

Ekwueme EBUKA Valentine

16/EngD 2/014

Computer Engineering

CHM 109

Stereochemistry & Functional group

- 1) i) \* hydroxyl functional group  
\* aldehyde functional group  
\* alkene functional group (Carbon-carbon double bond)
- (ii) \* amine functional group  
\* ketone functional group
- (iii) \* alkene functional group (Carbon-carbon double bond)  
\* aldehyde functional group

2) Specific rotation  $\alpha_D = \alpha / c \cdot l$

$$c = 0.856 \text{ g} / 10 \text{ cm}^3 = 0.0856 \text{ g cm}^{-3}$$

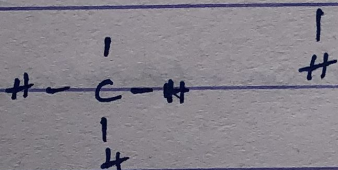
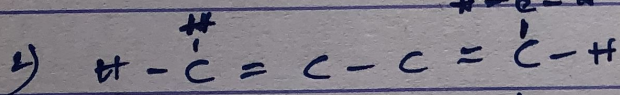
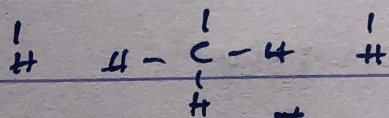
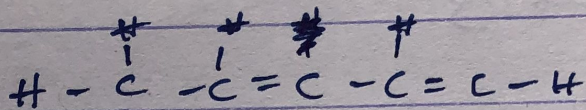
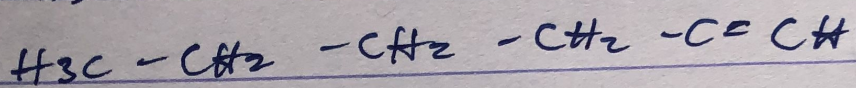
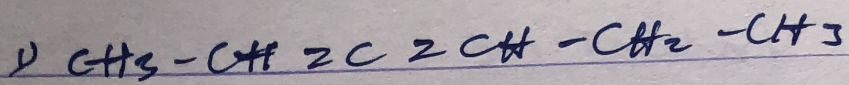
$$\alpha = +1^\circ$$

$$l = 1 \text{ dm}$$

$$\alpha_D^T = \frac{1}{0.0856 \text{ K1}} = 11.68^\circ$$

3) i) Hexa<sup>-2</sup> 14-diene

• 15omers



ii) 2,3 - Dimethylbut-2-ene

no possible geometric isomers