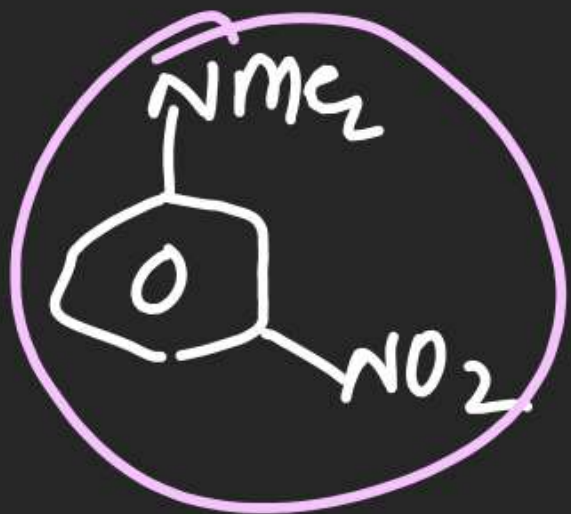
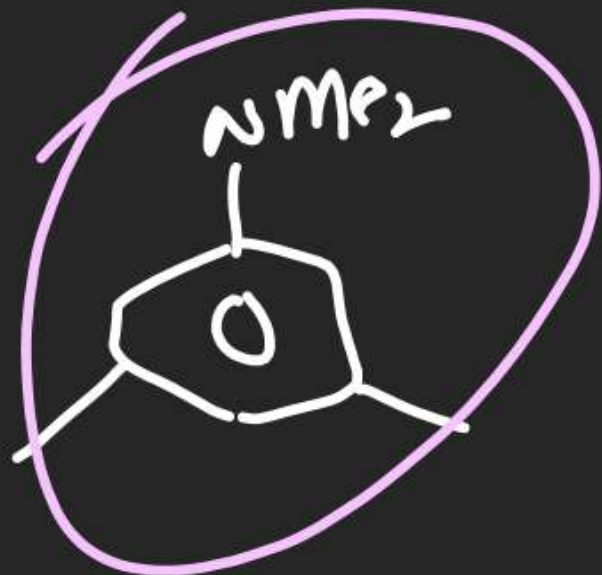
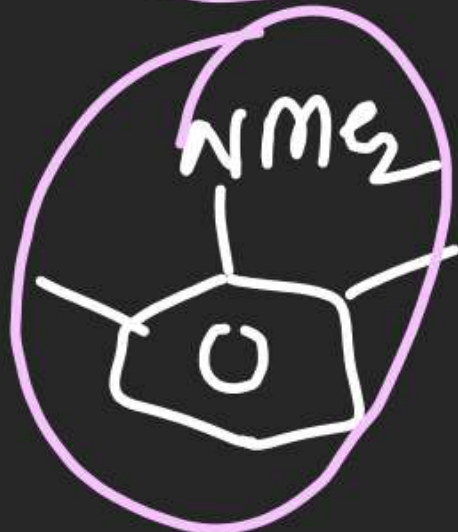


(13)



(14)

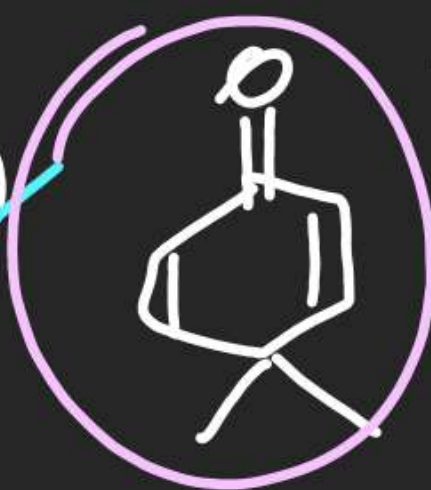


(15)



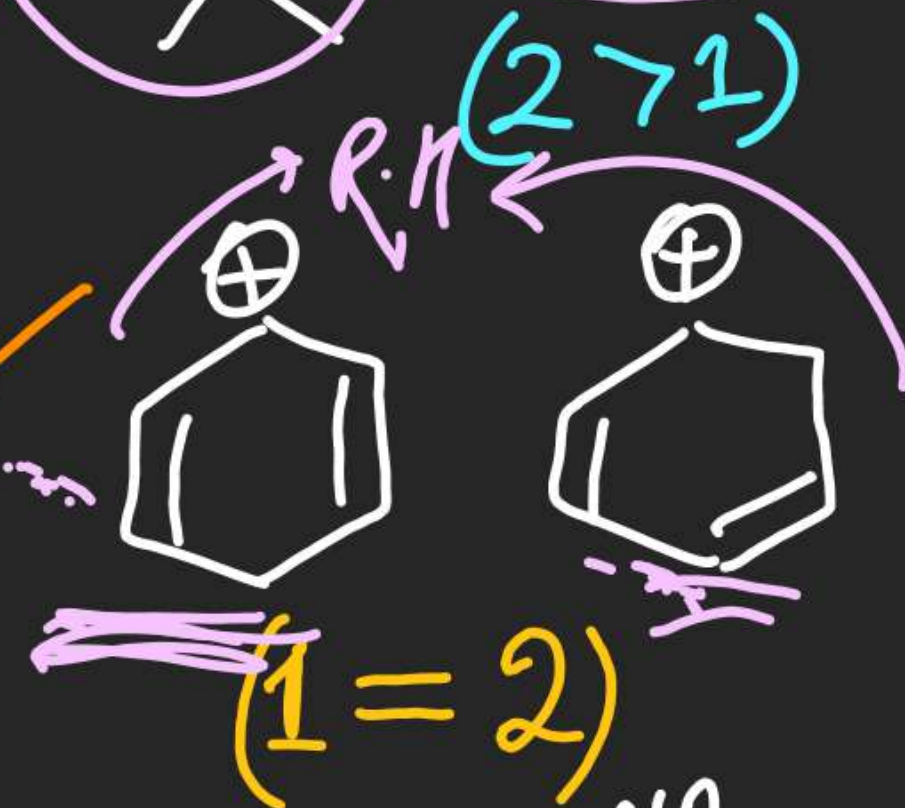
(2 > 1)

(16)



(2 > 1)

(17)

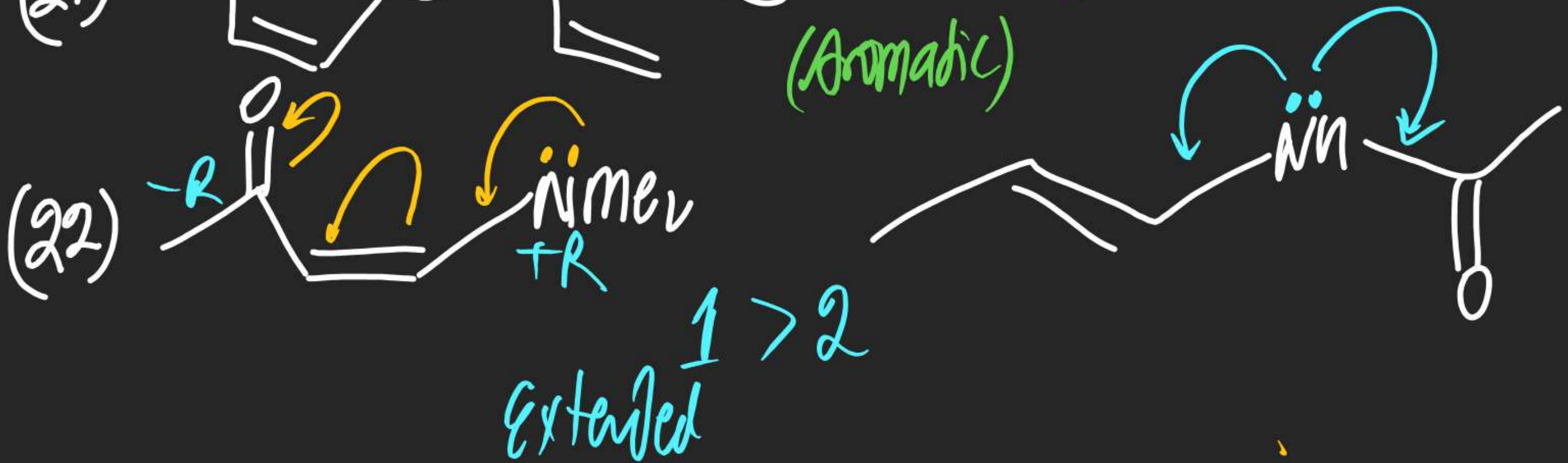


(1 = 2)

(18)



(2 > 1)





(23) Heat of Hydrogenation of 1-Hexene is  $-20.6$  kcal/mole. On introducing one new  $\pi$  Bond, heat of hydrogenation obtained is  $-53.5$  kcal/mole. New compound is

X (A) Hexa-1,2-diene



X (B) Hexa-1,5-diene



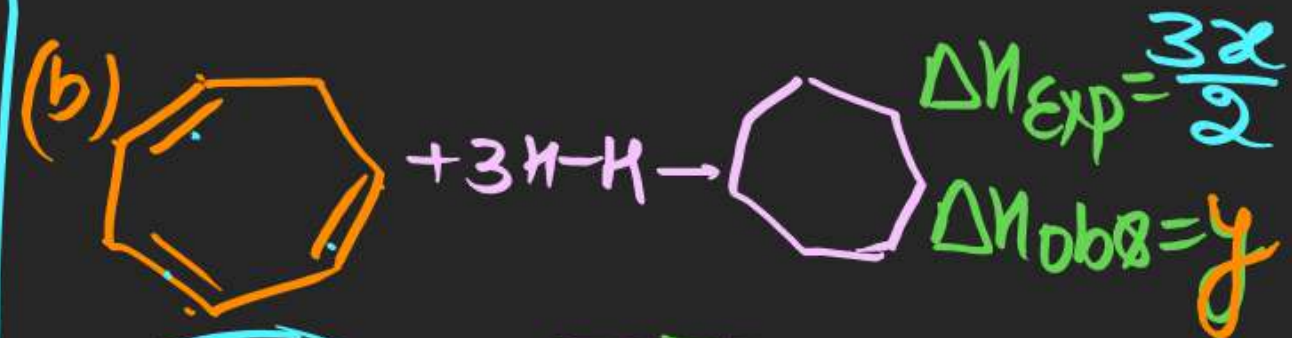
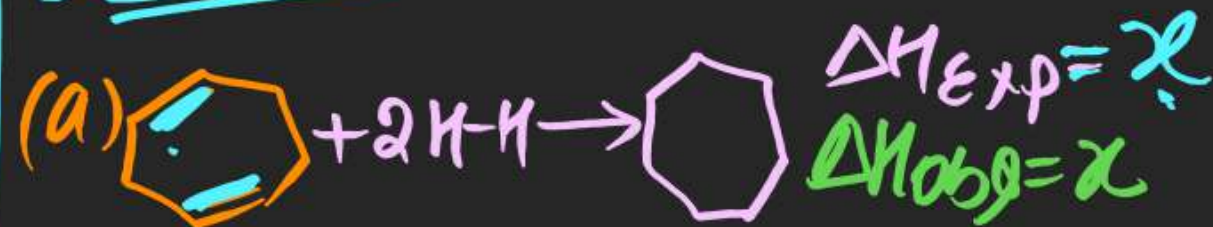
X (C) Hexa-2,4-diene



✓ (D) Hexa-1,3-diene



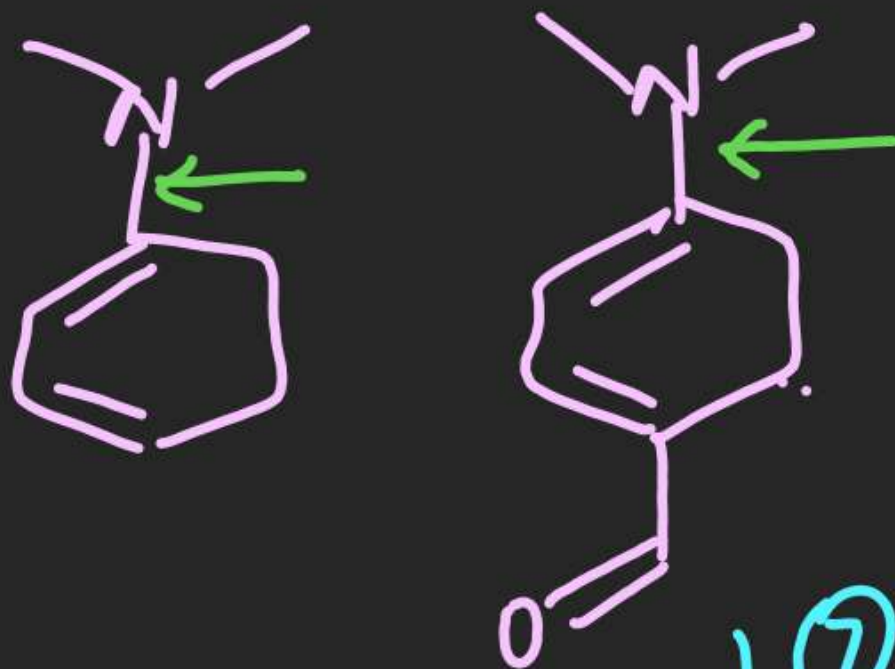
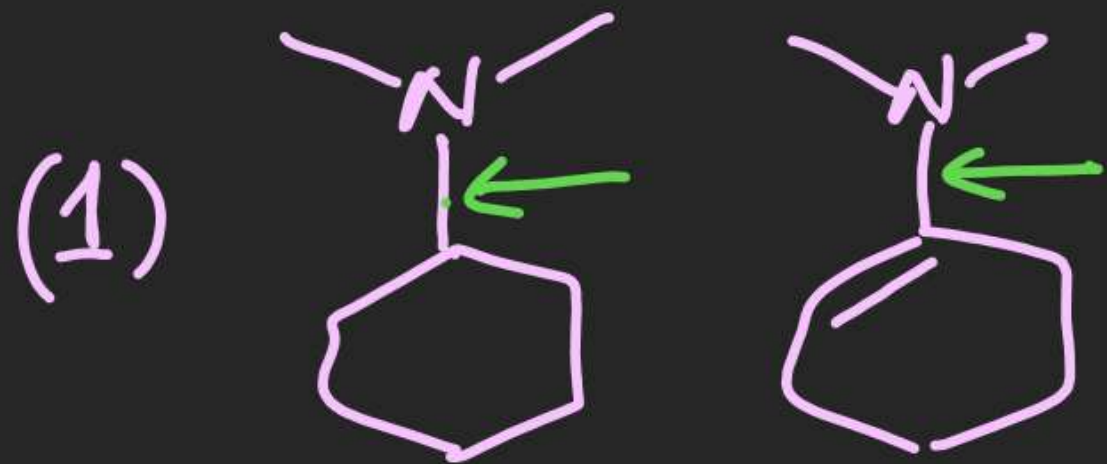
Soln(24)



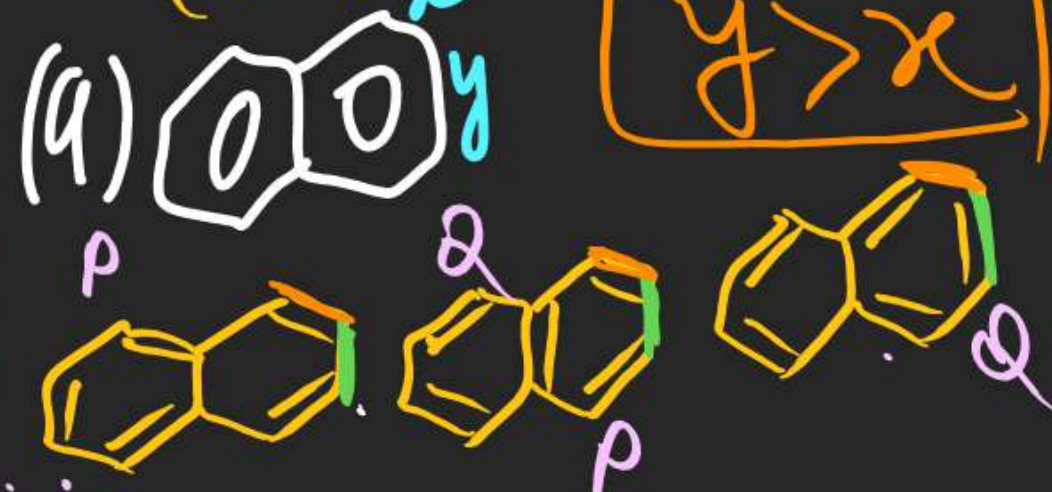
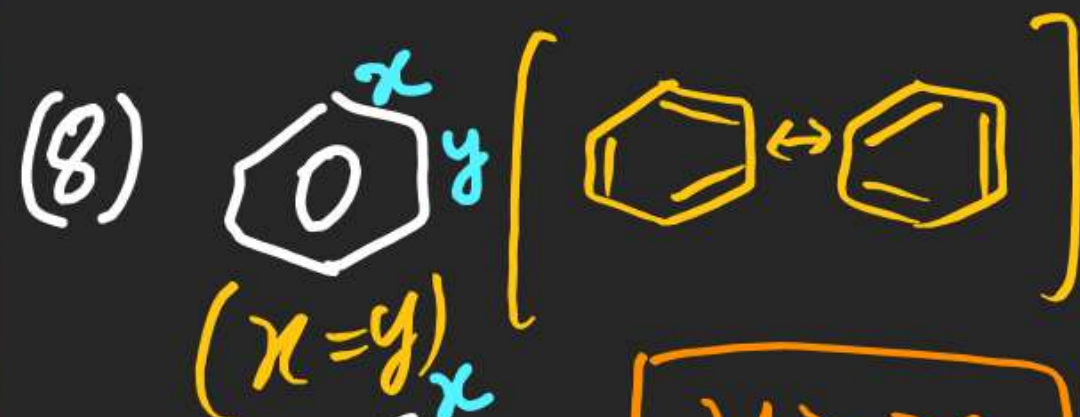
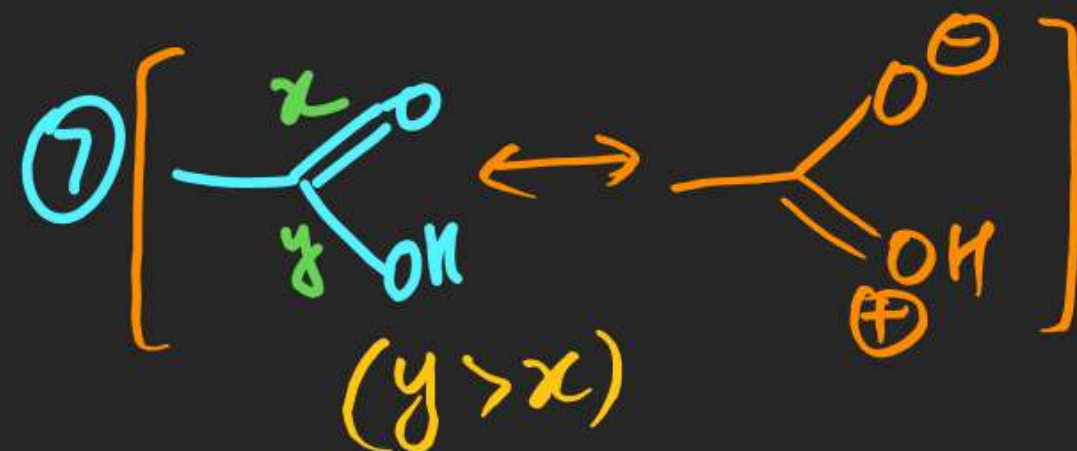
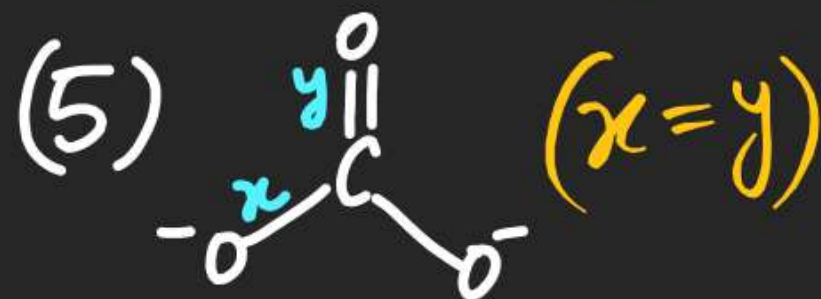
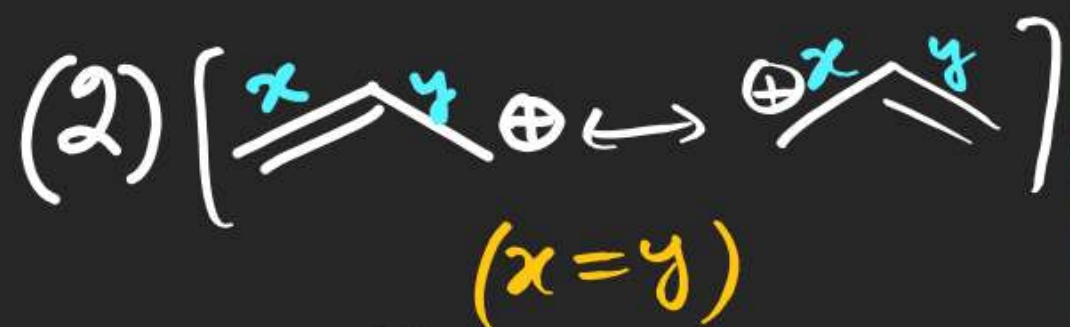
$\frac{3x-y}{2} = RE = \Delta H_{exp} - \Delta H_{obs}$

(24) Heat of Hydrogenation for Cyclohepta-1,4-diene & Cyclo





Bond length.  
(1 > 2 > 3 > 4)

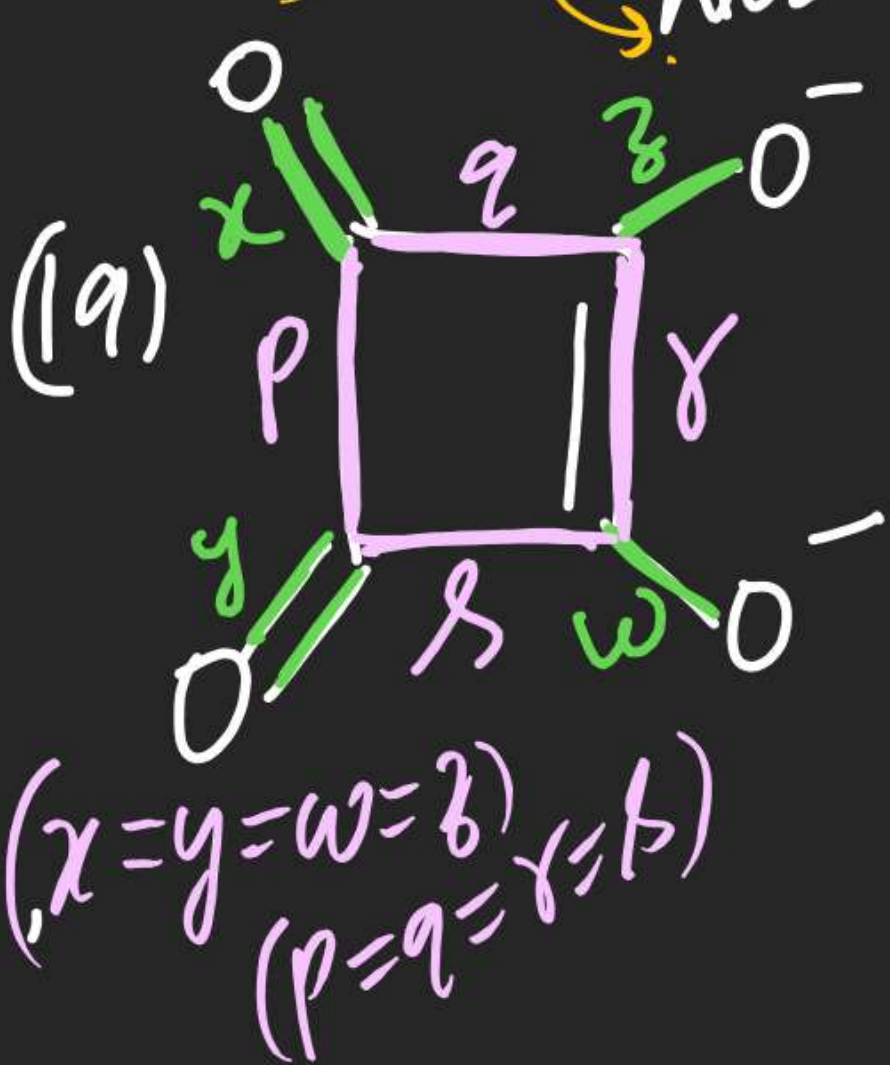
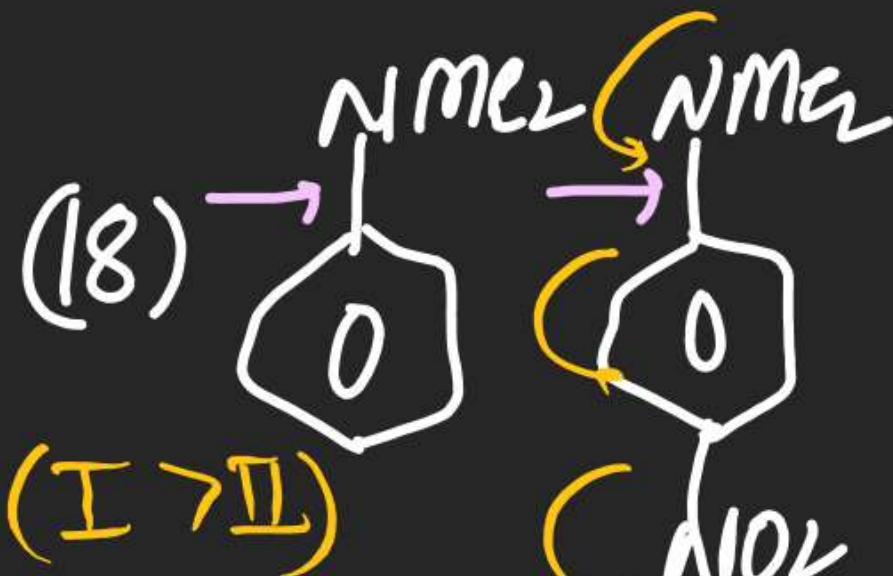
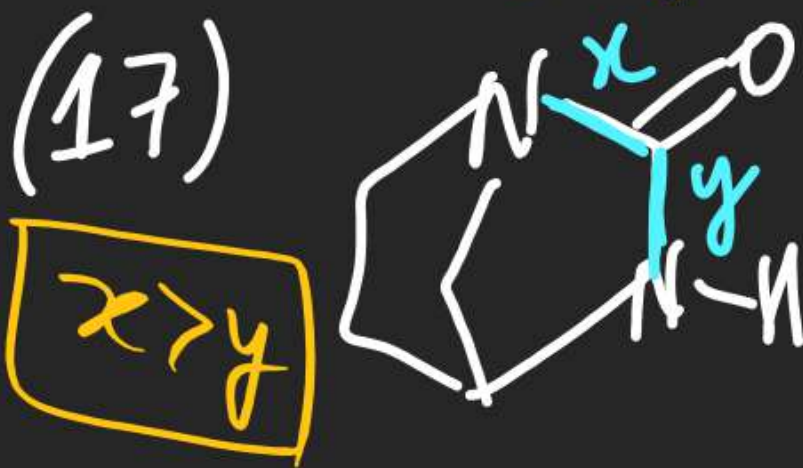
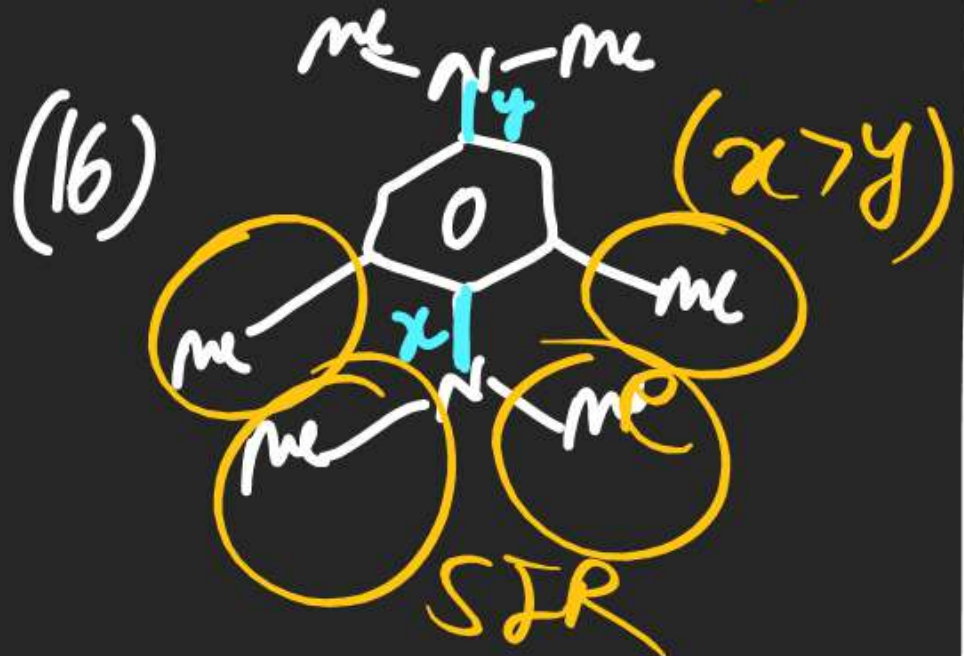
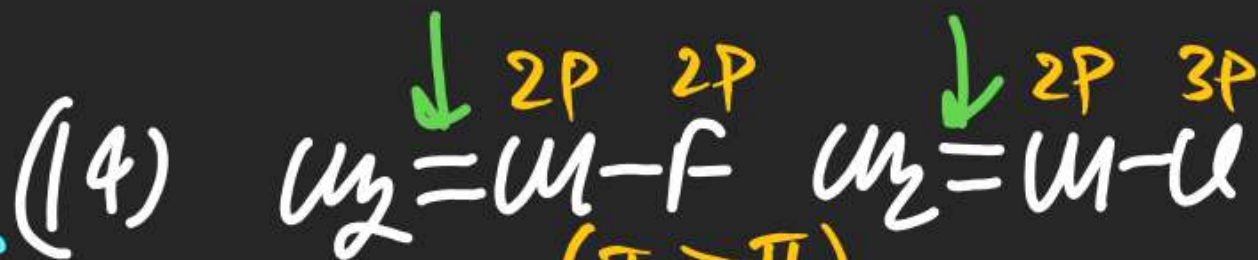
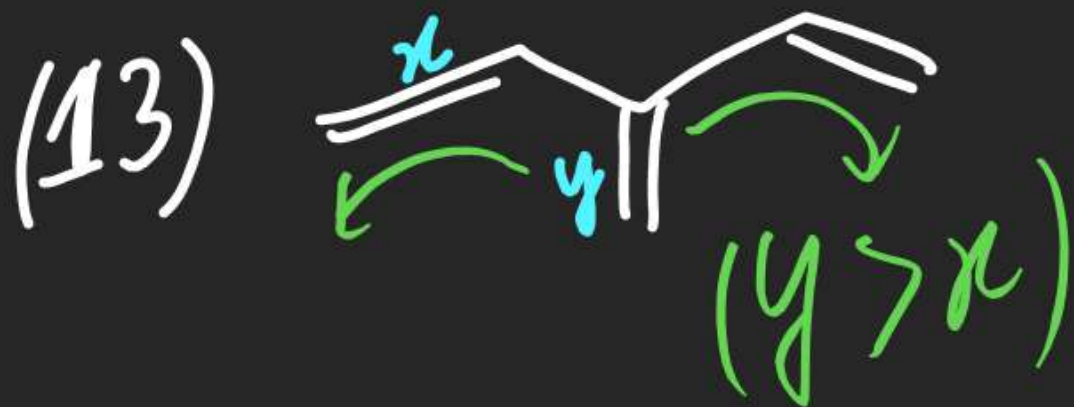






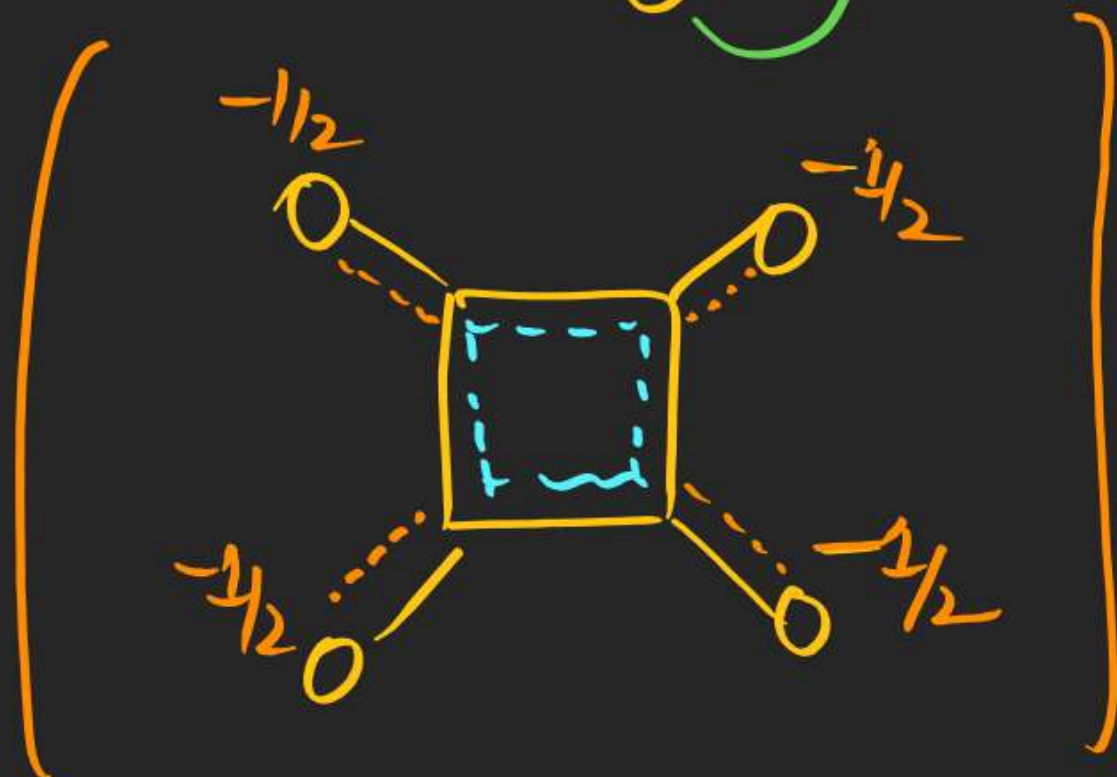
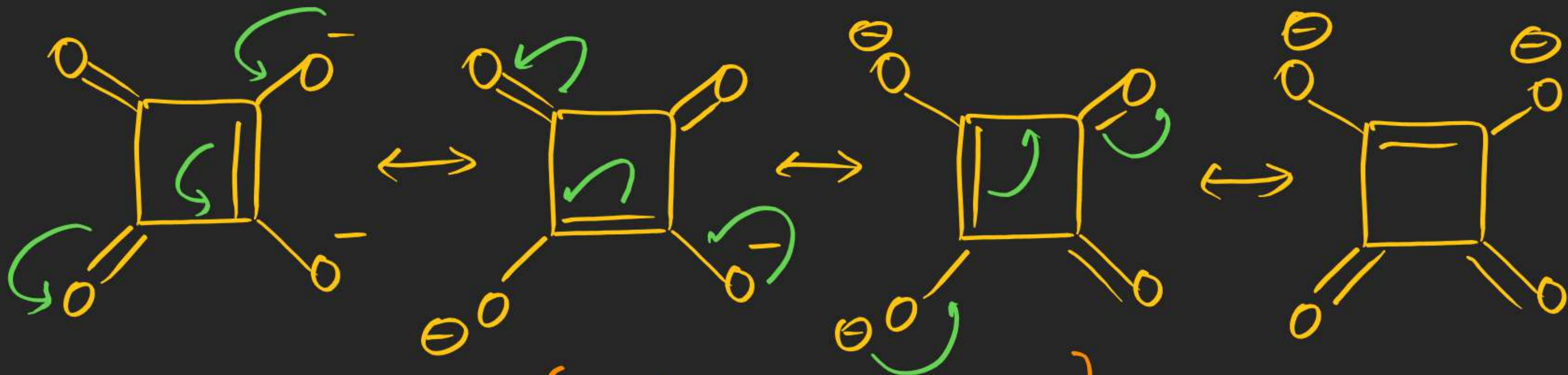
(y > x)

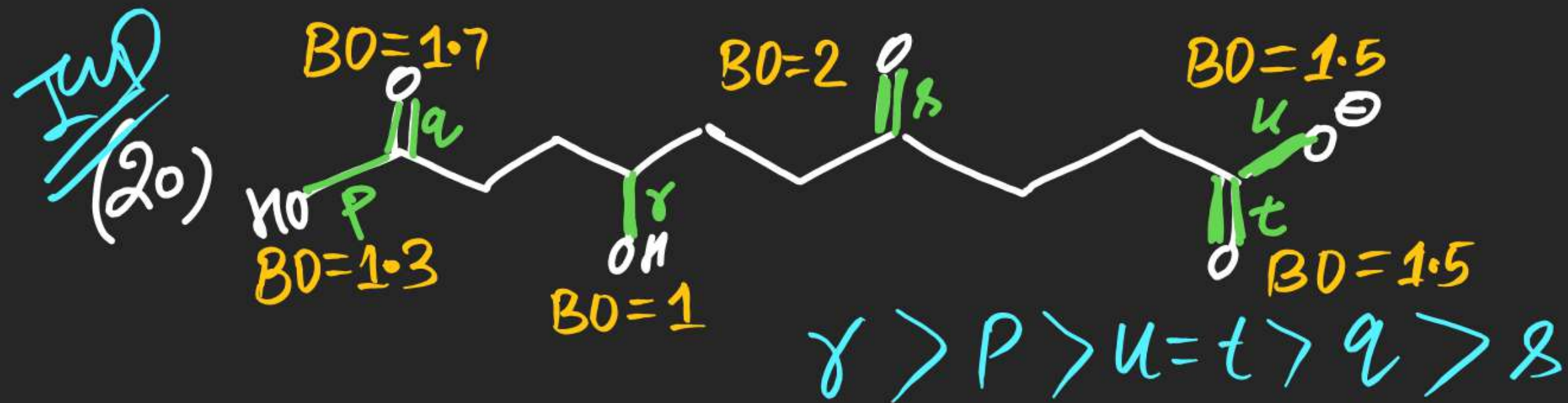
4 time Double  
1 time Single



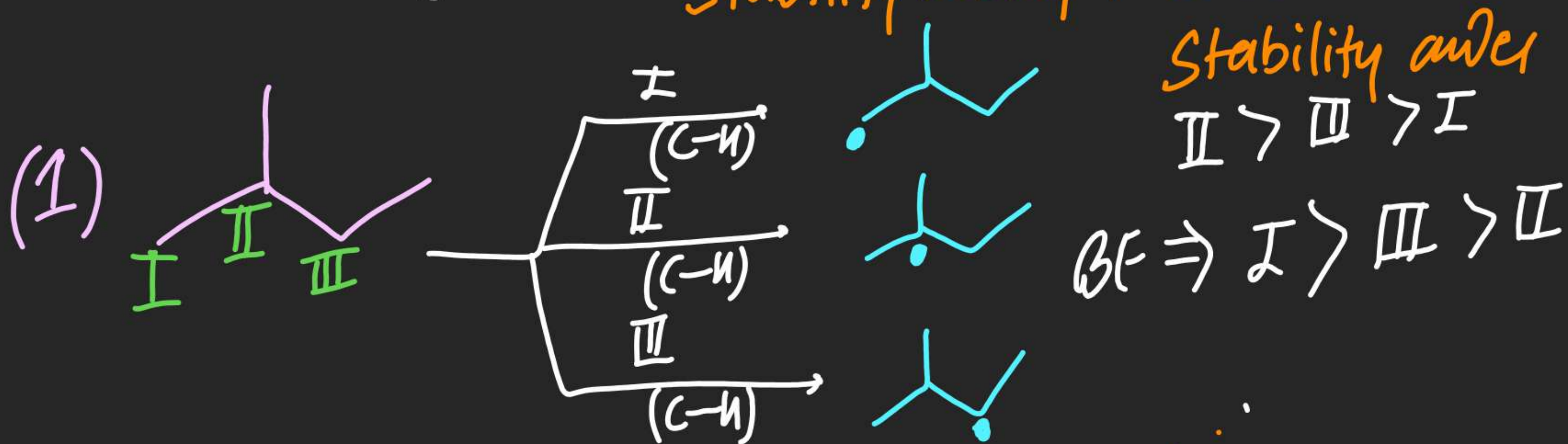


(19)



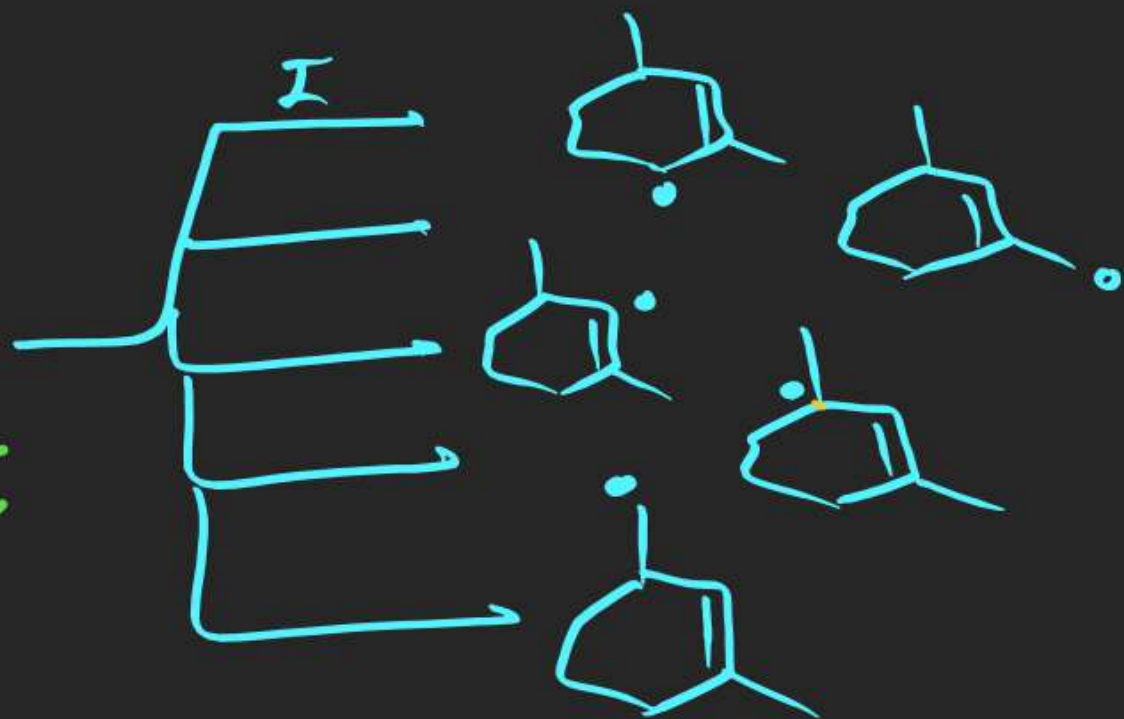
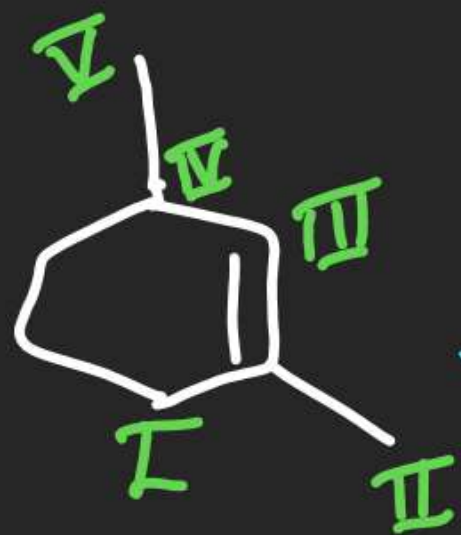


(#) Bond Energy :  $\propto \frac{1}{\text{Stability order of F. Radical.}}$





(2)

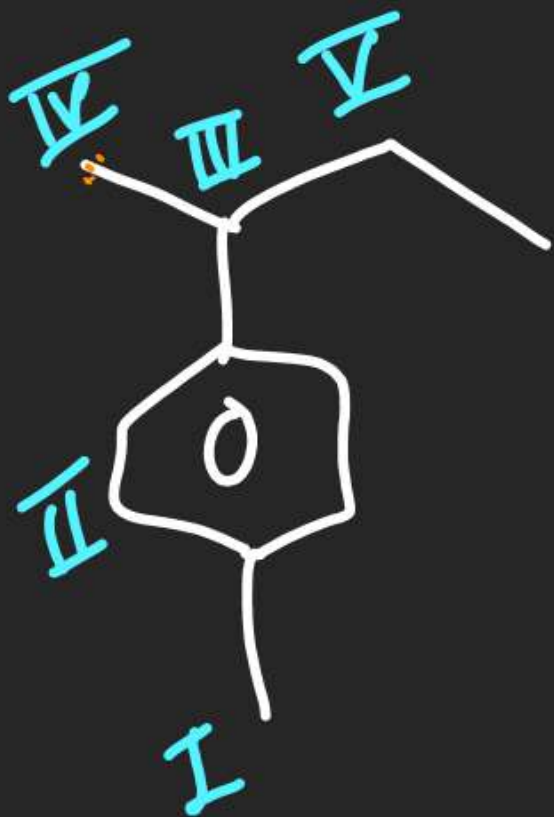


Stability order BE

$IV > I > II > V > III$

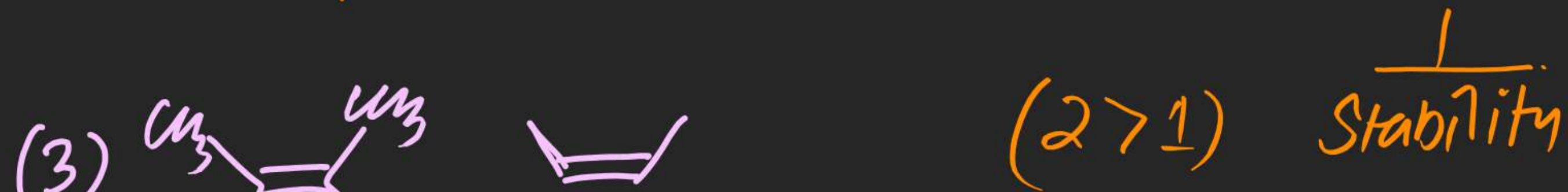
$III > V > II > I > IV$

(3)



$II > IV > V > I > III$







mp  
~~(6)~~



-29



-55



-51

(2 > 3 > 1)

(7)

\_\_\_\_\_ (per  $\pi$  Bond)

(1 > 2 > 3)

(8)



(3 > 2 > 1)

(9)



(2 > 1 > 3 > 4)



M.Tul  
(10)



НОН

1 > 2 > 4 > 3

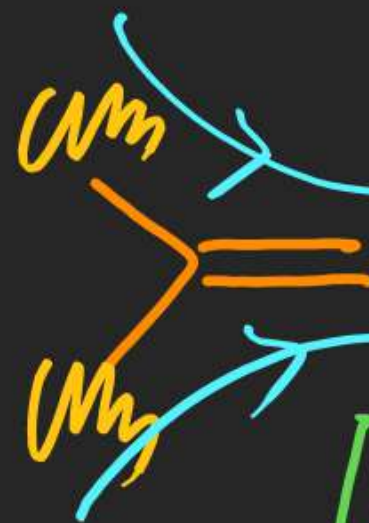
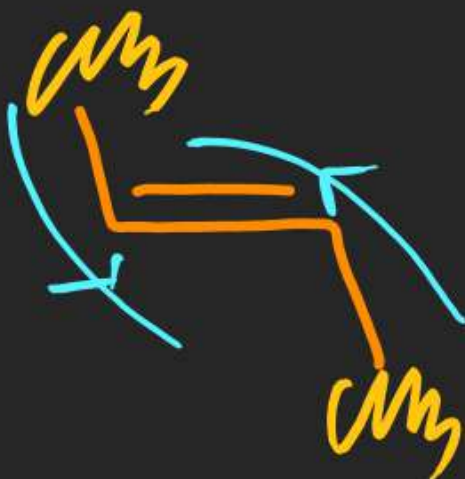
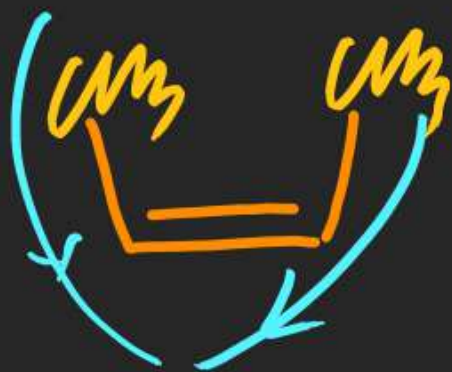
M.Tul  
(11)



НОС

1 > 2 > 3 > 4

M.Tul  
(12)



Stability

4 > 3 > 2 > 1