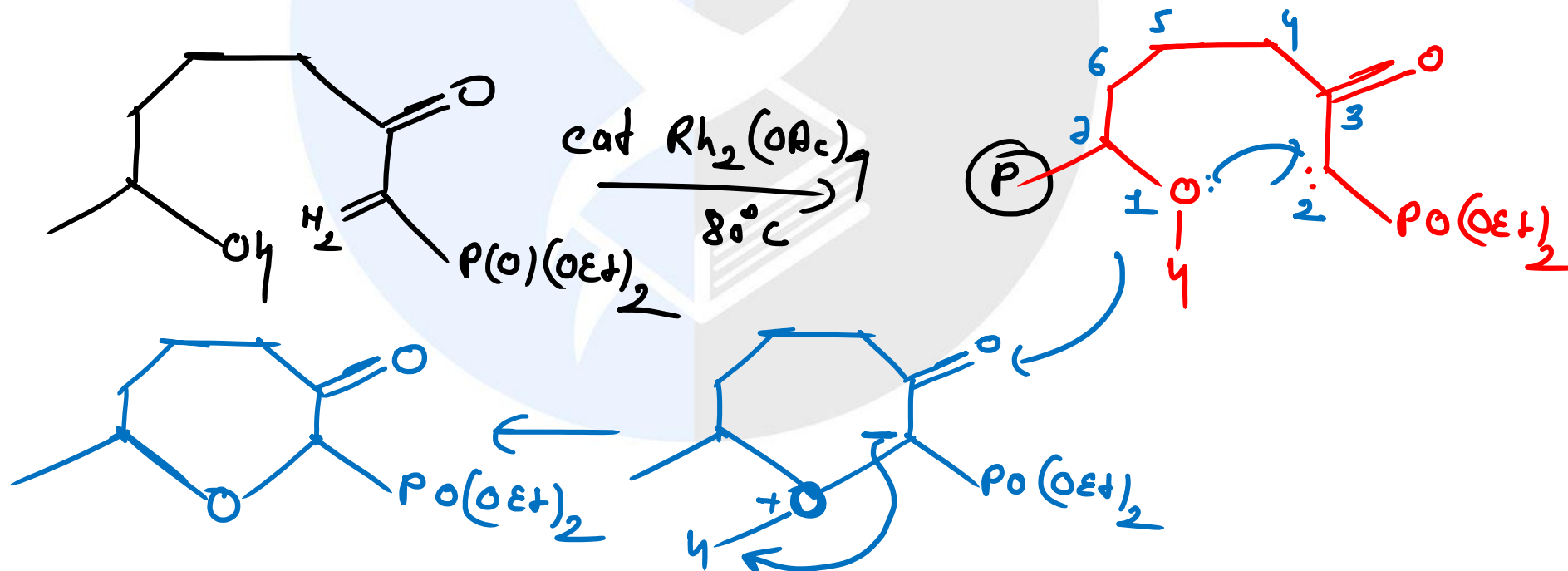


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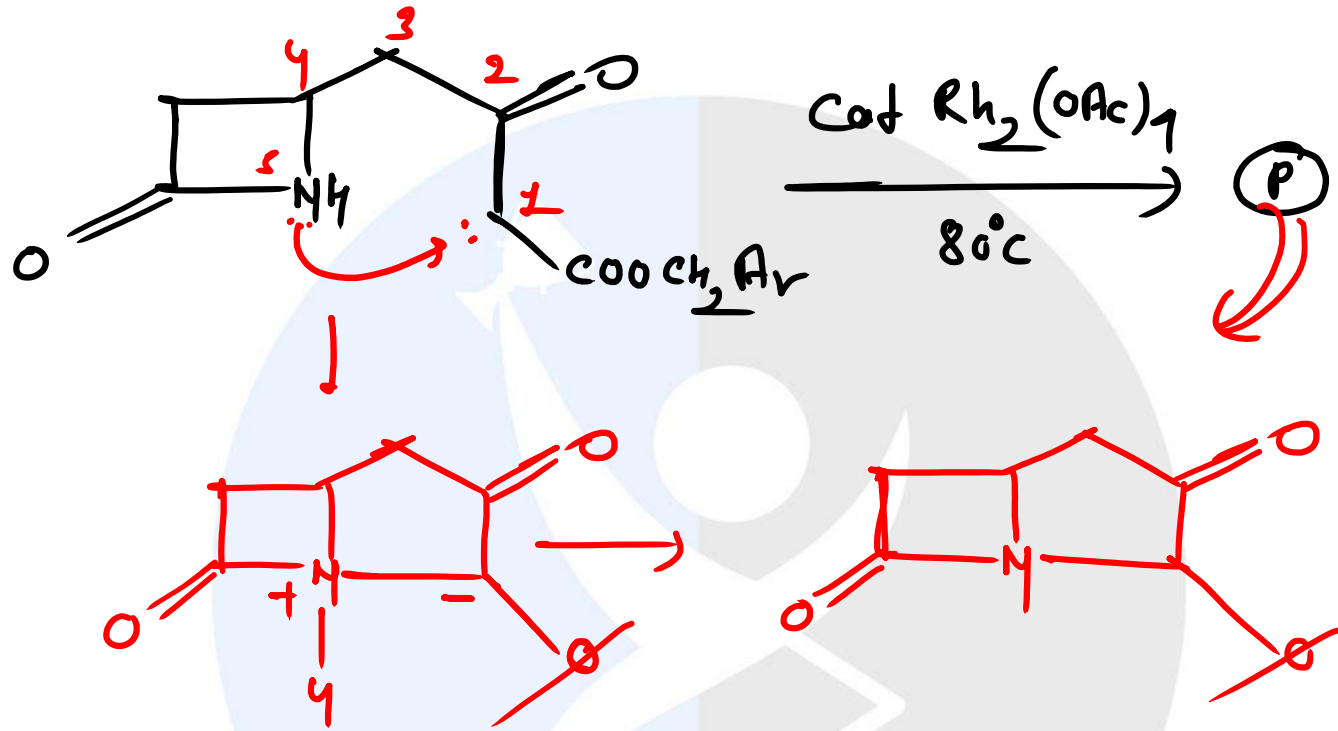


Q4

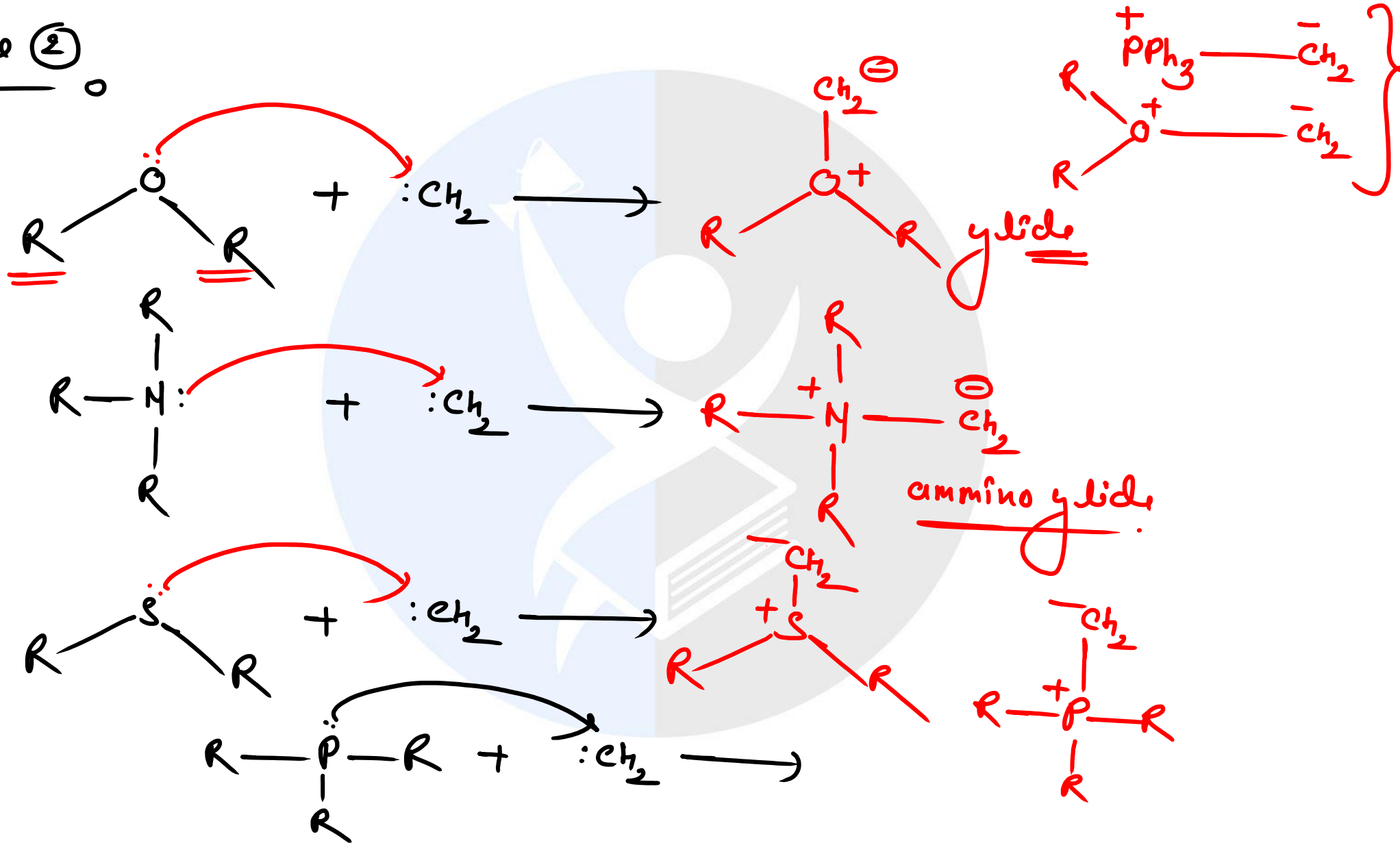
Corruther

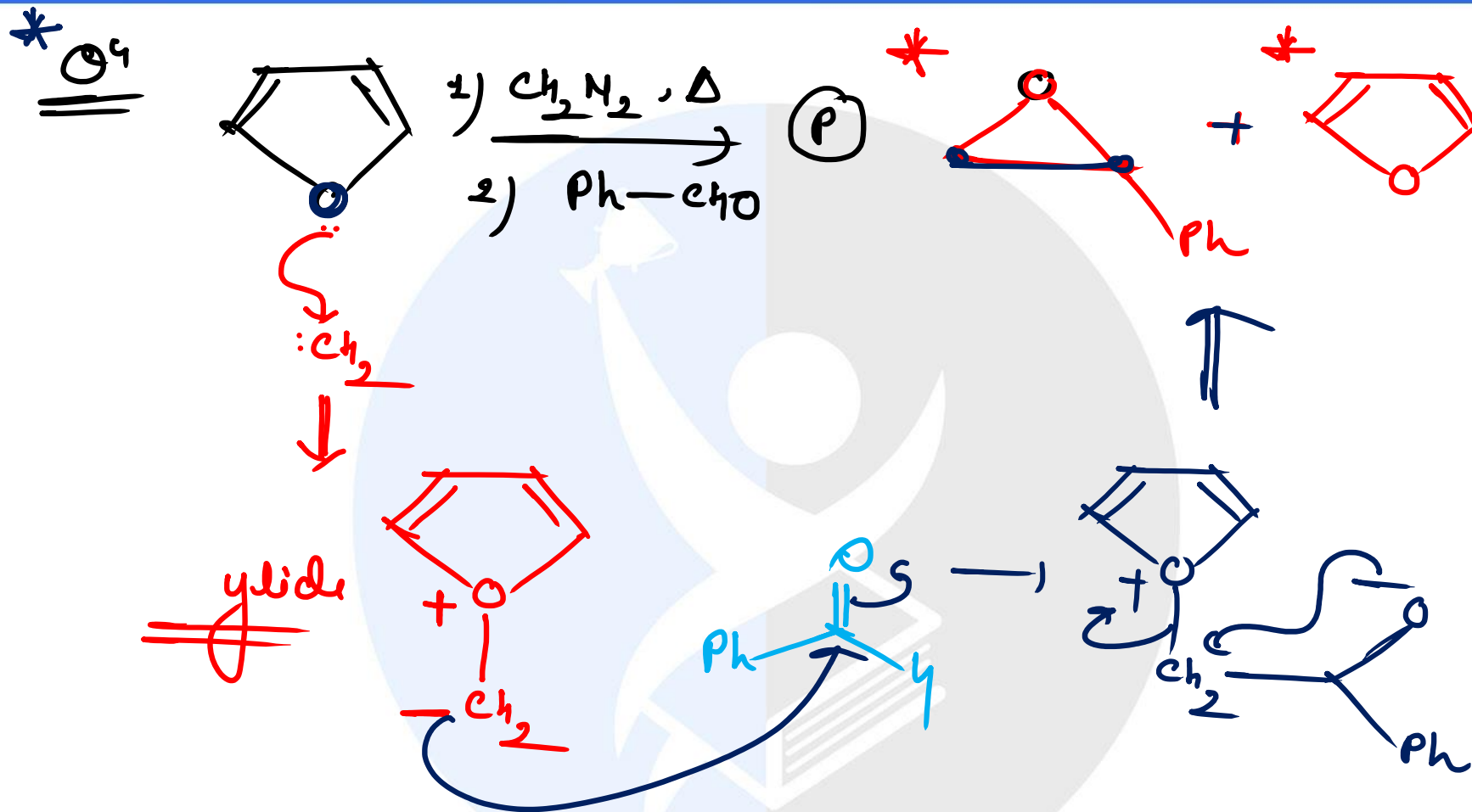


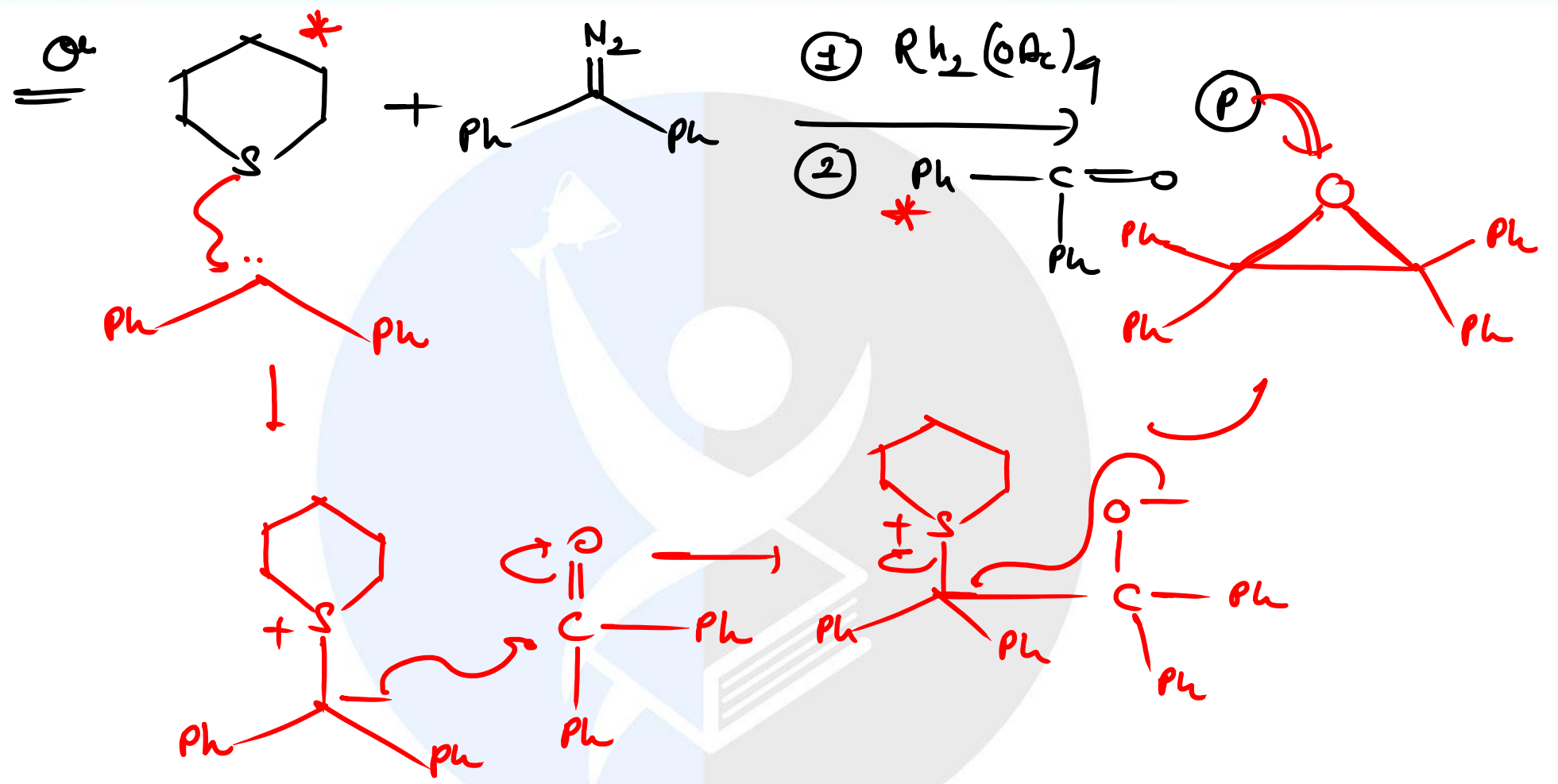
Q4
Caruthers



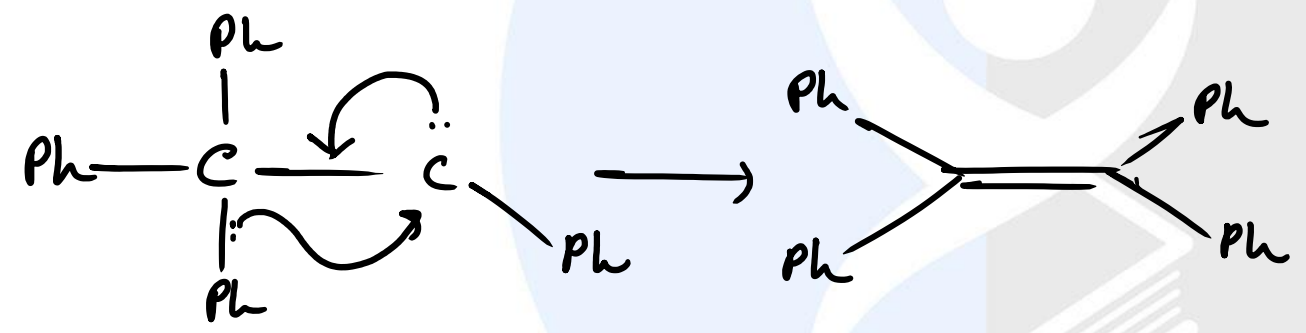
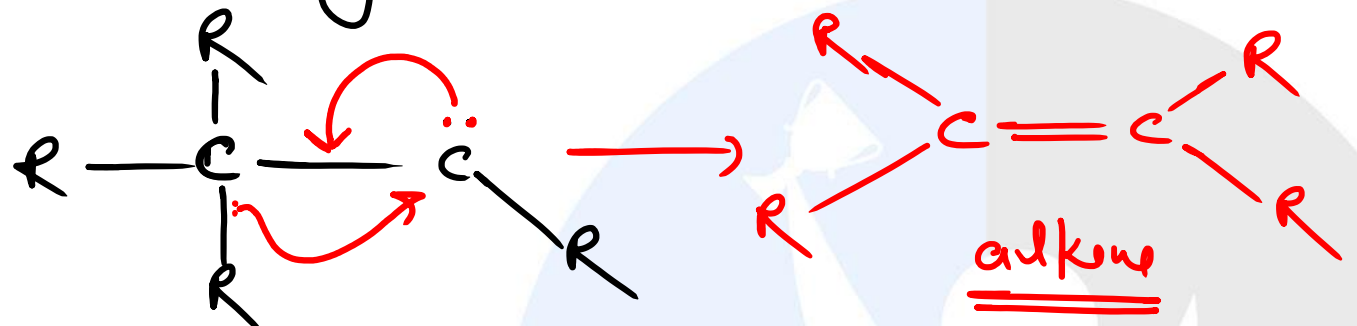
Case (2)



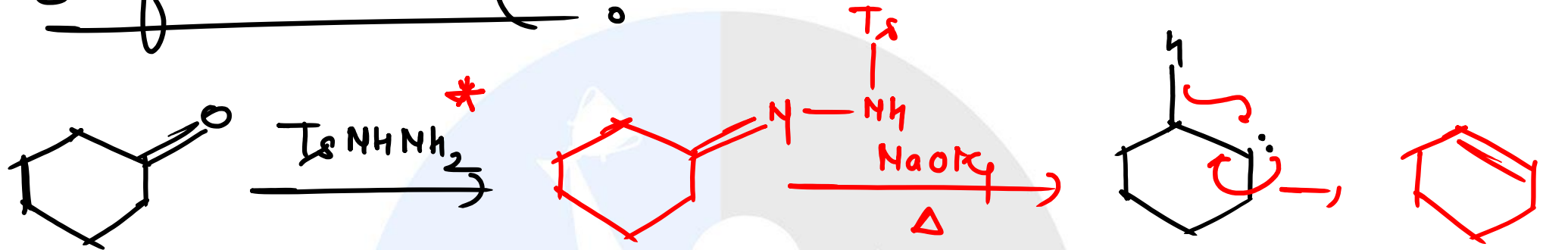




③ Rearrangement



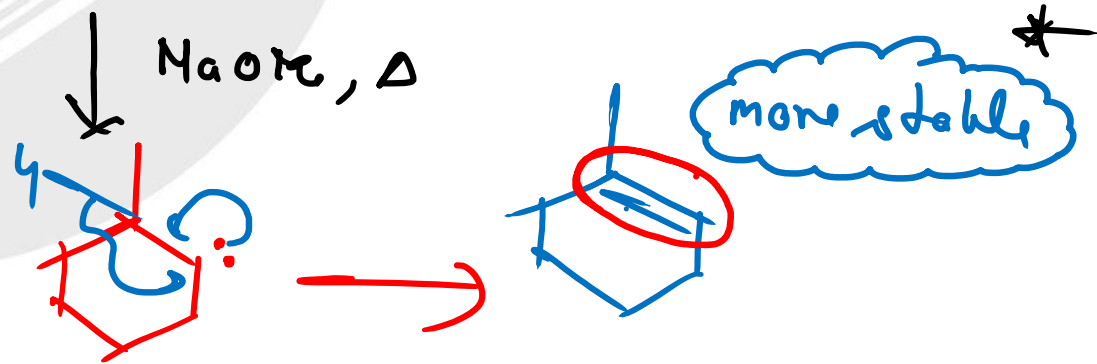
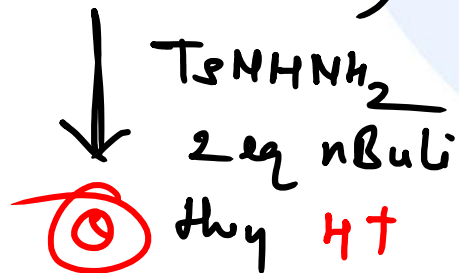
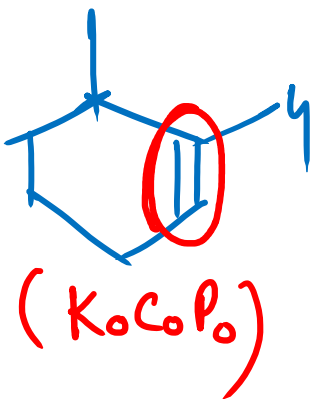
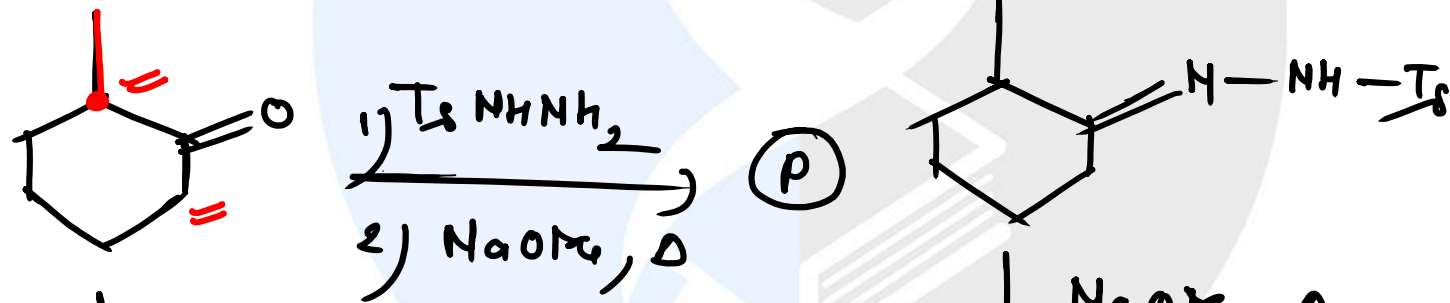
⇒ Bamford & Steven R₂C



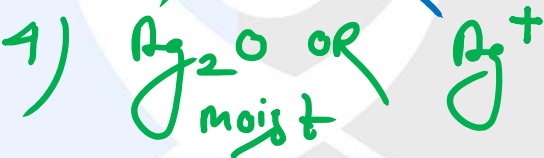
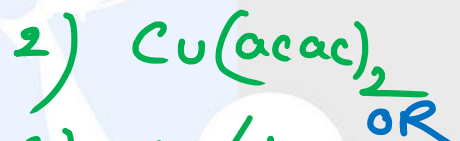
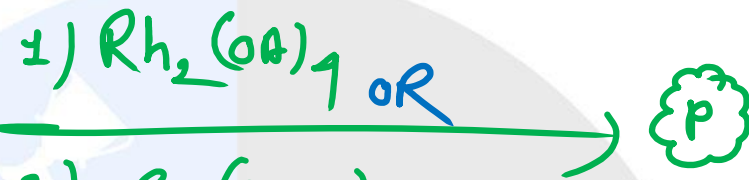
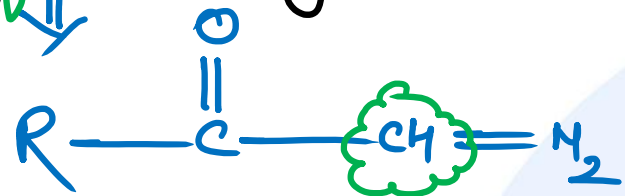
more stable alkene

* (ToCoPo)

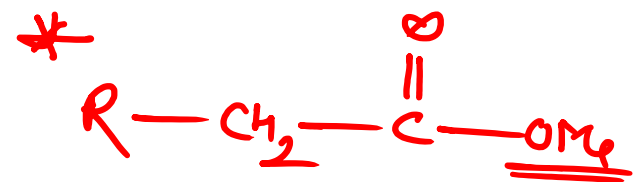
α



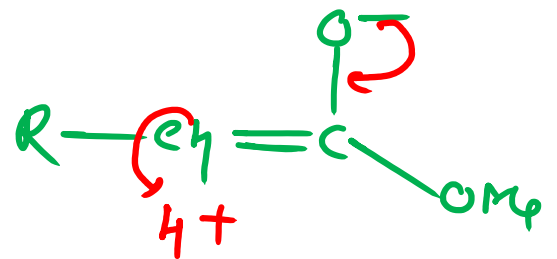
Wolff Rearrangement:



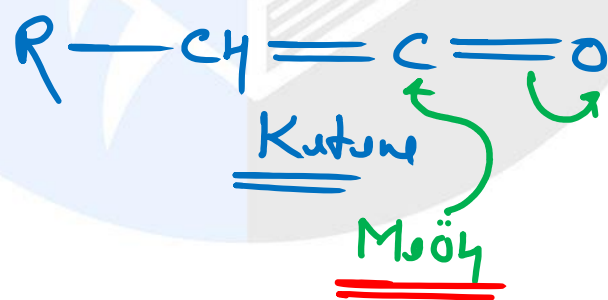
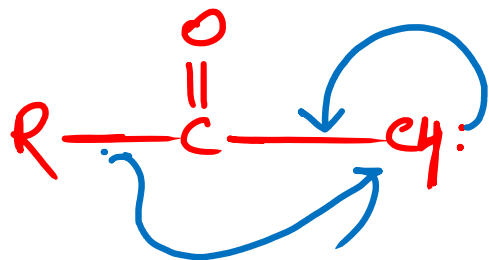
Solvent - H₂O, MeOH etc..

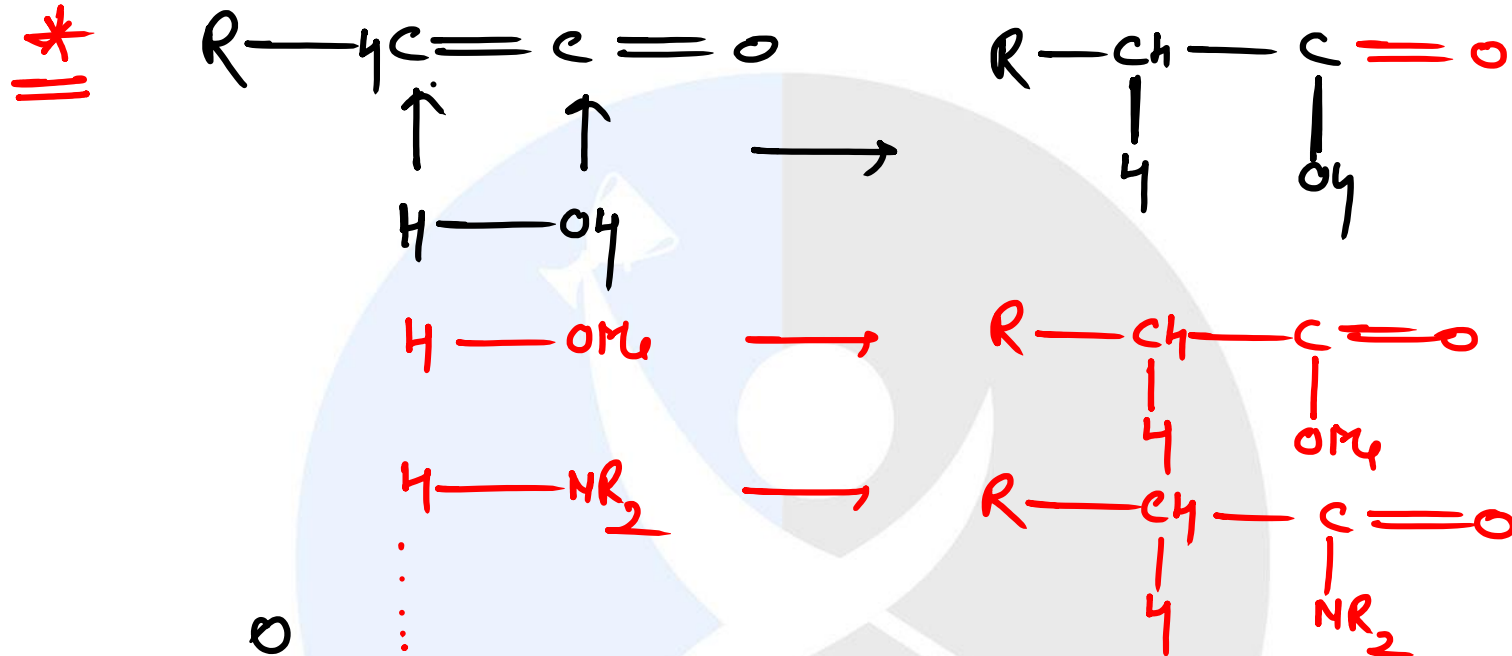


⇌

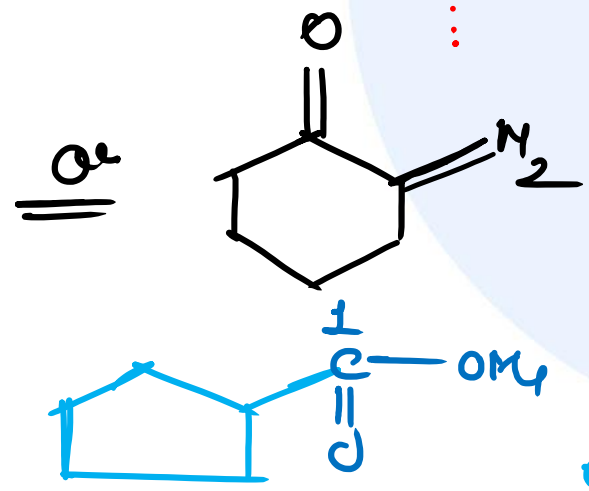


mechⁿ

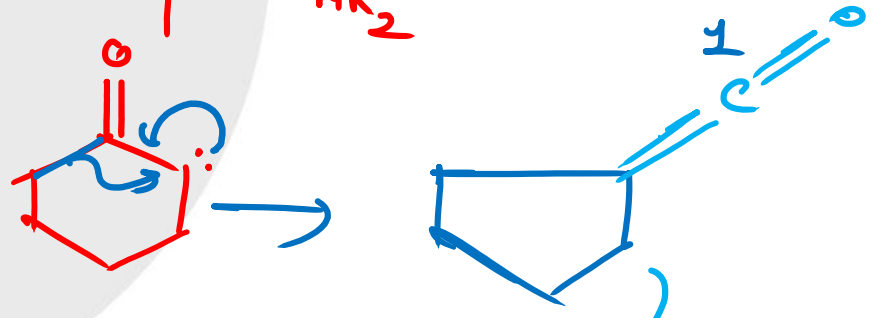




Ketone



1) $Rh_2(OAc)_4$
 Ph_3COH





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02

SUBHAMOY BHOWMIK



AIR
03

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RAMIKA SINGLA

AIR
02



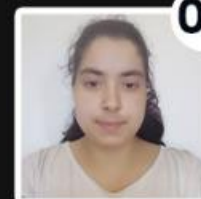
AJAY DANGI

AIR
02

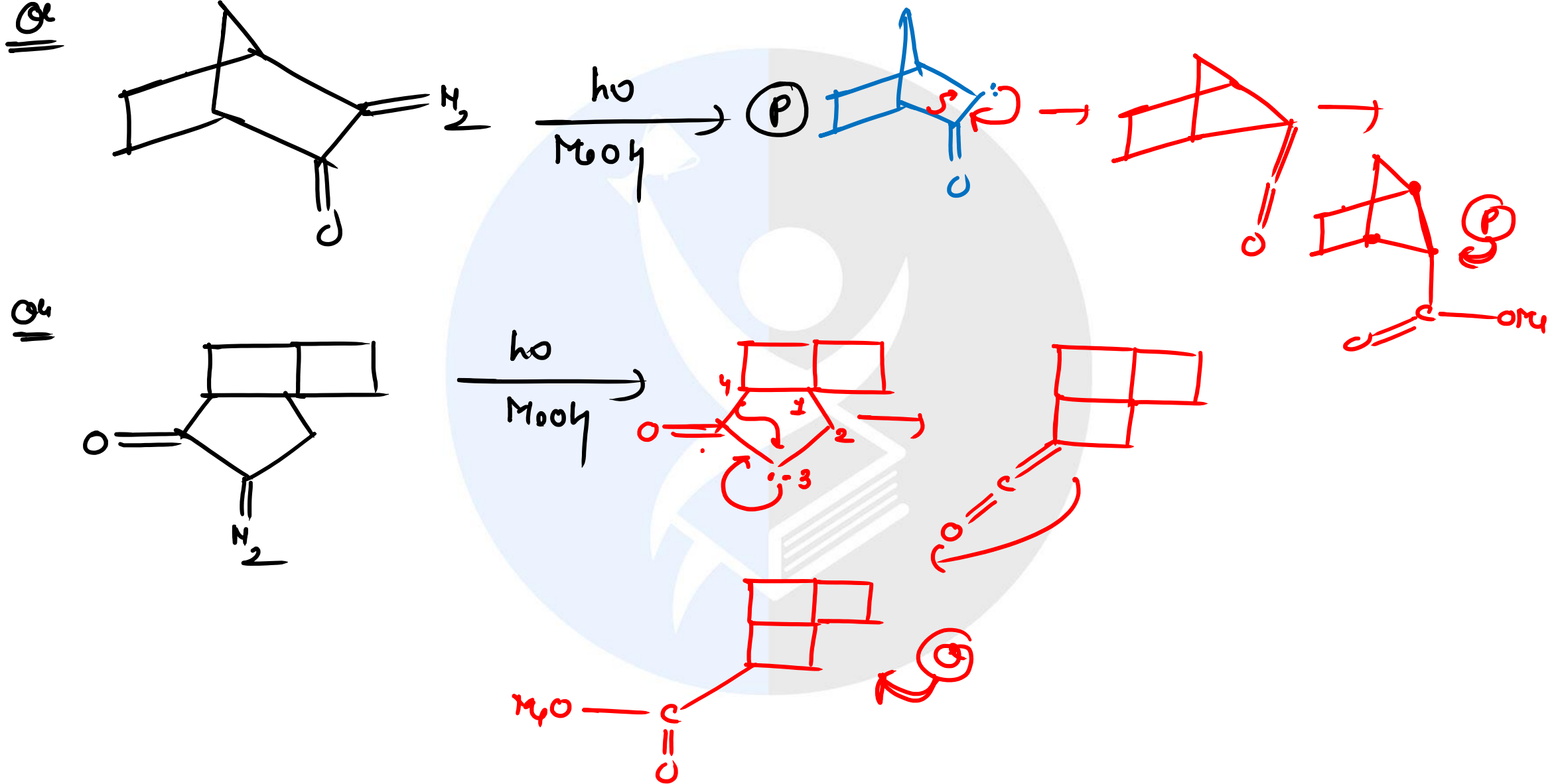


SUBHAMOY
BHOWMIK

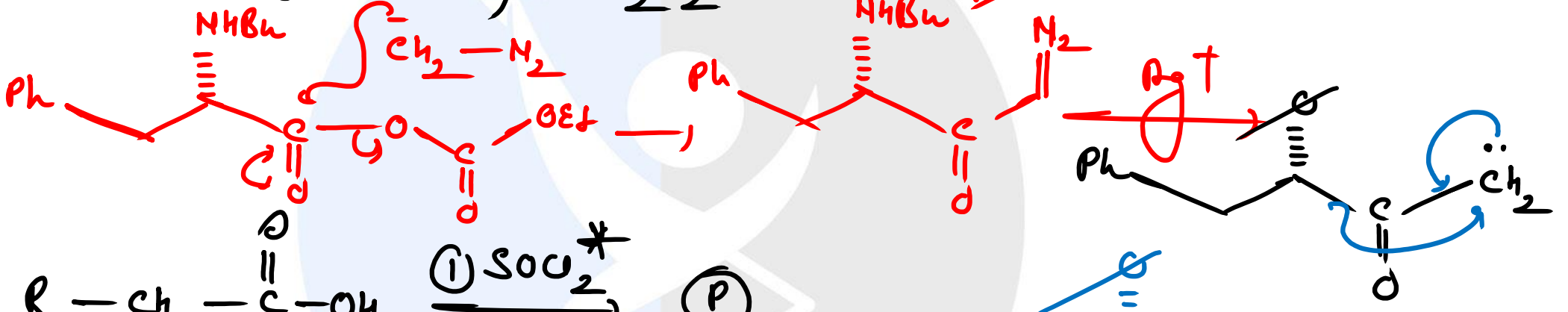
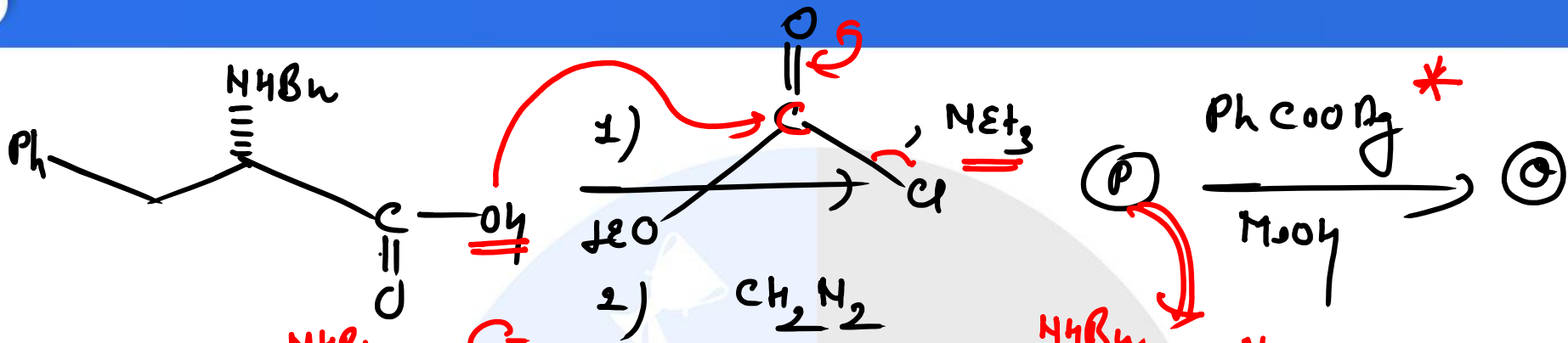
AIR
03



ARTI RATHORE

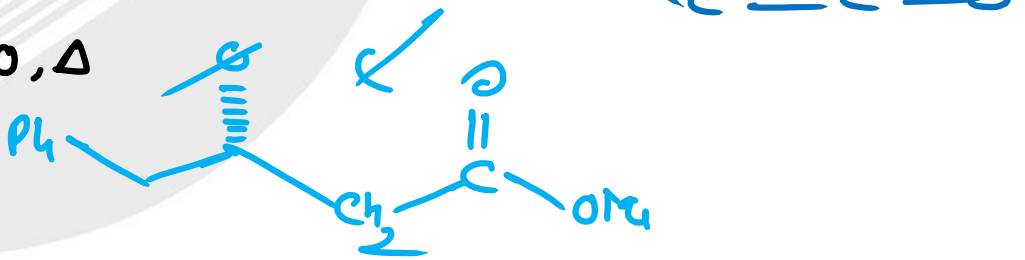


Q4

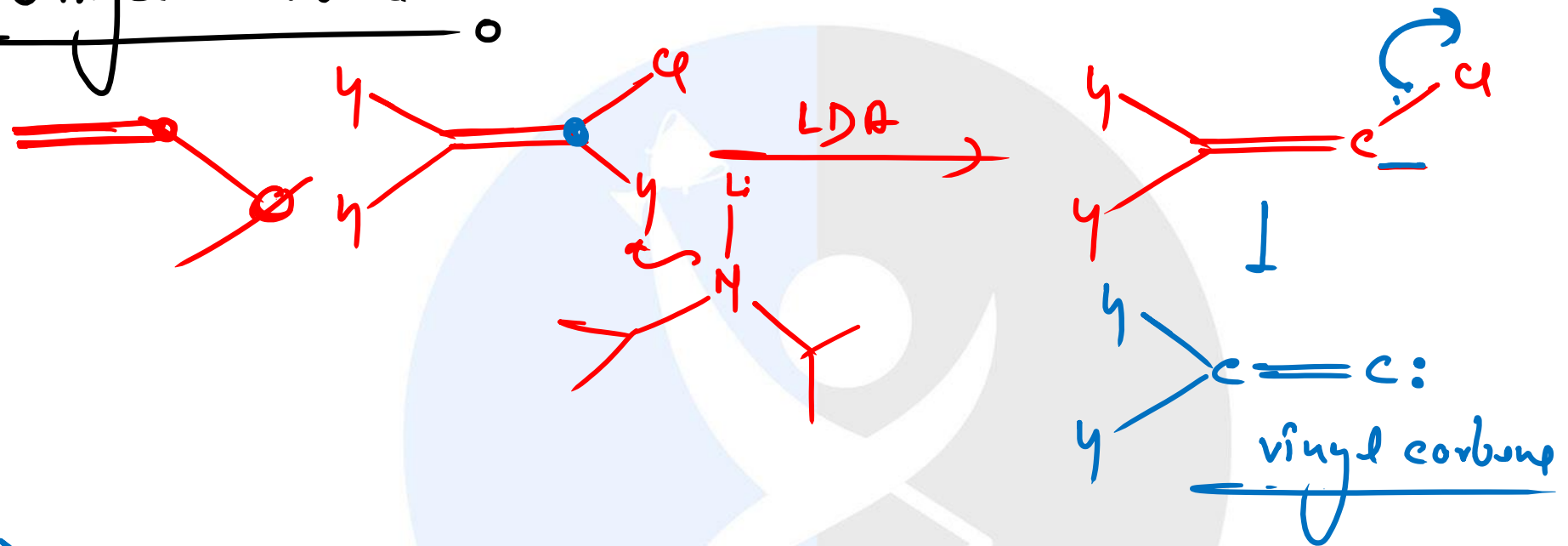


Q4
How

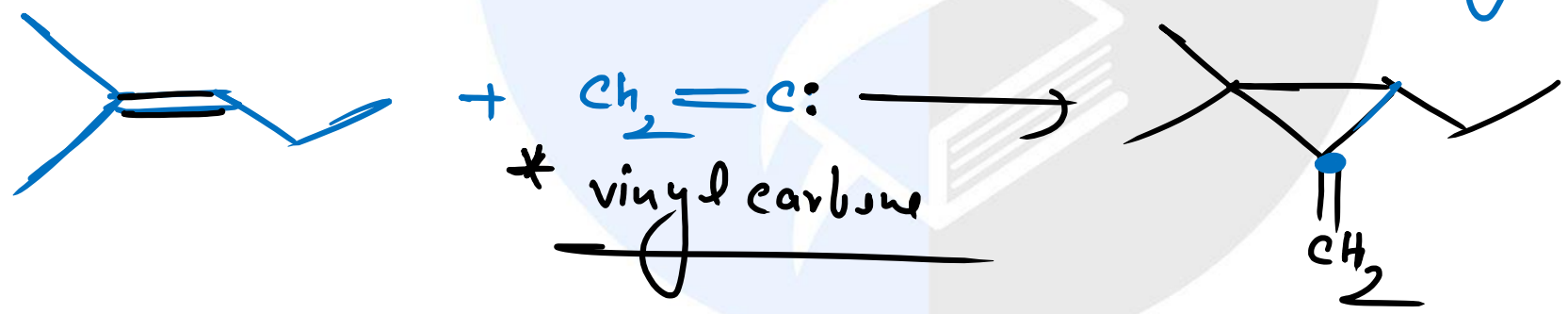
- R-CH2-C(=O)OH
- (i) SOCl2*
 - (ii) CH2N2*
 - (iii) Moist, Ag2O, Δ
 - (iv) C2H5OH



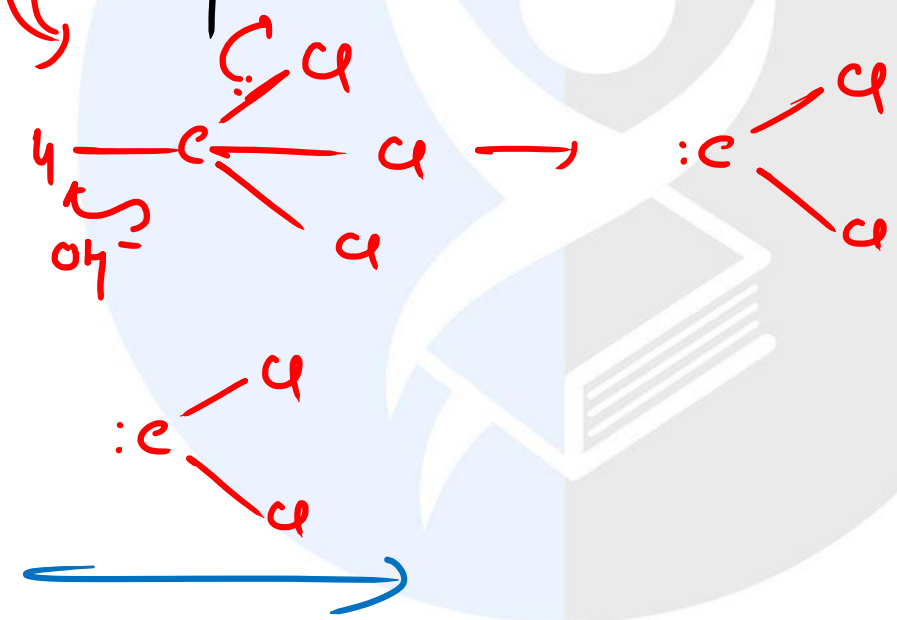
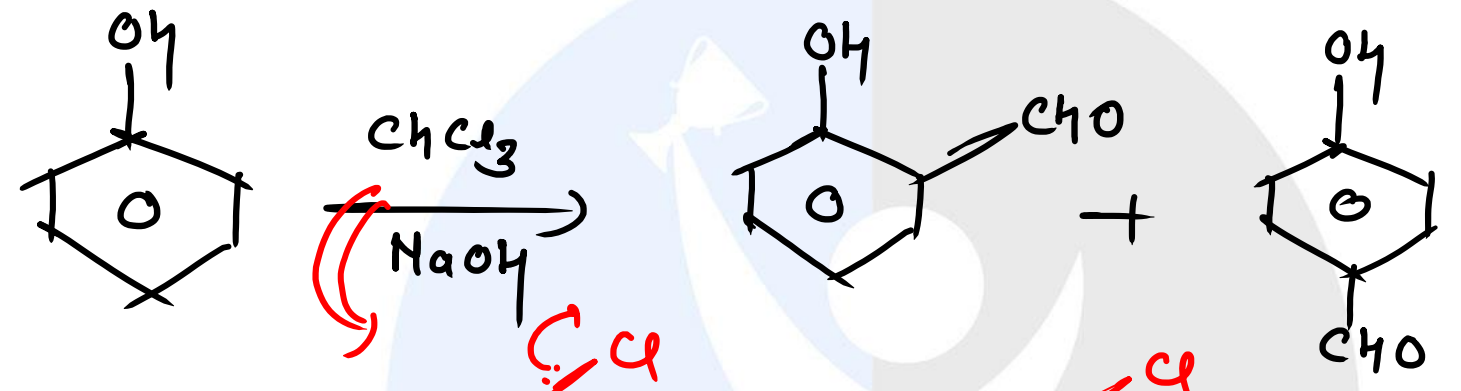
Vinyl Carbons



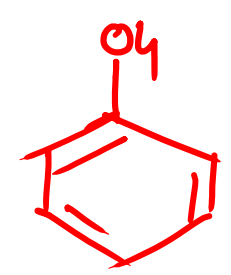
104



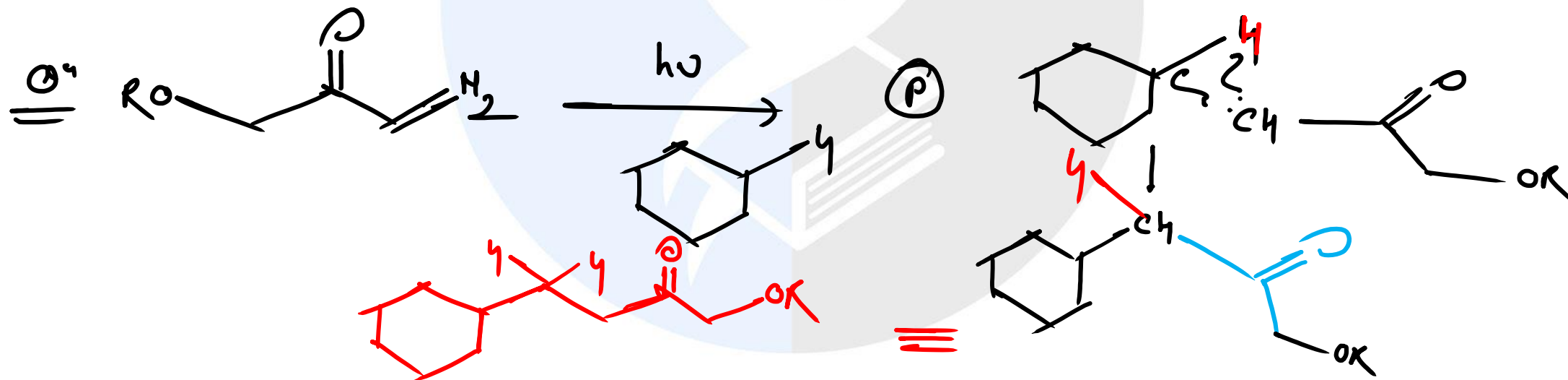
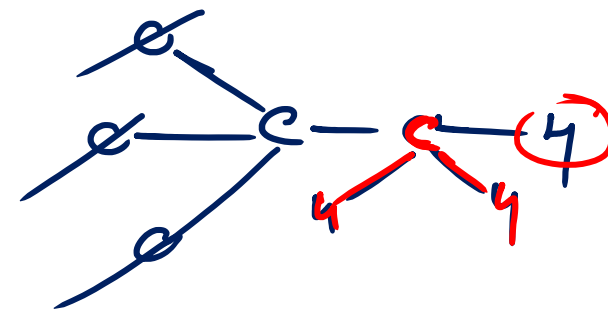
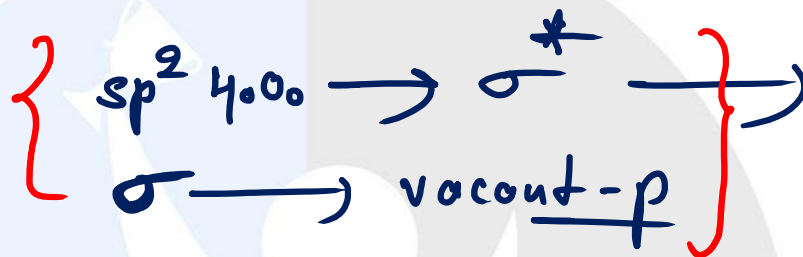
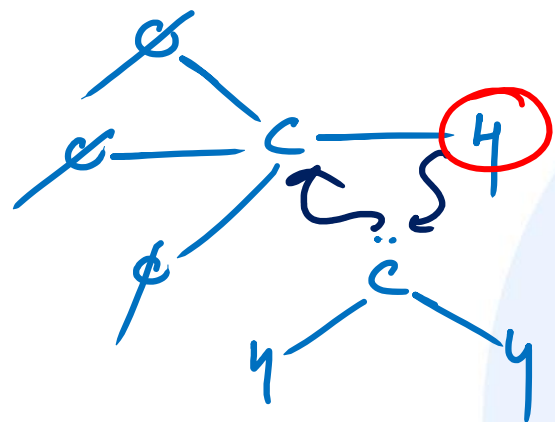
Risov Thmann R₂U

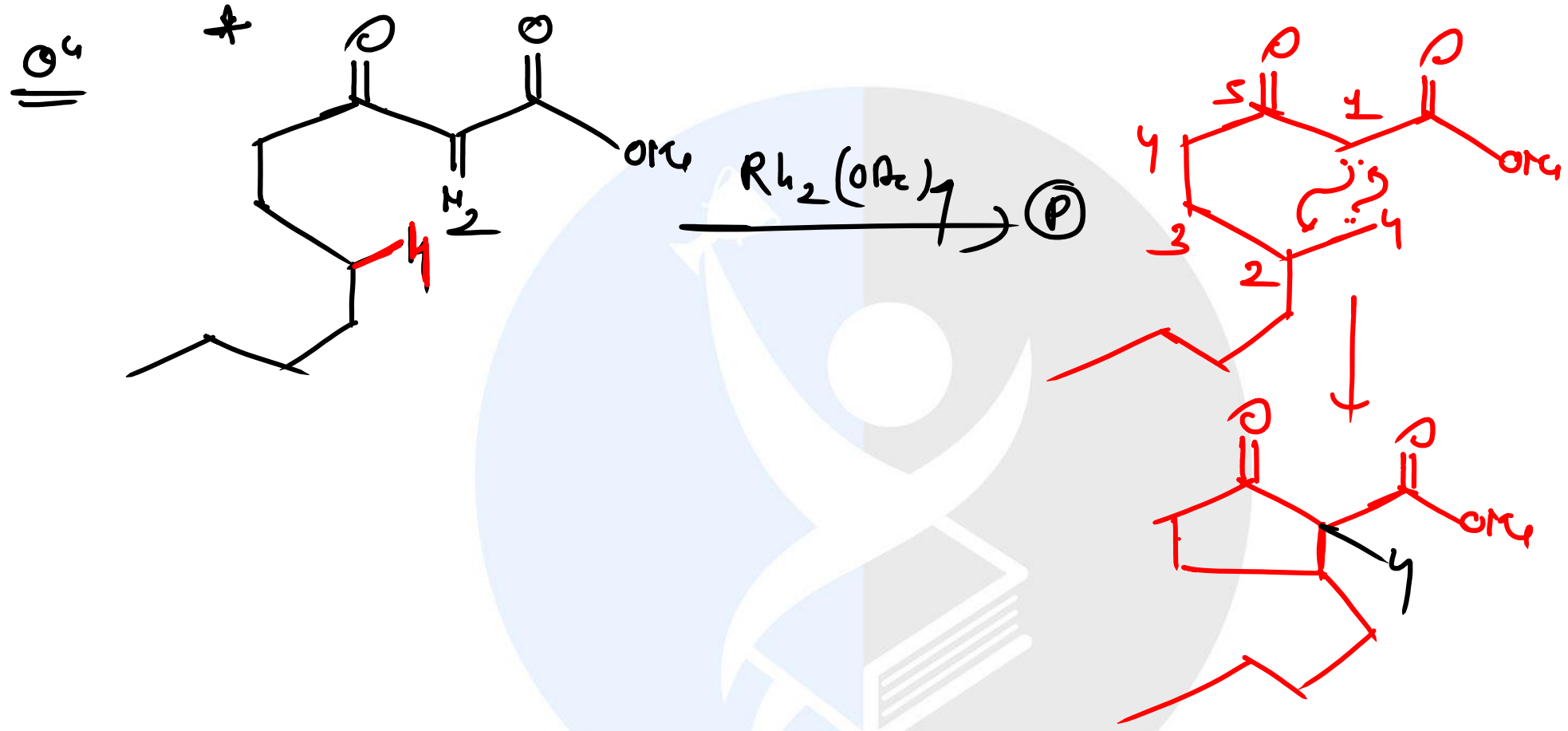


mech^h
How



σ - insertion of Carbons





Carotthys



4.81
4.83
4.84
4.85
4.86

4.87
4.88
4.89
4.91

4.95 *

4.97 *

4.98 *

4.99 *

4.100 ***

4.101 ***

4.102 ***

4.103 * } 4.92 * (strain) (249)

4.109 "without strain"

4.106 * * * * * → Pricyelic

4.102 Pricyelic

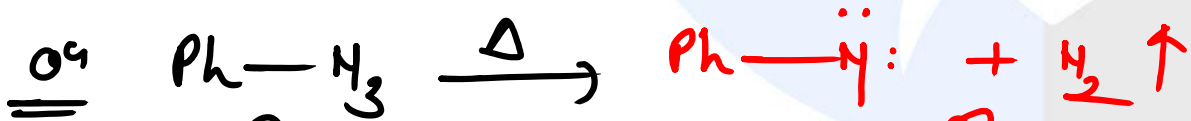
10 mly

Nitrene

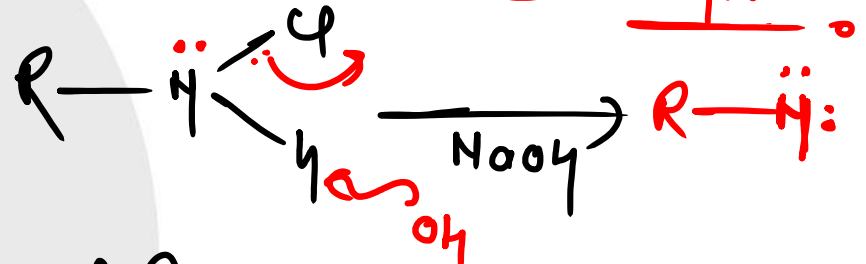
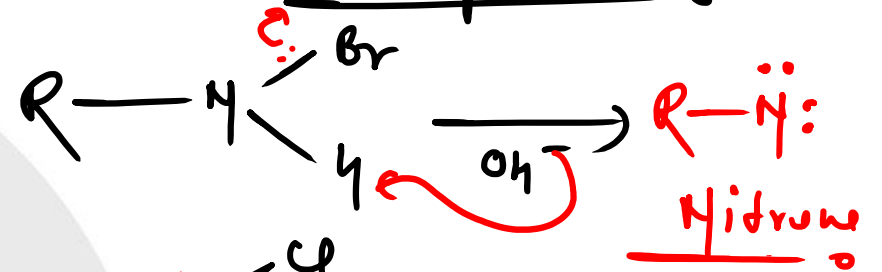


Formation of Nitrene

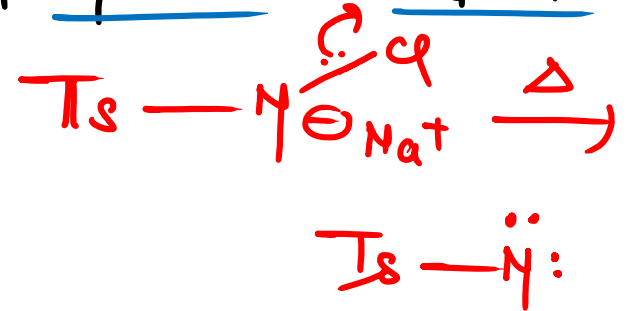
1) From azide N_3



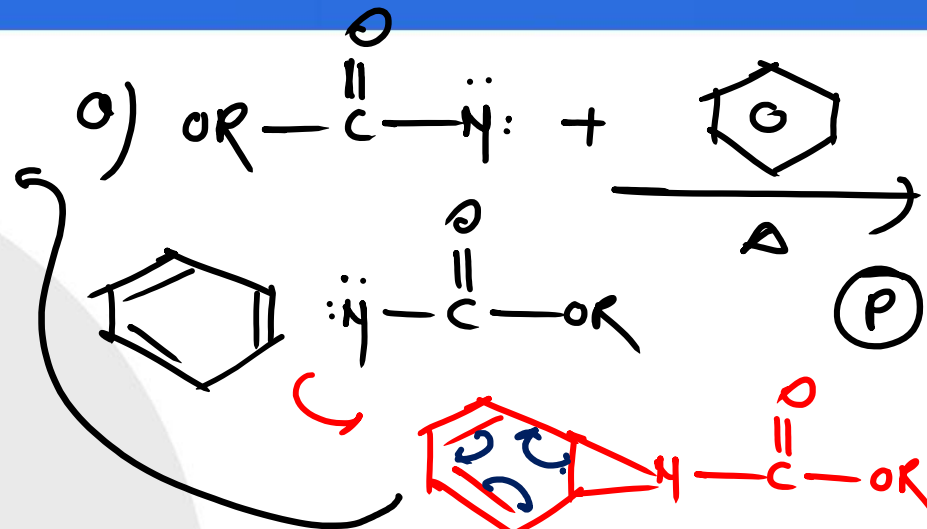
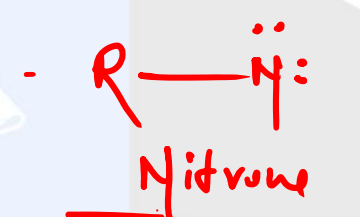
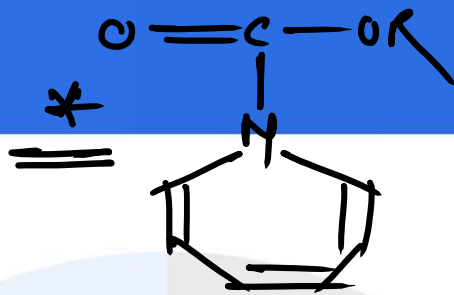
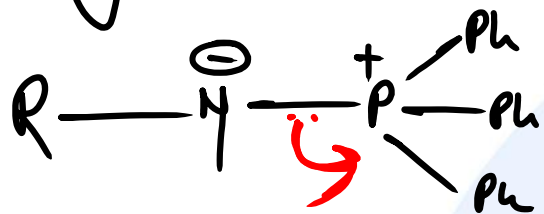
2) From halo compounds



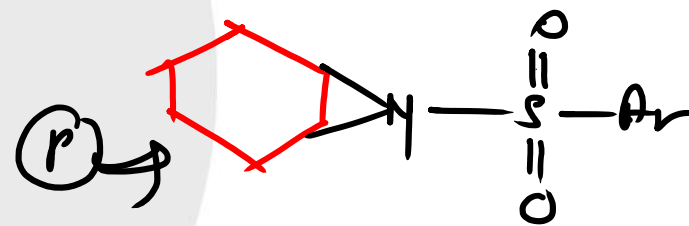
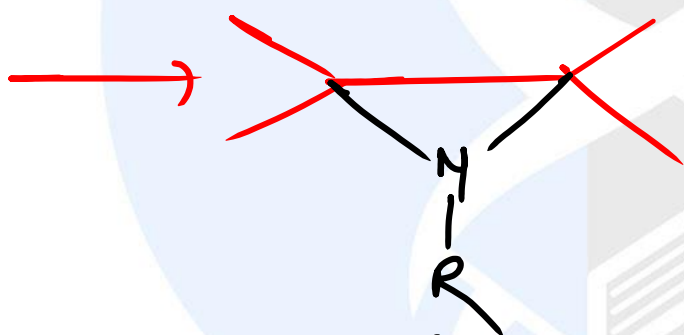
3) From N-chloroamine-T



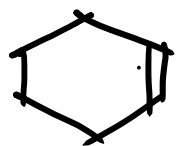
1) From ylides



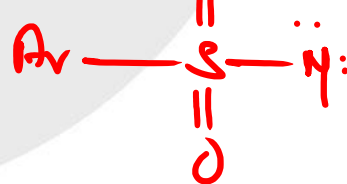
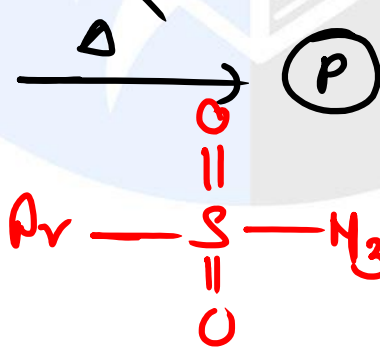
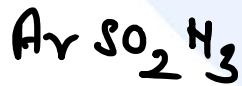
Insertion Reactions of Nitrene



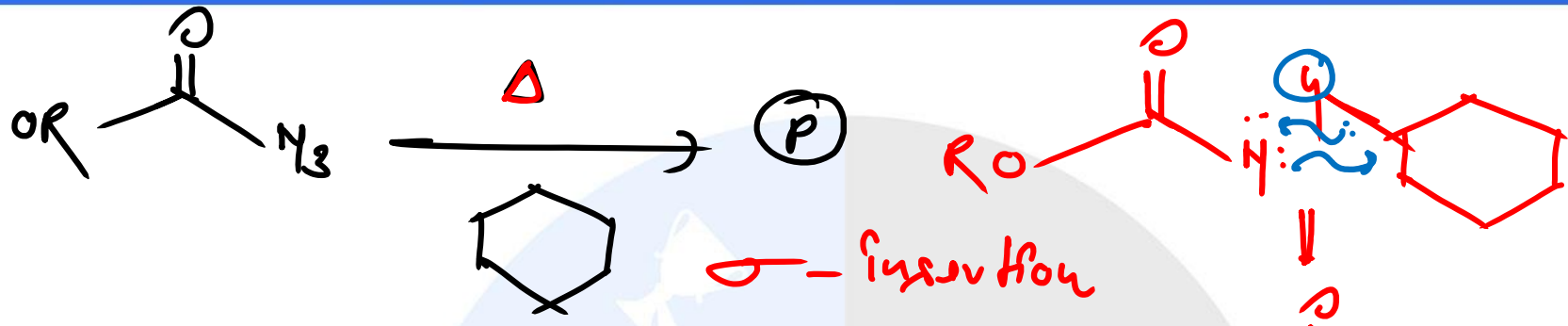
|| Q



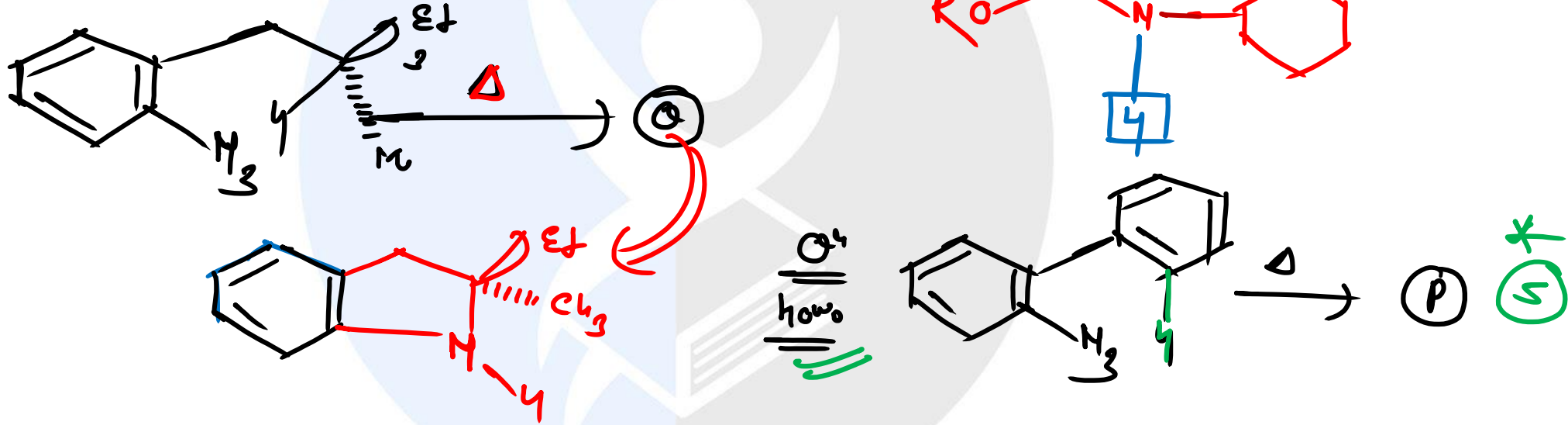
+



11 Q₂

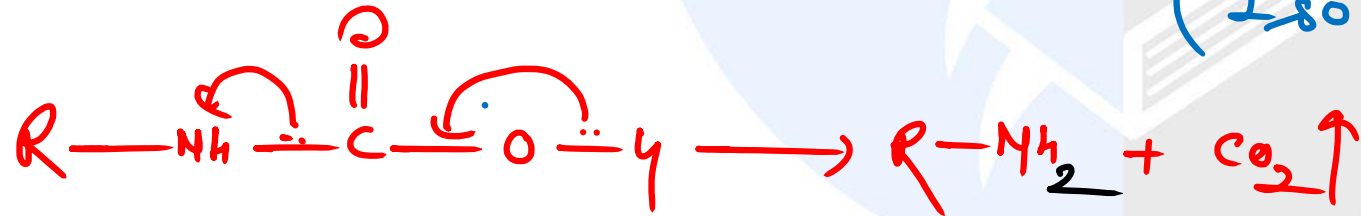
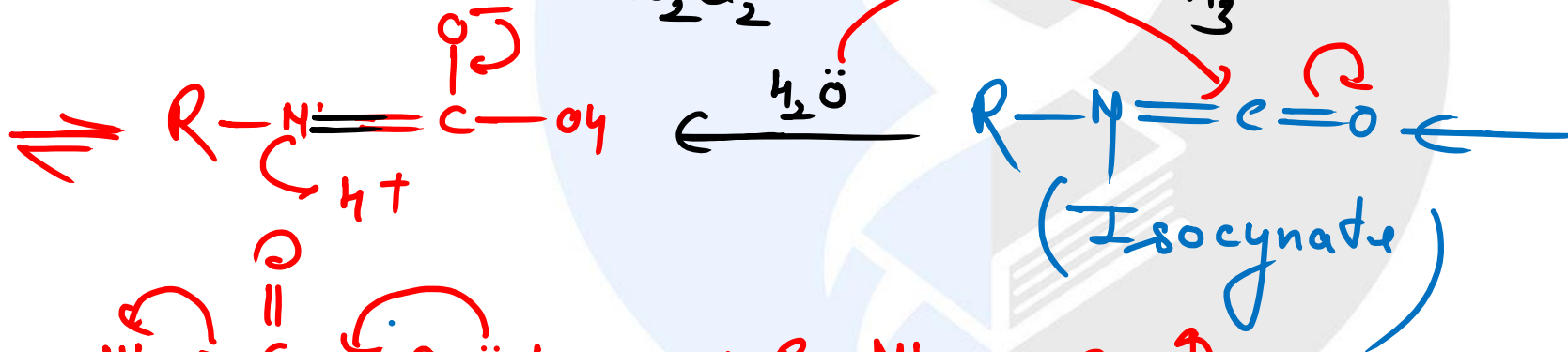
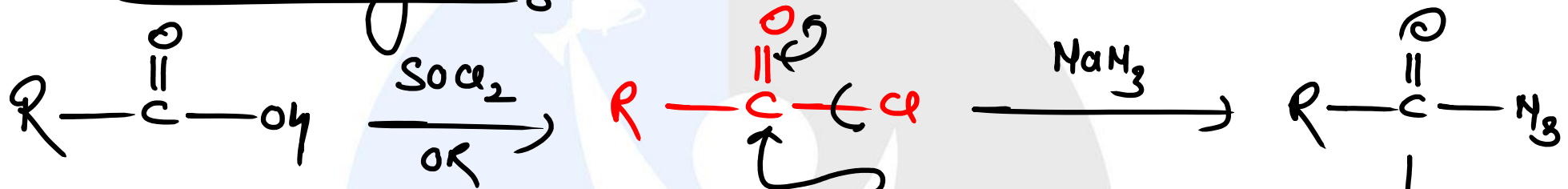


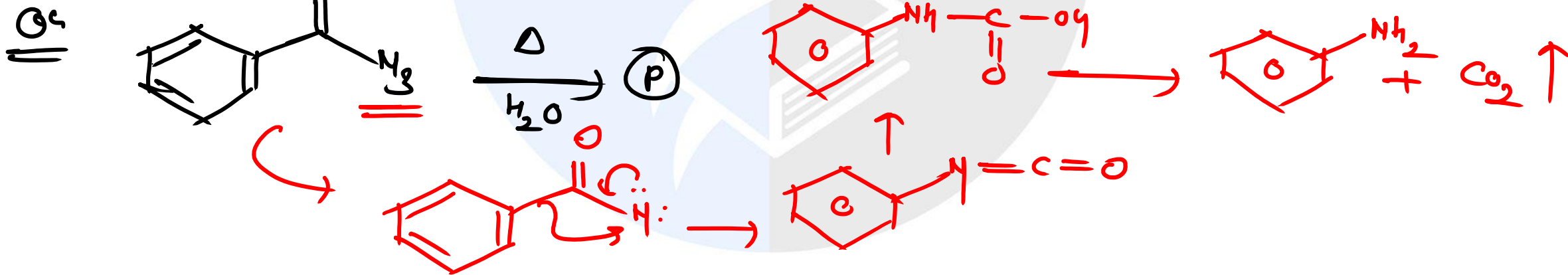
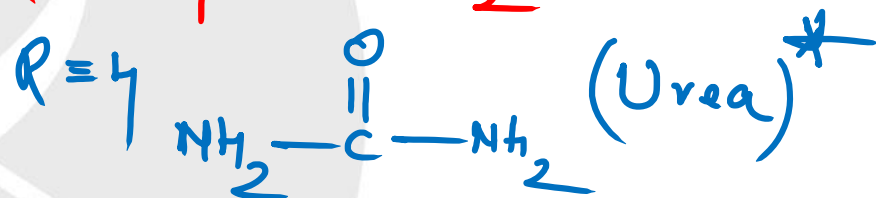
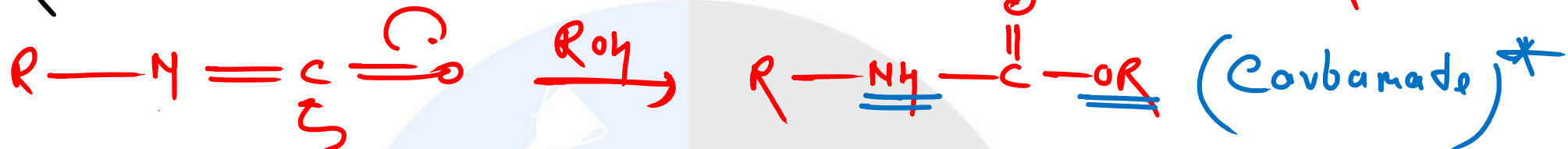
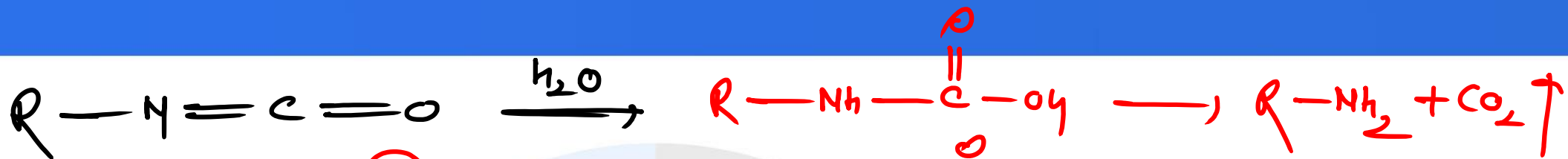
11 Q₃



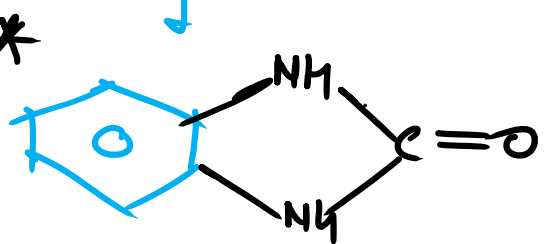
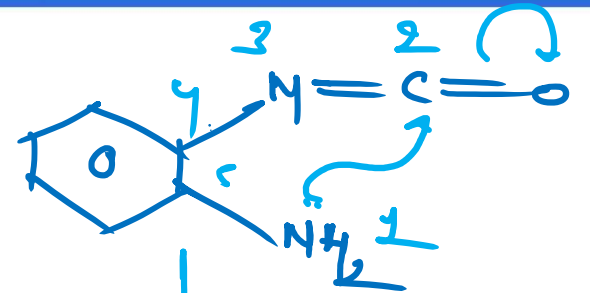
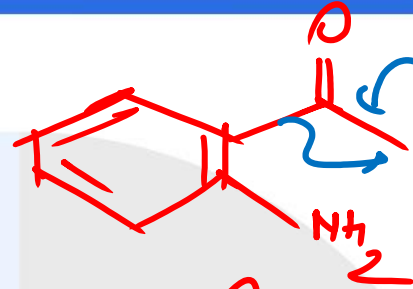
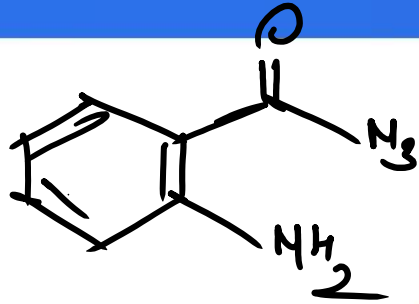
Rearrangement of Nitrene (GSI Mains)*

1) Curtius Rearrangement

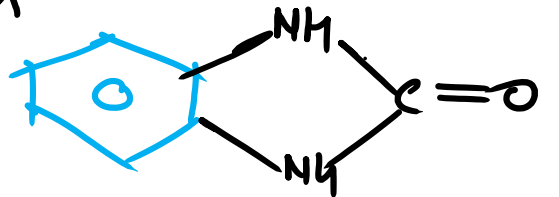
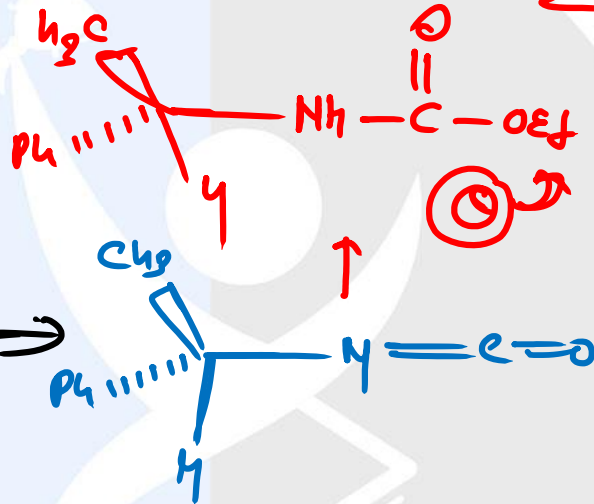
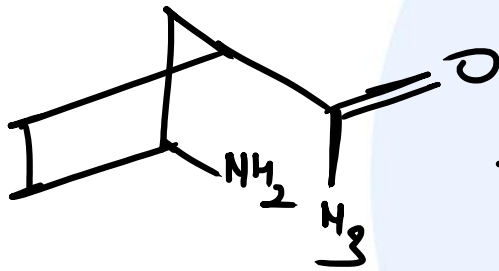




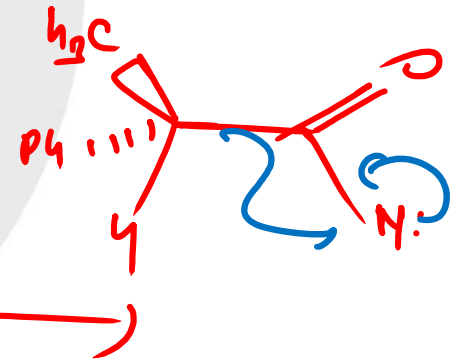
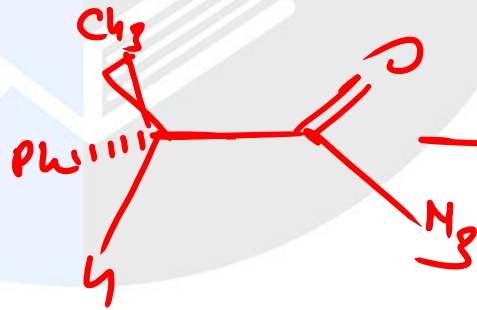
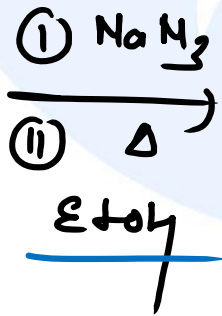
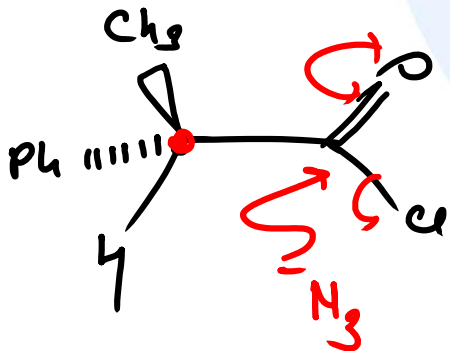
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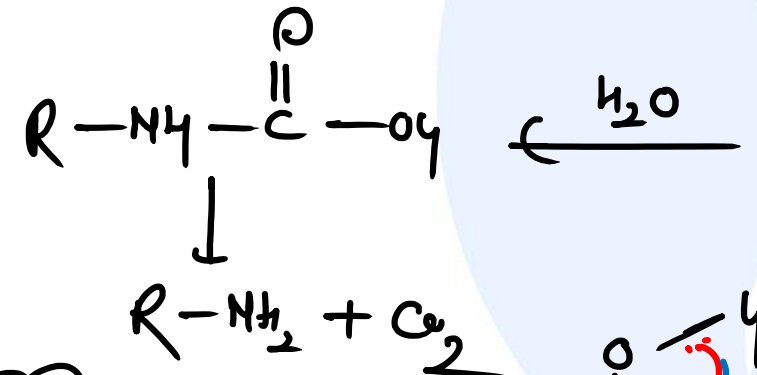
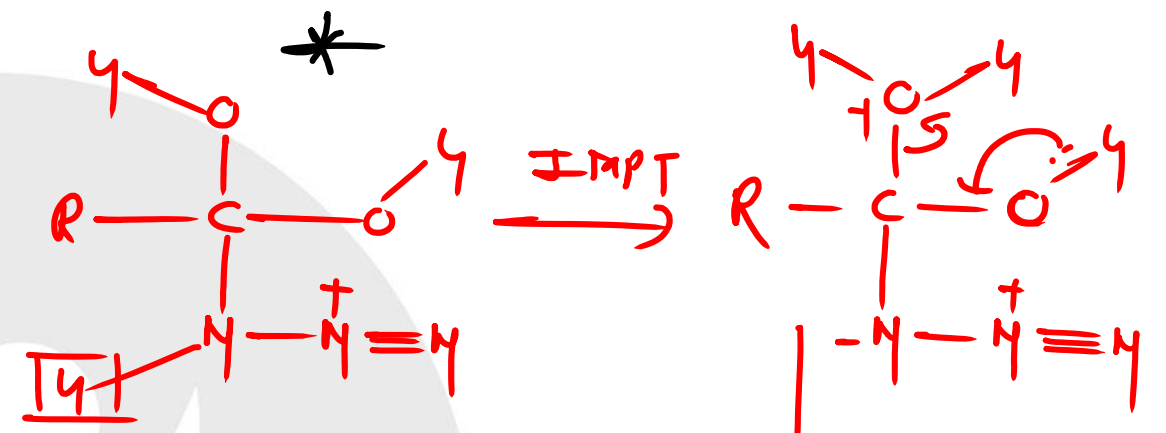
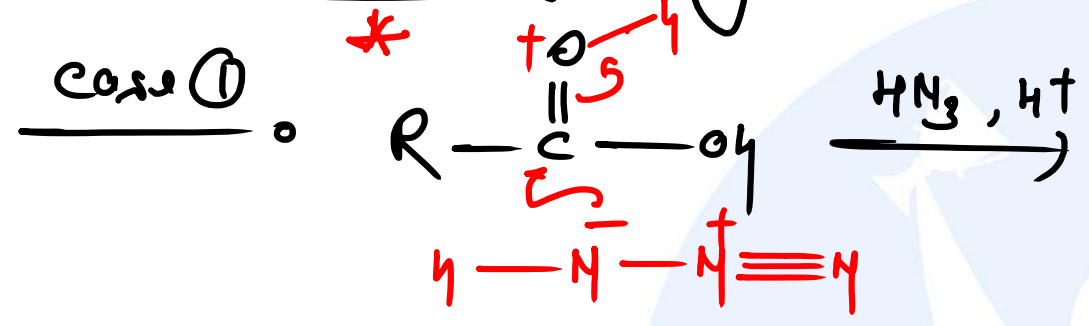
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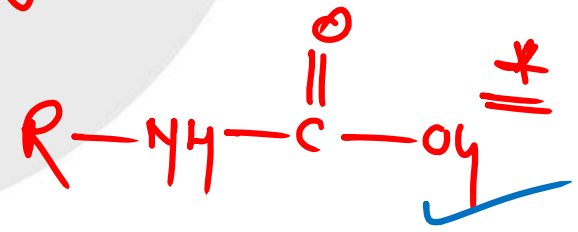
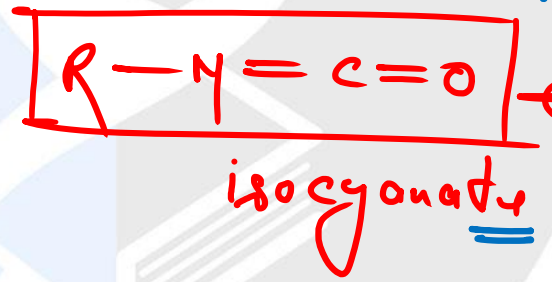
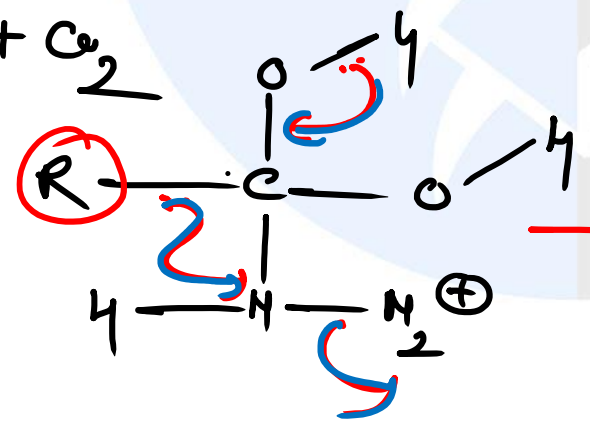
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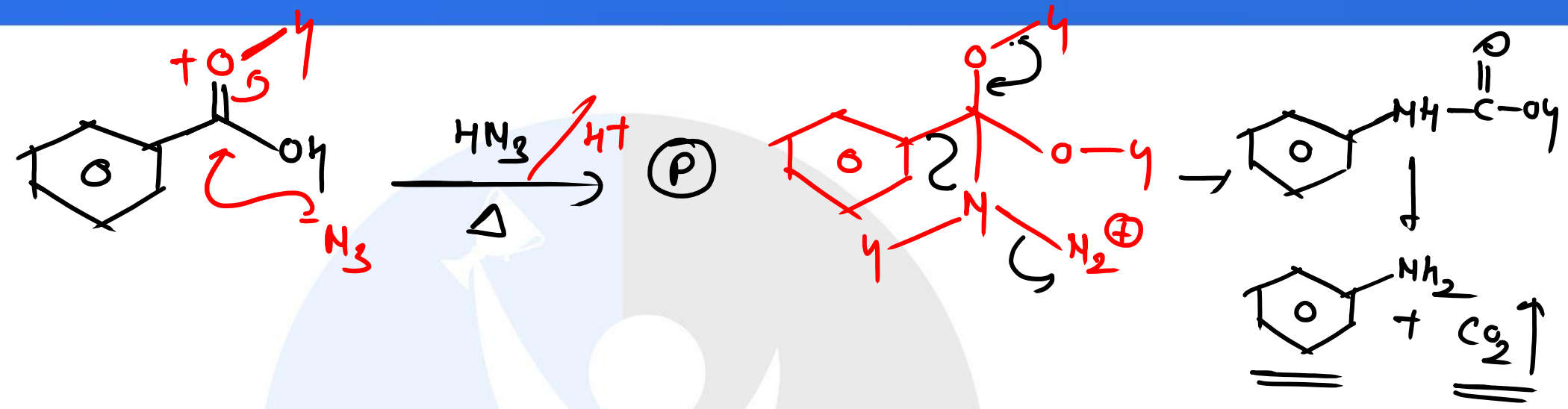
② Schmidt Rearrangement



Shortcut



Q4



Thank you







