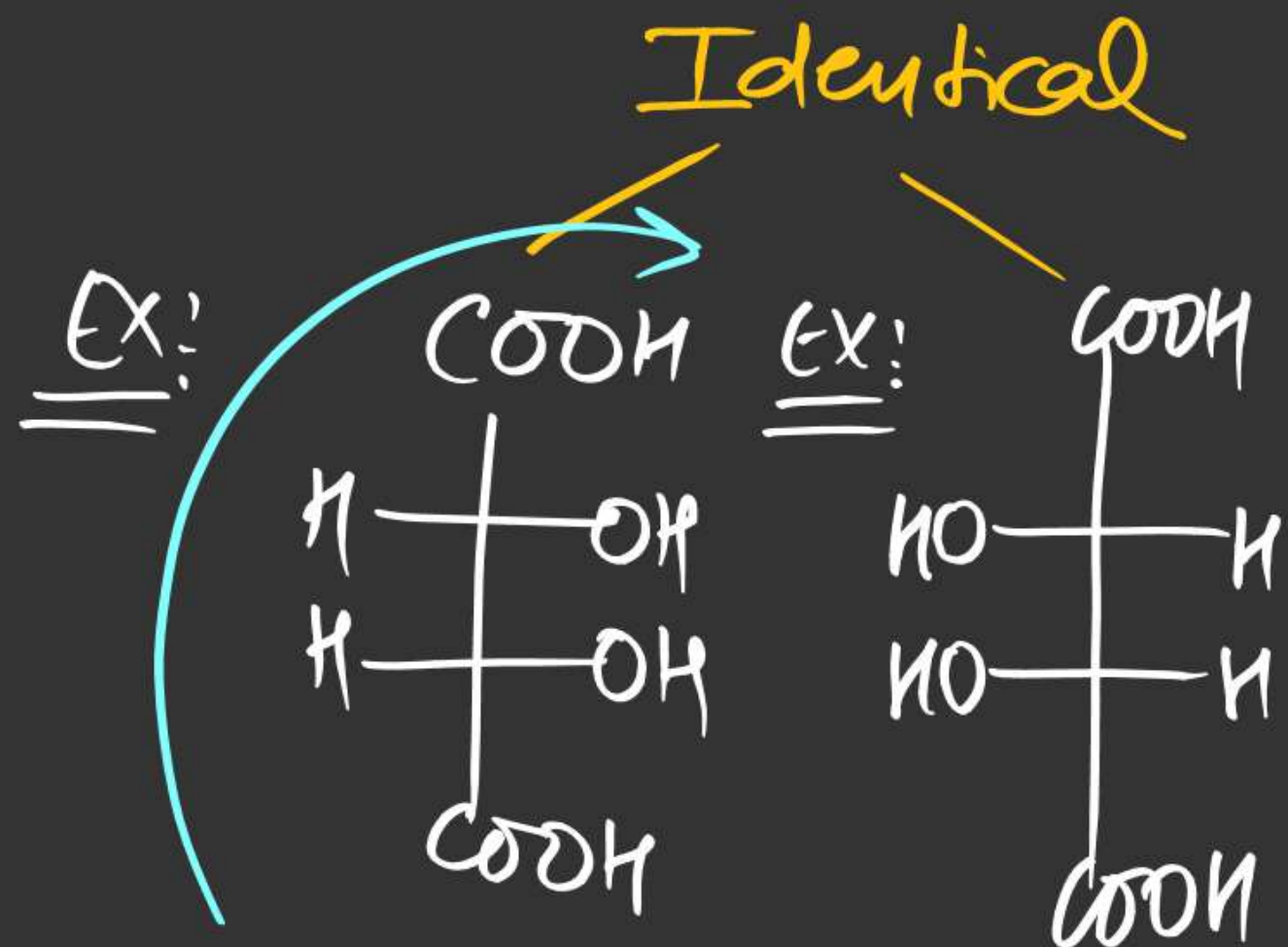


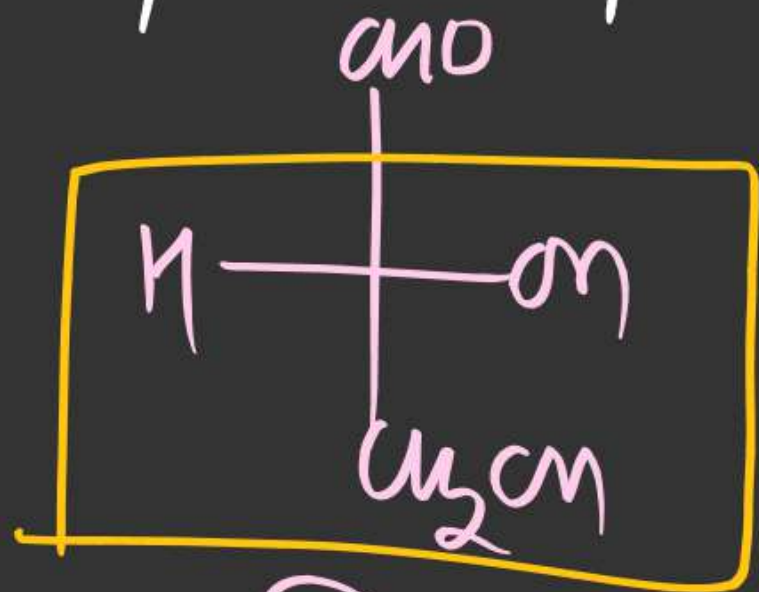
D & L Configuration :

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

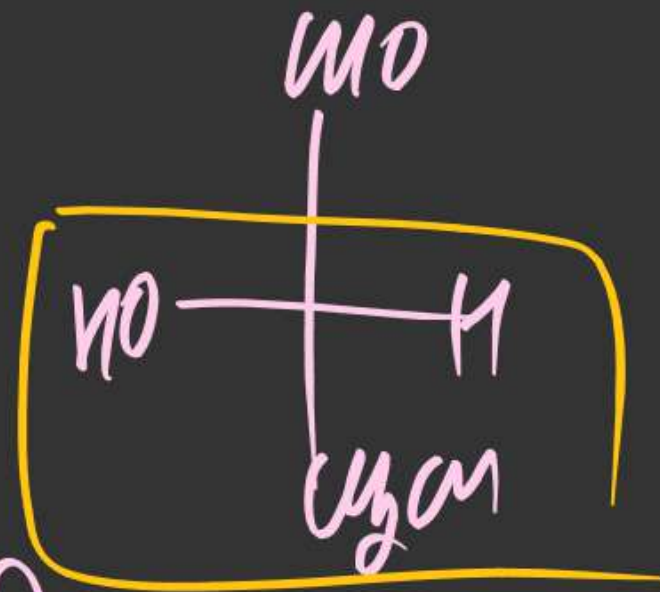
(2) D & L is not applicable in compounds having absence of -OH & -NH₂



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



D-Glyceraldehyde



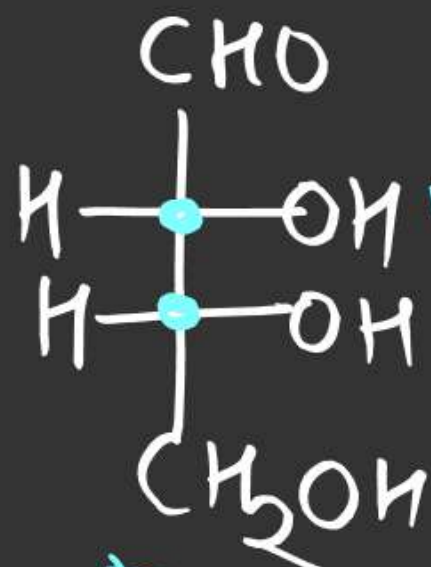
L-Glyceraldehyde

(#) 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

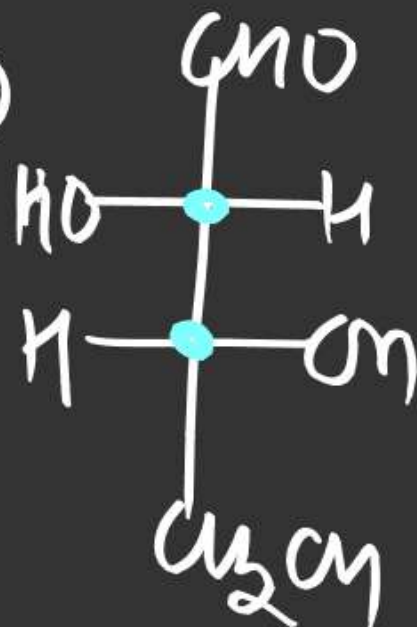
(1)



same

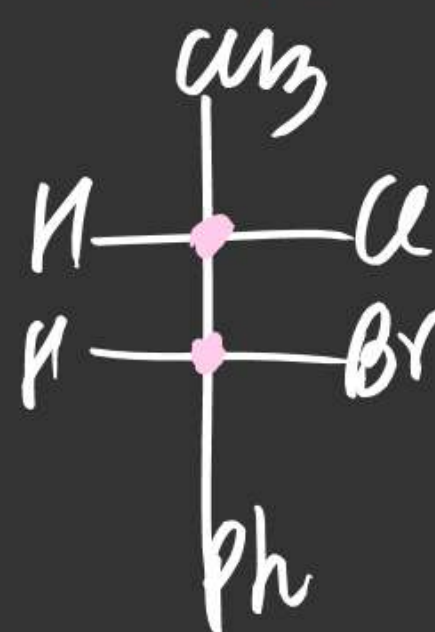
D-Erythrose

(2)



D-Threose

(3)



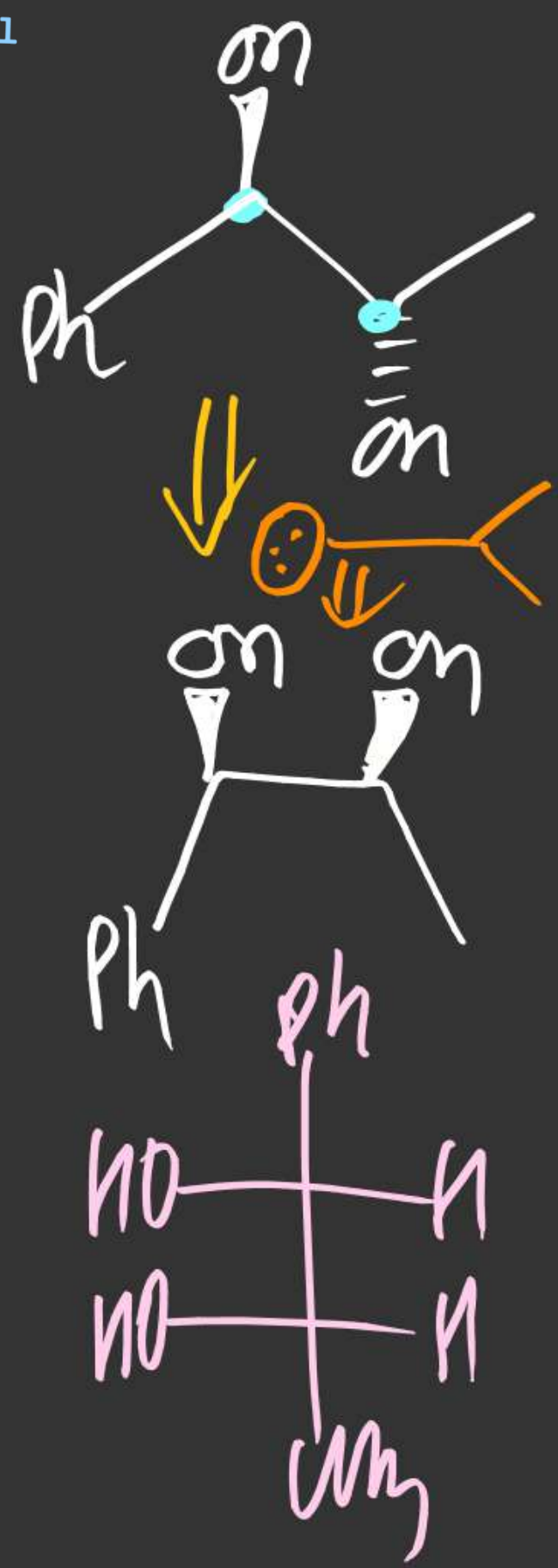
Erythro

(4)

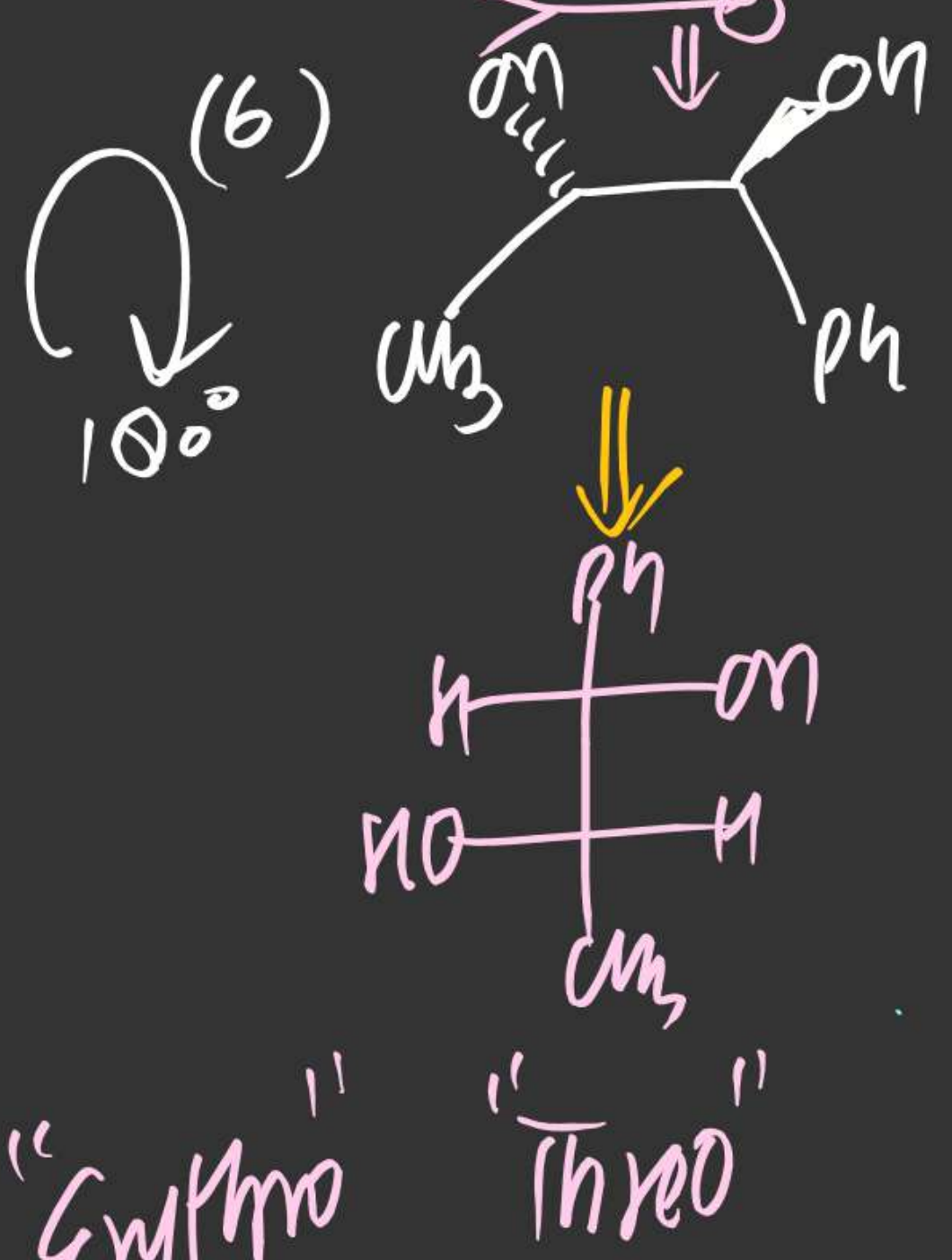


Threo

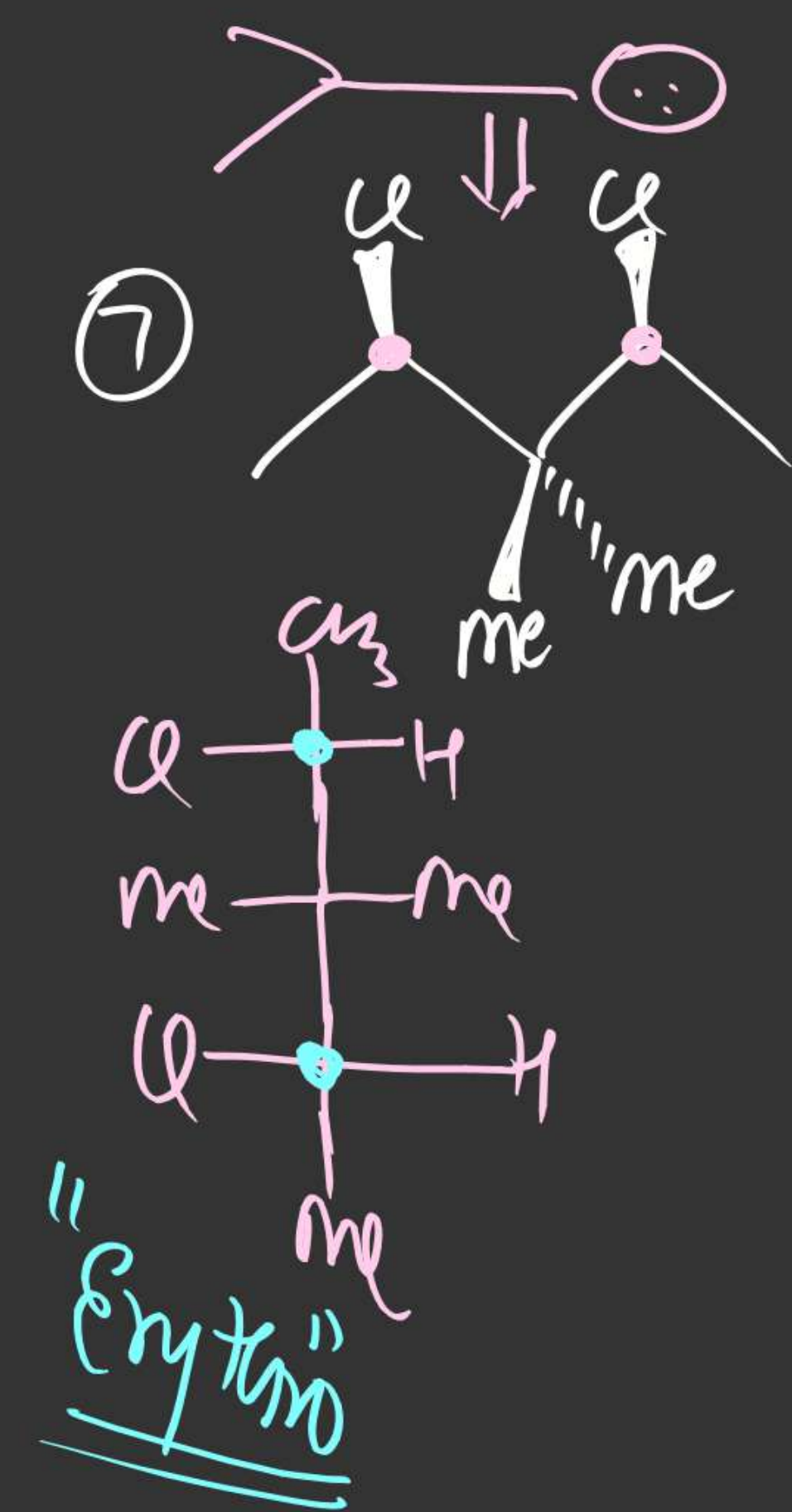
(5)



(6)



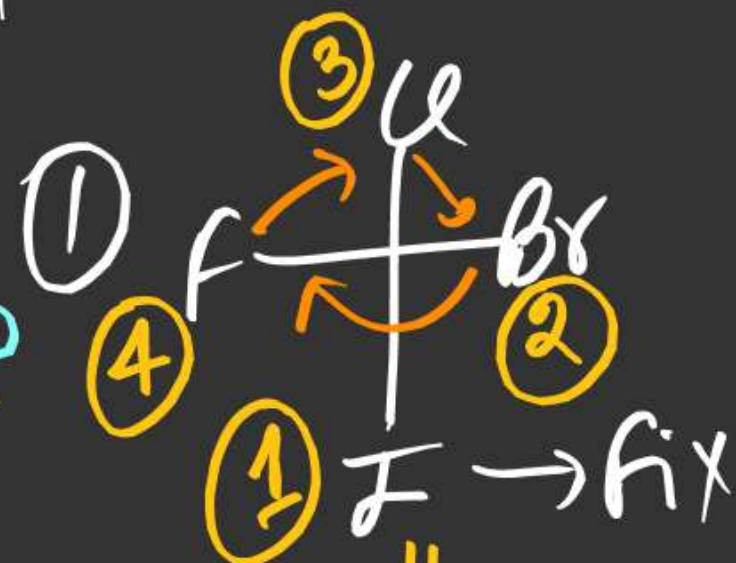
(7)



(#) 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 then
 No problem & if it is towards observer
 then make it away.

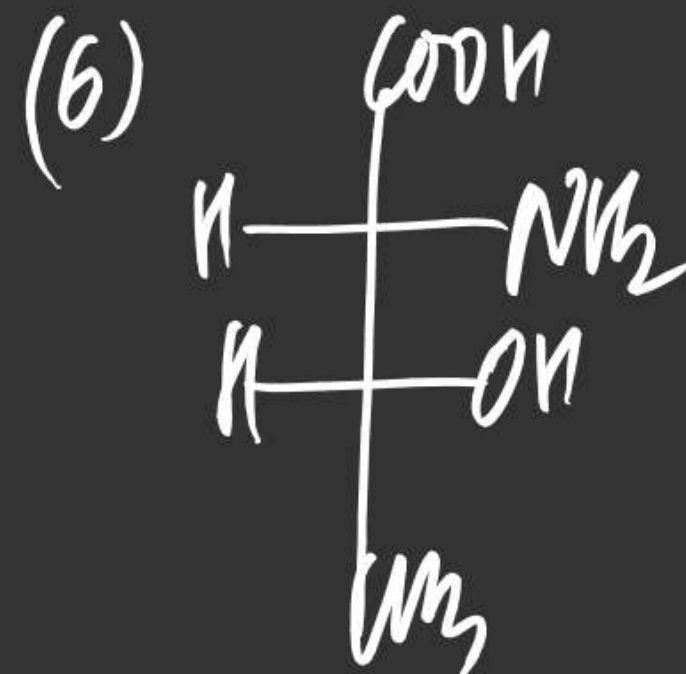
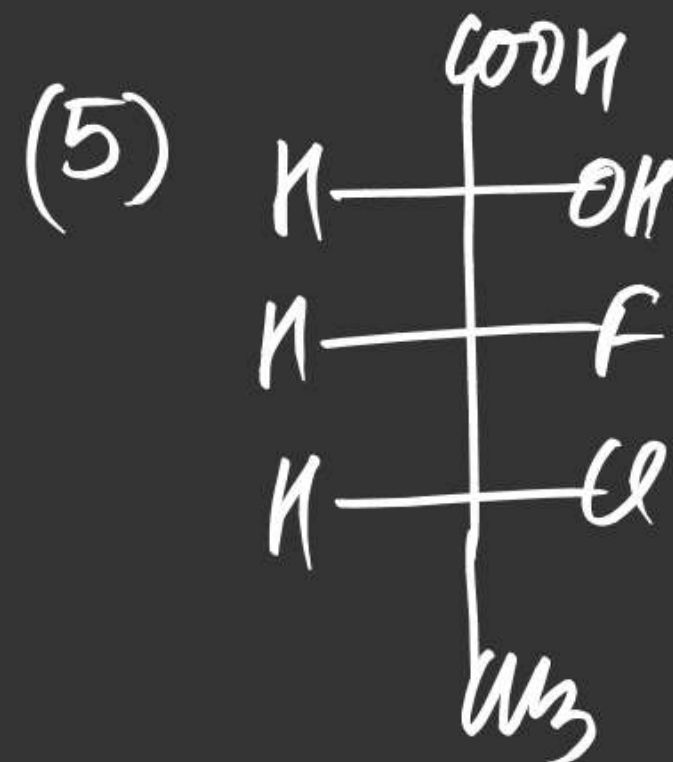
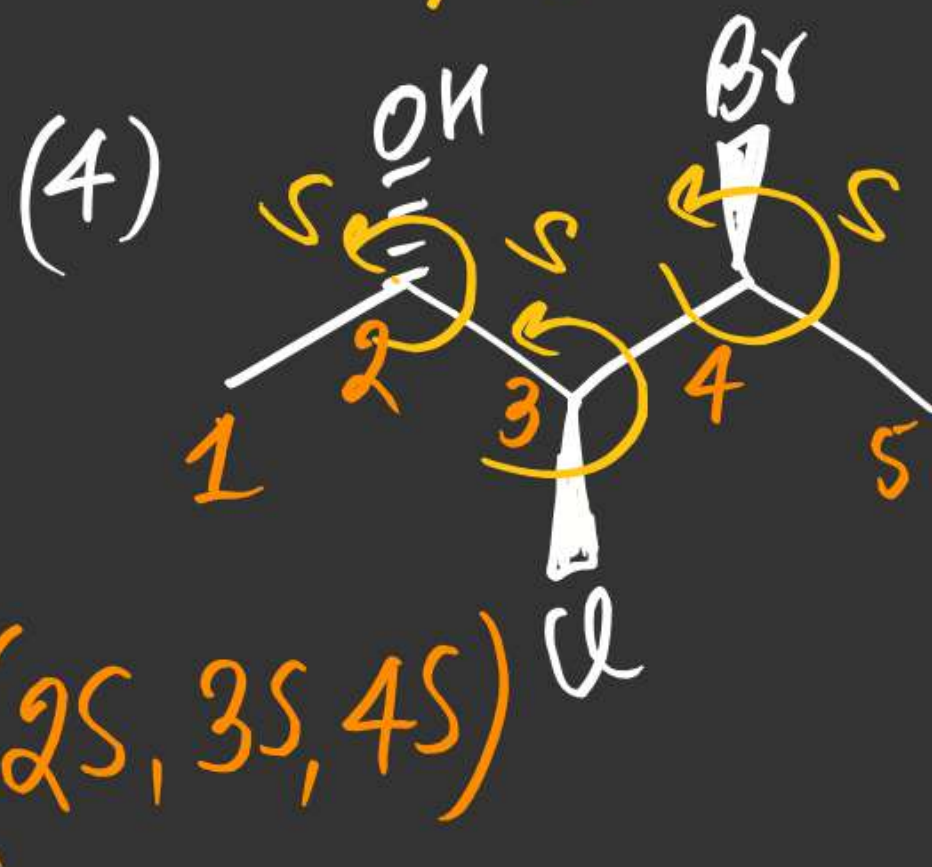
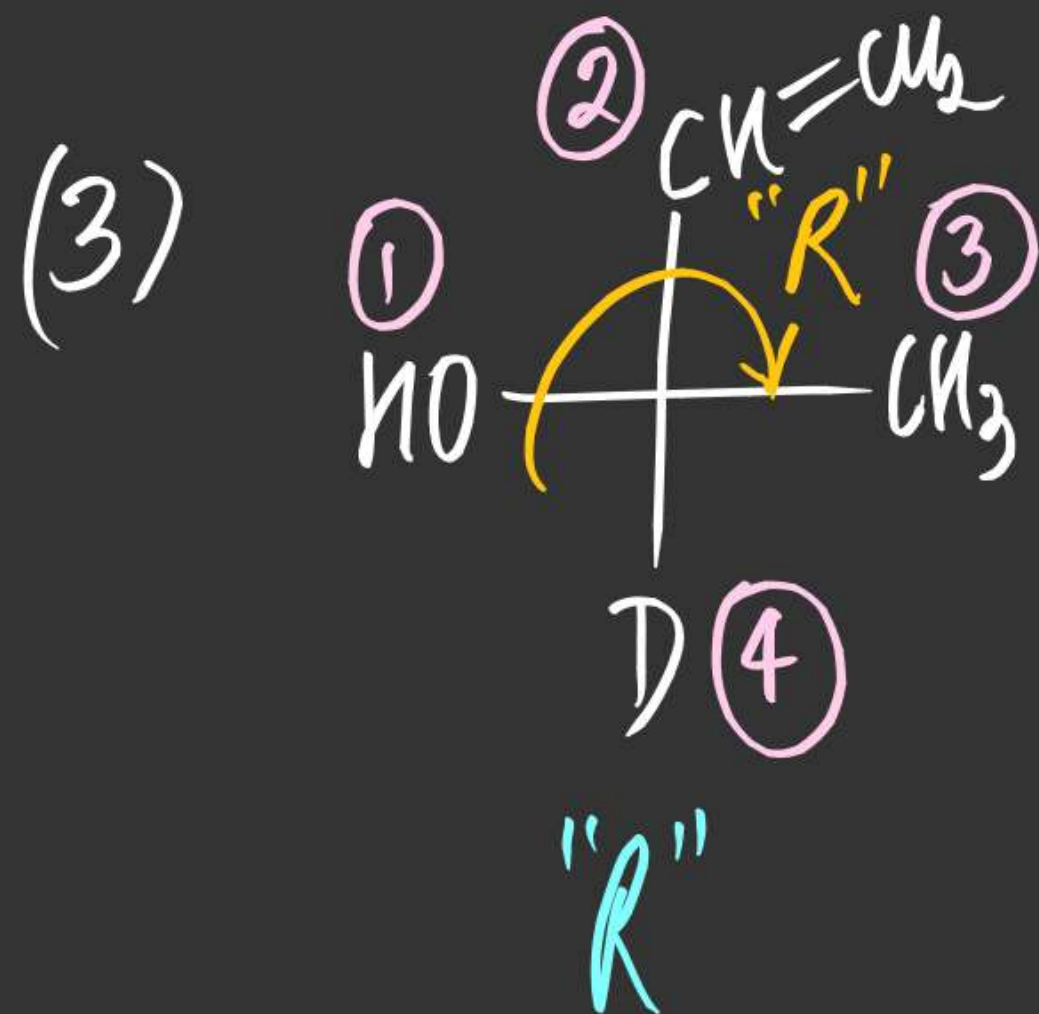


Rule-3! Neglect lowest priority (4)

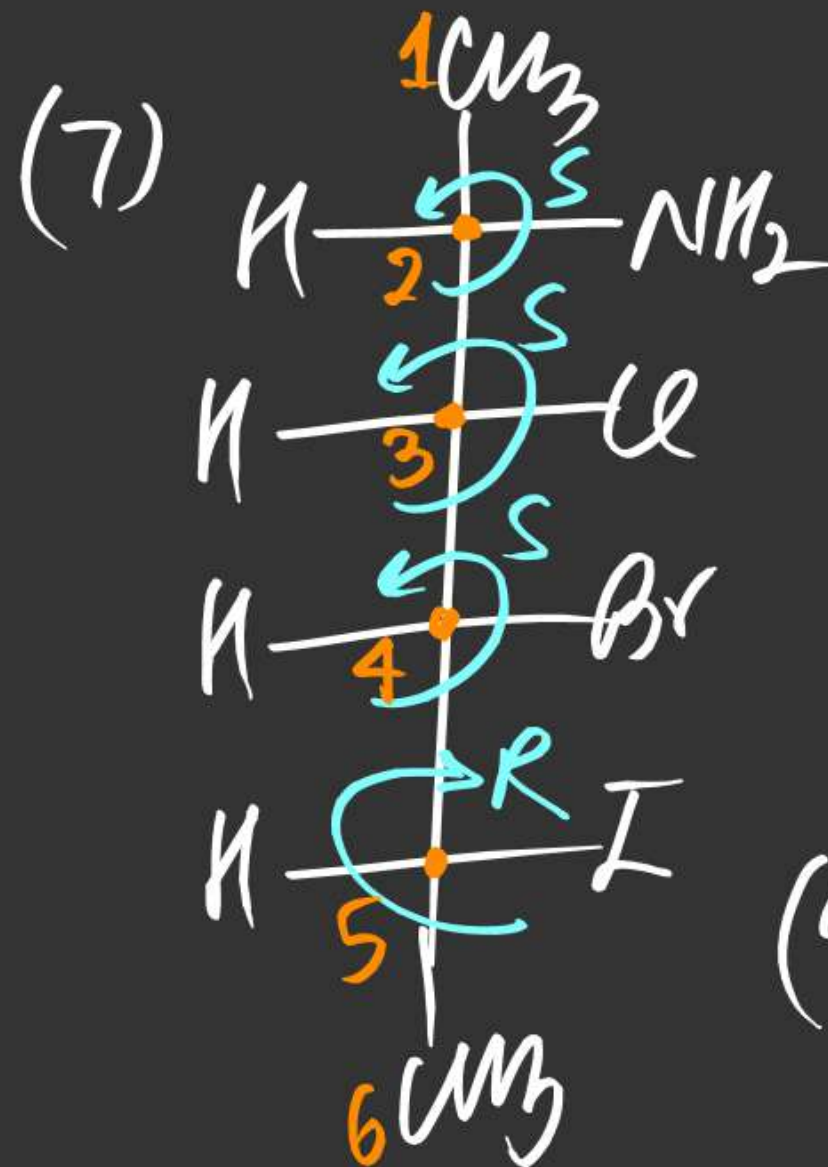
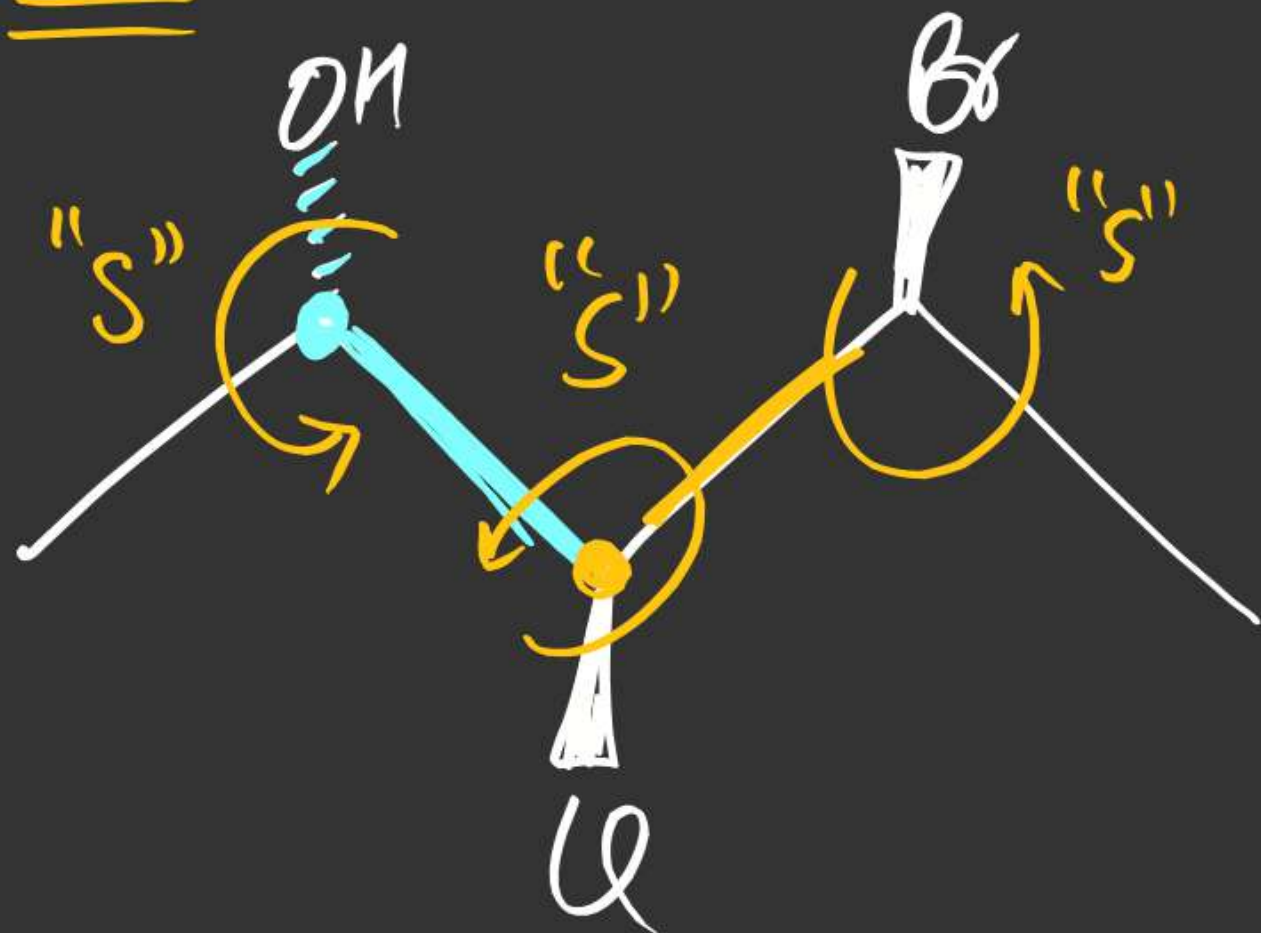
& start from $1 \rightarrow 2 \rightarrow 3$

if it is clockwise \rightarrow "R"

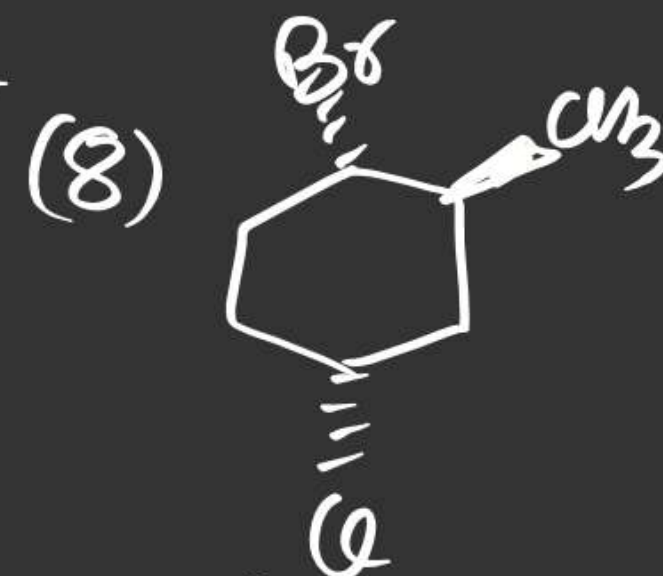
— Anticlockwise \rightarrow "S"



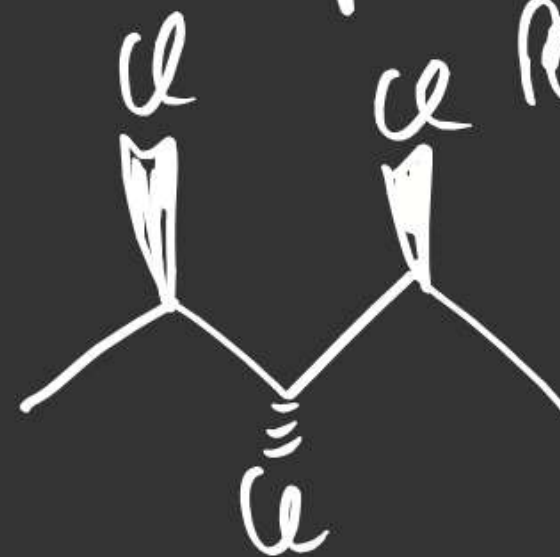
Solⁿ!



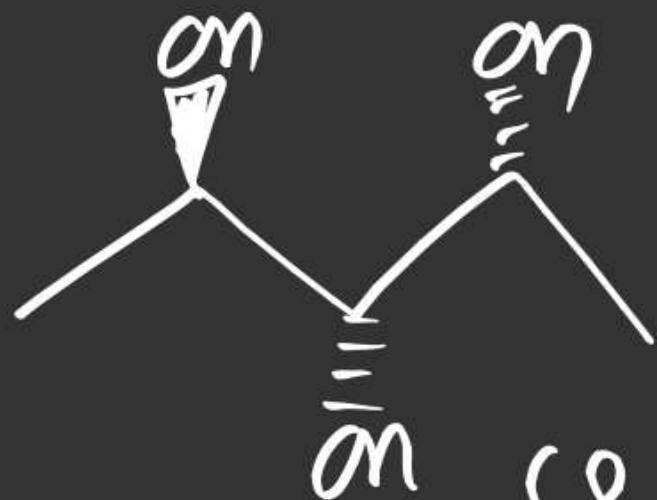
(2S, 3S, 4S, 5R)



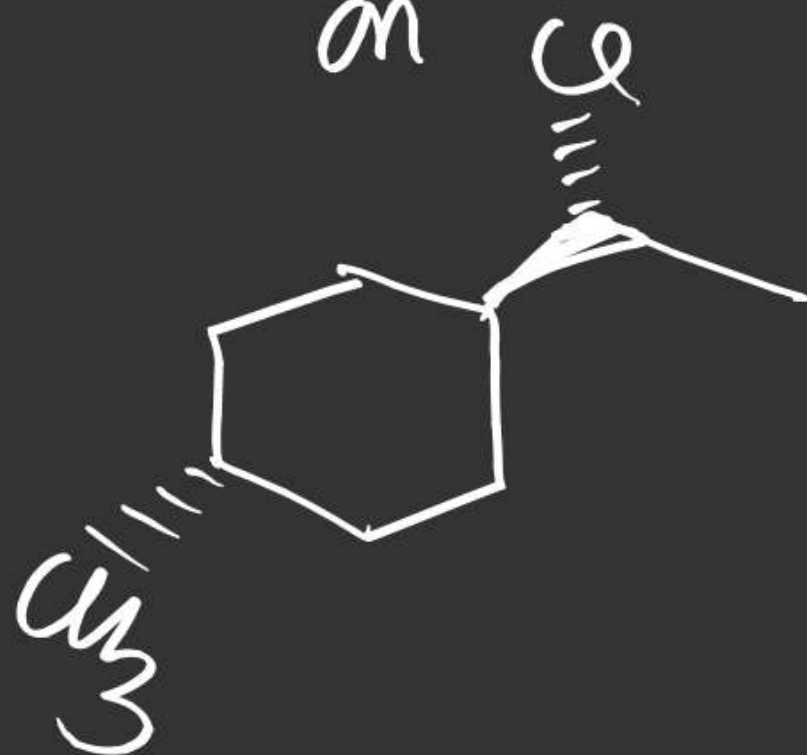
(10)



(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

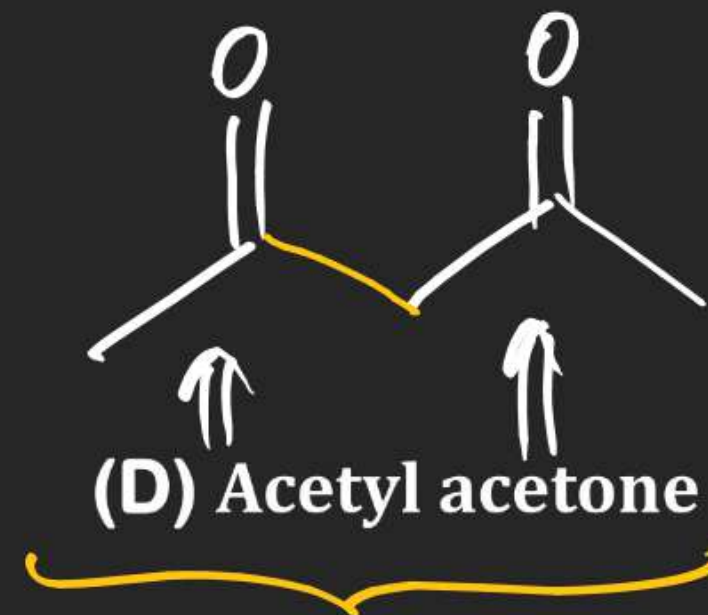
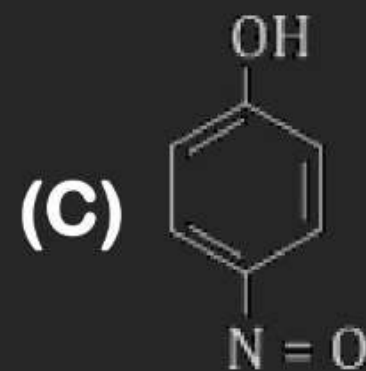
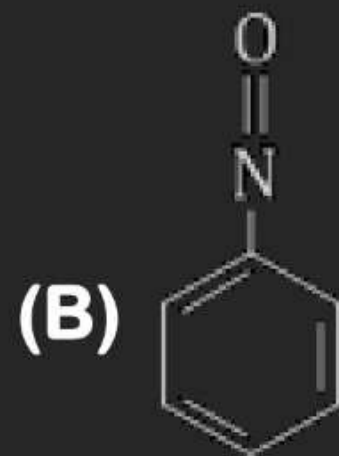
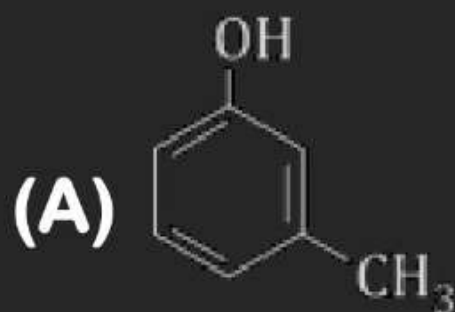
(C) Keto form is always more stable than the enol form

(D) Both B and C

I_n
 I_n

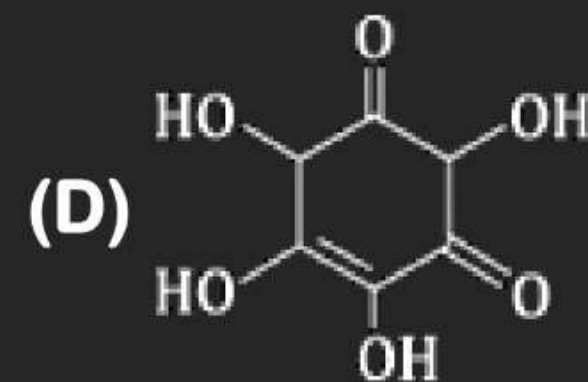
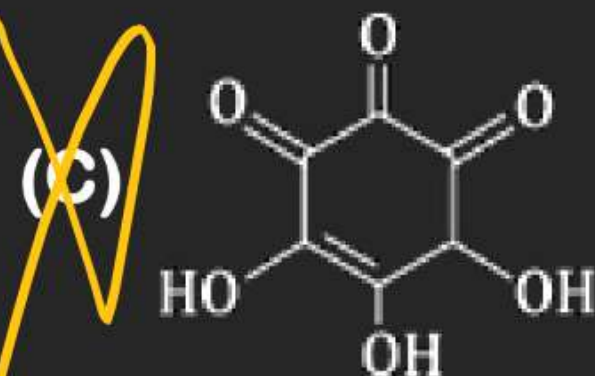
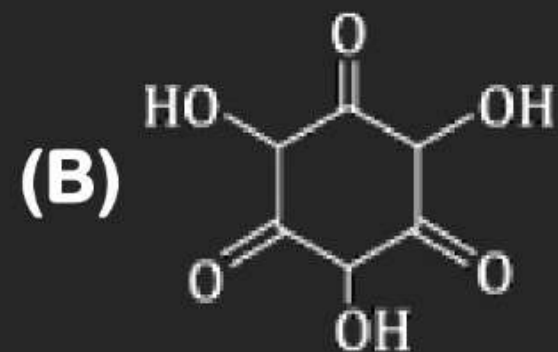
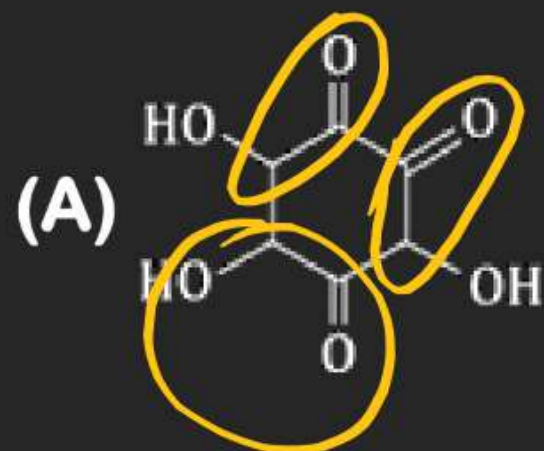
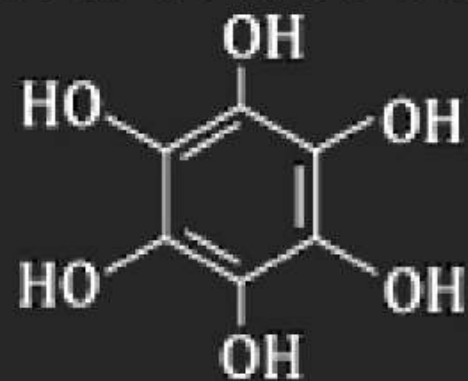
Structural Isomerism

3. Which compound can show tautomerism:



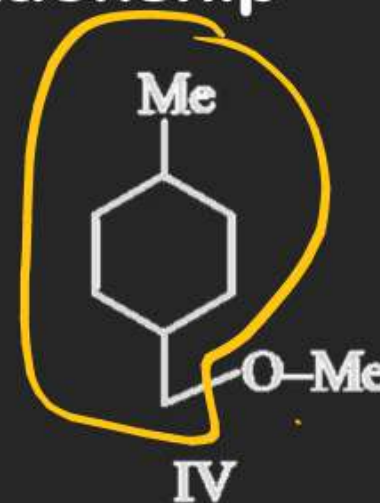
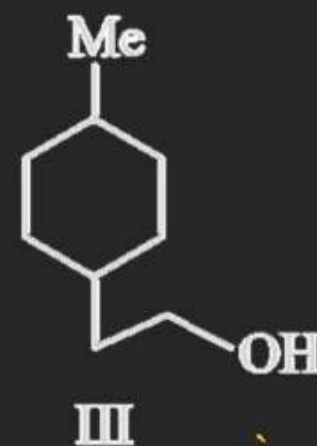
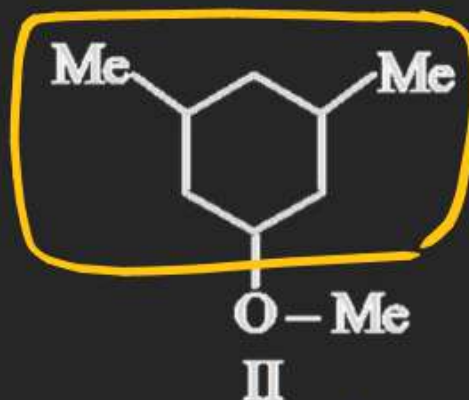
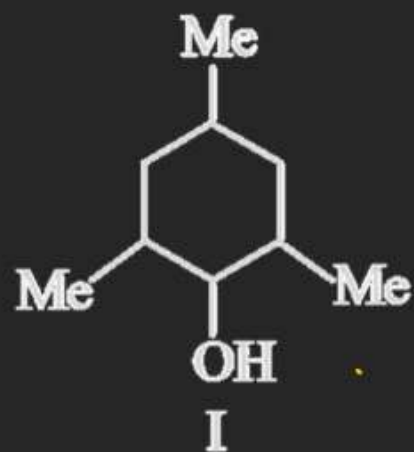
Structural Isomerism

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



Structural Isomerism

5. Which of the following is not the correct relationship



(A) II & IV are metamer

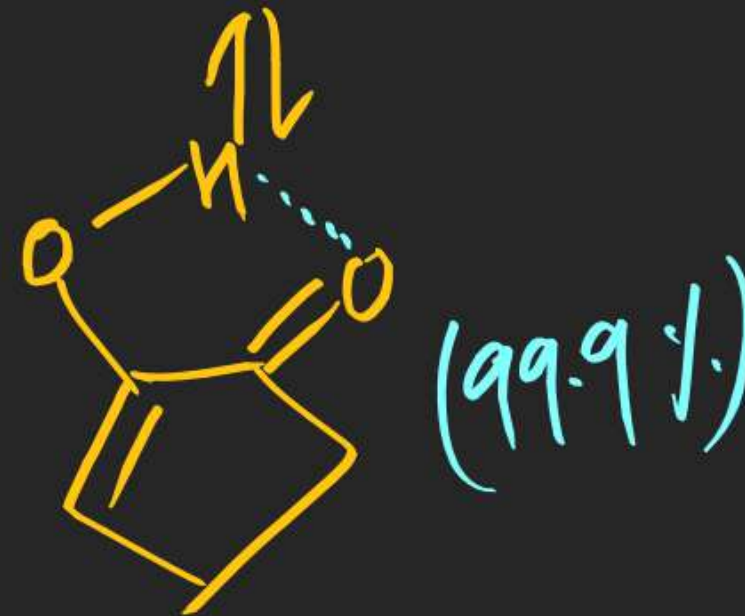
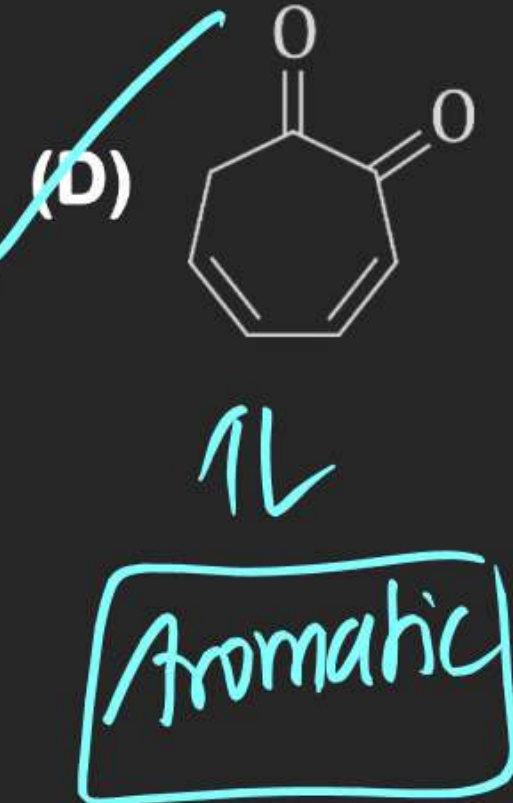
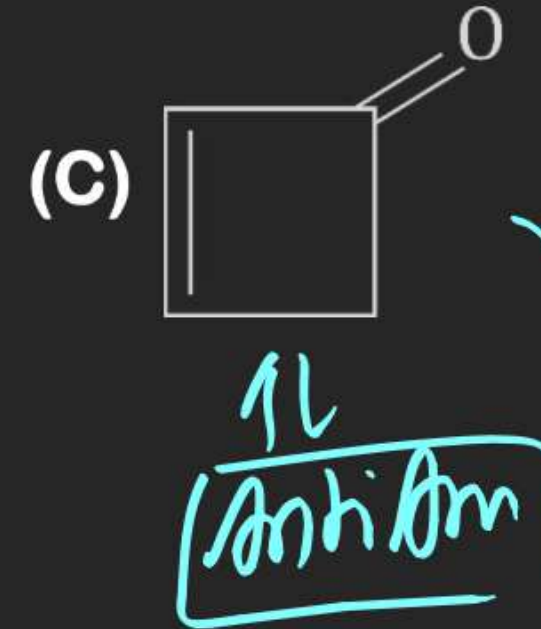
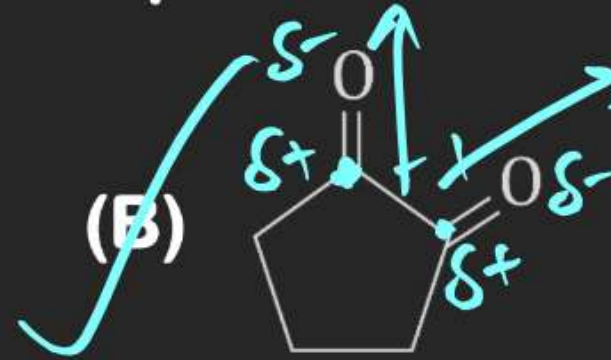
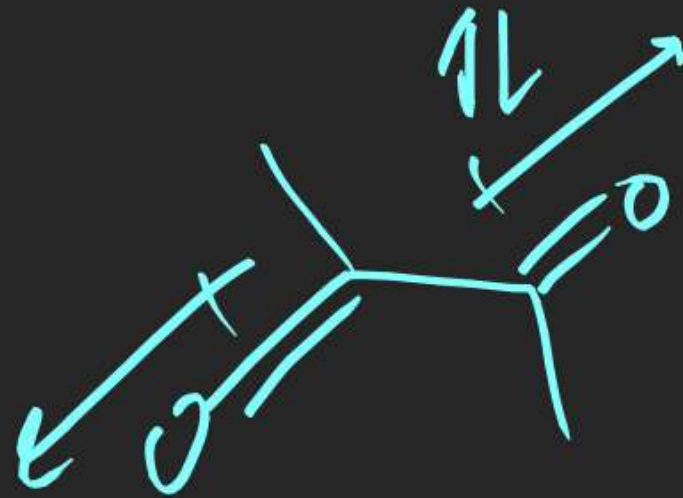
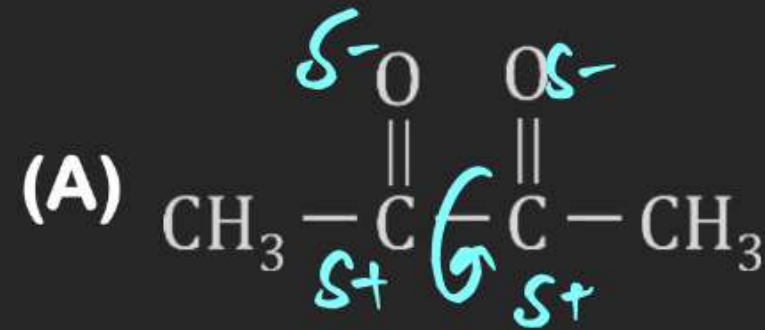
(C) I & III are chain isomer

(B) I & II are functional isomer

Inv. (D) I and IV are positional isomer

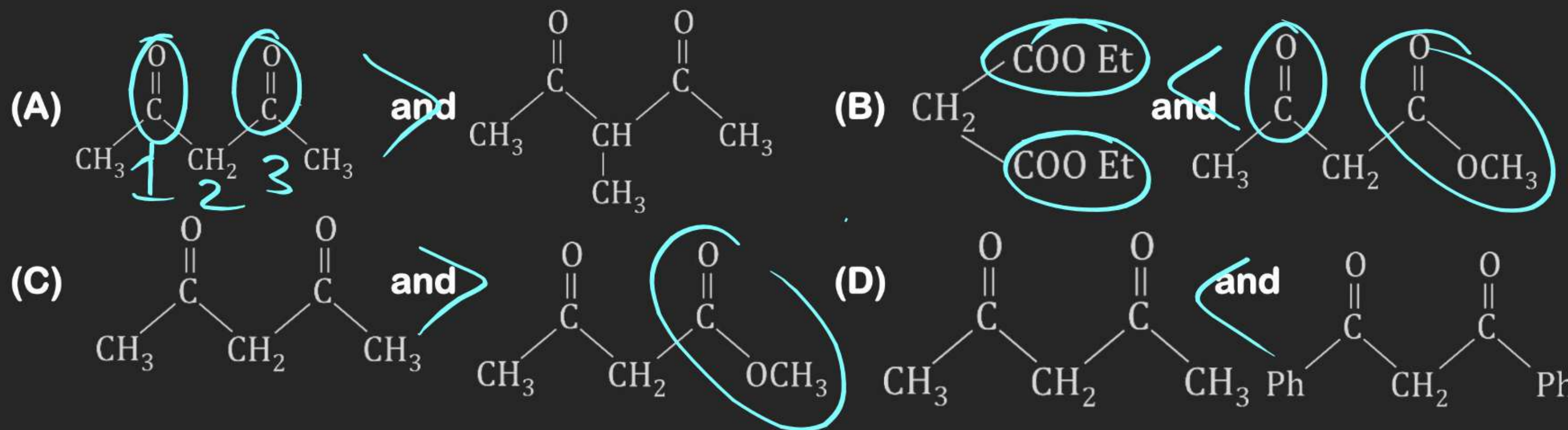
Structural Isomerism

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



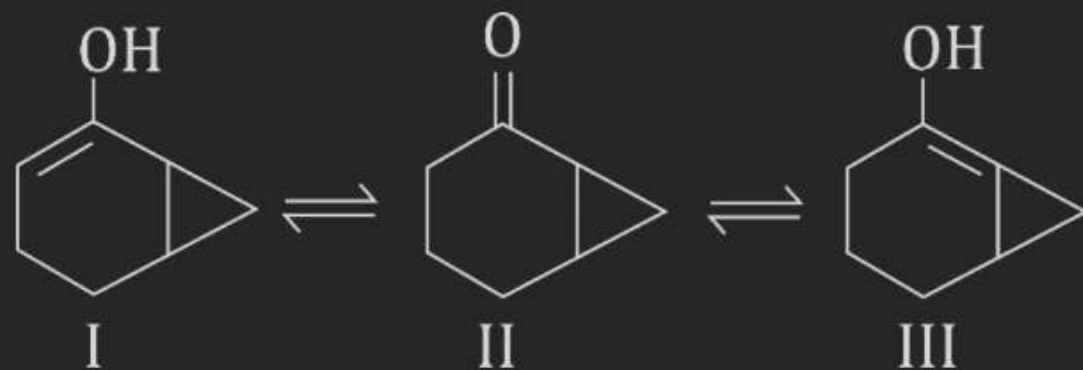
Structural Isomerism

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

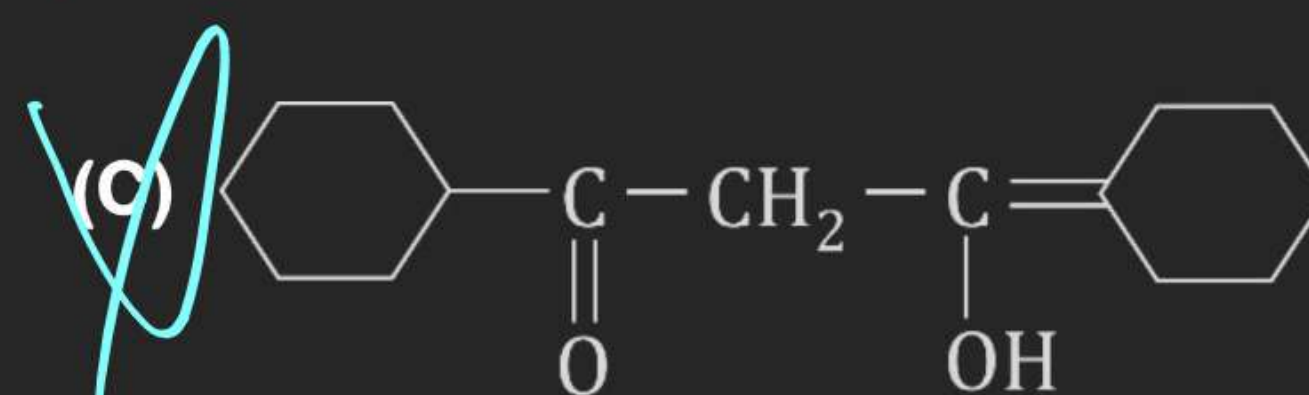
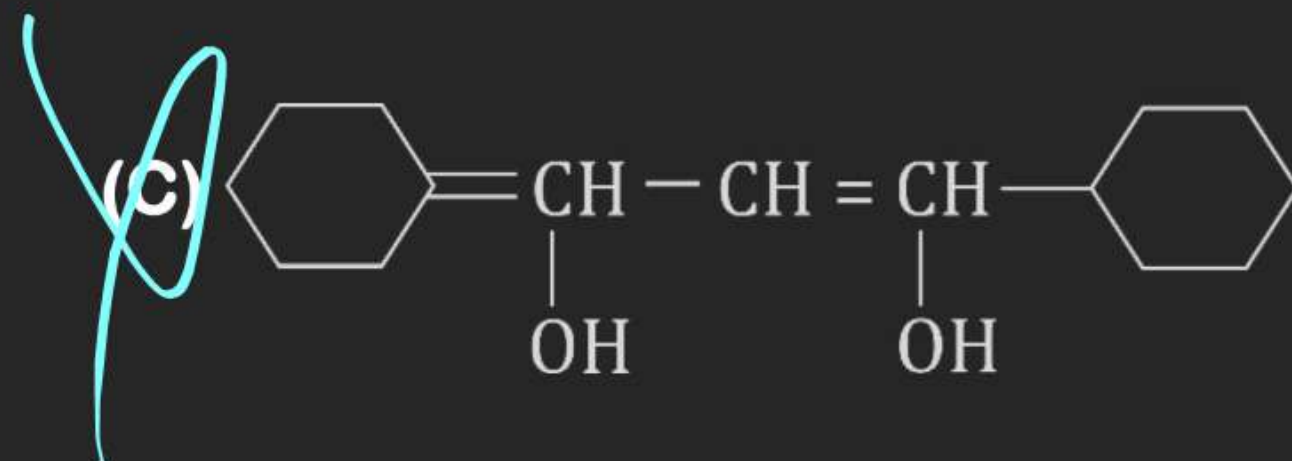
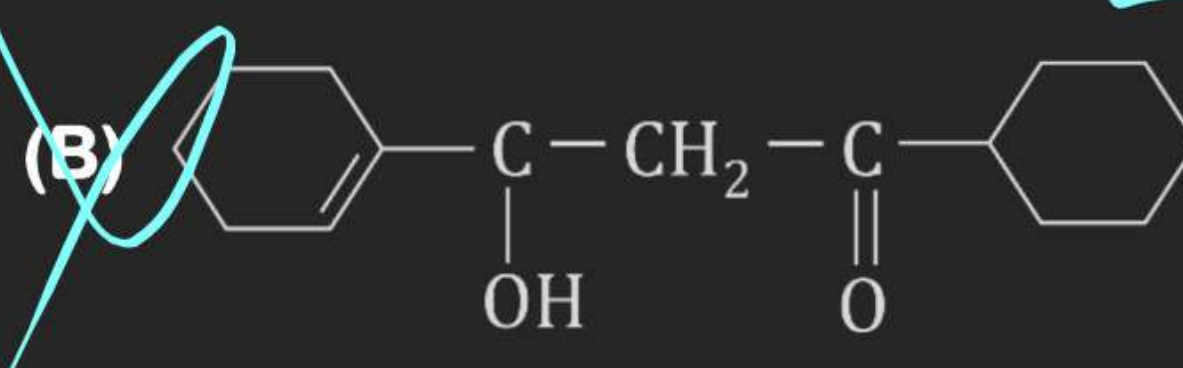
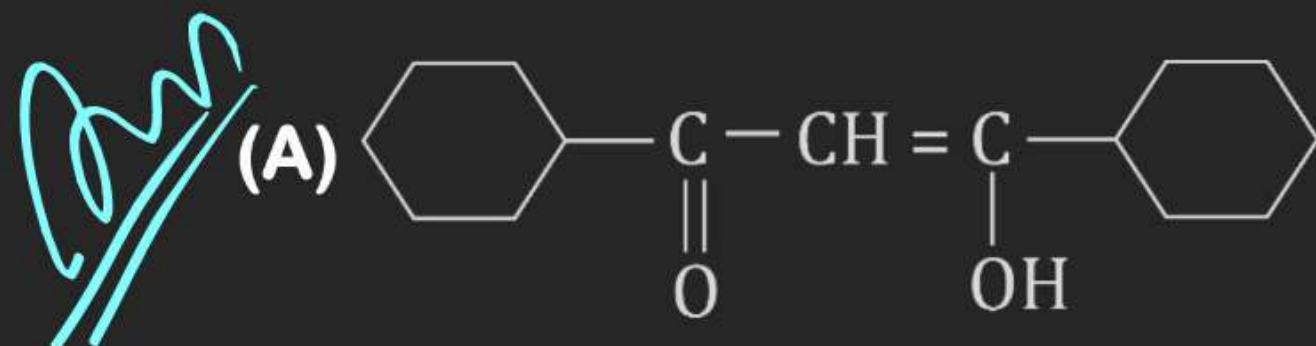
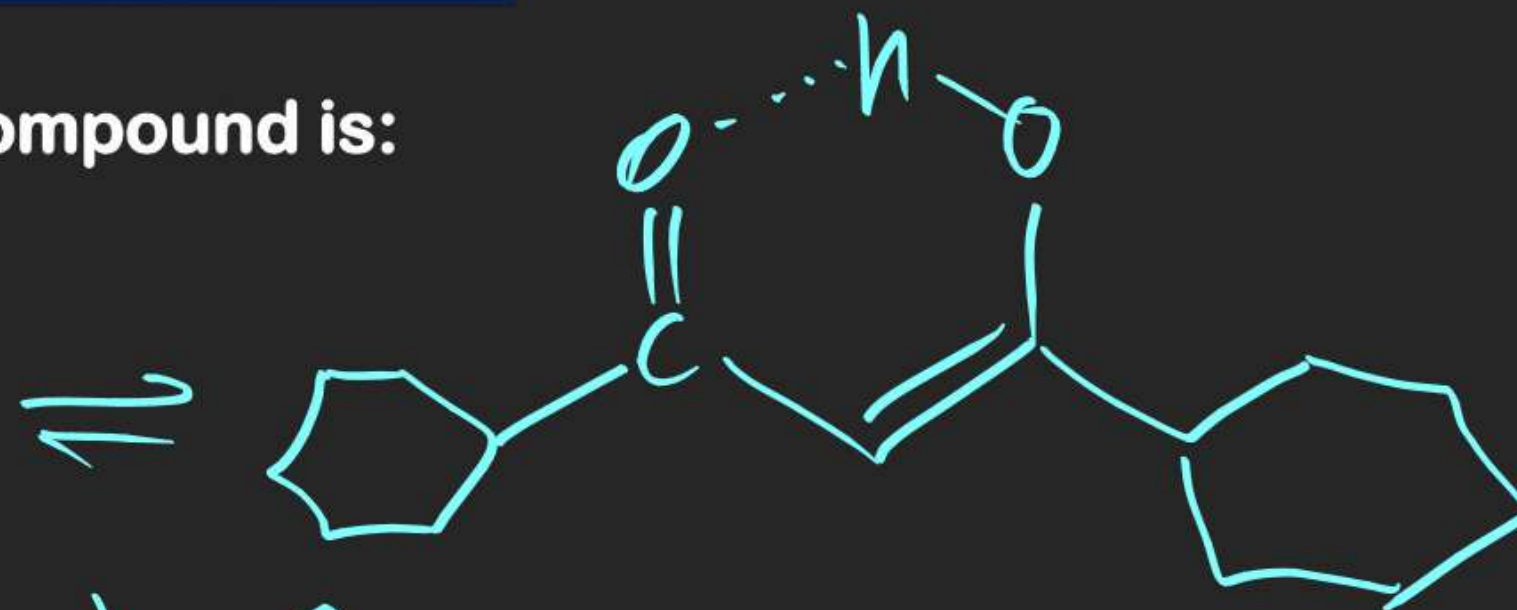
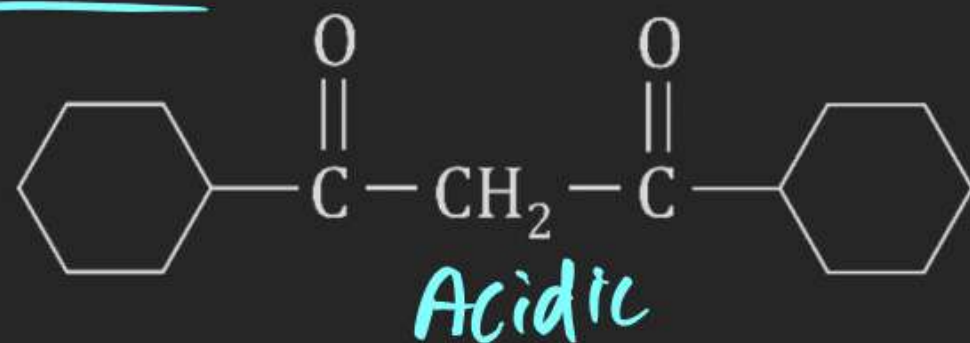
(B) III > II > I

(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.

