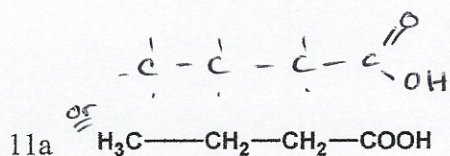


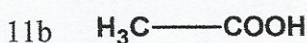
Alcohols, Aldehydes, Ketones and Carboxylic Acids

Name or draw the following compounds:

- | Chemical structure | IUPAC Name | |
|--------------------|---|---|
| 1 | $\text{H}_3\text{C}-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_2-\text{CH}_2-\text{OH}$ | <u>3-methylbutan-1-ol</u>
or <u>3-methyl-1-butanol</u> |
| 2 | $\text{H}_3\text{C}-\underset{\text{Cl}}{\overset{\text{Cl}}{\text{C}}}-\underset{\text{Cl}}{\text{CH}}-\underset{\text{OH}}{\text{CH}}-\text{CH}_3$ | <u>3,4,4-trichloropentan-2-ol</u>
or <u>3,4,4-trichloro-2-pentanol</u> |
| 3 | $\text{H}_3\text{C}-\underset{6}{\overset{\text{Cl}}{\text{CH}}}-\underset{5}{\overset{\text{H}_2\text{C}}{\overset{\text{Cl}}{\text{C}}}}-\underset{4}{\overset{2}{\text{CH}_2}}-\underset{3}{\overset{1}{\text{CH}_2}}-\text{OH}$ | <u>4,5-dichloro-4-ethylhexan-1-ol</u>
or <u>4,5-dichloro-4-ethyl-1-hexanol</u> |
| 4 | $\text{-}\underset{\text{Cl}}{\overset{\text{Cl}}{\text{C}}}\text{-}\underset{\text{OH}}{\overset{\text{Cl}}{\text{C}}}\text{-}\underset{\text{Cl}}{\text{C}}\text{-}\text{C}\text{-}\text{C}\text{-}\text{C}\text{-}$ | 2,5-dichloro-3-hexanol |
| 5 | $\text{-}\underset{\text{F}}{\overset{\text{F}}{\text{C}}}\text{-}\text{C}\text{-}\text{C}\text{-}\text{OH}$ | 2,2-difluoropropanol |
| 6 | $\text{H}_3\text{C}-\underset{\text{Cl}}{\overset{5}{\text{CH}}}-\underset{\text{Cl}}{\overset{4}{\text{CH}}}-\underset{3}{\text{CH}}-\underset{2}{\text{CH}_2}-\overset{1}{\text{C}}=\text{O}$ | <u>3,4-dichloropentanal</u> |
| 7 | $\text{H}_3\text{C}-\underset{\text{CH}_3}{\overset{5}{\text{CH}}}-\underset{\text{CH}_3}{\overset{4}{\text{CH}}}-\underset{3}{\text{CH}_2}-\underset{2}{\text{CH}}-\overset{1}{\text{C}}=\text{O}$ | <u>2,4-dimethylpentanal</u> |
| 8 | $\text{H}_3\text{C}-\underset{6}{\text{CH}_2}-\underset{5}{\text{CH}_2}-\underset{4}{\text{CH}_2}-\underset{3}{\overset{\text{O}}{\text{C}}}-\underset{2}{\text{CH}_2}-\underset{1}{\text{CH}_3}$ | <u>hexan-3-one</u>
<u>3-hexanone</u> |
| 9 | $\text{H}_3\text{C}-\underset{\text{CH}_3}{\overset{\text{CH}_3}{\text{C}}}-\underset{3}{\text{CH}_2}-\underset{2}{\overset{\text{O}}{\text{C}}}-\underset{1}{\text{CH}_3}$ | <u>4,4-dimethylpentan-2-one</u>
or <u>4,4-dimethyl-2-pentanone</u> |
| 10 | $\text{-}\underset{\text{Cl}}{\overset{\text{Cl}}{\text{C}}}\text{-}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-}\text{C}\text{-}$ | 2-chloro-2-methyl propanal |



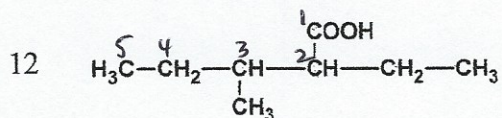
butanoic acid



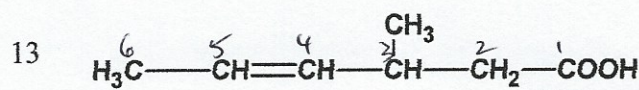
ethanoic acid



methanoic acid

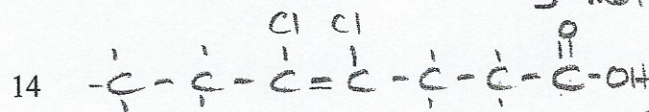


2-ethyl-3-methylpentanoic acid



3-methyl-4-hexenoic acid or

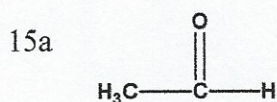
3-methylhex-4-enoic acid



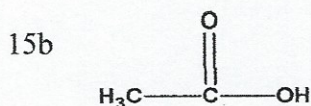
cis-4,5-dichloro-4-heptenoic acid

or cis-4,5-dichlorohept-4-enoic acid

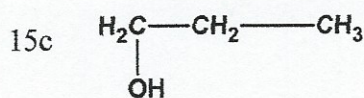
For each of the following, name the compound and state the type of organic compound



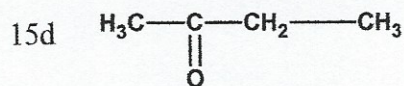
ethanal / aldehyde



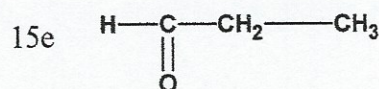
ethanoic acid / carboxylic acid



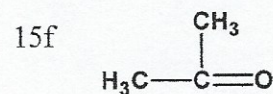
propan-1-ol / alcohol
or 1-propanol



butanone / ketone



propanal / aldehyde



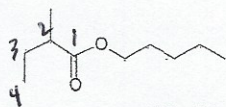
propanone / ketone

Ethers, Esters, Amines and Amides

Name or draw the following compounds:

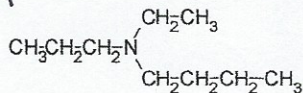
- | | Chemical structure | IUPAC Name |
|----|--------------------|--|
| 1 | | <u>1-butoxy heptane</u> |
| 2 | | <u>1-butyl propanoate</u> |
| 3 | | <u>4-amino-7-Fluorononane</u> |
| 4 | | <u>N-butyl hexanamide</u> |
| 5 | | <u>N-propyl ethanamide</u> |
| 6 | | <u>2-methoxypentane</u> |
| 7 | | <u>4-amino-2-methylhexane</u> |
| 8 | | <u>N-ethyl-N-methyl pentanamide</u> |
| 9 | | <u>3-methoxy-5-methyl-4-chloro-heptane</u> |
| 10 | | <u>N-isopropyl ethanamide</u> |

11



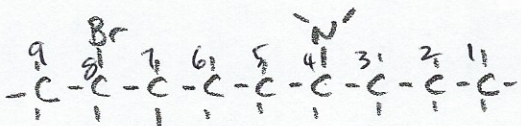
1-pentyl 2-methylbutanoate

12



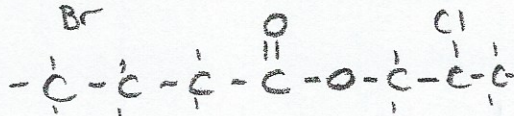
N-ethyl-N-propyl-1-butanamine

13



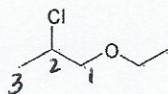
7,8-dibromo-4-nonanamine

14



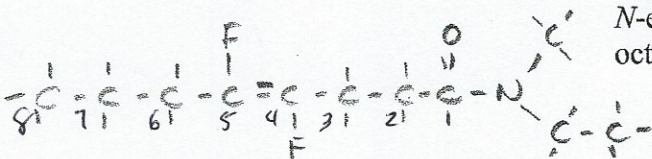
2-chloropropyl butanoate

15



1-ethoxy-2-chloropropane

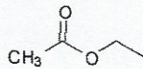
16



N-ethyl-N-methyl trans-4,5-difluoro-4-octenamide

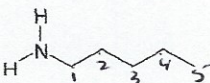
For each of the following, state the type of functional group(s) and name the organic compound

17



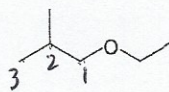
ester / ethyl ethanoate

18



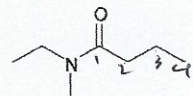
amine / 1-pentanamine

19



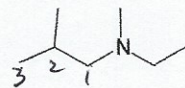
ether / 1-ethoxy-2-methylpropane

20



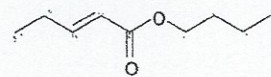
amide / N-ethyl-N-methylbutanamide

21



amine / N-ethyl-N-methyl-2-methyl-1-propylamine

22



ester / 1-butyl pent-2-enoate
or 1-butyl-2-pentenoate