

NAMING ORGANIC COMPOUNDS

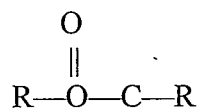
SUMMARY OF RULES FOR NAMING ORGANIC COMPOUNDS:

- 1) Find the longest carbon chain which contains the functional group or multiple bond if present and name it (using the correct ending).
- 2) Number the longest chain (left to right or right to left) so that the functional group/multiple bond/longest side chain (branch) is on the lowest numbered carbon possible.
- 3) Name each side group but change the ending to -yl.
- 4) Use a prefix di-, tri-, tetra-, etc. to denote how many side groups of each length are present.
- 5) Before naming the side group give the number of the carbon to which the side group is attached.
- 6) Arrange the side groups in alphabetical order ignoring the prefixes di-,tri-, etc.

ORGANIC FUNCTIONAL GROUPS

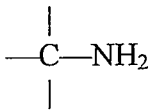
NAME	FUNCTIONAL GROUP	ENDING
1) ALCOHOL	$\begin{array}{c} \\ -\text{C}-\text{O}-\text{H} \\ \end{array}$	-ol
2) ALDEHYDE	$\begin{array}{c} \text{H} \\ \\ -\text{C}=\text{O} \end{array}$	-al
3) ACID	$\begin{array}{c} \text{O} \\ \\ -\text{C}-\text{O}-\text{H} \end{array}$	-oic acid
4) ETHER	$\begin{array}{c} \\ -\text{C}-\text{O}-\text{C}- \\ \end{array}$	-yl -yl ether
5) KETONE	$\begin{array}{c} \text{O} \\ \\ \text{R}-\text{C}-\text{R} \end{array}$	-one

6) ESTER



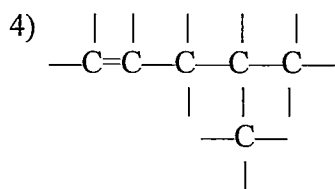
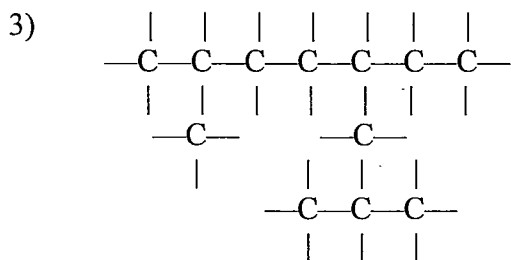
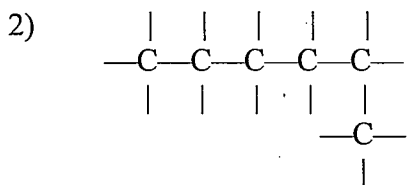
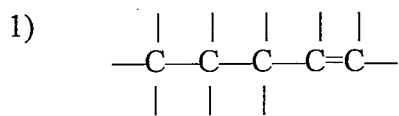
-yl -oate
alcohol part acid part

7) AMINE



amino-(as a prefix)

Name the following compounds.



Write the formula for the following.

5) 3-ethyl-2,2-dimethylhexane

6) 3,4-diethyl-2,3,4-trimethyl-1-hexene

7) 4,4,5-trimethyl-2-hexyne

8) 3-hexanol

9) ethylpropanoate

10) propanal

11) ethylbutyl ether

12) pentanoic acid

13) 3-octanone

14) metadichlorobenzene

15) cyclohexane