

17 Aldehydes and ketones — Part 1

— Answers

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Work through these after trying the questions yourself.

17.1 The carbonyl group, $\text{C}=\text{O}$.

17.2 (a) on the end of the chain (with an H) \ (b) in the middle, between two carbons.

17.3 A secondary alcohol.

17.4 A primary alcohol.

17.5 The oxygen pulls the bonding electrons away, so the carbon is slightly positive ($\delta+$) and attracts a nucleophile.

17.6 Nucleophilic addition.

17.7 The CN^- nucleophile *adds* onto the carbonyl carbon and the $\text{C}=\text{O}$ double bond opens up — no atom or group leaves the molecule. Because nothing is replaced (only added), it is addition, not substitution.