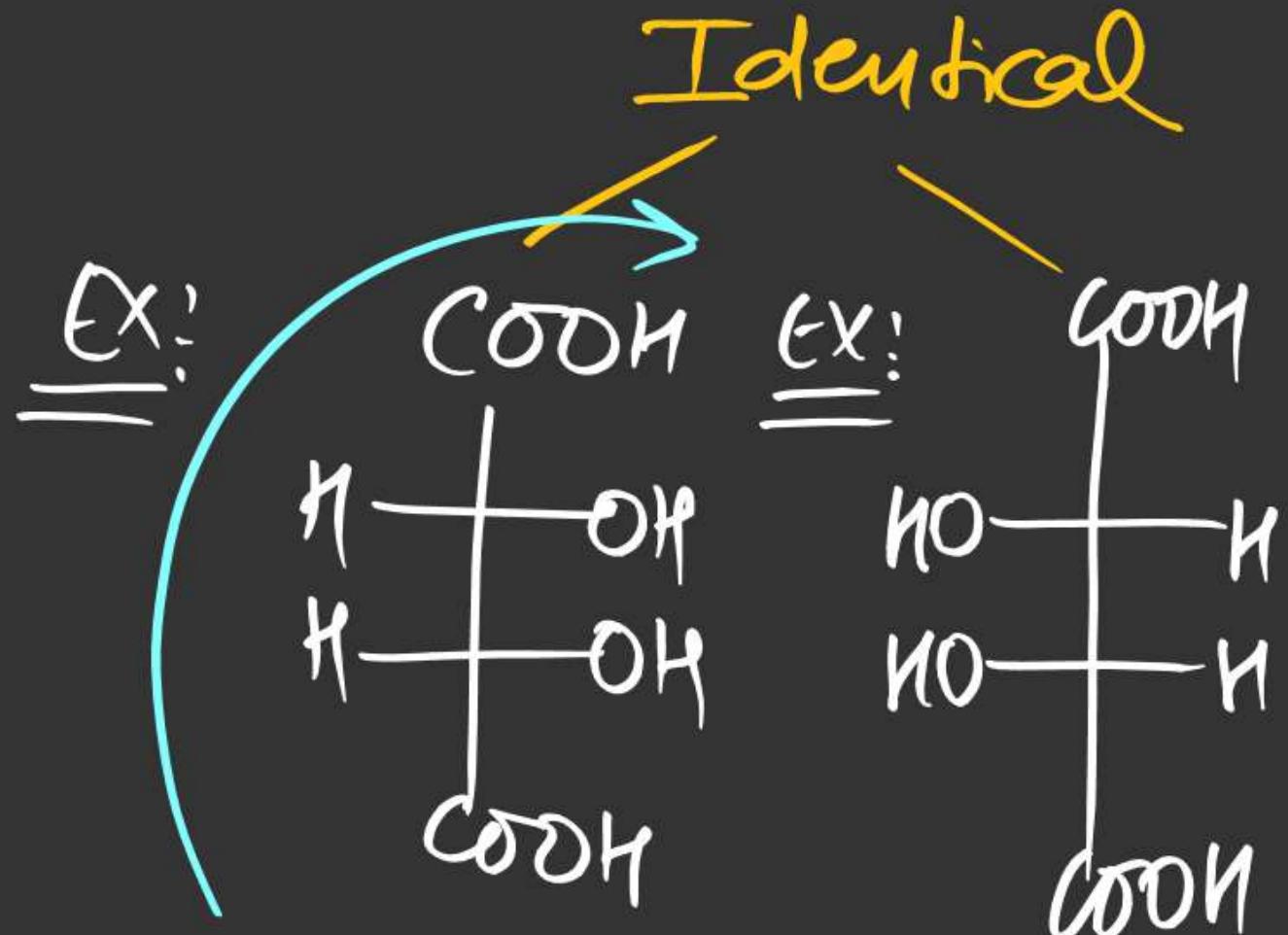


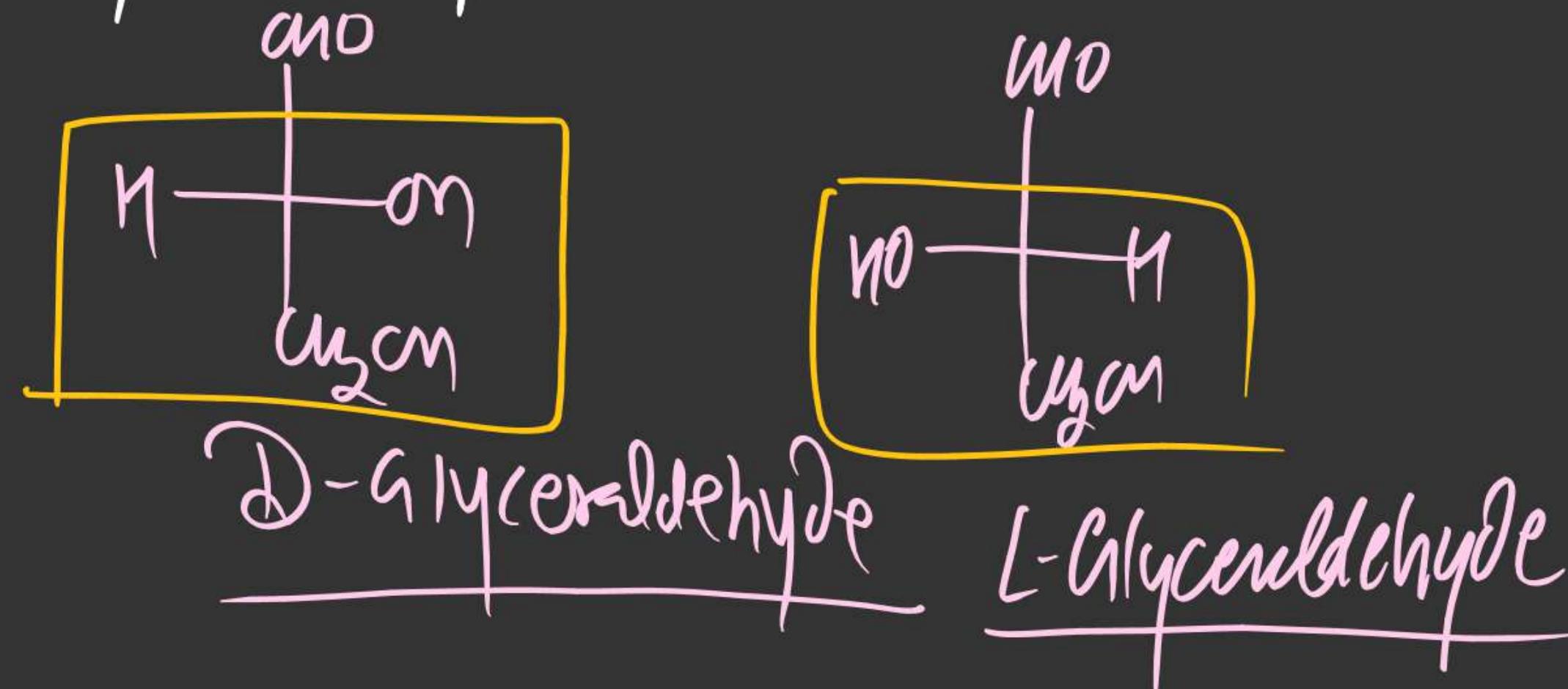
# D & L Configuration :

Note: ① D & L Configuration is not applicable on Symmetrical Compounds

② D & L is not applicable in compounds having absence of  $\text{-COOH}$  &  $\text{-NH}_2$



(iii) All D-configuration & L-Configuration Compounds  
are considered as derived from D-Glyceraldehyde  
& L-Glyceraldehyde

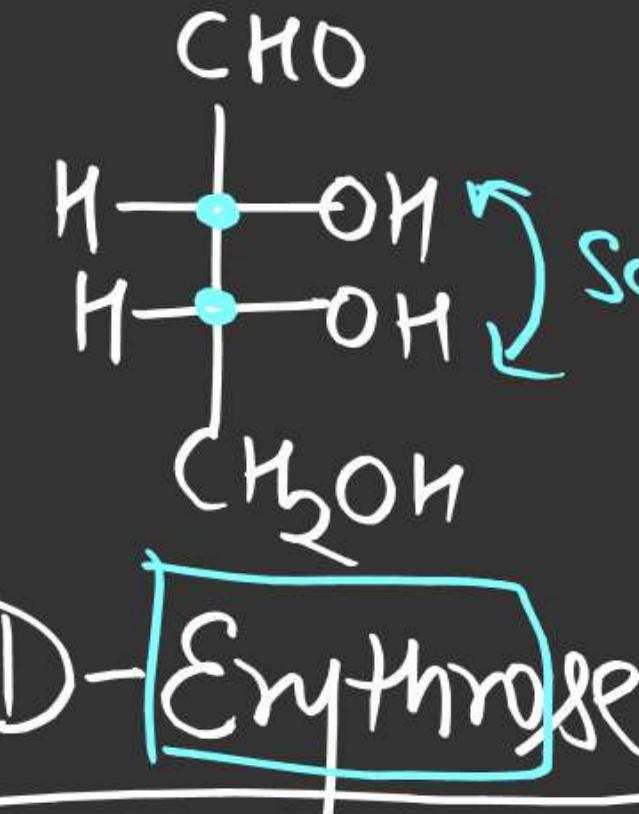


(#) Threo & Erythro:

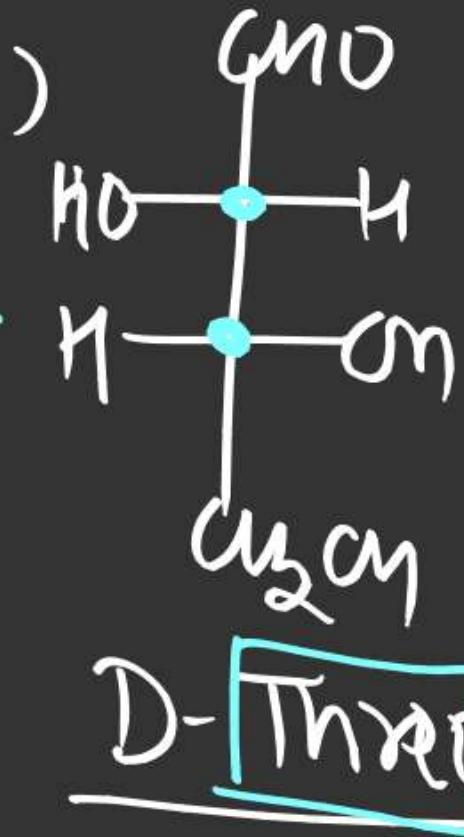
R-1: Compound must have exactly "2" chiral centre

R-2: If At chiral centre layer atom/groups are same side  $\Rightarrow$  Erythro  
opp. side  $\Rightarrow$  Threo

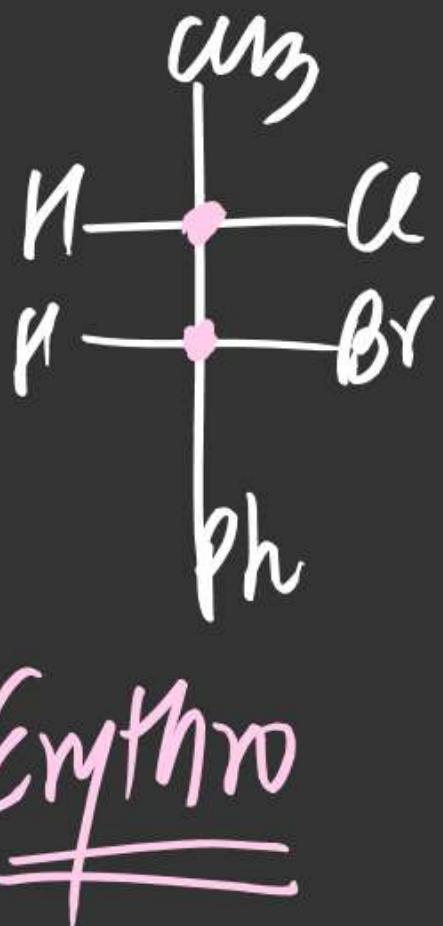
(1)



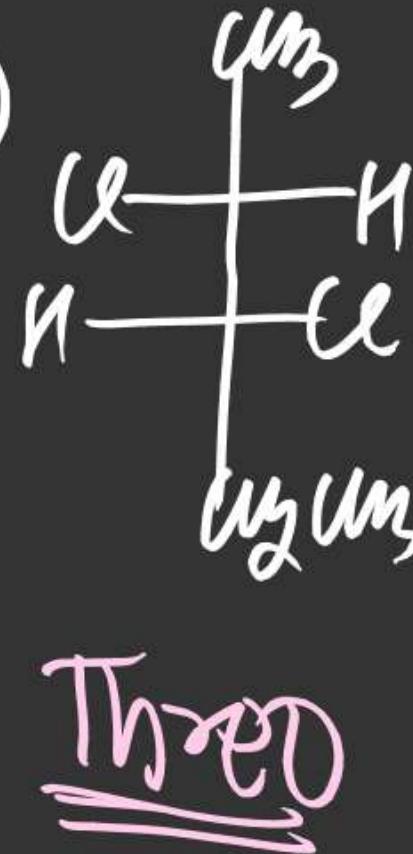
(2)

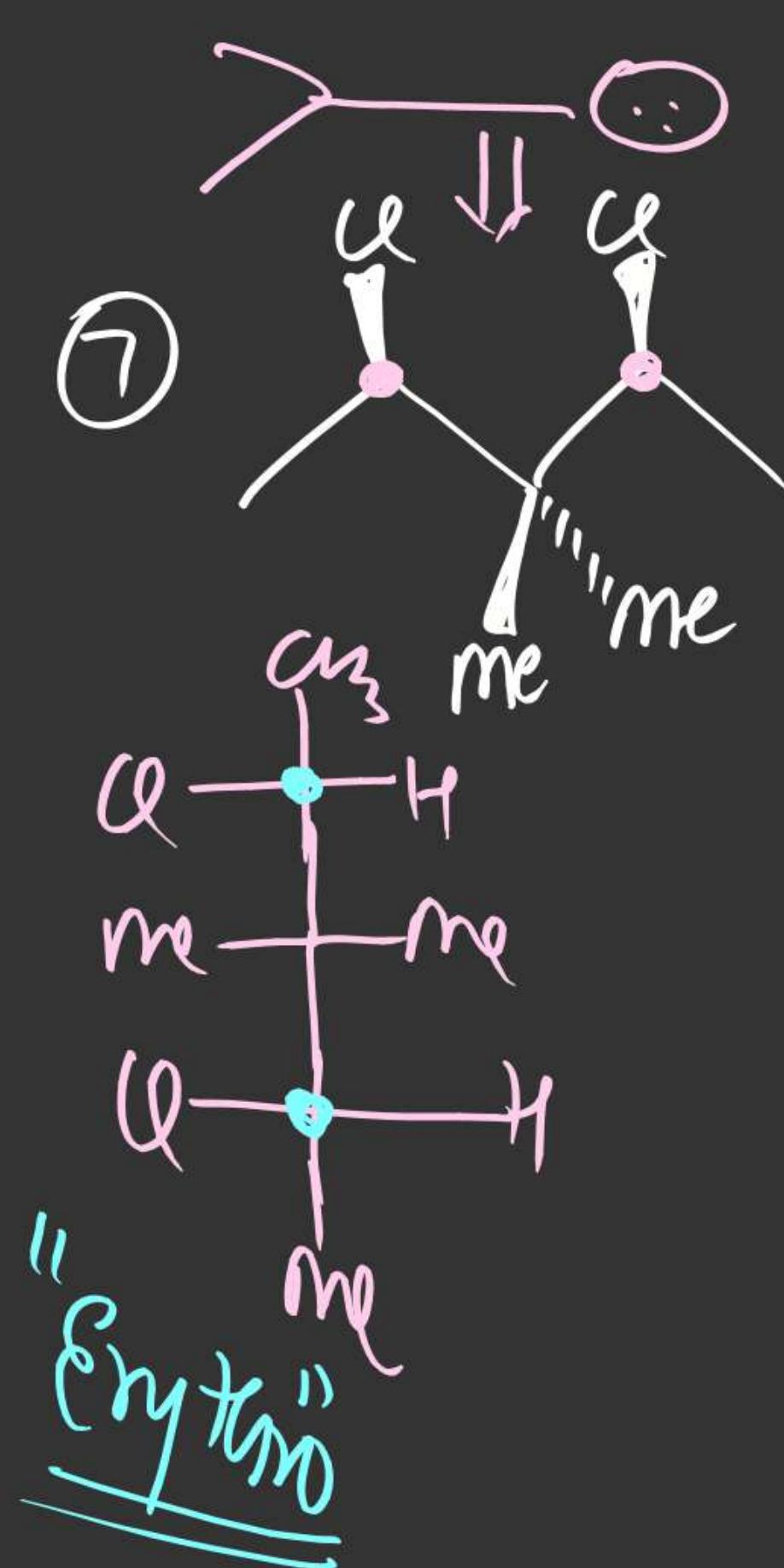
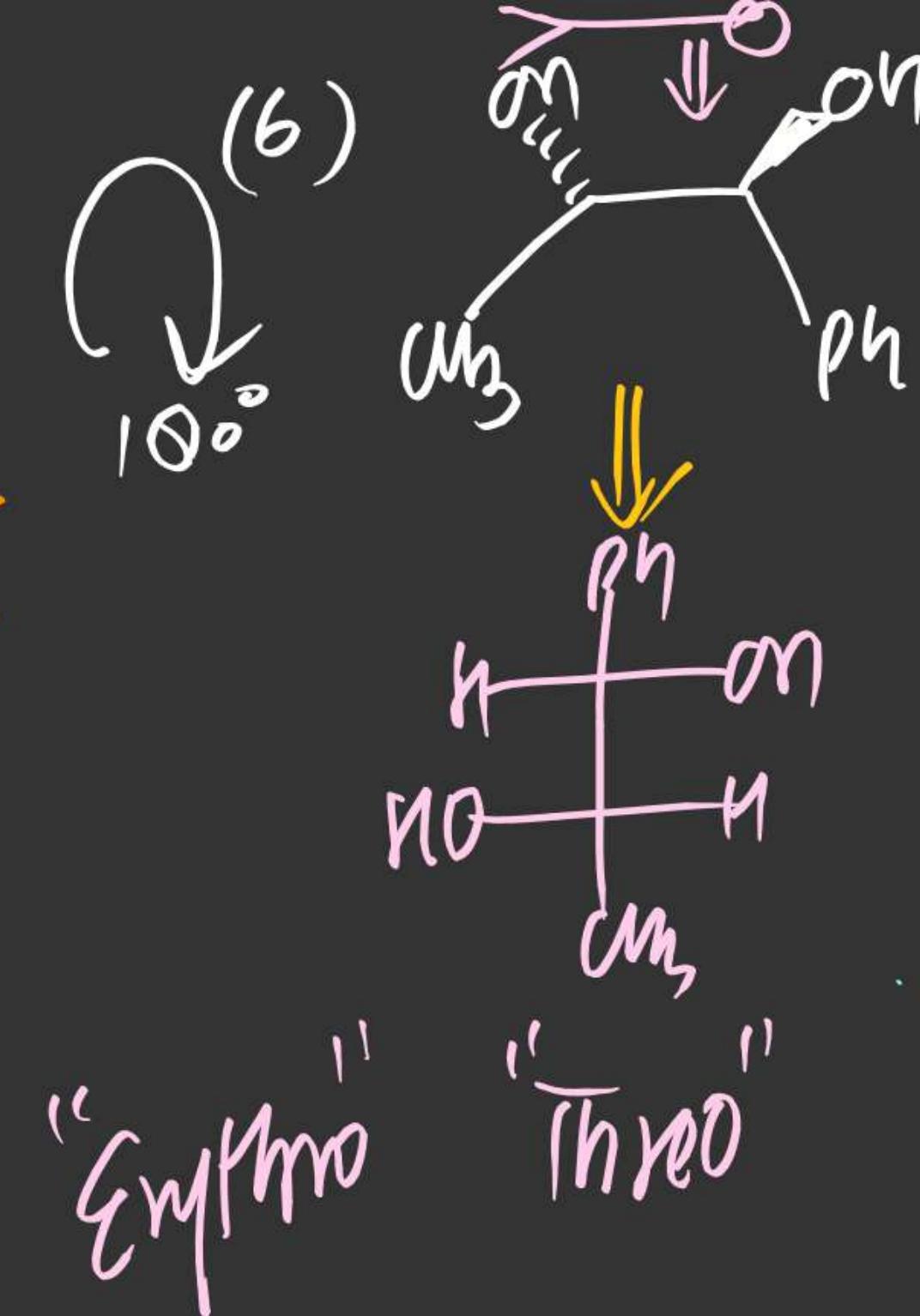
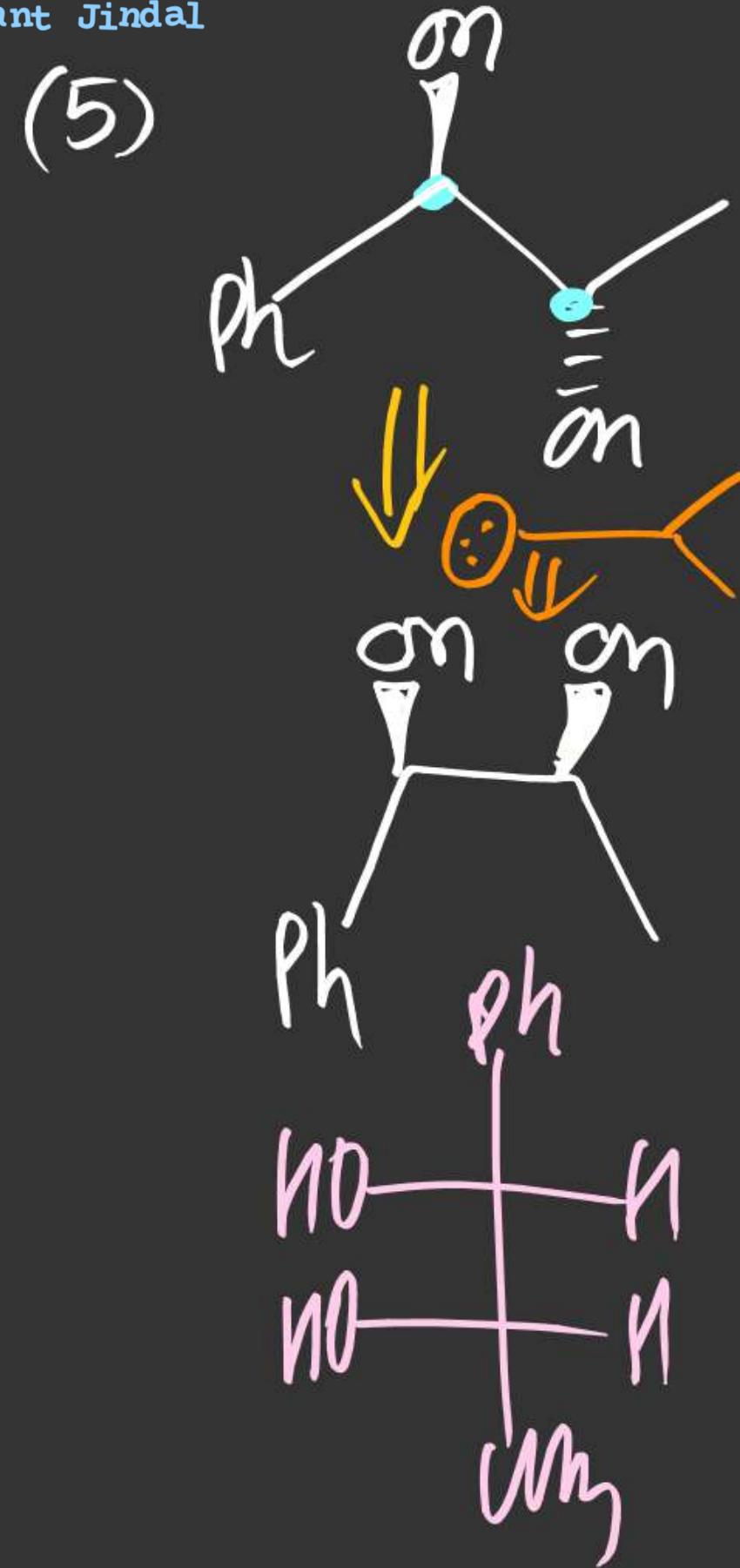


(3)



(4)

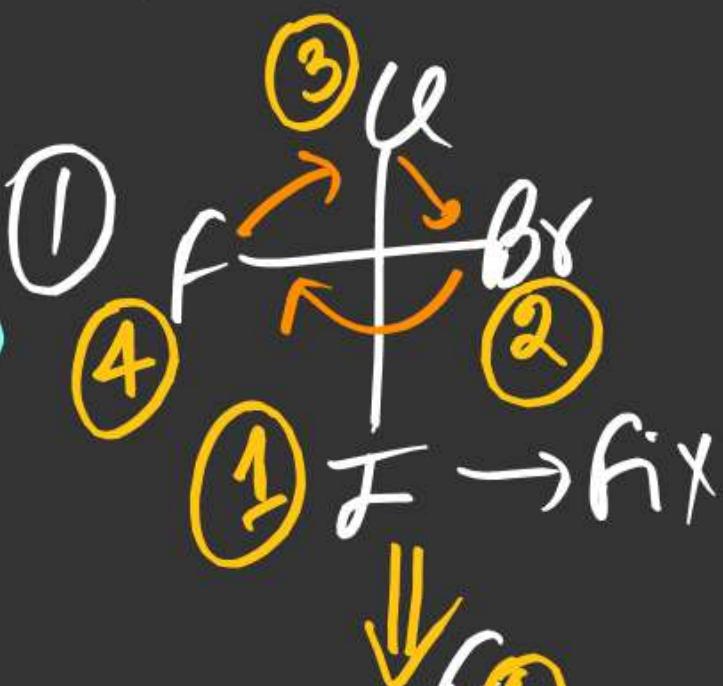




# (#) R & S Configuration :- (Absolute Configuration)

$R \Rightarrow$  Rectus  $\Rightarrow$  Clockwise [CIP Priority Sequence of Atoms / groups]  
 $S \Rightarrow$  Sinister  $\Rightarrow$  Anticlockwise

Rule-1: Decide CIP Priority of attached Atom/group



Rule-2: Observe lowest priority (4)  
 if it is away to observe them

No problem & if it is towards observe then  
 then make it away.

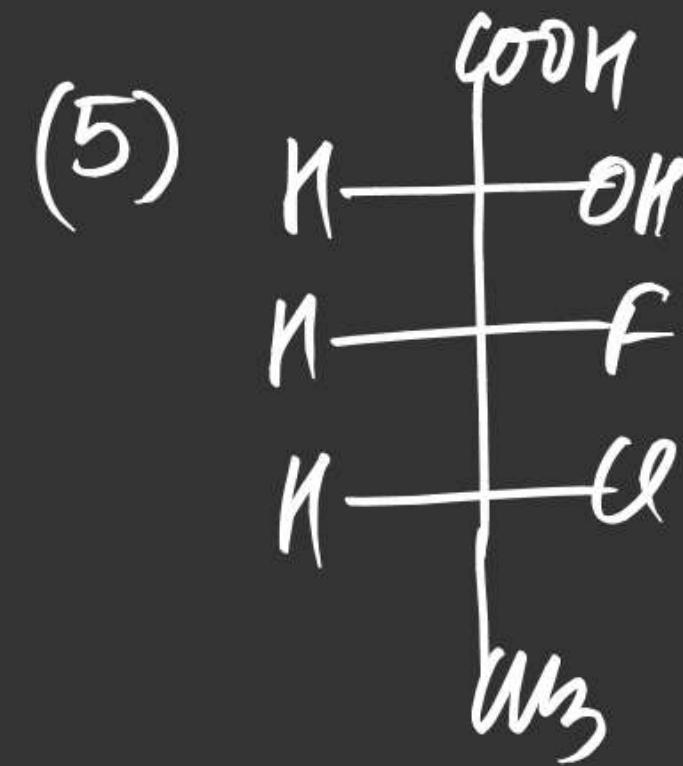
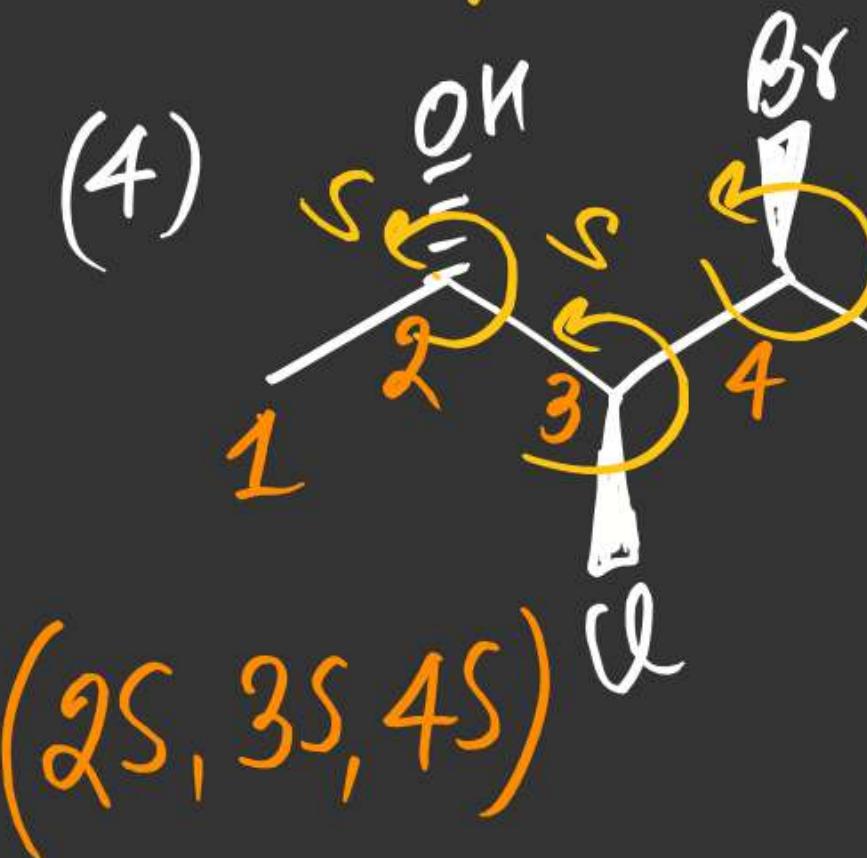
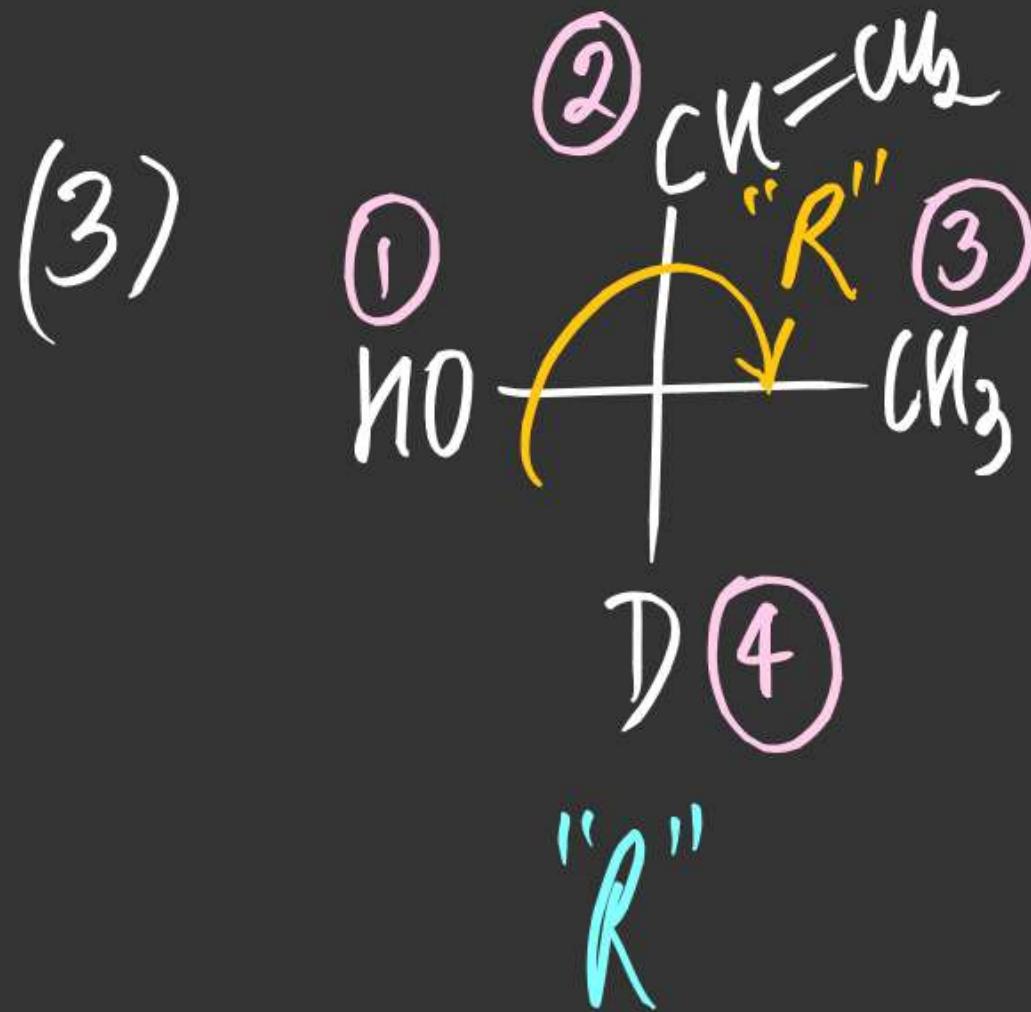


Rule-3:

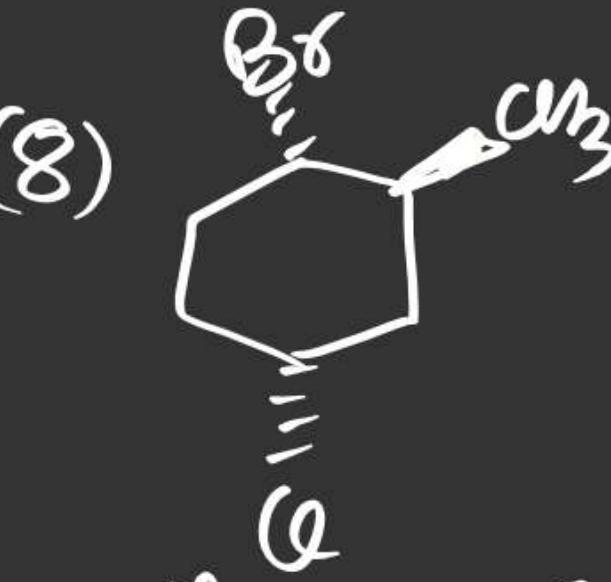
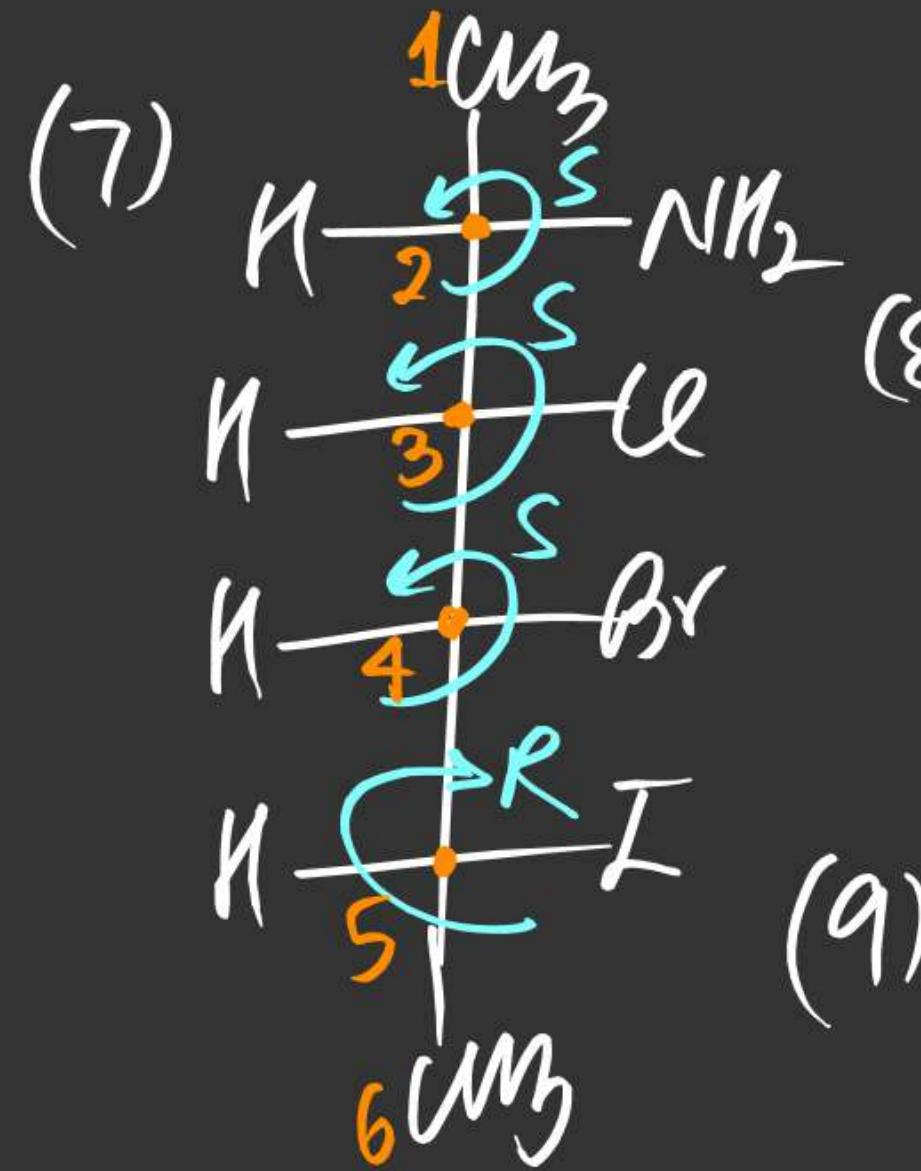
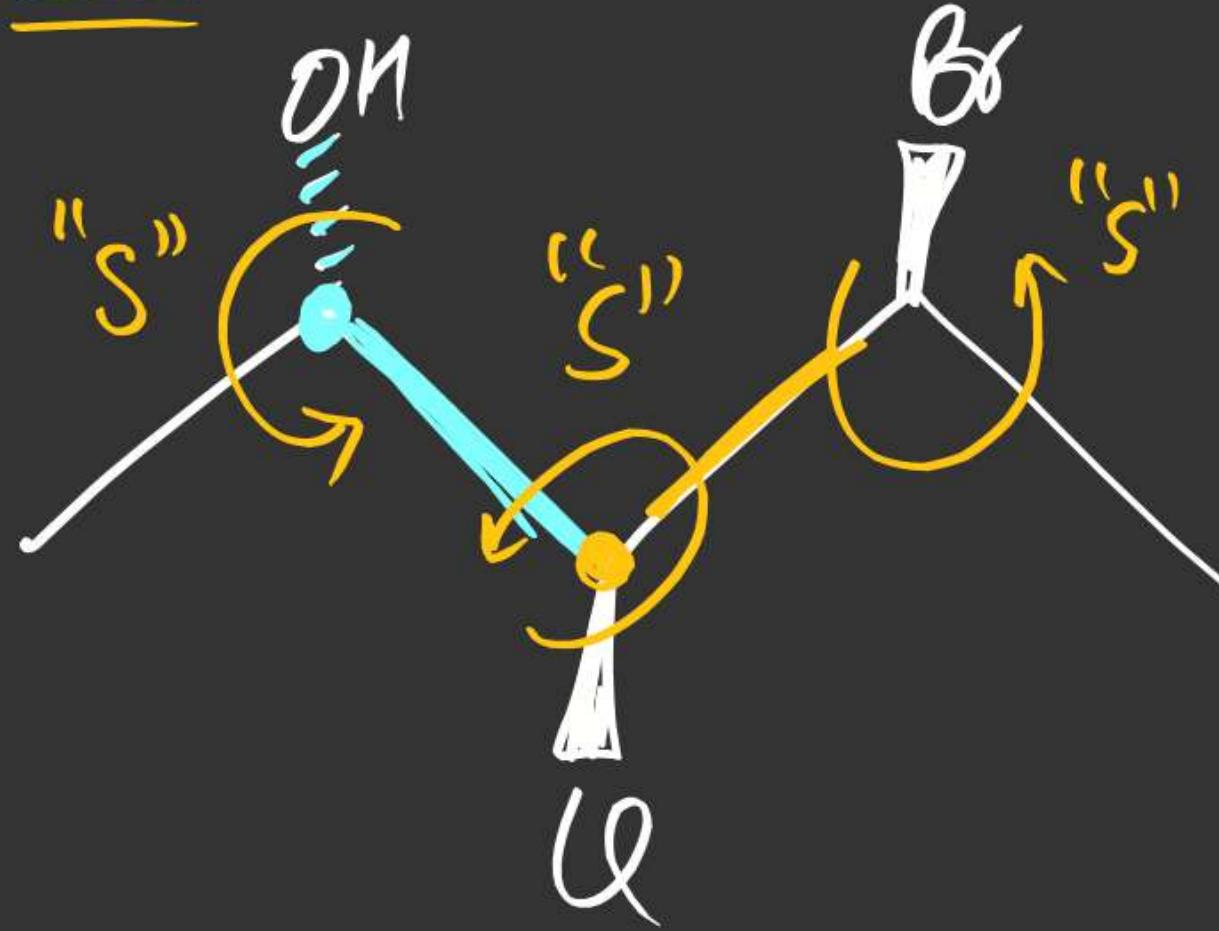
**Neglect lowest Priority (4)**

& start from 1 → 2 → 3

if it is clockwise → "R"  
Anti clockwise → "S"

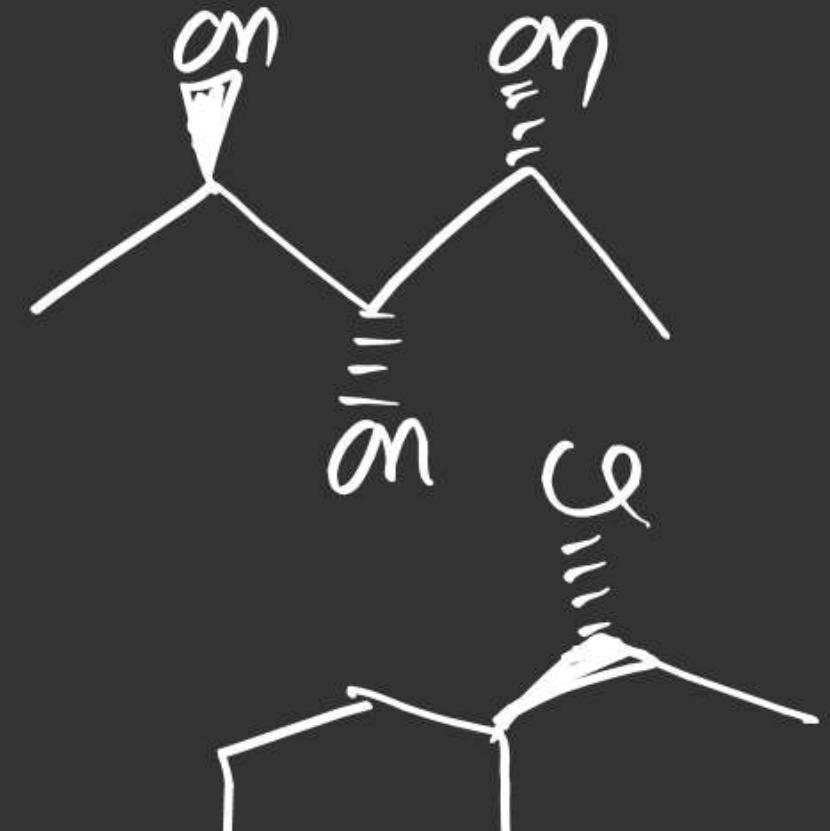


Sol'n!

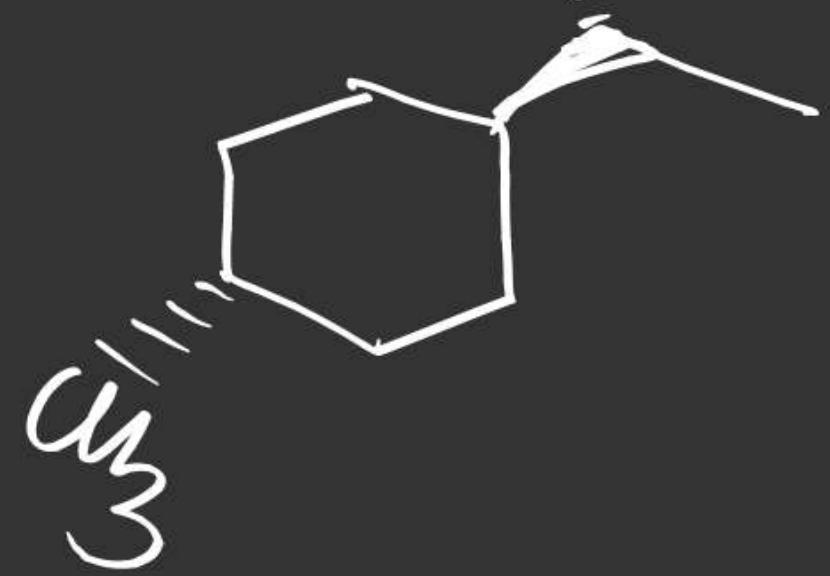


(25, 35, 45, 5R)

(11)



(12)



# Structural Isomerism

1. The IUPAC name of the compound is:



- (A) (2E, 4E, 6Z)-octa-2,4,6-triene
- (B) (2E, 4E, 6E)-octa-2,4,6-triene
- (C) (2Z, 4E, 6Z)-octa-2,4,6-triene
- (D) (2Z, 4Z, 6Z)-octa-2,4,6-triene

## Structural Isomerism

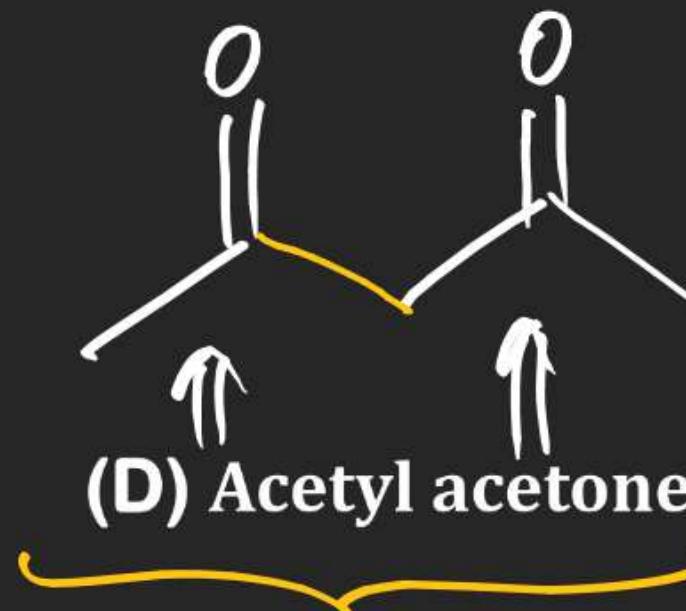
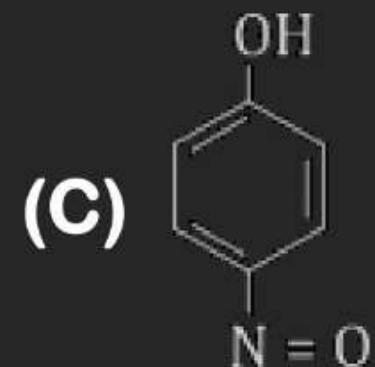
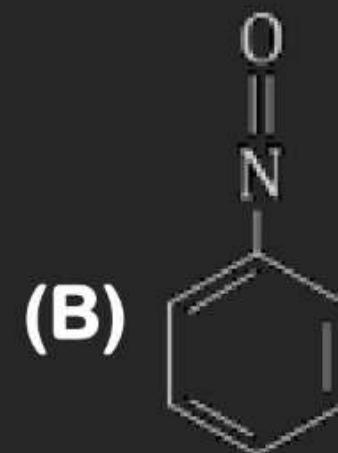
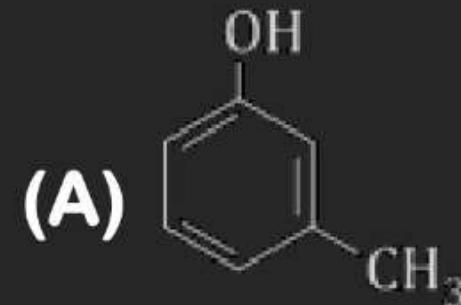
2. Which of the following statements is (are) not correct?

- (A) Metamerism belongs to the category of structural isomerism (Correct)
- (B) Tautomeric structures are the resonating structures of a molecule
- (C) Keto form is always more stable than the enol form
- (D) Both B and C



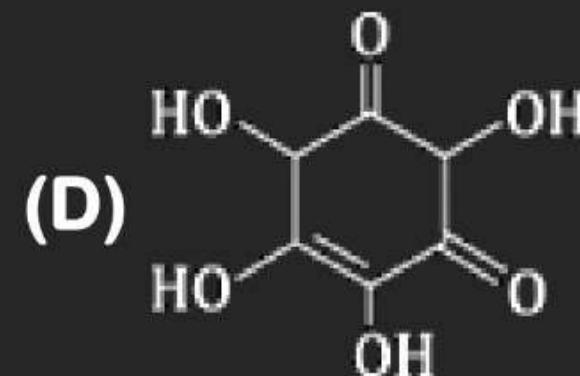
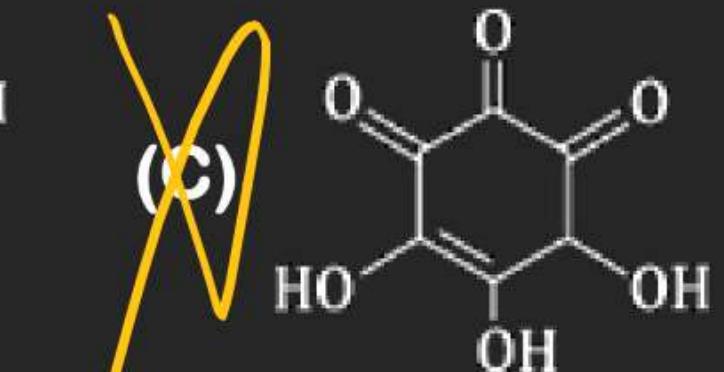
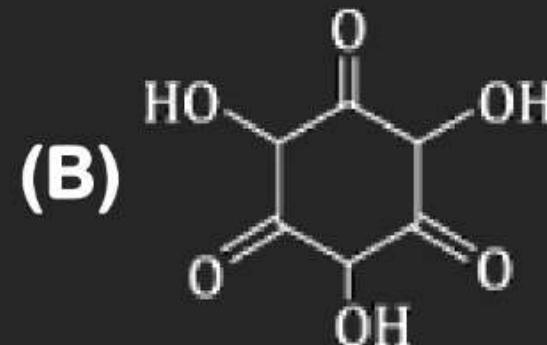
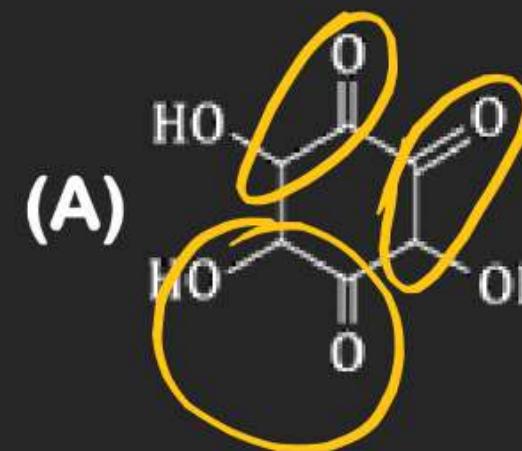
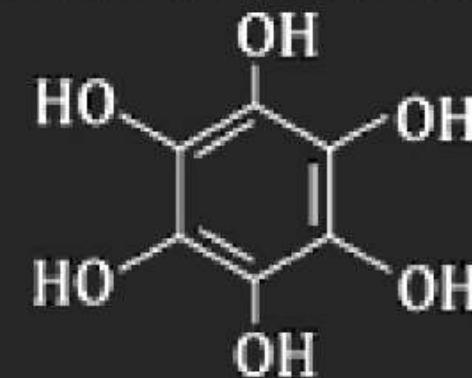
# Structural Isomerism

3. Which compound can show tautomerism:



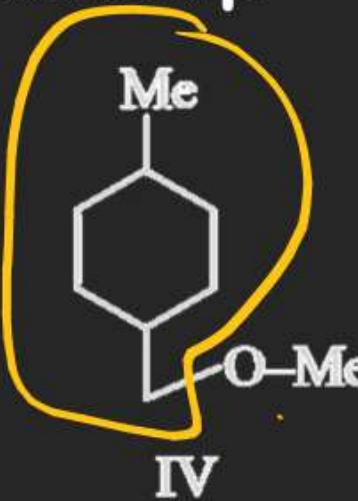
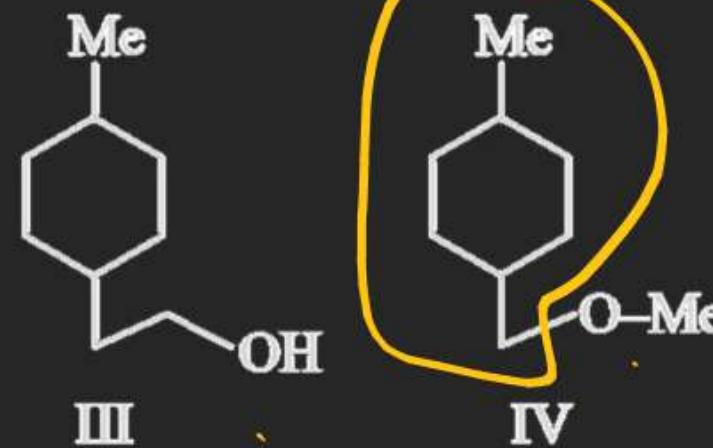
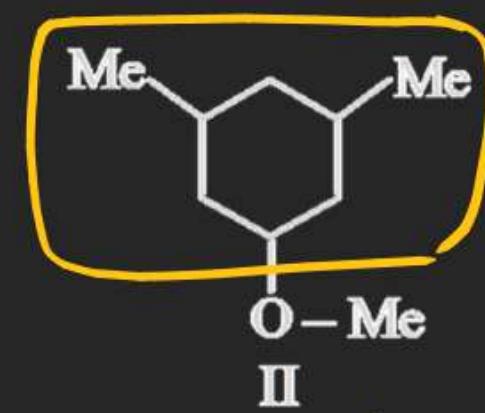
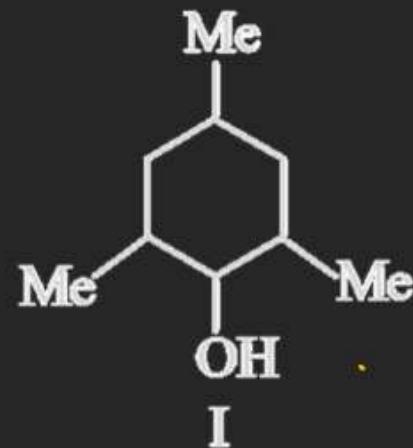
# Structural Isomerism

4. Tautomerism form of this compound is(are):



# Structural Isomerism

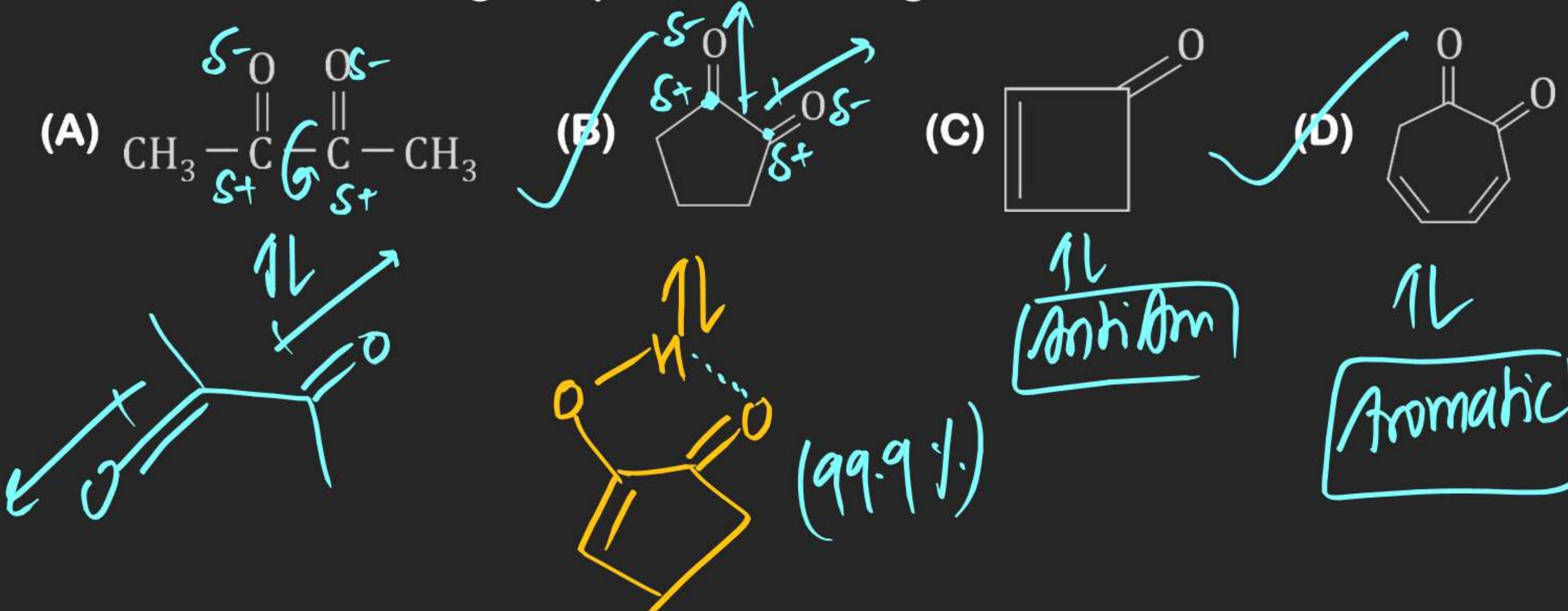
5. Which of the following is **not** the correct relationship



- C (A) II & IV are metamer
- C (B) I & II are functional isomer
- (C) I & III are chain isomer
- (D) I and IV are positional isomer

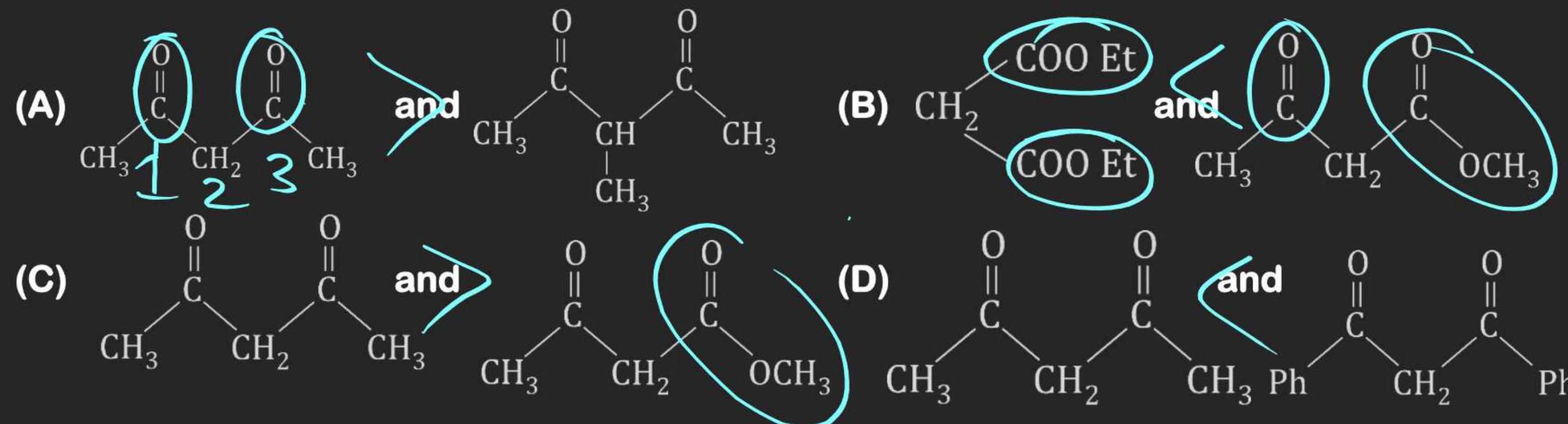
# Structural Isomerism

6. Which of the following compounds have higher enolic content than Keto content:



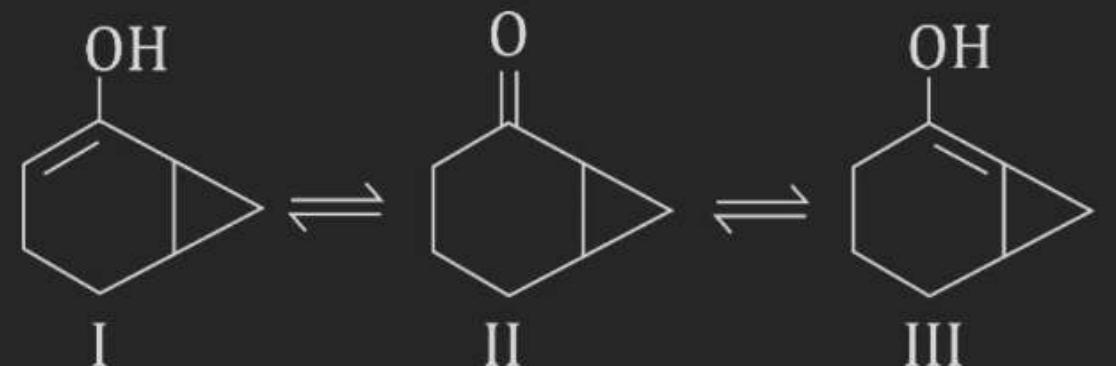
# Structural Isomerism

7. In which of the following pairs first will have higher enol content than second:



# Structural Isomerism

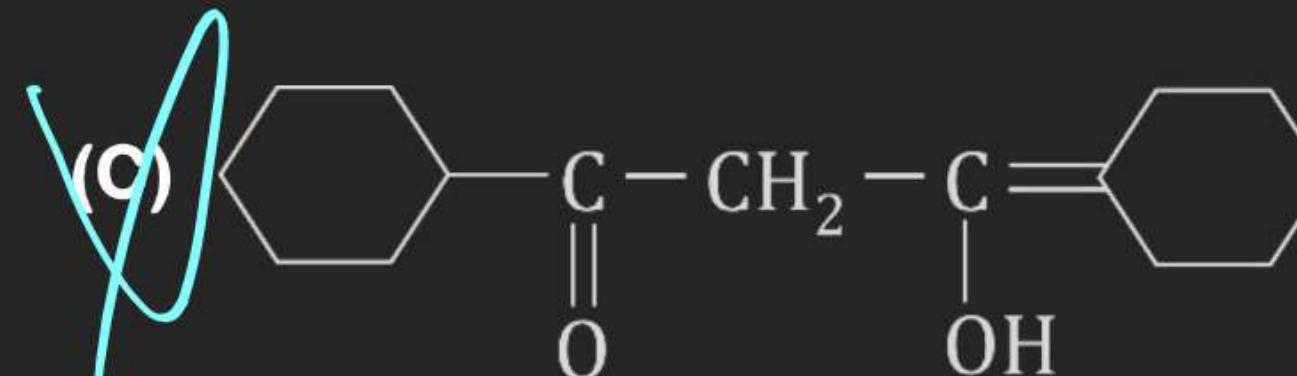
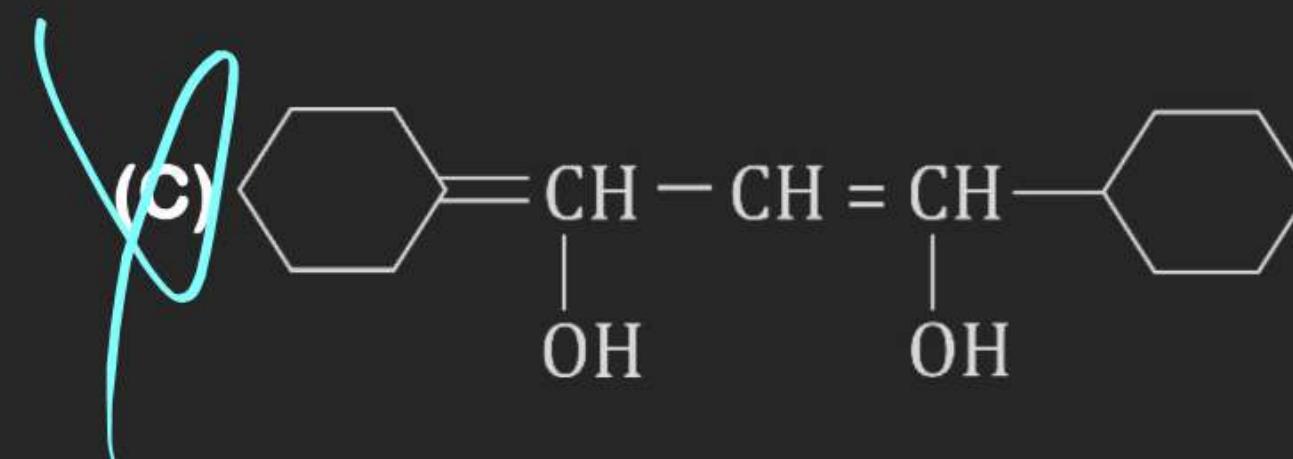
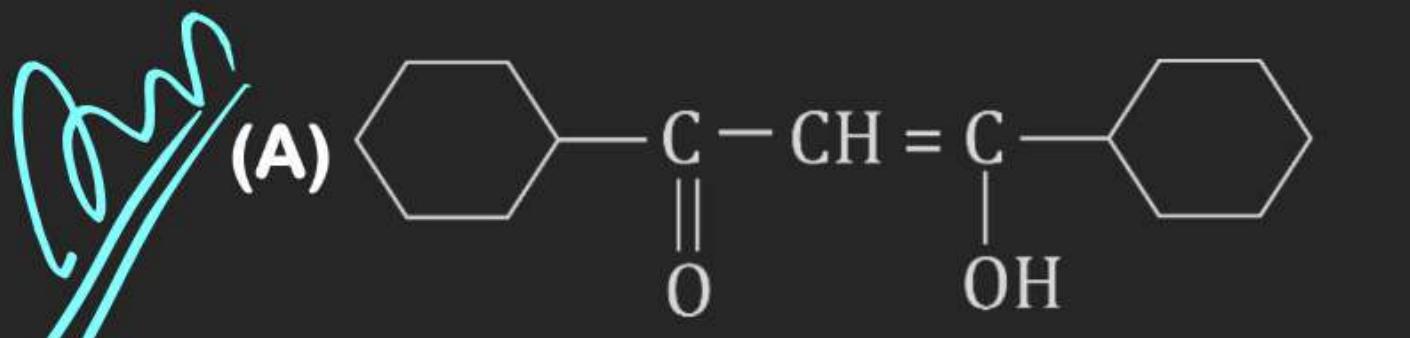
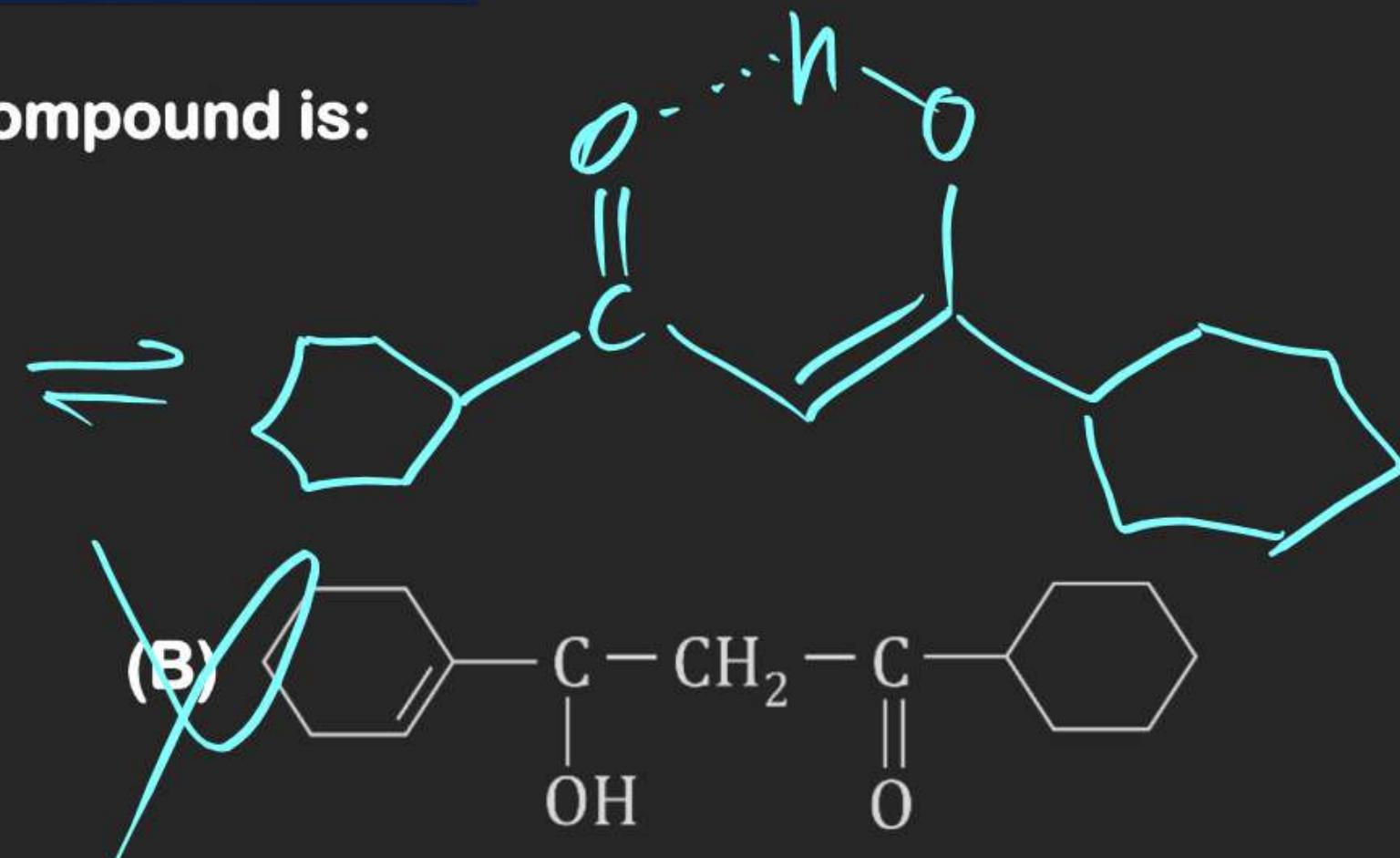
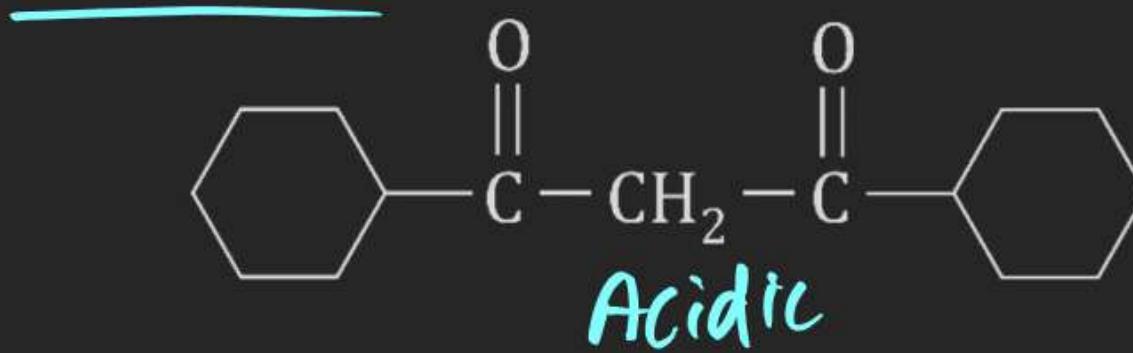
8. Among these tautomers, correct stability order is:



- (A) I > II > III      (B) III > II > I      (C) II > I > III      (D) II > III > I

# Structural Isomerism

9. Most stable tautomer of following compound is:



# Structural Isomerism

10. Which of the following can show tautomerise.

