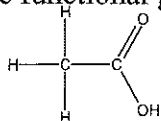


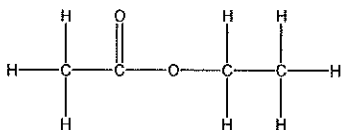
FUNCTIONAL GROUP IDENTIFICATION WORKSHEET

1. Identify the functional groups on the following organic molecules.

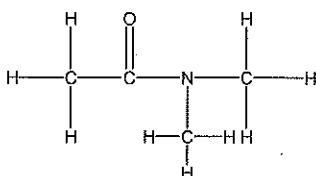
a.

carb. acid

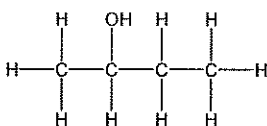
b.

ester

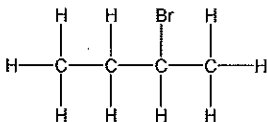
c.

amide (HL)

d.

alcohol

e.

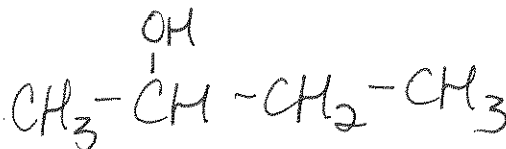
alkyl halide

1. Draw the following organic compounds, and state the organic family they belong to.

a) Propanol - alcohol



b) 2-butanol - alcohol



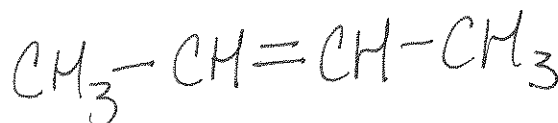
c) Propyne - alkyne



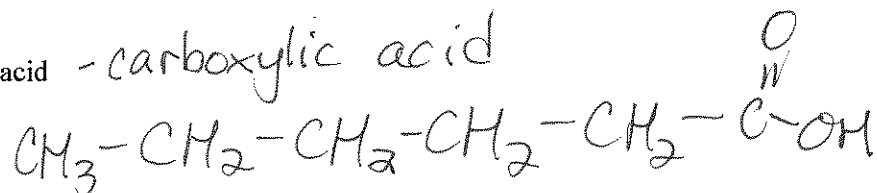
d) Octane - alkane



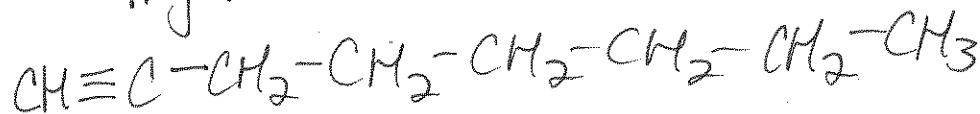
e) 2-butene - alkene



f) Hexanoic acid - carboxylic acid



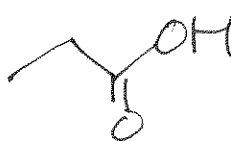
g) 1-Octyne - alkyne



h) Heptanal - aldehyde



i) Propanoic acid - carb. acid



j) 4-Octanol - alcohol



k) 3-hexanone - ketone

l)



Part III: Analysis

1. Which is the simplest alkane compound? methane

2. Which atom in an alkane is capable of forming 4 bonds? C

3. Which atom can only form 1 bond? H

4. As you proceed down the list of the first ten continuous-chain alkanes, what happens to the number of carbon atoms in each compound?

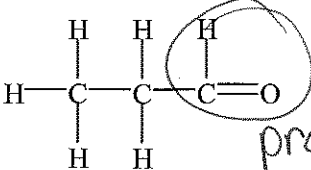
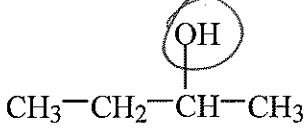
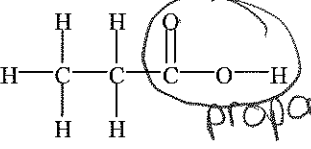
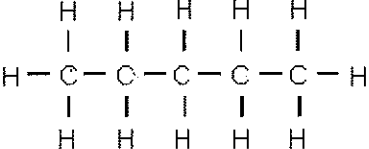
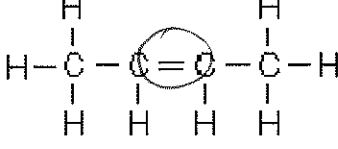
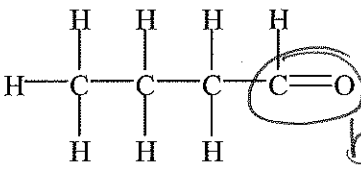
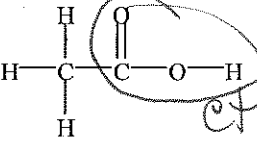
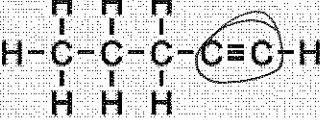
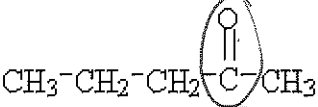
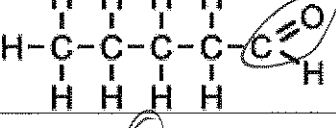
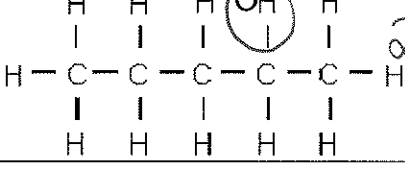
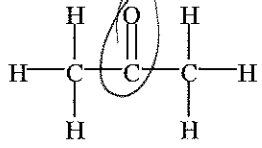
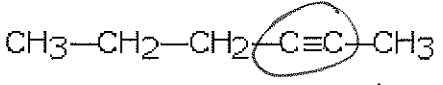
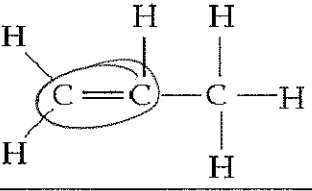
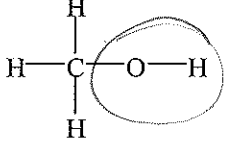
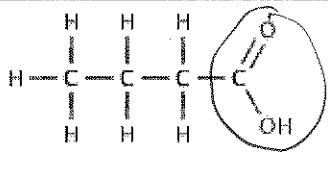
increases by one

5. Referring to the same list as in #4, what happens to the number of hydrogen atoms in each compound?

increases by two

Organic Chemistry - Naming Worksheet

2. Name the following organic compounds. Circle the functional group if one is present.

 <p style="text-align: center;">propanal</p>	 <p style="text-align: center;">2-butanol</p>
 <p style="text-align: center;">propanoic acid</p>	 <p style="text-align: center;">pentane</p>
 <p style="text-align: center;">2-butene</p>	 <p style="text-align: center;">butanal</p>
 <p style="text-align: center;">ethanoic acid</p>	 <p style="text-align: center;">1-propyne</p>
 <p style="text-align: center;">2-pentanone</p>	 <p style="text-align: center;">pentanal</p>
 <p style="text-align: center;">2-pentanol</p>	 <p style="text-align: center;">propanone</p>
 <p style="text-align: center;">2-hexyne</p>	 <p style="text-align: center;">propene</p>
 <p style="text-align: center;">methanol</p>	 <p style="text-align: center;">butanoic acid</p>

