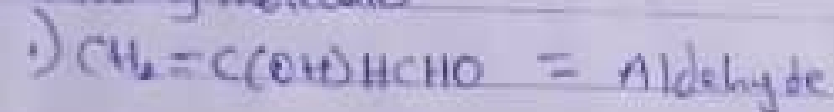


# Assignment on Stereochemistry and Functional Group.

1) Name the Functional groups present in each of the following molecules



2) A 0.856 g sample of pure (2R,3R) tartaric acid was diluted to 10 cm<sup>3</sup> with water and placed in a 1.0 dm polarimeter tube. The observed rotation at 20°C was +1.0°. Calculate the specific rotation of (2R,3R) tartaric acid.

Solution

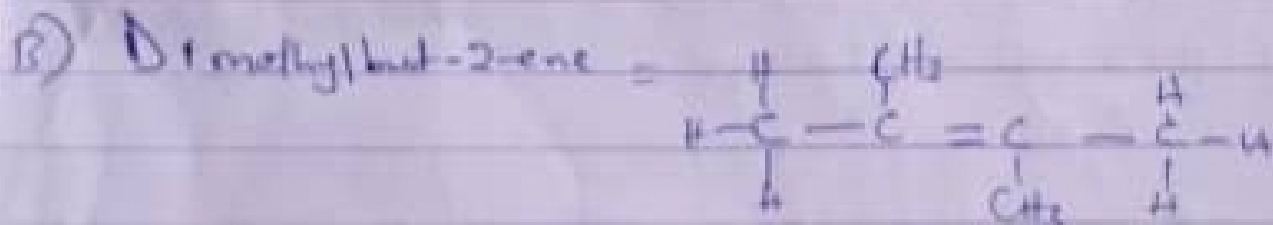
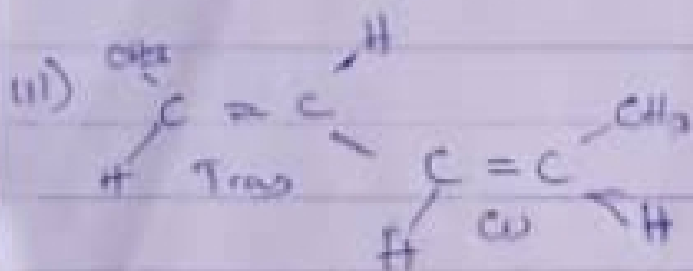
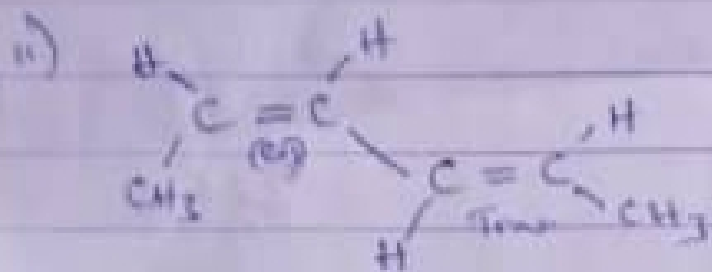
$$0.856 \text{ g in } 10 \text{ cm}^3 \text{ of solution} = 0.0856 \text{ g ml}^{-1}$$

$$\text{So } [\alpha]_D^{20.0} = \frac{+1.0^\circ}{(1.000 \text{ dm})(0.0856 \text{ g ml}^{-1})} = +11.68^\circ$$

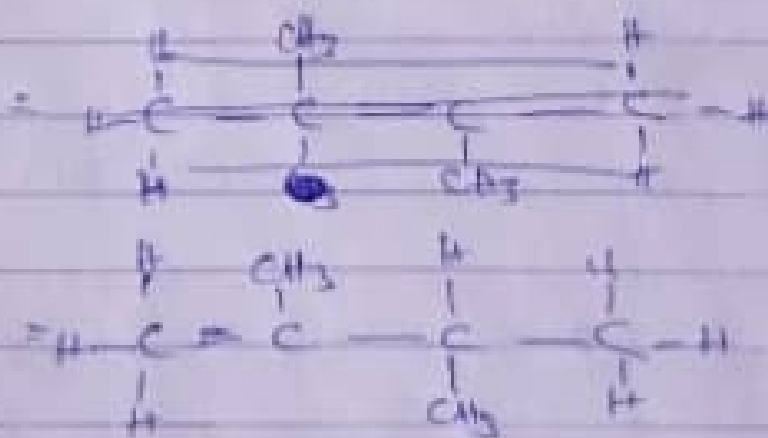
3) Draw the possible geometric (same) (where possible) for each of the following compounds



Hexa-2,4-diene



2,3 dimethyl but-2-ene



= 2,3 dimethyl but-2-ene

