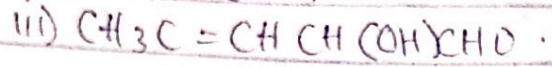
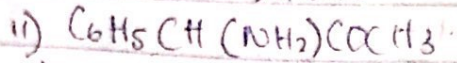
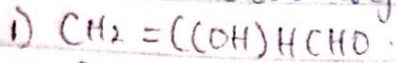
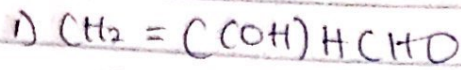


CHEM102 Assignment

① Name the functional groups present in each of the following molecules.



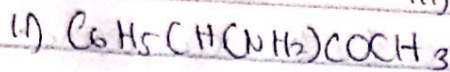
Solution



Functional group i) aldehyde

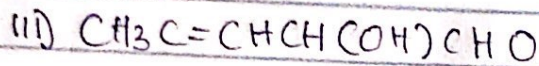
ii) alcohol

iii) alkene.



i) amides

ii) ketones



i) Alkene

ii) Alcohol

iii) aldehydes.

② Observed rotation = 1.0°

Concentration = $\frac{0.856\text{g}}{10\text{cm}^3} = 0.0856\text{gcm}^{-3}$

Length of sample cell (= polarimeter) = 1.0dm .

Specific rotation of the sample = $\frac{\text{Observed rotation (degrees)}}{(\text{Concentration } \text{gcm}^{-3}) \times \text{length}}$

$$= \frac{1}{\frac{0.856 \times 1}{10}}$$

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

