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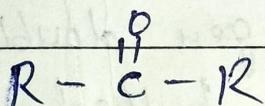
H.B. Jain college, Ara

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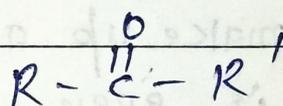
Unit - 2

## Aldehydes and Ketones

Aldehydes and ketones are carbonyl compounds because they contain the carbonyl group  $(>C=O)$ . Aldehydes have the general formula  $R-CHO$  where at least one hydrogen atom is attached to the carbonyl carbon. Ketones have the general formula  $R-CO-R'$  where the carbonyl carbon is attached to two alkyl or aryl groups. The ketones are called symmetrical or unsymmetrical ketones according as the two alkyl groups attached to the carbonyl group are the same or different.



Symmetrical Ketone



Unsymmetrical Ketone

Structure 1 — The carbon-oxygen double bond in aldehydes and ketones can be formulated in a manner similar to the carbon-carbon double bond in alkenes.

Carbon of carbonyl group is joined to three other atoms by  $\sigma$  bonds

