

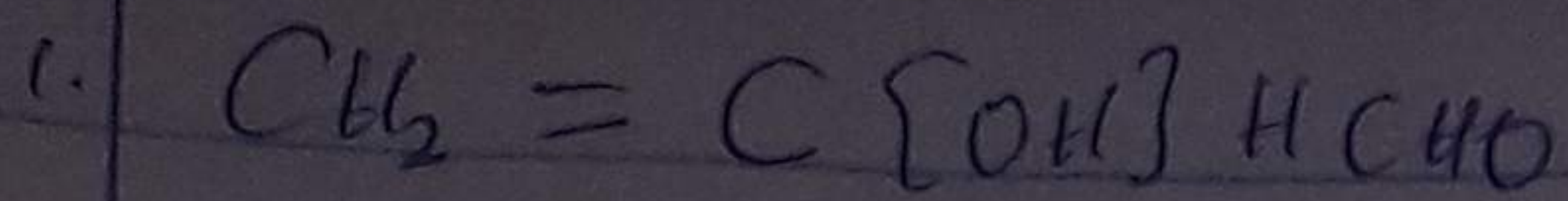
NAME :- ISHAKA EMMANUEL

DEPT :- NURSING SCIENCE

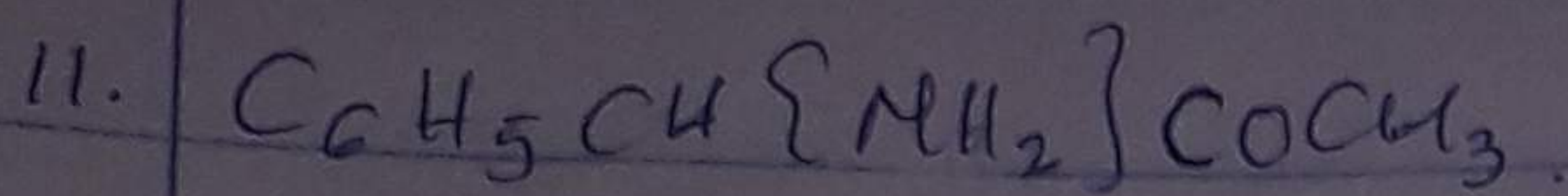
MATRIC NO :- 19/mhs02/066

Name the functional group

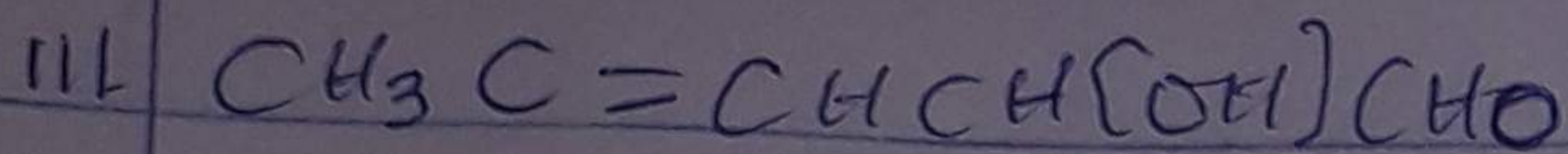
following molecules.



Functional group: Aldehyde, Alcohol and Alkene.



Functional group: ~~ester~~, Amide



functional group: Aldehyde, Alcohol and Alkene

2. A 0.856 g sample of pure (2R,3R)-tartaric acid was dissolved to  $10\text{cm}^3$  with water and placed in a 1.0 dm polarimeter tube. The observed rotation at  $20^\circ\text{C}$  was  $+1.0^\circ$ . Calculate the specific rotation of (2R,3R)-tartaric acid.

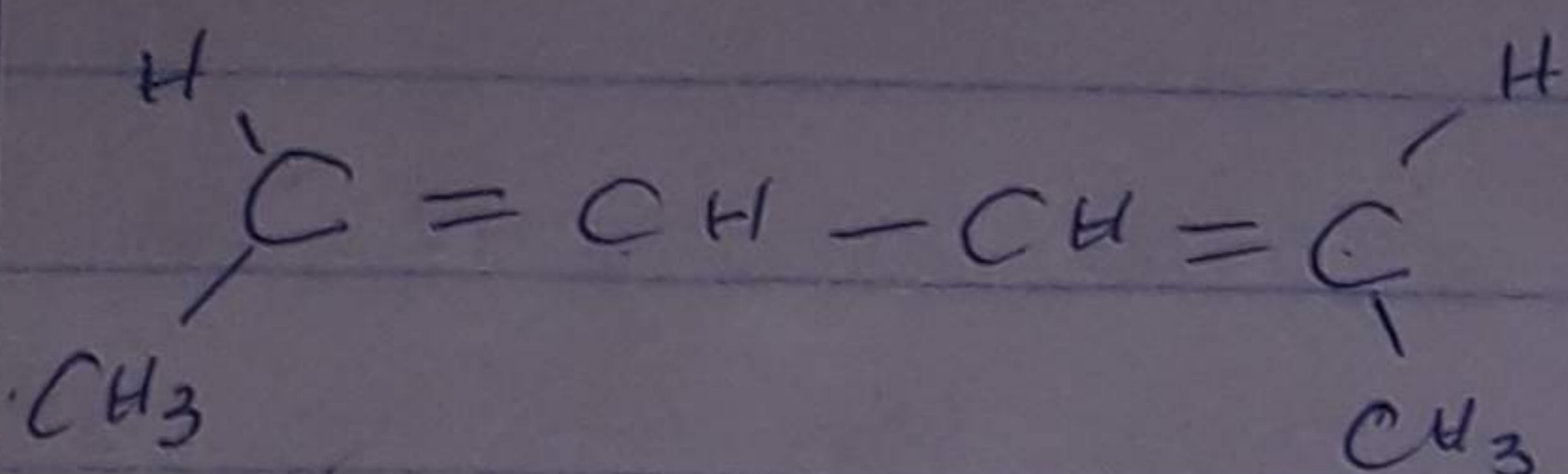
Sol

Specific Rotation =  $\frac{\text{Observed Rotation (degrees)}}{(\text{Concentration in } \text{g cm}^{-3}) \times \text{Path length of sample cell in cm}}$

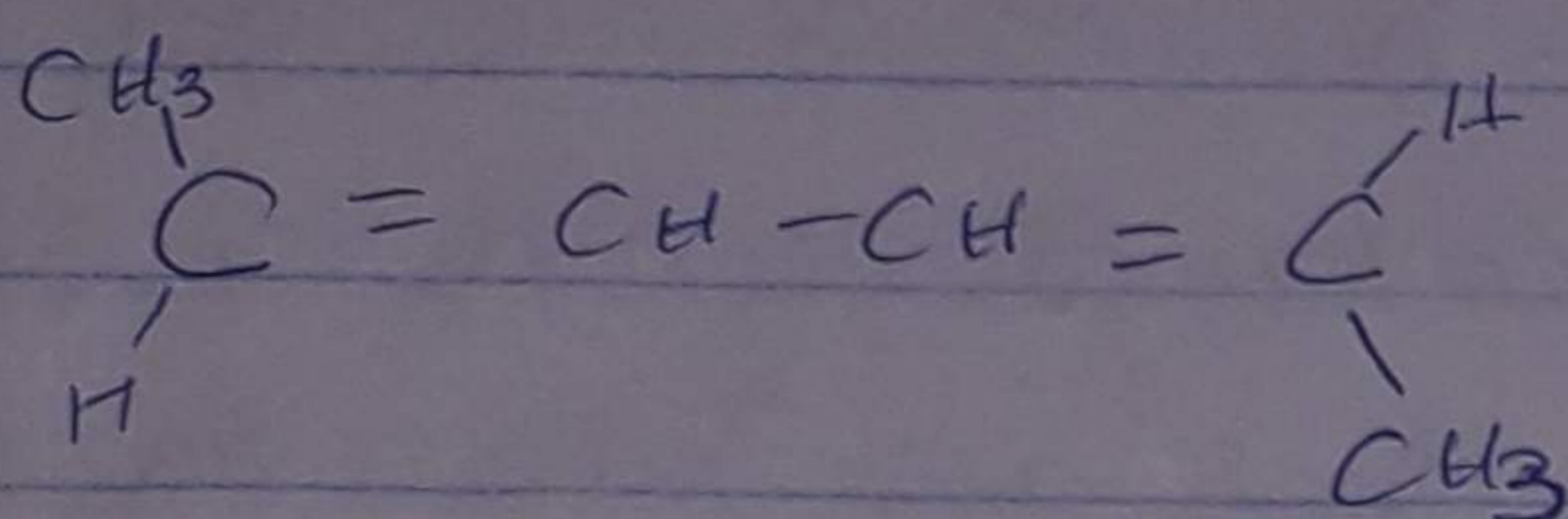
$$\begin{aligned} \text{Specific Rotation} &= \frac{1}{0.856\text{g}/10\text{cm}^3 \times 1} \\ &= 11.7\text{g}^{-1}\text{cm}^3\text{dm}^{-1} \end{aligned}$$

3. Draw the possible geometric isomers (where possible) for each of the following compounds!

i. Hexa-2,4-diene.  $\{ \text{CH}_3\text{-CH}=\text{CH}-\text{CH}=\text{CH}-\text{CH}_3 \}$

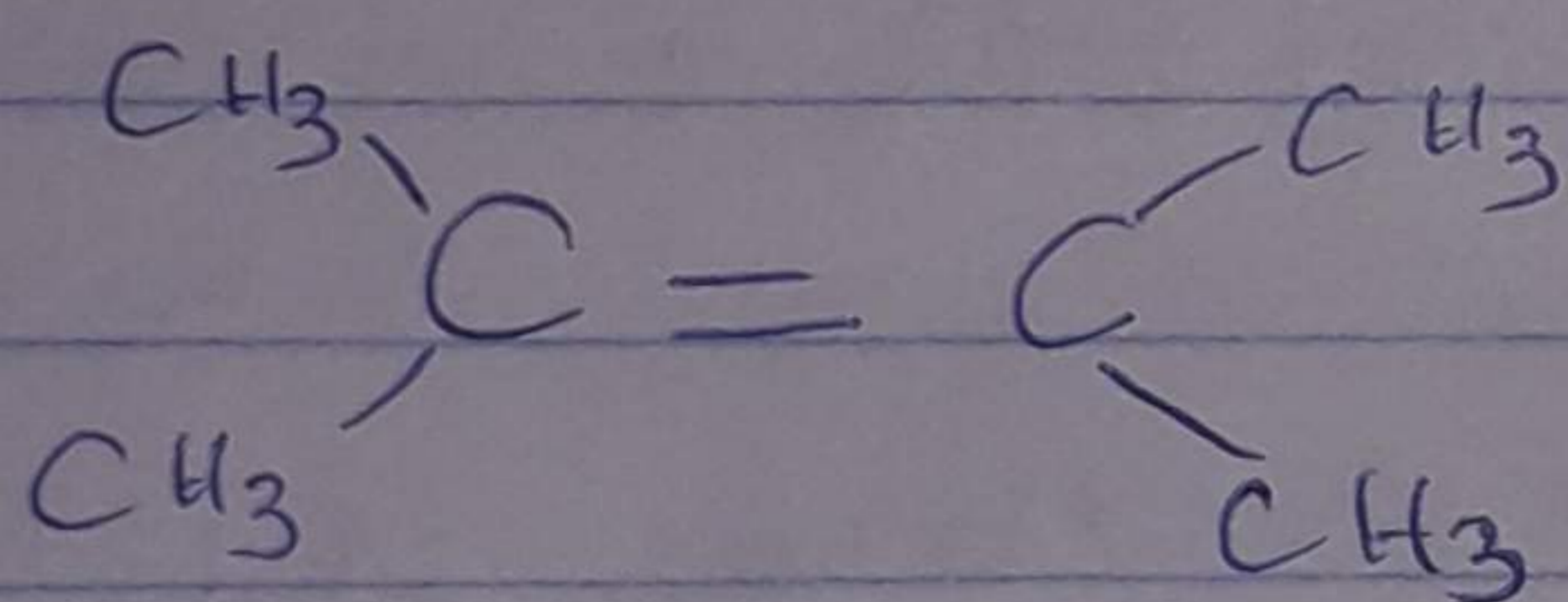


CIS Hexa-2-4-diene.



TRANS Hexa-2-4-diene.

ii. 2,3-Dimethylbut-2-ene.  $\{ \text{CH}_3\text{C}(\text{CH}_3)=\text{C}(\text{CH}_3)\text{CH}_3 \}$



Geometric isomerism is not possible in 2,3-Dimethylbut-2-ene.