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 MATRICULATION NUMBER- 19/MHS09/025
 DEPARTMENT- DENTISTRY
 COLLEGE- MHS
 COURSE- CHM102

1(i) (a) Formyl group (Aldehyde) group (CHO)

(b) Hydroxyl group –OH

(c) Alkene Group (Double bond)

(ii) (a) Amino group (-NH₂)

(b) Aromatic group (Phenyl group)

(c) Ketone group (Carbonyl group) C=O

(iii) (a) Aldehyde group

(b) Hydroxyl group

(c) Double bond (Alkene group)

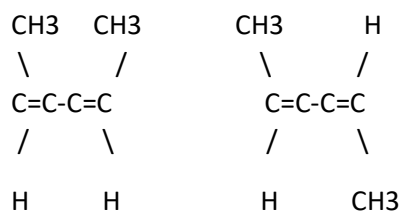
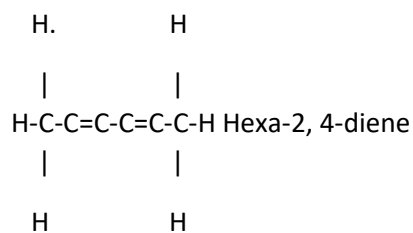
2.

Specific rotation = observed rotation(degrees)/
 (Concentration g/cm³)×path length of sample cell in dm

$$\text{Specific rotation} = +1.0^\circ / (0.0856 \text{g/cm}^3)(1 \text{dm})$$

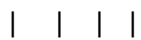
$$= 11.68 \text{g}^{-1} \text{cm}^3 \text{dm}^{-1}$$

3. (i)



cis- trans-

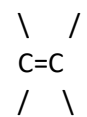
(ii) H CH₃ CH₃ H



H - C - C = C - C - H 2,3- dimethylbut-2- ene



CH₃ CH₃.



CH₃ CH₃

No geometric isomer.